



LCD TV with LED technology

Operating instructions




www.metz.de


Dear Customer,

Thank you very much for choosing a Metz product.

We have created menu navigation in this TV set that provides you with an easy- to-understand user interface.

You can use the  key at any time to call up help that will assist you with the settings.

But before switching on for the first time, you should at any rate read chapters 1 to 5 and 9 of the user's guide.

 TV sets with this logo are equipped for “HDTV” mode.

With its high-resolution screen, it offers the option to show HDTV programmes.

This user guide is in three parts:

- Chapters 1 to 38: user guide to the TV set
- Appendix A: user guide for the media applications if the TV set is connected to the Internet.
- Appendix B: user guide to PVR and USB recording if the TV set is equipped with a hard disk or is connected to an external USB hard disk.

In the box


- TV set with cable cover²⁾
- Remote control + two AAA batteries
- Power cord
- Operating instructions

Operating instructions for the following LCD TV sets:

see accompanying datasheet.

Explanation

 **Hint, note**

 **Beware of health risks !**

2) Possible only on sets equipped with this function.

1 Proper use	6	12 Sorting channels	46
2 Installation instructions	6	12.1 Copying, Moving, Deleting Individual Stations	46
3 Safety instructions	7	12.2 Sorting channels, block-by-block	47
4 Connecting, switching on and off	9	13 Program selection	48
5 The remote control	16	13.1 Program selection and program position administration ..	48
5.1 Remote control (RM 16)	17	13.2 Program selection via program table	48
5.2 Remote control (RM 17)	19	13.3 Programme information (... on now)	49
6 Operation without remote control	21	14 Everyday handling	50
7 Setting the language/country	23	14.1 Changing picture settings	50
8 Help (Information)	24	14.2 Volume settings	50
9 Menu control	25	14.3 Changing the sound settings	50
10 Channel search	26	15 Time settings	51
10.1 Setting the reception type	26	15.1 Timer control	51
10.2 TV standard for analogue channels	27	15.2 Setting the Time and Date	52
10.2.1 Analogue TV channel search	28	15.3 Recording Control for PVR Recordings	53
10.2.2 Colour standard for analogue channels	29	16 Display configuration	54
10.3 DVB-T, antenna supply	30	17 Picture settings	55
10.3.1 DVB-T channel search, automatic	31	17.1 General picture settings	55
10.3.2 DVB-T channel search, manual	32	17.1.1 Selecting power options	56
10.4 DVB-C channel search, automatic	33	17.1.2 Configuring picture profiles	58
10.4.1 DVB-C channel search, manual	34	17.1.3 Assigning a selected picture profile	59
10.5 Setting the SAT system, antenna system	35	17.1.4 Adjusting border colour	60
10.5.1 Setting up the sat system, unicable	36	17.1.5 Setting zoom/panorama	61
10.5.2 Setting the sat system, LNB supply voltage	37	17.1.6 MPEG noise reduction	62
10.5.3 Set SAT system, DiSeqC system	38	17.1.7 Noise reduction	63
10.5.4 Set SAT system, selecting a satellite	39	17.2 Picture settings for program via the TV menu	64
10.6 SAT channel search, automatic	40	17.3 Picture settings for program via station table	65
10.6.1 SAT channel search, manual	41	18 Sound settings	66
10.7 Updating channel search data	42	18.1 Volume	66
10.9 Portal channels in DVB	44	18.1.2 Sound adjustment	68
11 Channel logo	45	18.1.3 Equalizer	69

18.1.4 Headphone volume	70	24.3 Quick start	104
18.1.5 Tone settings	71	25 EPG	105
18.2 Sound settings for program via TV menu	72	25.1 Activating the EPG	105
18.2.1 Volume correction	72	25.2 Collecting EPG data	106
18.2.2 Tone setting	73	25.3 Activating Stations for EPG	107
18.3 Sound settings for program via channel table	74	25.4 Use EPG	109
18.4 Program mute, preset value sound 2	75	25.5 Recording programs	111
18.5 Hi-fi output	76	25.6 Autom. recording of a progr. as a series using the EPG	112
18.6 Select loudspeaker	77	25.7 Overview of the programmed timers	113
18.6.1 Sound settings, overview	78	25.8 Checking an active recording	114
18.7 Connecting headphones	81	25.9 Deleting programmed timers/series timers	114
18.8 Sound 1, Sound 2	81	26 Childlock	115
19 Automatic zoom	82	27 Range of functions	117
20 Video text	83	28 Connection options, rear side	119
21 Radio mode	85	28.1 Connection options, lateral rear	121
21.2 Internet Radio	86	29 Regeistering AV devices	122
22 Special functions	87	29.1 Registering AV devices, Data Logic	124
22.1 Picture in picture	87	29.1.1 Data Logic Settings	126
22.2 Split Screen - Progr.1 next to Progr.2 with Teletext	88	29.2 Registering AV devices. Set signal type RGB	127
22.3 Photo display	89	29.2.1 Registering AV devices. Set signal type DVI/HDMI	128
22.4 Delayed television viewing (time shift mode)	91	29.3 Connecting a hi-fi amplifier/AV receiver	129
22.5 Recording a program using a timer	93	29.4 Displaying AV devices (AV table)	130
22.6 Direct recording of a program	95	29.5 CEC Settings	131
22.7 Picture format	96	29.5.1 Controlling AV devices with the CEC function	132
22.8 Picture position	98	30 AV playback	133
22.9 Audio/language selection	99	30.1 Devices with switching voltage	133
22.10 Setting subtitles	100	30.2 Devices without switching voltage	134
23 Programming function keys	101	30.3 AV playback, VCR function	135
24 Start Up	102	30.4 AV playback, MPEG noise reduction	136
24.1 Initial program position	102	30.5 AV playback, assigning a picture profile	137
24.2 Start Up Image	103	30.6 AV playback, Picture format	138

30.7 AV playback, noise reduction	139
31 Transferring with AV devices (direct recording)	140
32 Inserting / removing a CA module	141
33 Connecting a PC	142
33.1 PC [HDMI] to TV [HDMI]	142
33.2 DVI-D [PC] to HDMI [TV set]	143
33.3 PC sound from the speakers of your TV	144
34 Cleaning the device	145
35 Glossary	146
36 Upgrade Kits	149
37 Technical data	150
Metz Media System	153
A1 Cable network (LAN)	155
A1.1 Network configuration – automatic LAN configuration	155
A1.1.1 Network configuration – manual LAN configuration	156
A1.2 Testing the network connection	157
A2 HbbTV	158
A2.1 Accessing HbbTV	159
A2.2 Exiting HbbTV	159
A3 Opening the Media Player	160
A3.1 Using the media player	160
A3.2 Photos/pictures	162
A3.2.1 Photos – 15-photo overview	163
A3.2.2 Creating photo/picture playlists	164
A3.3 Music	165
A3.3.1 Music - creating playlists	166
A3.4 Video	167
A3.4.1 Video - creating playlists	168
A4 Playing a playback list (in the example music)	169
A5 Connection to a PC or Fritzbox	170
B1 USB recording / PVR functions	172

B2 Hard disk instructions	174
B3 Format external hard disk	176
B3.1 Settings of the external hard disk	177
B4 Recording control	178
B4.1 PVR timer basic settings	178
B4.2 PVR series basic settings	179
B5 The PVR Archive	180
B5.1 Playing programs from the PVR archive	182
B5.2 Deleting programs from the PVR archive	182
B5.3 Fast-forwarding and rewinding recordings	183
B5.4 Slow motion	183
B5.5 Pause – Pause Playback	183
B6 Editing Recordings	184
B6.1 Editing Recordings – Placing Markers	184
B6.1.1 Editing Recordings – Deleting Markers	184
B6.2 Editing Recordings – Placing Cut Marks	185
B6.2.1 Editing Recordings – Deleting Cut Marks	185
B7 Further options	186
B7.1 Delete protections	186
B 7.2 Childlock	187
B7.3 Continuous playback	188
B7.4 Setting categories manually	189
B7.5 Change file name	189
B8 Copying radio broadcasts to the hard disk	190
B8.1 Playing a radio recording	190
B9 Selecting the PVR Archive View	191
B10 The File Manager	192
B11 Conflicts	196
Problem, Possible causes, Remedy	197

1 Proper use

This TV set is exclusively designed for the reception and playback of picture and sound signals.

The TV set is designed for dry rooms (living rooms and offices).

The room climate should be in a range from +5°C to +35°C with a maximum of 75% air humidity.

The TV set may not be used in rooms with higher air humidity (e.g. bathroom, sauna, etc.).


The TV set must not be used in rooms with a high concentration of dust (e.g. a workshop).


If, as an exception, you operate the TV set outdoors, then please make sure it is protected against moisture (rain, water spray, dew).


2 Installation instructions

- Make sure no bright light or sunshine falls on the screen. This can lead to reflections that impair the brilliance of the picture.
- The most favourable viewing distance is three times the screen diagonal, in sets with
 - 26" screen approx 2 m
 - 32" screen approx 2.4 m
 - 37" screen approx 2.8 m
 - 42" screen approx. 3.2 m
 - 47" screen approx. 3.5 m
 - 55" screen approx. 4.2 mThis distance can also be reduced by one half for HDTV.
- Antenna connecting cables and other components between the permanently installed antenna-/broadband plug and the radio receiver (e.g. TV set, video recorder) must comply with the Euro standard EN 60966-2-4.
- The antenna connecting cable used should have a shielding of at least 75 dB.

- If unauthorised cables and components are used, the operating permit of the radio receiver lapses.
- Use only Metz device stands to set up the TV set on a horizontal, non-slip surface.
- Heavy smoking in the vicinity of the LCD TV set can lead to nicotine and soot deposits behind the front panel glass and as a result to an impairment of the picture quality. Such deposits can only be removed by an expert. In extreme cases this can lead to permanent damage of the panel, making replacement of the panel necessary. Cleaning or replacement of the panel is not covered by the guarantee.

 If you want to mount the TV on the wall, we recommend using a Metz wall mount. If you decide a commercial wall mount solution, we ask to be noted that the connection must be executed properly. Due to the device the use of a Metz adapter plate may be required. The wall mount should only be performed by qualified persons. When using a third-party solution we wish to emphasize that we have to exclude warranty, if the unit should be damaged caused by installing the Wall Mount.

 The TV set should not be mounted on the ceiling.

 To prevent injuries, the TV set must be fastened safely to the floor / wall in accordance with the installation instructions.

3 Safety instructions

- ⚠ Set up the TV set on a firm, level and stable base
- ⚠ Your set is designed for operation in dry rooms. If, as an exception, you operate the TV set outdoors, then please make sure that it is protected against moisture (rain, water spray, dew).
- ⚠ Do not expose TV set to dripping or splashes (e.g. rain)!
- ⚠ Unplug electrical equipment before cleaning
- ⚠ Do not hold the remote control directly in front of your eyes and press a key! Infrared light!
- ⚠ The TV set may only be run with a power voltage of 230-240V~ 50Hz.
- ⚠ For maintenance and repair work the mains plug or the device plug-and-socket of the power cable of the TV set – in the meaning of the applicable standard – are to be regarded as the means for disconnection from the mains and kept in working order.
- ⚠ When laying the power cord make sure there are no objects resting on it and that no-one can trip over it!
- ⚠ Candles and other open flames must be kept away from this product at all times to prevent fire spreading
- ⚠ The unit may only be opened and repaired by a qualified specialist.

RISK OF FATAL INJURIES !

Please contact your authorised dealer if any repairs are necessary.

- A cold device may only be turned on in a cold room once any condensation on the screen has evaporated.
- TV sets require adequate cooling. The openings at the back may not be covered by curtains, etc.
The ventilation slits on the bottom of the set must remain freely accessible, since this is how the device draws in cool air.
- Make sure there is an adequate cooling air flow if you put your device into a built-in cabinet.
- Do not set up/suspend your device directly next to or above a heater; this could impair the device cooling.
- No burning candles or vessels with liquid may be placed on or above the TV set.
Hot wax and liquids that get into the interior of the device destroy the electric components of your TV set.
In these cases the electrical safety of the device can no longer be guaranteed.
- Thunder storms are a danger for electrical devices. If lightning hits the power cable or antenna, the device can be damaged, even if it is switched off. During thunder storms disconnect the mains plug and antenna plug from the socket or the TV set.
- No rechargeable batteries may be inserted in the battery compartment of the remote control. Only two LR03/AM4/AAA 1.5 V micro batteries may be used.
- This TV set is exclusively designed for the reception and playback of picture and sound signals.
- Do not display still pictures, logos, 4:3 formats with margins, etc for a long period. There is a risk that these still pictures could lead to markings on the screen.

- Soot and dust deposits can accumulate behind the front panel glass of the LCD TV set without a visible source of soot being present. These soot and dust deposits are also known as “fogging” or “magic dust”. There are scattered instances of this phenomenon, but especially during the warm-up period and after renovation work or in new constructions. Various factors are mentioned as the cause, see too the reports on the Internet. In such cases cleaning or replacement of the panel is excluded from the guarantee, since it does not involve a set defect, but rather an external influence.



Power connection, back

4 Connecting, switching on and off

Power connection

Connect the TV set to the wall socket with the accompanying power cord.



Switching on

Switch on the TV set with the power switch on the device.

The orange stand-by display or display²⁾ lights up.

After about 25 seconds the

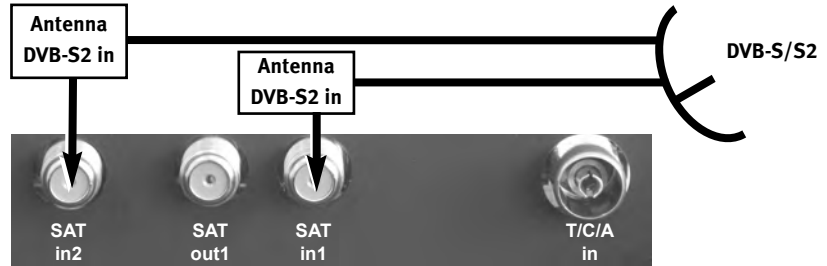
TV set switches automatically to program position 1 or the preset initial program position, see page 102.

If no other command is received from the remote control, a message will appear after approx. 10 minutes asking for one of the remote control keys to be pressed. If no command is received from the remote control, the TV set is switched to stand-by mode.

Antenna connections for TV sets with Chassis 612

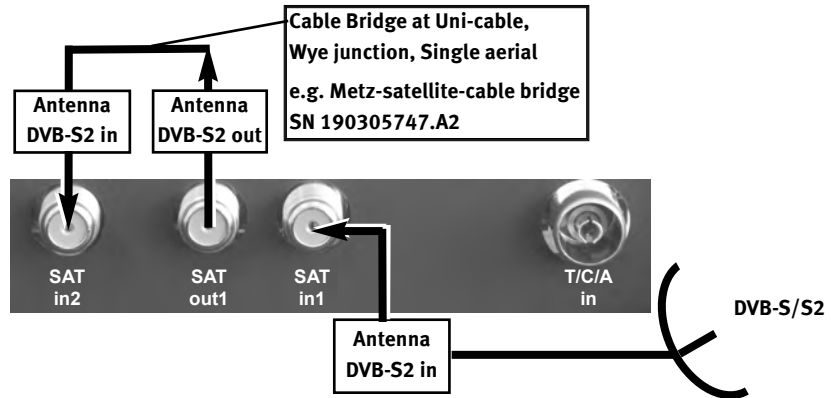
DVB-S / DVB-S2	
2 separate Antenna cables	
Menu "Configuration" "DVB-S" "Aerial facility"	"Antenna ... normal" "LNB supply voltage ... on" "DiSEqC system on/off 1)"

1) depending on the satellite system



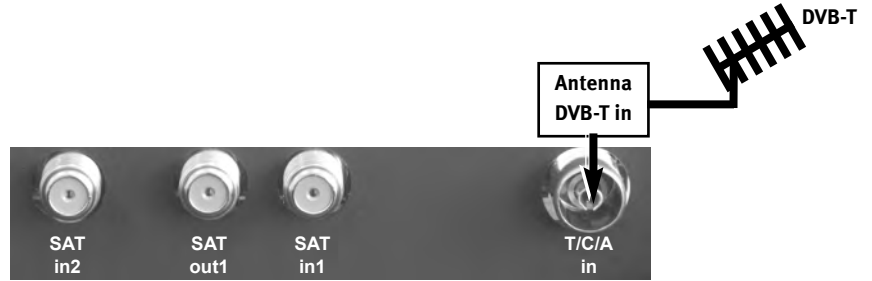
DVB-S / DVB-S2 (one satellite)	
1 Antenna cable	
Menu "Configuration" "DVB-S" "Aerial facility"	"Antenna ... Wye junction" "LNB supply voltage ... on2)"

2) see instructions for multi-switch



DVB-T	
1 Antenna cables	
Menu "Configuration" "DVB-T" "Antenna ..."	"Supply voltage off" "Supply voltage on³⁾"

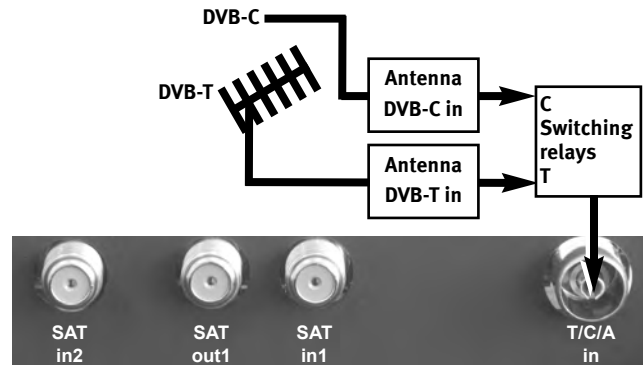
3) with active antenna



DVB-C	
1 Antenna cable	



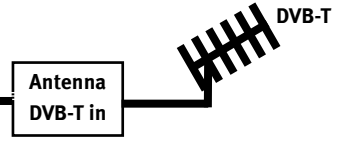
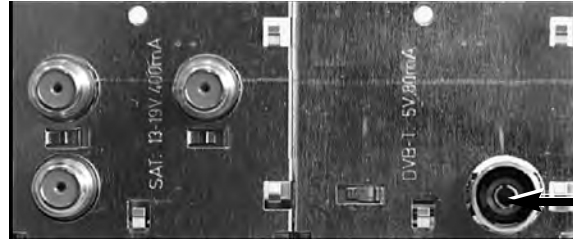
DVB-C/analogue DVB-T	
2 separate Antenna cable	
Menu "Configuration" "DVB-T" "Antenna ..."	"Supply voltage switched"



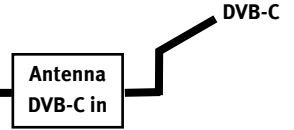
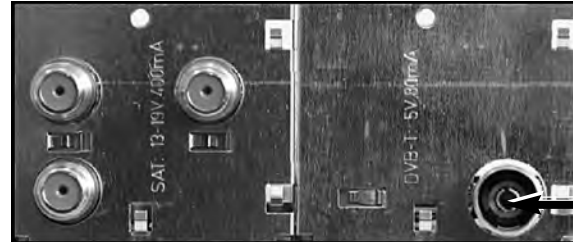
Antenna connections for TV sets with Chassis 610

DVB-T	
1 antenna cable	
Menu "Configuration" "DVB-T" "Antenna ..."	"Supply voltage off" "Supply voltage on *)"

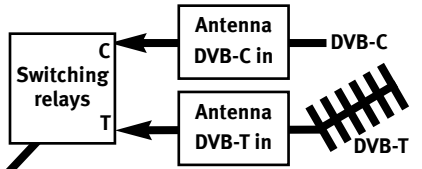
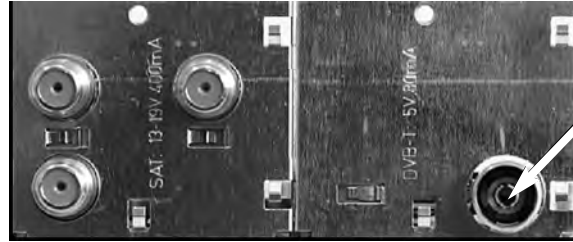
* with active antenna



DVB-C	
1 antenna cable	

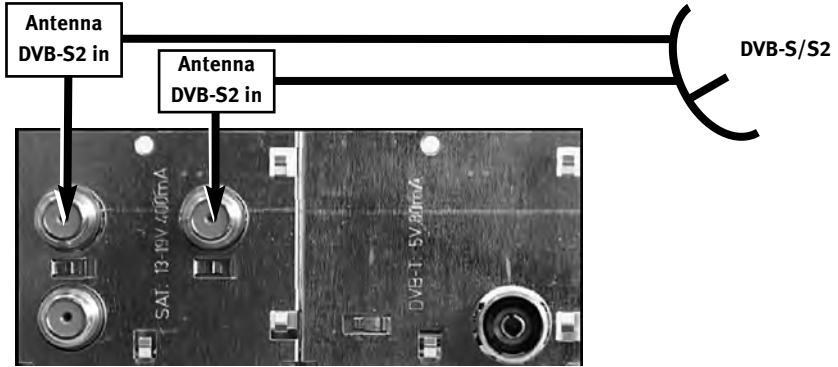


DVB-C/analogue DVB-T	
2 Antenna cables	
Menu "Configuration" "DVB-T" "Antenna ..."	"Supply voltage switched"



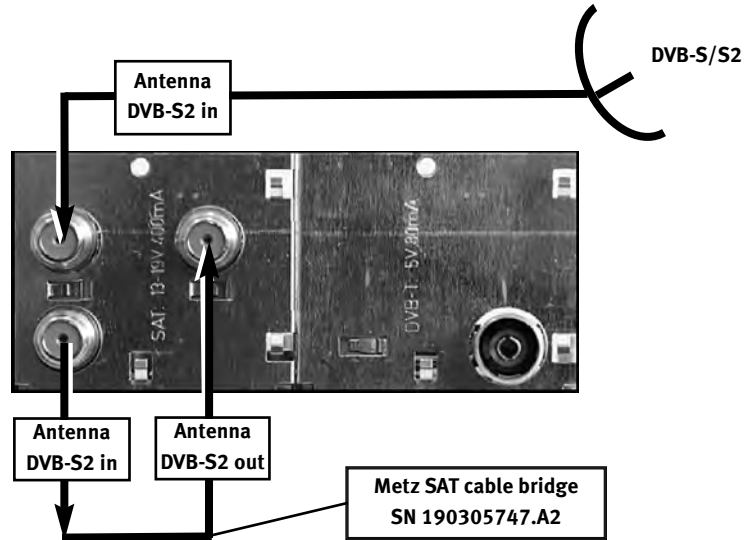
DVB-S / DVB-S2	
2 Antenna cables	
Menu "Configuration" "DVB-S" "Aerial facility"	"Antenna ... normal" "LNB supply voltage ... on" "DiSEqC system ... on/off**"

* depending on the satellite system



DVB-S / DVB-S2 (one Satellite)	
1 Antenna cable	
Menu "Configuration" "DVB-S" "Aerial facility"	"Antenna ... Single aerial" "LNB supply voltage ... off**"

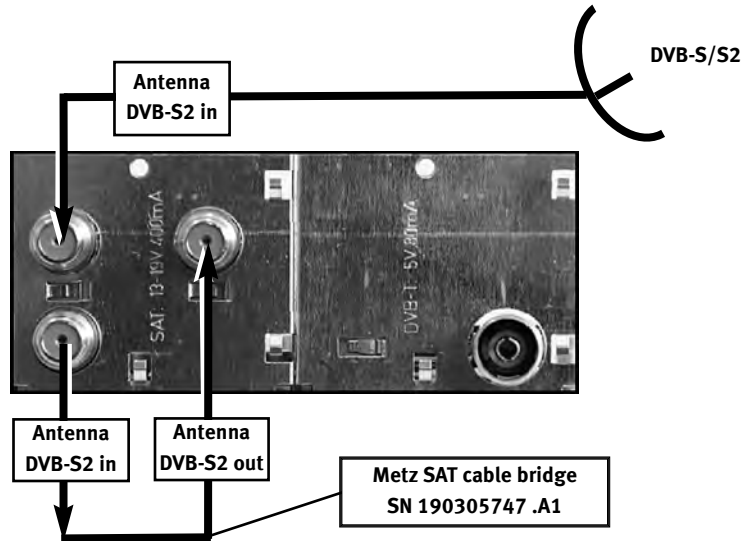
** see instructions for single cable system



Single cable system (Frequency converter)

DVB-S / DVB-S2 (one Satellite)	
1 antenna cable	
Menu "Configuration" "DVB-S" "Aerial facility"	"Antenna ... Wye junction" "LNB-supply voltage ... on**"

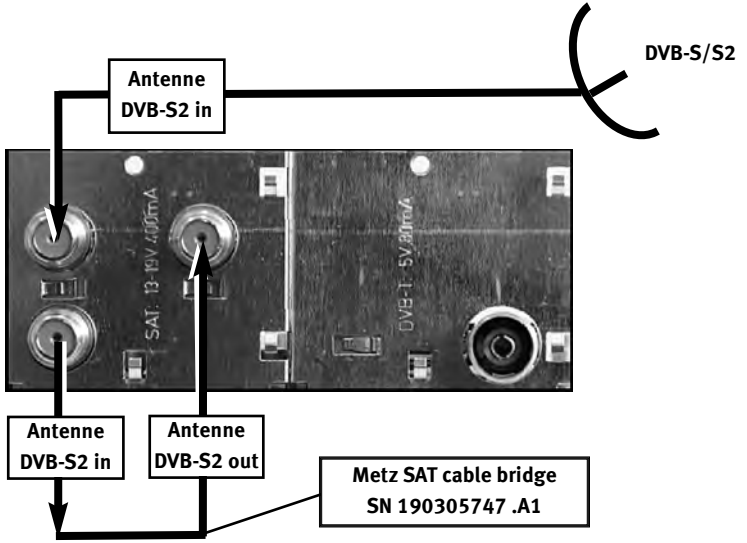
** see instructions Multiswitch



only one satellite cable to the multiswitch / LNB



DVB-S / DVB-S2 (one Satellit)	
1 antenna cable	
Menu "Configuration" "DVB-S" "Aerial facility"	"Antenna ... Unicable" "SCR-Nr.1" "SCR1-Freq. 1284**" "SCR1-Freq. 1400**"

* see instructions for Sat-Channel-Router




Switching on from stand-by mode

Use the numeric keys of the remote control to select any program.

Program position 1 is selected with the key  or  or if programmed, there is a switch to the initial program position, see page 92.

Switching off with the remote control

Press the remote control key . The message “Please wait” appears in TV sets with hard disk²⁾. in the display²⁾ or on the screen.

After this message disappears, the TV set switches to the stand-by mode – the red LED display lights up.

If the yellow LED display is illuminated or “EPG” appears in the display²⁾, the TV set is still gathering data for the electronic program guide.

Switching off with the power switch

If only the red LED display is still illuminated, the TV set can be turned off with the power switch. If it is not used for a long time, disconnect the TV set in this way from the mains.


5 The remote control

The remote control conveys commands to the TV set via infrared light. The remote control must always be directed at the TV set. Other infrared controlled devices or systems (e.g. infrared headphones) within its range could be destroyed.

Direct sunlight on the TV set may lead to disruptions, because the TV set is unable to recognise the infrared signals of the remote control. To enable the TV set to be controlled by the remote control, it cannot be switched off with the power switch.

No rechargeable batteries may be inserted in the battery compartment of the remote control!

Only two LR03/AM4/AAA 1.5 V micro batteries may be used.


 ***The batteries that are used must not be exposed to excessive heat such as sunshine, fire or the like!***

2) Possible only on sets equipped with this function.


The remote control **RM16** is included with all TV sets delivered **without integrated digital recorders (PVR)**.




5.1 Remote control (RM 16)




 ON at program position 1 or at the programmed initial program position.

OFF, enter stand-by setting.

 Call up “Information”.
Back to table of contents in "Information".

 In TV mode: Start time shift.
When set to Play: Still picture/Pause.
In Play, press and hold: slow motion.


 Switch to TV -> Radio / Radio -> TV


   Function keys.


Press briefly: for factory programming.


Hold down: display of the special functions selection.

 Select AV device.

 Call up picture settings.
In TV menu: Call up “Picture-sound”.

 Call up sound settings.
In TV menu: Call up “AV devices”.

 Call up program table,
In the TV menu: Call up “Program table” or channel features.

 Display date, time info on program.
In the TV menu: Call up “Time settings”.
In video text: Scroll by marks.
When set to time shift: Display playback position.

The remote control **RM16** is included with all TV sets delivered **without integrated digital recorders (PVR).**



In the TV menu: Call up "Configuration"
In video text: Set or delete marker
Mark TV program for recording in EPG

V+

volume + / In the menu: Change value

+P

Progr. + / In the menu: Change value

V-

volume - / In the menu: Change value

-P

Progr. - / In the menu: Change value



Cursor control key



Confirmation key
In the menu: Save



Mute/sound stop



Back to last program
In the menu: Delete



Exit menu without saving any changes that have been made



Call up video text
In video text: Scroll by marks



Call up the electronic program guide




















Call up the TV menu.
In the menu: Return to main menu item

The remote control **RM17** is included with all TV sets delivered with integrated **digital recorders (PVR)**.



5.2 Remote control (RM 17)


-  ON at program position 1 or at the programmed initial program position.
OFF, shut down digital recorder & switch to stand-by setting.
-  Switch to Metz TV
-  Switch to DVD
-  Switch to STB (Set Top Box)
-  Switch to AUX (audio devices)
-  When set to Play: Fast forward
When set to time shift: Skip forwards one minute
-  Open archive / in archive: Play
-  When set to Play: Rewind
When set to time shift: Skip backwards -20 seconds
-  Start direct recording / EPG direct recording
-  In TV mode: Start time shift
In TV mode: Still picture if switched off in TV menu “Timeshift”
When set to Play: Still picture/Pause
When set to Play: hold down: Slow motion
-  Stop (when set to Play: Return to archive / when set to time shift: Switch to “Live”)
-  Call up “Information” / In “Information” back to table of contents
-  Picture in picture on/off
-  Switch to TV -> Radio / Radio -> TV
PVR stop and return to TV picture


   Funktions keys


Press briefly: for factory programming


Hold down: display of the special functions selection.


 Select AV device

 Call up picture settings
In TV menu: Call up “Picture-sound”
In “File Manager”: Switch from USB stick
to digital recorder

 Call up sound settings
In TV menu: Call up “AV devices”
In “File Manager”: Mark file / Remove marking

 Call up program table,
In the TV menu: Call up “Program table” or channel
features
In the PVR archive: Sort recordings according to
complete, partial & unseen

 Display date, time info on program
In the TV menu: Call up “Time settings”
In video text: Scroll by marks
When set to playback / time shift: Display playback
position
In the PVR archive: Show recording according to the
category

 In the TV menu: Call up “Configuration”
In video text: Set or delete marker
In the PVR archive: sort the recordings
from A-Z

In EPG : Mark TV program for recording


V+ Volume + / In the menu: Change value

+P Progr. + / In the menu: Change value


V- Volume – / In the menu: Change value


-P Progr. – / In the menu: Change value


 Cursor control key


 Confirmation key / In the menu: Save


 Mute/sound stop

 Back to last program
In the menu: Delete

 Exit menu without saving any changes that have been
made

 Call up video text
In video text: Scroll by marks

 Call up the electronic program guide

 Call up the TV menu
In the menu: Return to main menu item

Manual operation in Axio pro



6 Operation without remote control

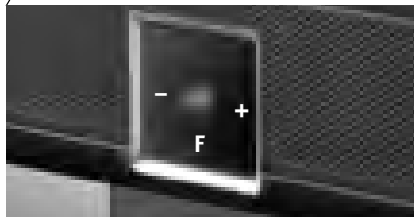
(only possible with Axio pro, Aurus, Caleo and Taros)

This mode is only intended for emergency operation if the batteries of your remote control are empty or the remote control is unavailable.

Switching on

Press power switch on TV set. After about 30 seconds the TV set is switched on at program position 1 or at the programmed initial program position.

You can also activate the following functions on the device without remote control:



Volume:

Hold down the preselection key “F” until the display for volume appears on the screen. Then press the “-” or “+” key to change the volume.

Program selection:

Press the “-” or “+” key.

Manual operation in Aurus, Caleo and Taros



Program selection via program table:

Press preselection key “F” often enough until the program table appears on the screen. Select the program desired with the “-” or “+” key. Press preselection key “F” and adopt the selection.

Switching from TV to AV program

Press “F” key often enough until the selection table for the AV devices appears.

Select the AV device desired with the “-” or “+” key.

Press preselection key “F” and adopt the selection.


Switching from AV to TV program

Press preselection key “F” often enough until the selection list for the program table appears.

Select the program desired with the “-” or “+” key.

Press preselection key “F” and adopt the selection.

7 Setting the language/country

 **The menu items “Language” and “Country” cannot be set in a 2** menu.**

Language selection in TV menu

A language can be assigned to the TV menu according to the selection offered.
All texts in the menu and in the help (information) are displayed in the language selected.

Setting the country


The setup location or country (e.g. Germany) must be entered after setup. This assigns the device its basic settings (e.g. channel raster, sequence of channel filing, etc).

MENU



EXIT

Setting the language/country:


- Call up the TV menu with the **MENU** key.
- Use the red key  to open the “Configuration” menu.
- Select “Language” or “Country” with the assigned numeric keys.
- Set the language or country desired with the cursor control key.
- Confirm the setting by pressing the **OK** key.
- Close “TV menu” with the key **EXIT** .

2) Possible only on sets equipped with this function.

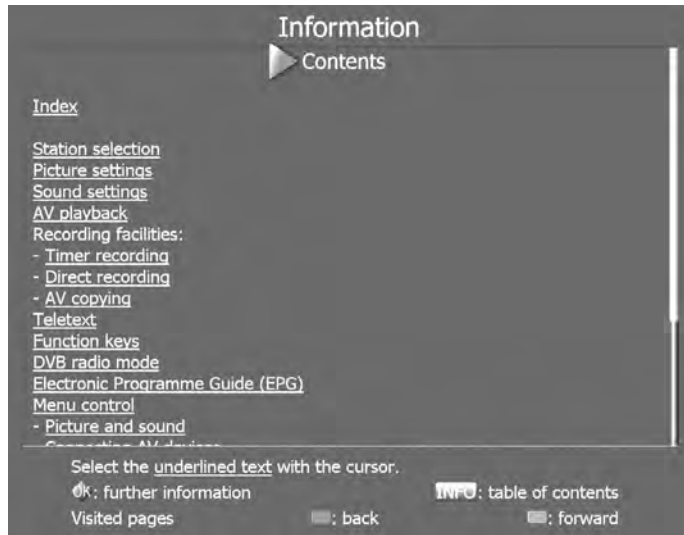
8 Help (Information)

In designing the TV set we took care to configure it in a way that would make it fun for you as a user to get to know the device in the easiest, most convenient manner possible.

The device itself can provide answers to the many questions that arise after setting up and switching on the TV set with its “Information.”

For this, simply press the key . The table of contents of “Information” will appear on the screen.

INFO



The “Information” menu or help


You can select the point you are interested in the table of contents or key word index with the cursor control key.


Cursor control key right,
browse the index forwards ...



Cursor control key left,
browse the index backwards ...

Cursor control key upwards, the last underlined text is selected ...

Cursor control key downwards,
the menu lines are selected ...

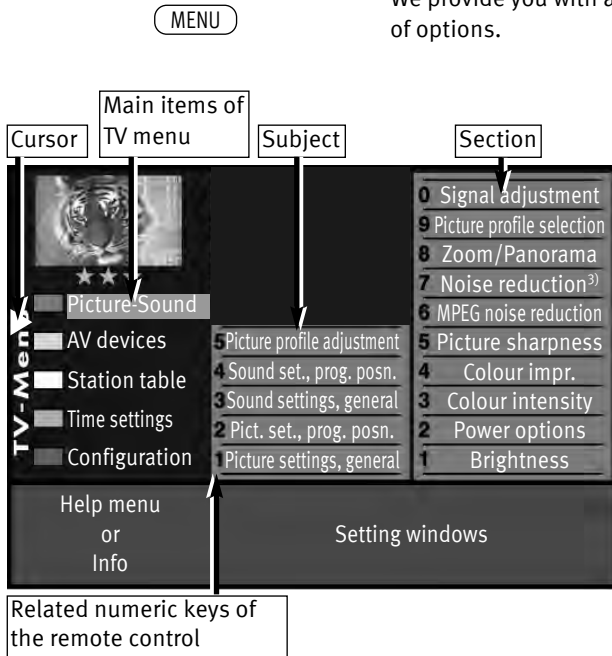
... then press the key , so that you can read the explanatory text.

All underlined words, whether in the table of contents, key word index or explanatory text can be selected with the cursor. After pressing the key , the explanation is displayed.

You can browse the pages consulted backwards with the red key  and forwards with the green key .

9 Menu control

We provide you with assistance with the "TV menu" to enable you to find your way in the multitude of options.



Do not hesitate to change anything in the various menus. Every change must be saved with the **OK** key. If you are not sure about a change you have made, you can leave the menu at any time with the **EXIT** key without changing anything.

You can always return to the corresponding "Main menu item" in the TV menu with the **MENU** key. If a menu item is unclear, press the key **INFO**. Return to menu – press the **INFO** key twice.

The five main items can be opened with the coloured keys.

The card indexes displayed are subdivided into topics (left) and chapters (right). The topics/chapters can be selected with the red triangular cursor via the cursor control key or with the numeric keys.

You can access the setting window below the card indexes with the **OK** key. The current valid setting is displayed and can be changed with the key **V+ / V-**.

The change can be saved by pressing the **OK** key and you return to the chapter card.

If you do not wish to save, you can return to the corresponding "Main menu item" with the **MENU** key or completely leave the menu with the **EXIT** key. You can delete entries with the **↶** key.

3) See glossary for an explanation.

10 Channel search

10.1 Setting the reception type

This TV set is equipped for up to four different reception types:



Analogue TV: The broadcasting technology that has existed for decades and which in the meantime can only be received via cable.

DVB-T: The digital broadcasting technology that can be received via the up to now customary house antenna or room antenna (depending on reception conditions). Ask your local TV dealer about this, or find out more at “www.ueberall-tv.de”.

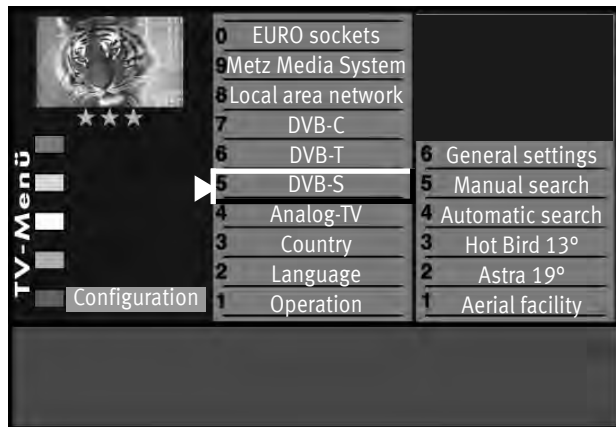
DVB-C: The digital broadcasting technology that can be received via a cable connection. Ask your local cable provider about this, or find out more at “www.kabeldeutschland.de”

DVB-S2: The digital broadcasting technology that can be received via a satellite. Ask your local TV dealer about this, or find out more at “www.lyngsat.de”

Set the reception type that you have set up.

Setting reception type

- Call up the TV menu with the **MENU** key.
- Use the red key ***** to open the “Configuration” menu.
- Use the assigned numeric keys to select the reception modes that are available to you.



MENU



1 2 3

4 5 6

7 8 9



10.2 TV standard for analogue channels

There are various TV standards worldwide for pictures and sound. If the TV standard is set incorrectly, the sound reproduction is disrupted. In the case of the TV standard “L” the picture is also broadcast according to a different standard, as a result of which the TV standard must be selected before the channel search.

The B/G TV standard is set at the factory.

Setting the TV standard

- Call up the TV menu with the **MENU** key.
- Use the red key to open the “Configuration” menu.
- Select “Analogue TV” with the assigned numeric key. The menu item “Search settings” has been selected.
- Press key **OK** and set the desired TV standard in the setting window with the key **V+ / V-**.
- Confirm the setting with the key **OK**.
- Press the **EXIT** key to close the TV menu.



EXIT

MENU

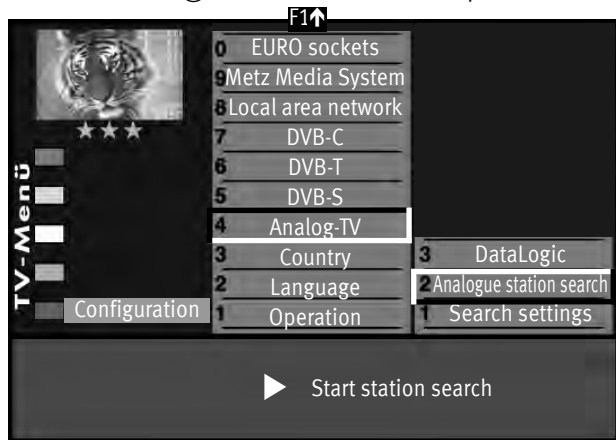


10.2.1 Analogue TV channel search

The entire reception range is automatically searched during the channel search. The channels found are filed in the channel table, which is presented at the end of search process. You can move or delete channels that are found if you are not satisfied with the order. See Chapter 12 “Sort channels”.

Carrying out a channel search

- Call up the TV menu with the **MENU** key.



- Use the red key to open the “Configuration” menu.
- Select “Analogue TV” with the assigned numeric key.
- Select “Analogue station search” with the assigned numeric key
- Press **OK** key and in the setting window confirm the menu item “Start channel search” with the **OK** key.
A channel search is carried out.
- The channel table is displayed in the left picture half, according to the channels found. If a channel table already exists, the newly found channels are automatically appended after the last existing channel.
- Once the search has finished, all channels found are sorted.
- Channels that are not wanted can be selected with the cursor control key in the channel table and deleted with the key .



2) Possible only on sets equipped with this function.

MENU

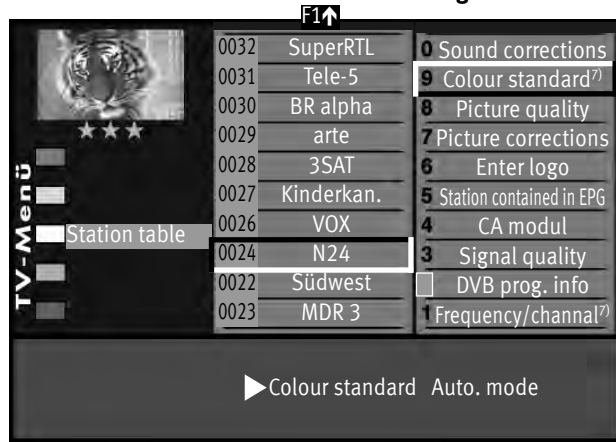


10.2.2 Colour standard for analogue channels

The colour standard is set to “Automatic” at the factory. Normally the TV set recognises the colour standard automatically.

If this automatic function in rare instances does not produce a satisfactory result, the colour standard can also be set manually for each program position.

Setting the colour standard⁷⁾



- Call up the TV menu with the **MENU** key.
- Use the white key to retrieve the station table.
- Select the program position whose colour standard is to be changed with the cursor control key.
- Release the channel table for editing with the **F2** key.
- Select the right column with the cursor control key.
- Select “Colour standard” with the assigned numeric key.
- Set the desired colour standard with the key **V+ / V-** or change so long until the picture is displayed cleanly.
- Confirm the setting with the **OK** key.
- Press the **EXIT** key to close the TV menu.

F2



EXIT

⁷⁾ Available only for analogue stations !

10.3 DVB-T, antenna supply

If an active antenna is used for the DVB-T reception, an antenna supply can be set.

On: The antenna supply is switched on permanently. This setting must be selected if a TV set with two DVB-T receivers is supplied via only one active antenna.

Set: The antenna supply is only active if a DVB-T program position has been selected (e.g. selection of a change-over relay with simultaneous use of DVB-T antenna & broadband cable.)

Off: Setting with passive antenna or joint antenna systems.

Setting the antenna supply

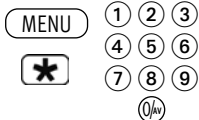
- Call up the TV menu with the **(MENU)** key.
- Use the red key **(*)** to open the “Configuration” menu.
- Select “DVB-T” with the assigned numeric key.
- Press the **OK** key and set the antenna supply in the setting window with the key **V+/V-** .
- Confirm the setting with the **OK** key.
- Close “TV menu” with **(EXIT)** key.

(MENU)



(EXIT)

2) Possible only on sets equipped with this function.



10.3.1 DVB-T channel search, automatic

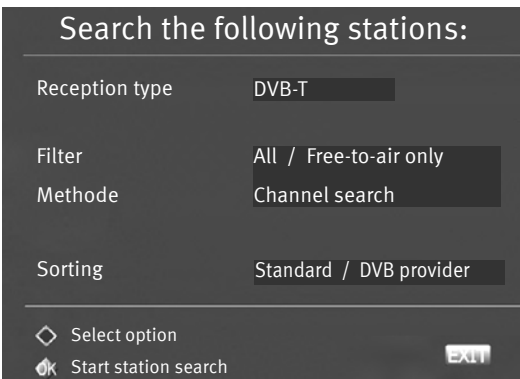
The reception range is searched for TV channels and radio channels in the automatic channel search. The channels found are stored in a TV channel and radio channel table. See Chapter 21 for DVB radio mode.



You can move or delete channels that are found if you are not satisfied with the order. See Chapter 12 “Sort channels”.

Carrying out an automatic search

- Call up the TV menu with the **MENU** key.
- Use the red key ***** to open the “Configuration” menu.
- Select “DVB-T” with the assigned numeric key.
- Select “Automatic search” with the assigned numeric key.



- Press the **OK** key. The settings menu is displayed. The reception type is preset. In Germany, the Filter, Method and Sort menu items are not relevant for DVB-T. In Australia and Italy, you must select "Sorting - DVB provider".
- Press the **OK** key to start the station search.

3) See glossary for an explanation.

MENU

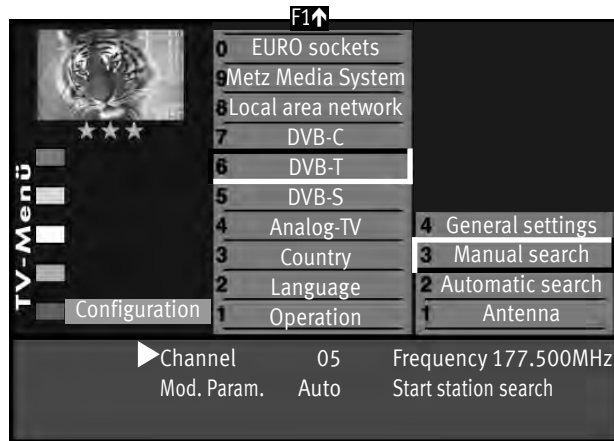


10.3.2 DVB-T channel search, manual

During the manual channel search the channel or frequency of the program to be set must be known.

Carrying out a manual search

- Call up the TV menu with the **MENU** key.
- Use the red key to open the “Configuration” menu.



- Select “DVB-T” with the assigned numeric key.
- The supply voltage can be switched on or off in the setting window “Antenna” with the key **V+ / V-**, see too page 30.
- Select “Manual search” with the assigned numeric key.
- Enter the channel number or frequency in the setting window with the numeric key. If additional data of a program is known, then select the “Mod.- parameter” menu item and change the setting to “manual” using the **V+ / V-** key. Additional data can now be entered.
- After entering the program data with the cursor control key, select “Start station search”.

Search the following stations:

- 1 free-to-air programmes
- 2 all programmes



1 2

- Press the **OK** key and confirm the question about the channel search with the corresponding numeric key:

- 1 free-to-air programs³⁾
- 2 all programs³⁾

After you press the numeric key, the station search begins with the selected channel (in this example, Channel 05).

MENU



- ① ② ③
- ④ ⑤ ⑥
- ⑦ ⑧ ⑨
- ⑩

10.4 DVB-C channel search, automatic

The reception range is searched for TV channels and radio channels in the automatic channel search. The channels found are stored in a TV channel and radio channel table. See Chapter 21 for DVB radio mode. You can move or delete channels that are found if you are not satisfied with the order.

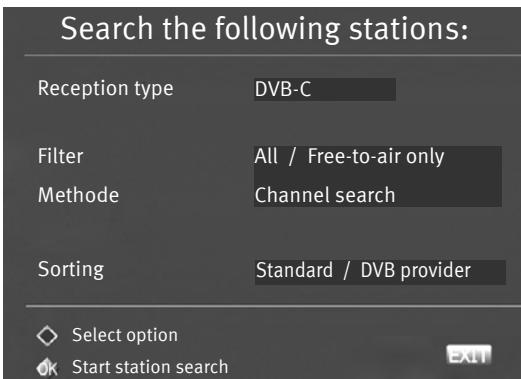
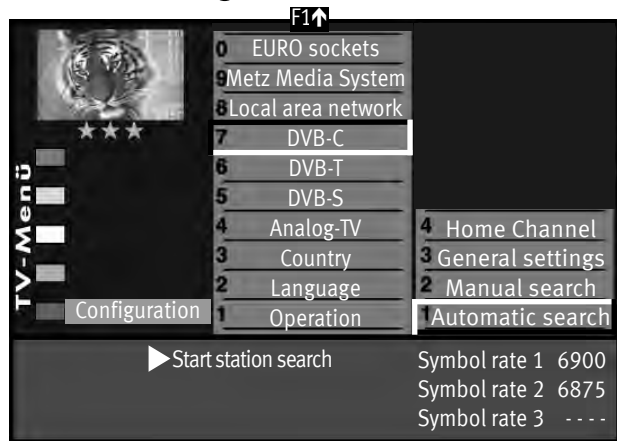
See Chapter 12 "Sort channels".

Carrying out an automatic search

- Call up the TV menu with the **MENU** key.
- Use the red key to open the "Configuration" menu.
- Select "DVB-C" with the assigned numeric key.
- The cursor is on the menu line "Automatic search".
- Press the **OK** key. The cursor is on "Start station search". The symbol rates are preset for general cable networks. If you need other values, you will receive them from your cable network provider, or you must request them.
- Press the **OK** key again. The settings menu opens up. The reception type is preset. If you set the Filter menu item to "All", the search will also look for encrypted stations that require a CI module with a smartcard.

The "Method" menu item should be set to channel search (factory setting). If the station search does not find all the stations, change the Method setting to "Precision search".

The "Quick search" setting (installation channel) is only required if your cable network provider has provided you with specific cable network settings such as frequency, symbol rate, modulation or network ID.



- 2) Possible only on sets equipped with this function.
- 3) See glossary for an explanation.

MENU

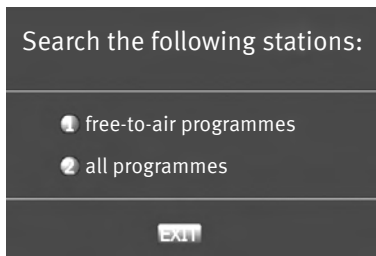
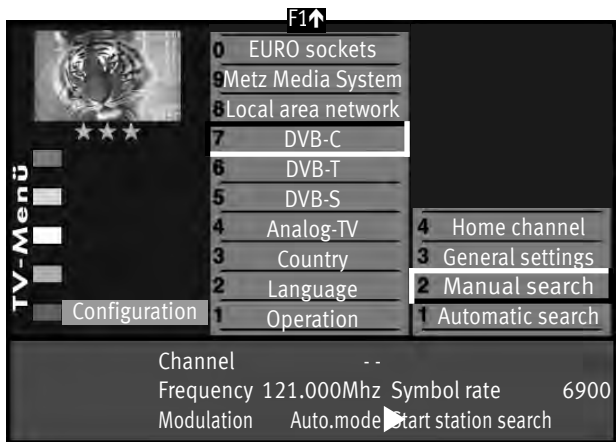


10.4.1 DVB-C channel search, manual

During the manual channel search the channel or frequency of the channel to be set must be known.

Carrying out a manual search

- Call up the TV menu with the **MENU** key.
- Use the red key ***** to open the “Configuration” menu.
- Select “DVB-C” with the assigned numeric key.
- Select “Manual search” with the assigned numeric key.
- The cursor is on “Channel”.
- Enter the channel number or special channel number or frequency in the setting window with the numeric keys. If additional data of a program is known, then select the corresponding menu items “Modulation” and “Symbol rate” and change the setting using the **V+ / V-** key or with the numeric keys.
- Select “Start station search” with the cursor control key in the setting window.
- Press the **OK** key and confirm the question about the channel search with the corresponding numeric key:
 - 1 free-to-air programs³⁾
 - 2 all programs³⁾
 After pressing the corresponding numeric key the channel search begins.

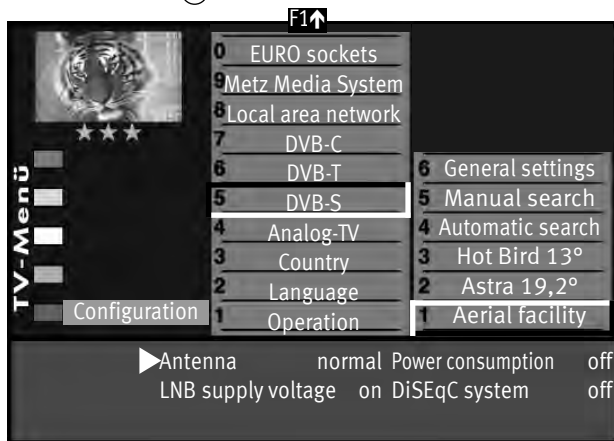


3) See glossary for an explanation.

10.5 Setting the SAT system, antenna system

The sat. antenna system must be reported to the TV set in the “Configuration” menu.

MENU



Antenna

Normal

In the “Normal” setting, the DVB-S receivers in the TV set are each supplied with a separate antenna cable.

Tandem

In the “Tandem” setting, the two DVB-S receivers, which are connected to each other by a splitter, are supplied by one feed line.

Single cable (single cable distribution SDC)

With the “Single cable” setting, the DVB-S receivers have one feed line. The channel selection is preset according to the structural conditions of the satellite system. No antenna control signals can be sent over the feed line.

Unicable

The antenna system with a channel router feeds one cable and is designed to receive the full channel selection. For this purpose, each receiver is assigned one specific frequency in the satellite frequency range (950-2150 MHz). The channel router has multiple fixed frequencies (SCR-Freq.) saved in a frequency bank. See the user’s guide for the channel router.



EXIT

The satellite antenna splitter 010ZR1199 is required for all satellite single cable solutions!

2) Possible only on sets equipped with this function.

MENU



10.5.1 Setting up the sat system, unicable

Each DVB-S receiver must be assigned a subscriber number (SCR no.) and the associated subscriber frequency (SCR freq.) from the frequency bank (see channel router or its user's guide).

Each subscriber number and subscriber frequency may only be assigned once.

The DVB-S receiver in the TV set requests the data for the desired channel from the channel router.

Setting the SCR no. and SCR freq.

- Call up the TV menu with the **MENU** key.

- Use the red key to open the "Configuration" menu.
- Select "DVB-S" with the assigned numeric key.
- Press the **OK** key and the "Aerial facility" setup window opens.
- Select "Antenna" with the cursor control key and then set "Unicable" with the **V+ / V-** key.
- Use the cursor control key to select the SCR data for each receiver.
- Enter the required data with the numeric keys.
- Confirm the settings by pressing the **OK** key.
- Press the **EXIT** key to close the TV menu.



EXIT

2) Possible only on sets equipped with this function.

MENU



- 1 2 3
- 4 5 6
- 7 8 9
- OK

10.5.2 Setting the sat system, LNB supply voltage

The settings of the sat. antenna system must be reported to the TV set in the “Configuration” menu. It is essential that the settings are carried out in ascending sequence LNB supply voltage, DiSEqC system ...etc as shown in the right column.

LNB supply voltage

The LNB supply voltages are permanently set for selection of the polarisation (horizontal H = 18V, vertical V = 14V). Normally, you do not need to carry out any change.

If the correct voltage supply of the LNB is no longer guaranteed as a result of a long antenna cable, the supply voltage can be increased by 1V with the line compensation.

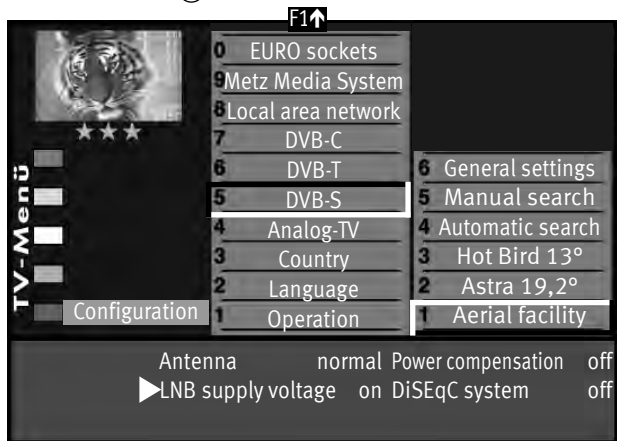
If changes are necessary, please take the following setting steps into consideration.

Changing the settings

- Call up the TV menu with the **MENU** key.
- Use the red key to open the “Configuration” menu.
- Select “DVB-S” with the assigned numeric key.
- Press the **OK** key and the “Aerial facility” setup window opens.
- Select “LNB supply voltage” with the cursor control key and then switch the LNB supply voltage on or off with the **V+ / V-** key.

- Confirm the settings by pressing the **OK** key.
- Press the **EXIT** key to close the TV menu.

If the TV set is connected to a joint system, the LNB supply voltage must always be set to “Off”.



EXIT

2) Possible only on sets equipped with this function.

MENU



10.5.3 Set SAT system, DiSeqC system

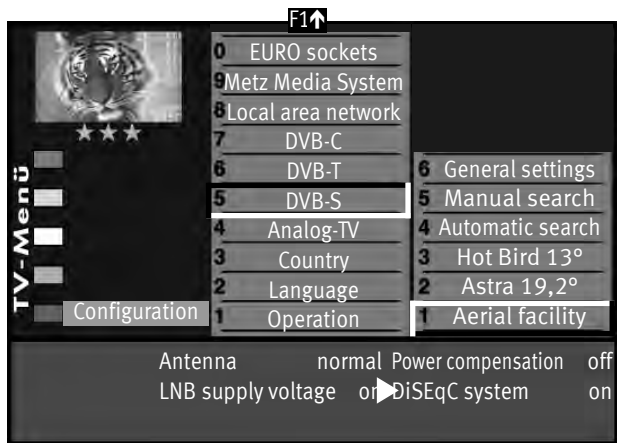
With “DiSeqC” digital management of the satellite system via the existing antenna cable is possible and is a prerequisite for the reception of more than two satellites (e.g. Astra, Eutelsat, Hotbird).

Management of the satellite system without “DiSeqC” is no longer possible from three satellites (e.g. ASTRA 19.2°, Eutelsat 16°, Hotbird 13°).

This menu item can no longer be selected with a 2 menu (see Chapter 27).**

Switching DiSeqC system on, -off

- Call up the TV menu with the **MENU** key.
- Use the red key to open the “Configuration” menu.
- Select “DVB-S” with the assigned numeric key.
- Press the **OK** key and the “Aerial facility” setup window opens.
- Select “DiSeqC” with the cursor control key and then use the **V+ / V-** key to set DiSeqC system on or off.
- Confirm the settings by pressing the **OK** key.
- Press the **EXIT** key to close the TV menu.



EXIT

2) Possible only on sets equipped with this function.

MENU



10.5.4 Set SAT system, selecting a satellite

Up to four satellites can be set in the “Configuration” menu if “DiSEqC” is switched on.

The LNB frequency serves as toggle switch for the frequency band (high band - low band).
The standard factory settings are low band 9.75 GHz and high band 10.60 GHz.

Setting additional satellites

- Call up the TV menu with the **MENU** key.

- Use the red key to open the “Configuration” menu.
- Select “DVB-S” with the assigned numeric key.
- Select “Satellite B” with the assigned numeric key.
- Set the desired satellites with the **V+ / V-** key.
The common satellites are called up in order and the accompanying symbol rates set automatically.
- Select “low or high band” with the cursor. The settings depend on the components used of the satellite system. Please consult the data sheet or sticker of the LNB(s) used for the settings required.
- Confirm the settings by pressing the **OK** key.
- Press the **EXIT** key to close the TV menu.



EXIT

MENU



- 1 2 3
- 4 5 6
- 7 8 9
- 0

10.6 SAT channel search, automatic

The reception range is searched for TV channels and radio channels in the automatic channel search. The channels found are stored in a TV channel and radio channel table. See Chapter 21 for DVB radio mode.

You can move or delete channels that are found if you are not satisfied with the order. See Chapter 12 “Sort channels”.

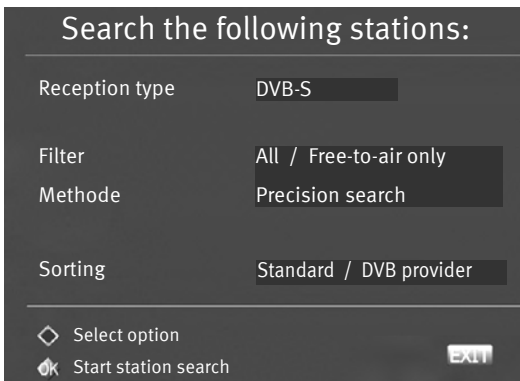
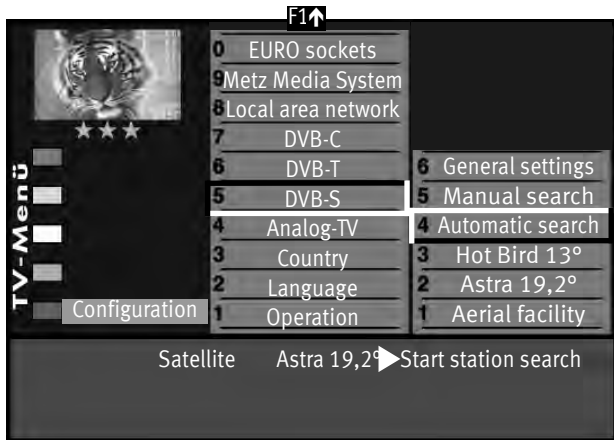
The search only works properly if the LNB frequencies have been correctly set and saved.

Carrying out an automatic search

- Call up the TV menu with the **MENU** key.
- Use the red key to open the “Configuration” menu.
- Select “DVB-S” with the assigned numeric key.
- Select “Automatic search” with the assigned numeric key.
- Select the desired satellites in the setting window with the **V+ / V-** key if a selection is possible.
- Select the menu line “Start station search” with the cursor control key.
- Press the **OK** key and confirm the question about the channel search with the corresponding numeric key:
 - ① free-to-air programs³⁾
 - ② all programs³⁾
 - ③ free + CICAM-programs³⁾

After pressing the corresponding numeric key the channel search begins. A search is carried out for the channels and presented in a station table. If necessary, the channels can also be sorted, moved, or deleted.

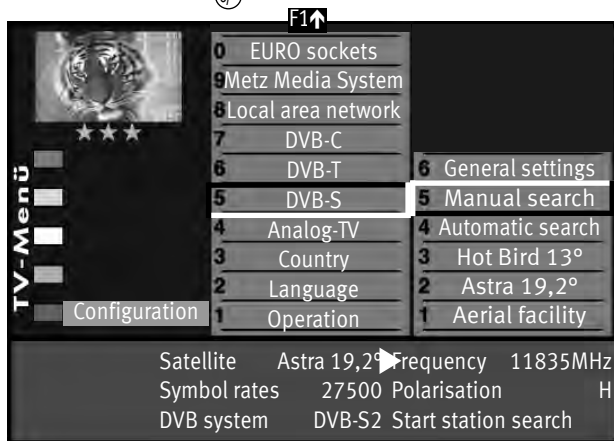
See Chapter 12 for this.





10.6.1 SAT channel search, manual

During the manual channel search the frequency, symbol rate and polarisation of the channel to be set must be known. Find out about the channel data e.g. at “www.lyngsat.de”.



Carrying out a manual search

- Call up the TV menu with the **MENU** key.
- Use the red key ***** to open the “Configuration” menu.
- Select “DVB-S” with the assigned numeric key.
- Select “Manual search” with the assigned numeric key.
- The cursor is at “Satellite.” If you have more than one satellite to choose from, set the satellite with the **V+ / V-** key.
- Select the data information (e.g. frequency) that is to be entered with the cursor control key in the setting window.
- Enter the corresponding data information (e.g. 11836) with the numeric keys or the key **V+ / V-**.

👉 For an HD channel search, the information for the DVB system (e.g. DVB-S2) must also be entered.

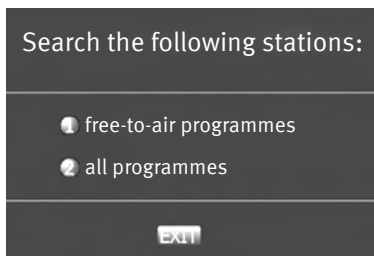
- If all the data has been entered, select the menu line “Start channel search” in the setting window with the cursor control key.
- Press the **OK** key and confirm the question about the channel search with the corresponding numeric key:

- ① free-to-air programs³⁾
- ② all programs³⁾

After pressing the corresponding numeric keys, the channel search begins.

If necessary, the channels can also be sorted, moved, or deleted.

See Chapter 12 for this.



³⁾ See glossary for an explanation.



10.7 Updating channel search data

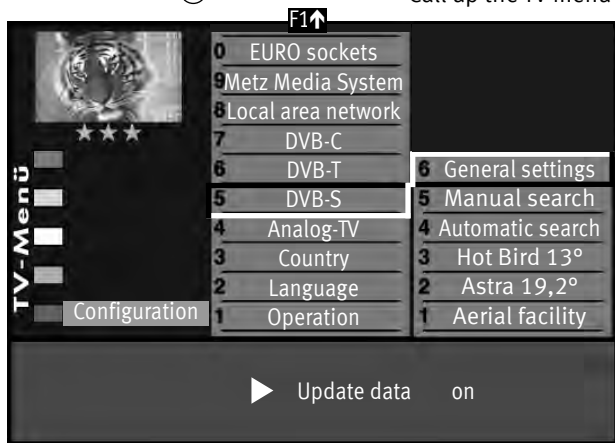
In the menu item “General settings” you can determine whether in the event of changes of channel parameters the data is to be updated in the non-volatile memory of the TV set too or not.

This update affects channels that change their broadcasting parameters for broadcasting regional programs during the regional window.

Setting a data update

- Call up the TV menu with the **MENU** key.

- Use the red key to open the “Configuration” menu.
- Select “DVB-S” with the assigned numeric key.
- The cursor is at the menu line “Aerial facility”.
- Select “General settings” with the assigned numeric key.
- In the setting window set “Update data” to “On” with the key **V+ / V-**.
- Confirm the settings by pressing the **OK** key.
- Press the **EXIT** key to close the TV menu.



2) Possible only on sets equipped with this function.




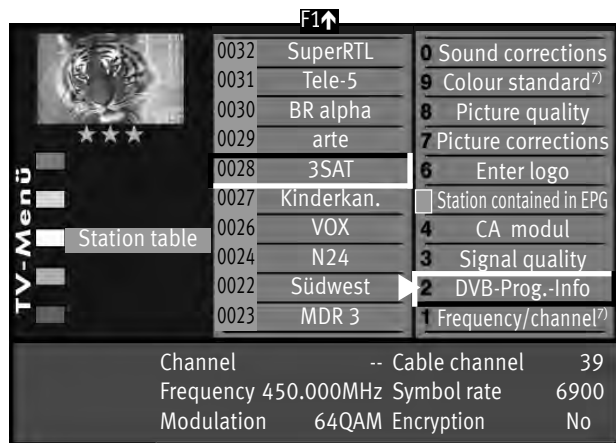
10.8 DVB Prog. Info. and Signal quality

The displays for the DVB prog. info or signal quality are for informational purposes only. DVB prog. info. shows the data for the displayed channel.


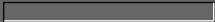
The signal quality display is not directly related to the picture quality.

The bit error rate fluctuates between the transponders and increases if a rain front is approaching, for example.

- Select the program position for the DVB prog. info or signal quality that is to be displayed.
- Press the **MENU** key. The TV menu is displayed.
- Press the  key. The channel table menu appears on the screen and the active program position is selected.
- Press the **F2** key.
- Select the right column with the cursor control key.
- Use the assigned numeric key to select the DVB prog. info. or the signal quality menu item.
- Press the **EXIT** key to close the TV menu.



Satellite	Astra 19,2°	Frequency	11362MHz
Symbol rates	22000	Polarisation	H
Encryption	No	DVB system	DVB-S2

Signal level	51%	
Bit error rate	0%	
C/N	14.6 dB	



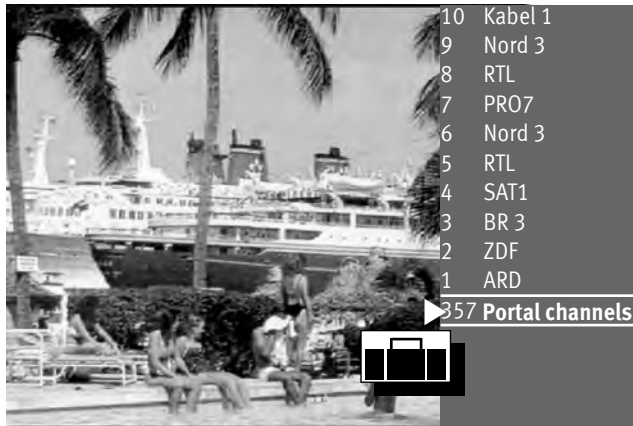
7) Available only for analogue stations !

10.9 Portal channels in DVB

Various pay TV channels broadcast portal channels. These portal channels are filled with sub-channels or optional channels.




During the channel search (see Ch. 10) the setting “All” or “free+CICAM” must be set in the “Search settings” so that these channels can also be found.



After a channel search the portal channels and accompanying optional channels (may also be designated as SID=xy in the channel table) are shown in the channel table at various program positions.

We have programmed a simple method for you to find the optional channels quickly.

If you select a portal channel via the channel table, a suitcase symbol appears next to the channel logo.

By repeatedly pressing the white key , this suitcase can be opened. All optional channels then appear which are included in this suitcase in the channel table.




Other channels are not simultaneously displayed. As a result, you can switch back and forth quickly between the optional channels.

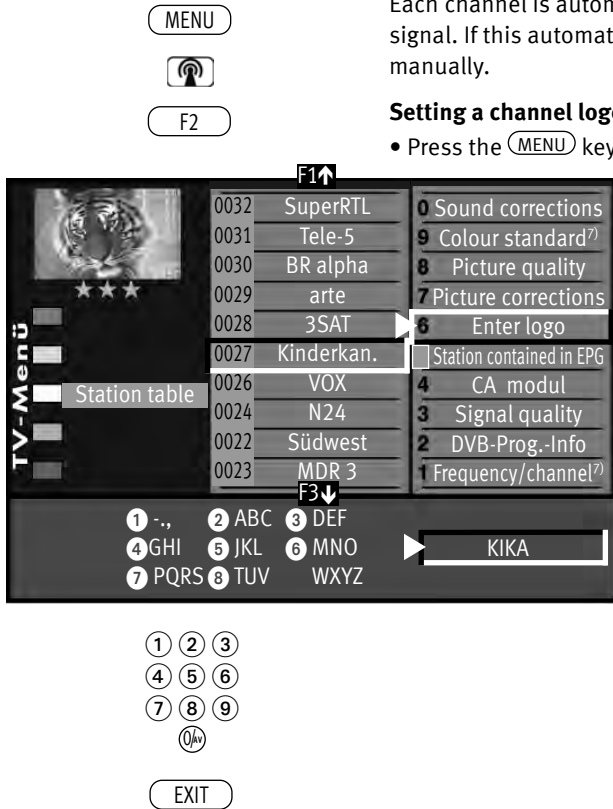
11 Channel logo

Each channel is automatically allocated a channel logo with a maximum of 15 spaces via the TV signal. If this automatic function does not work or you would like a different logo, it can be changed manually.

Setting a channel logo

- Press the **MENU** key.

- Use the white key  to call up “Station table”.
- Press the **F2** key and release the channel table for editing.
- Select the channel desired.
- Press the **OK** key and switch to the right column.
- Select “Logo entry” with the assigned numeric key.
- The individual letters/numbers can be selected with the cursor control key left/right.
- The individual letters can be deleted with the red key  or the entire logo with the key .
- Set the desired logo by repeated pressing of the individual numeric keys. Lower-case letters are shown after the upper-case letters.
- Save the setting with the **OK** key.
- Press the **EXIT** key to close the TV menu.




7) Available only for analogue stations !

12 Sorting channels

12.1 Copying, Moving, Deleting Individual Stations

Individual channels in the channel table can be moved, copied or deleted.

Copying, moving, deleting individual channels

- Call up the TV menu with the **MENU** key.
- Use the white key  to retrieve the channel table.
- Select a channel with the cursor control key that is to be copied, moved, or deleted.
 - Press the **OK** key and mark the channel (prog. 006 in the example).


Copy:

- Select the new location in the channel table with the cursor control key where the channel is to be inserted.
- Copy the channel to this location with the **V+** key. Consequently, the channel copied is present twice; at the new location and the old location.




Move:

- Select the new location in the channel table with the cursor control key where the channel selected is to be moved.
- Use the **V-** key to move the channel to this location.

Delete:

- If the selected channel is to be deleted, then press the key .

MENU





F1↑

F1↑

F3↓

TV-Menü

Station table

Select station with OK (hold down to select a block). Select new position with the cursor.
- move/ + copy,  delete.
Delete all marks with 



EXIT

- After editing, close the “TV menu” with the **EXIT** key.

12.2 Sorting channels, block-by-block

Several channels can also be moved, copied or deleted simultaneously in the channel table.



Copying, moving, deleting multiple channels

- Call up the TV menu with the **MENU** key.
- Use the white key to retrieve the channel table.
- Select the first channel that is to be copied, moved, or deleted with the cursor control key.
- Press the **OK** key and mark the channel (prog. 005 in the example).
- Select the last channel with the cursor control key that is to be copied, moved or deleted (prog. 0008 in the example).

- Depress the **OK** key until all channels between the first and last channel have been marked. A block with several channels has now been marked.

Copy:

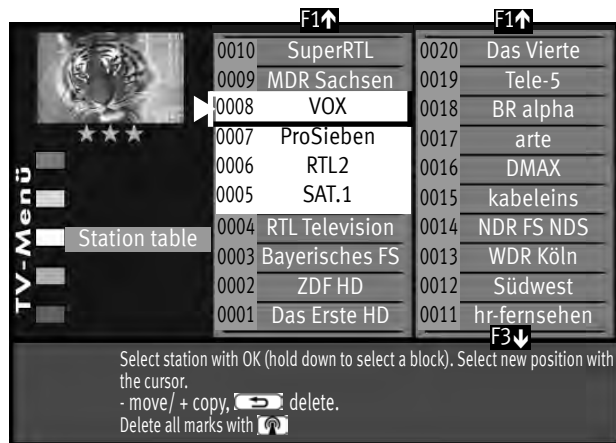
- Use the cursor control key to select the new position in the station table after which the selected stations are to be inserted.
- Copy the selected stations to this location with the **V+** button. This means that the copied block of stations is listed twice in the table.

Move:

- Select the new location in the channel table with the cursor control key to which the marked channel block is to be moved.
- Use the **V-** key to move the channel block to this location.

Delete:

- If a marked block of channels is to be deleted, press the key.
- After editing, close the “TV menu” with the **EXIT** key.



EXIT

13 Program selection



13.1 Program selection and program position administration

The TV set can administer a maximum of 3000 TV and 3000 radio program positions. You can select these program places with the numeric key, the cursor control key or via the station table.



When selecting via the numeric keys, the first numeric keys pressed indicates the fourth position after the decimal point. If fewer than 1000 program positions exist, the entry automatically moves to the third position after the decimal point. If fewer than 10 program positions exist, the entry automatically moves to the first position after the decimal point. After pressing a numeric key, you have a time window of three seconds to press additional numeric keys. The program can be changed immediately by pressing the key.

13.2 Program selection via program table

The program table can be called up with the white key in the TV or radio mode.



- Programs can be selected with the cursor key or numeric key in the table displayed. It is possible to skip to the next or last 15 programs with the cursor control key. You can display the program selected with the key.
- A key pad is displayed as a result of repeated pressing of the white key . The channel table can be ordered alphanumerically with the corresponding key.
- All HD channels saved in the station table are displayed by pressing the blue key . By renewed pressing of the blue key all channels are once again displayed in the station table.
- By selecting another channel using the cursor control key and pressing the green key , you can see the short information of the channel on the program and the start and end times (only DVB channels, not analogue channels).
- By using the joker character % you can look for text characters inside the channel name.

For example, enter “%FER” and all channel names are listed in which the character string “FER” occurs, e.g. “hr-fernsehen”, “SWR Fernsehen”.

13.3 Programme information (... on now)

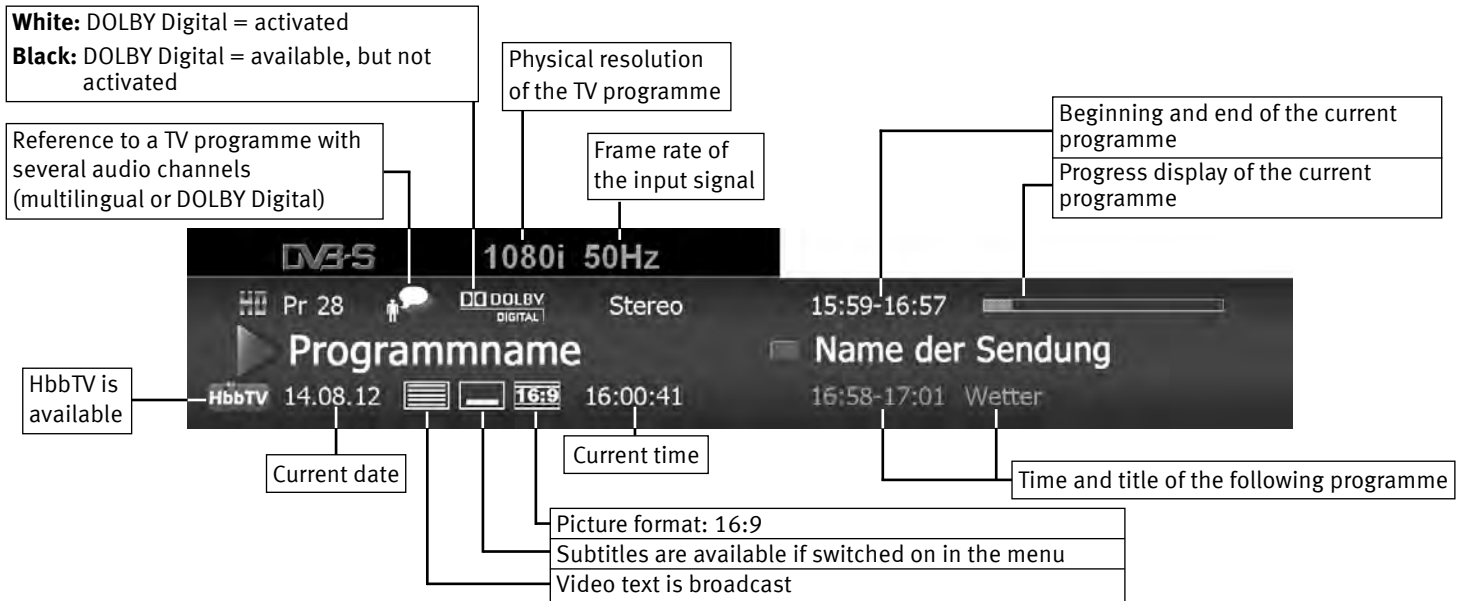
A pane appears at the bottom of the screen after switching to a new programme position or pressing the green key. The pane shows the following information:

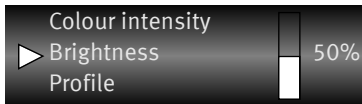
- programme place number, audio mode (stereo/mono), programme start and end time, progress bar, channel, channel name, date and time of day, time and name of next programme.

Pressing the green key calls up more information about the current programme provided one is being broadcast.

Pressing the green key again displays additional information about the programme provided one is being broadcast.

To hide the information press the key or wait about three seconds.





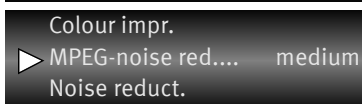
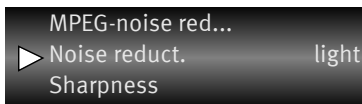
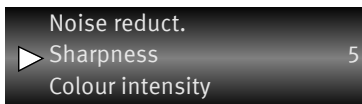
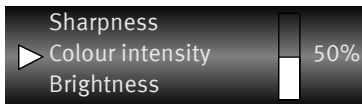
14 Everyday handling

14.1 Changing picture settings

The picture settings can be accessed via the blue key . The settings box with the individual functions (see picture) appears on the key left of the screen.

Select the desired function using the cursor key and adjust it with the **V-/V+** key.

The individual picture characteristics can also be saved as default values for all programs. See Chapter 17.1.



14.2 Volume settings

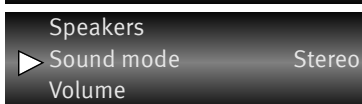
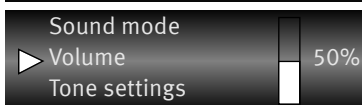
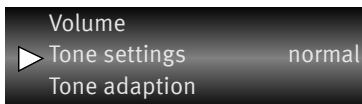
Use the **V+/V-** key to change the volume.

14.3 Changing the sound settings

The sound settings can be accessed via the yellow key . The settings box with the individual functions (see picture) appears on the key left of the screen.

Select the desired function using the cursor control key and adjust it with the **V-/V+** key.

The individual sound characteristics can also be saved as default values for all programs. See Chapter 18.1.



The settings that are made here are only temporary and are not saved.

If the TV set is switched to stand-by mode or switched off with the power switch, all settings are reset to the preset default values

MENU



2



15 Time settings

15.1 Timer control

*In a 2** menu (see Chapter 27) the menu items “Switch-on time” and “Switch-off time” cannot be adjusted.*

In the menu item “Timer control” a switch-on time, switch-off time and sleep time (switch off after...) can be set.

The switch-on time switches on the TV set automatically at a time you set.

The switch-off time switches off the TV set automatically at a time you set.

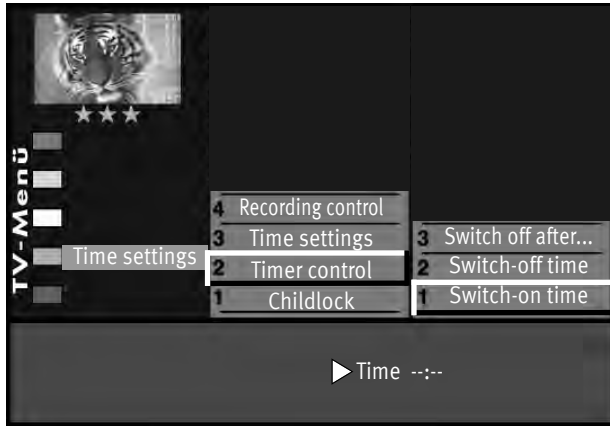
The sleep timer (switch off after...) switches the TV set off after a period you set (15 min steps).

Setting switch-on time, switch-off time

- Call up the TV menu with the key.
- Open the menu “Time settings” via the green key .
- Select “Timer control” with the assigned numeric key.
- Press the key and enter the time in four digits with the numeric keys.
- Save the setting with the key.
- Press the key to close the TV menu.

When the time of the “Switch-on time” is reached, the TV set is switched on from the stand-by mode (red LED on). The automatic switching on must be activated with any key of the remote control, otherwise the TV set switches back to stand-by mode after about 10 minutes. This ensures that the TV set does not remain switched on when you are not at home.

The programmed switch-on/switch-off time must be deleted in the menu with the key if the process is not to be repeated every day.



① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨



EXIT

15.2 Setting the Time and Date






Normally, the TV set will determine the current date and time from the Teletext signals of the currently selected station (providing this station sends Teletext).

Note: For this the device must be turned on with the mains switch.

If this is not the case, or if an incorrect date or time is displayed, you can set the date and time manually.

In almost all cases, you will not need to do this. Even the changeover between winter time and summer time is executed automatically.

Setting the time and date manually

- Call up the TV menu with the  key.
- Open the menu “Time settings” via the green key .
- Select “Time settings” with the assigned numeric key.
- Press the  and then, in the setting window, enter the current time with the numeric keys.
- Press the  key to save the settings.
- Press the  key to close the TV menu.

The local time offset is the difference between the local time where the TV set is installed and Greenwich Mean Time (GMT). The TV set normally detects this time offset and also the

additional changeover to summer time.

The time needs to be set manually only if it is not detected automatically.

MENU



EXIT

15.3 Recording Control for PVR Recordings

*In a 2** menu (see Chapter 27) the menu items “lead time” and “overrun time” cannot be adjusted.*

In the menu item "Recording control", you can set a lead time and an overrun time for timer recordings.

Example: You want to record a TV programme on the internal hard disk or, via USB recording, on an external hard disk (also see Annex B) and you programme the recording timer with the EPG. According to the EPG (electronic programme guide, also see Chapter 25), the starting time for the recording is 21:10, and the end time is 21:35. To account for any delays in the programme, you set the lead and overrun times to five minutes each. That means that your recording begins at 21:05 (5 minutes lead time) and ends at 21:40 (5 minutes overrun time).

The TV set is automatically switched to the programme position from which the recording is to be made at a time which is the number of minutes programmed as the lead time before the programmed starting time for the recording.

At the end of the programmed recording time, the TV set remains set to this programme position for the period programmed as the overrun time.



Setting the lead time and overrun time


- Call up the TV menu with the key.
- Open the menu “Time settings” via the green key .
- Select “Recording Control” with the assigned numeric key.
- Press the key and then, in the setting window, use the V+/V- key to set the desired lead or overrun time.
- Press the key to save the settings.
- Press the key to close the TV menu.

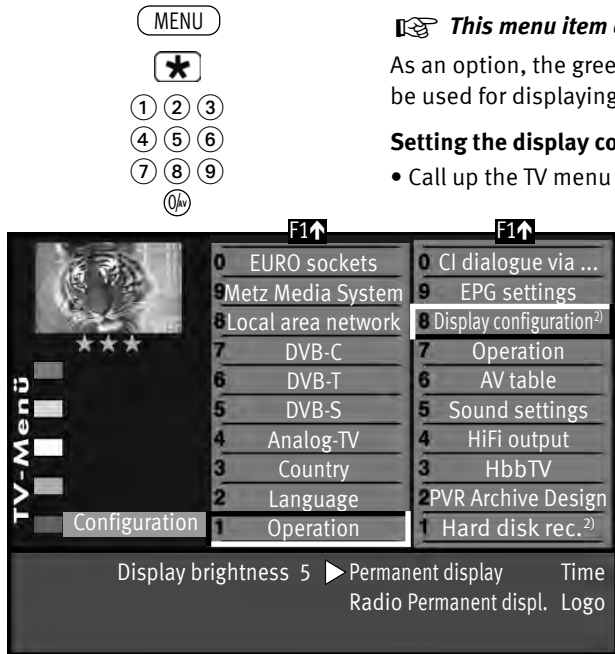
16 Display configuration

 **This menu item cannot be set in a 2** menu (see Chapter 27).**

As an option, the green display on the front of the TV set (depending on TV set configuration) can also be used for displaying the time or the channel logo.

Setting the display configuration²⁾

- Call up the TV menu with the **MENU** key.
- Use the red key  to open the “Configuration” menu.
- Press the **OK** key and switch to the right column.
- Select “Display configuration” with the assigned numeric key.
- Set the desired parameters in the settings window using the **V+ / V-** key.
- Press the **OK** key to save the new settings.
- Clear the TV menu with the **EXIT** key.




Permanent display: Logo

²⁾ Possible only on sets equipped with this function.

17 Picture settings





17.1 General picture settings



 **Various menu items cannot be set in a 2** menu (see Chapter 27).**


The picture settings (brightness, colour intensity, picture sharpness and noise reduction) can be set generally for all programs and saved as default values. If necessary, the default values can be called up again with the  key.

Calling up picture settings:

In the following example the brightness is changed. The picture settings colour intensity, picture sharpness and noise reduction can be set correspondingly.

- Press the  key.
The TV menu is displayed
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Press the  key and switch to the right column. The menu item “Brightness” is selected.
- Press the  key and change the setting in the setting window with the key **V+ / V-**.
- Use the cursor control key to select the third line “Use as default value”.

- If the newly set value is to be saved, then press the **V+ / V-** key and set “Yes”.
- Save the changed setting with the  key as default value.
- Press the  key to close the TV menu.

 **If setting the default values on the individual program positions does not produce any satisfactory result, a setting different from the default values can also be set.**
See chapter 17.1 and 17.2.

3) See glossary for an explanation.

MENU



EXIT

17.1.1 Selecting power options

Three different power options can be set in the “Power options” menu item.

MENU



2

Eco mode

The “Eco mode” setting is a good compromise between energy consumption and picture quality. In addition, the TV set switches to stand-by mode if no keys are pressed for four hours. “Eco mode” is the preferred setting for normal home operation.

Presentation

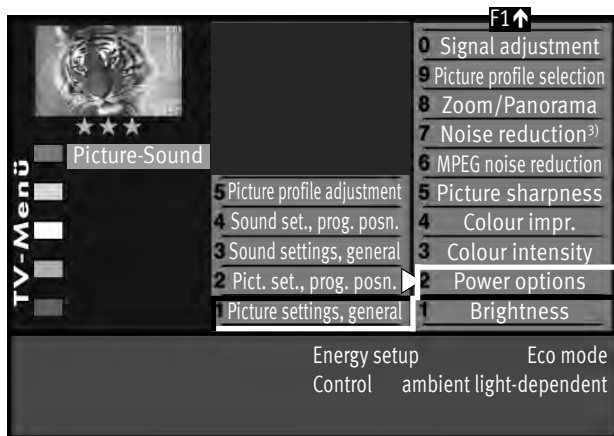
The “Presentation” setting is optimised for presentation rooms; it involves higher energy consumption, however. Automatic change-over to stand-by mode is not enabled.

Picture quality

In this mode, all controls can be used for picture maximisation in order to meet the needs of all individual conditions.

Setting a energy setup:

- Automatically after the initial start-up after pressing the red key or
- Press the **MENU** key. The TV menu is displayed.
- Press the blue key. The menu "Picture and sound" and the menu item “Picture settings general” are pre-selected.
- Select the menu item “Power options” with the numeric key **2**.
- Use the **V+ / V-** key to select the “Eco Mode“, “Presentation“, or “Picture Quality" setting.
- Save the power option set by pressing the **OK** key.



3) See glossary for an explanation.

Under the “Eco mode” setting the control types described under a) and b) - see next page – can in addition be set.

For the “Presentation” or “Picture quality” settings, the types of control described under a) to e) can be set as well.

a) Off:

Brightness is set to maximum (maximum power consumption).

b) Room light dependent:

The brightness is governed by the room light and always provides the same picture appearance regardless of changes in room lighting.

c) Depending on picture:

The brightness is governed by the picture content.

In the case of dark picture content, the brightness is reduced to increase contrast.

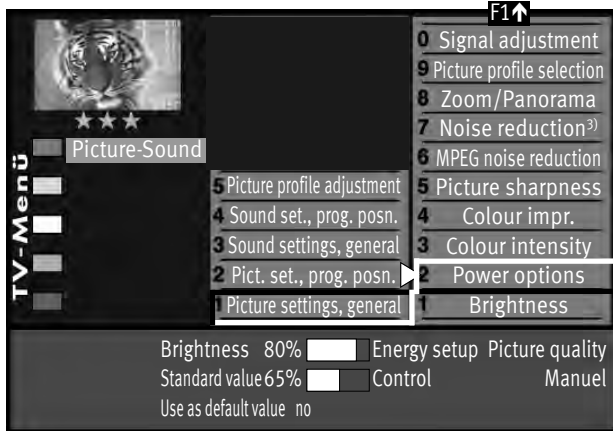
d) Manual:

The brightness is set to a fixed value in the menu.

e) Dependent on room light+picture content: Combination of b) room light dependent and c) picture content dependent.

The level control indicates the level of brightness currently in operation. The brightness of the screen is automatically adjusted, depending on the power option set. The brightness of the screen has influences the device’s power consumption.

- Press the **EXIT** key to close the TV menu.



EXIT

3) See glossary for an explanation.

MENU



17.1.2 Configuring picture profiles


Picture profiles are a combination of very special picture parameters that make it possible to always create the best picture reproduction quality for different types of programs or for replaying from different video sources.

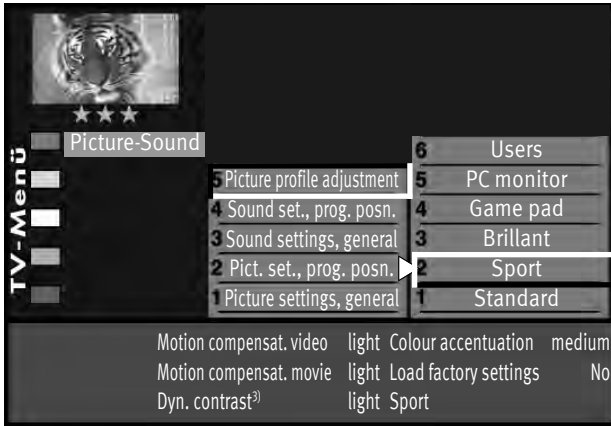
The “Standard” picture profile is a good compromise for all types of transmission, and is set at the factory.

In order to obtain the maximum picture reproduction quality in particular cases, it is useful to assign the appropriate picture profile to a specific application.

If you are technically inclined, you can also adjust each individual picture profile yourself and create a separate additional picture profile according to your individual taste.

Picture profile settings:

- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “General picture settings” are pre-selected.
- Use the assigned numeric key to select the “picture profiles adjustment” menu item.
- Use the assigned numeric key to access the picture profile that is to be changed.



EXIT

- Use the cursor control key to access the menu item that is to be changed.
- Change the setting with the **V+ / V-** key.
- Press the **OK** key to save the new settings.
- Press the **EXIT** key to close the TV menu.

3) See glossary for an explanation.

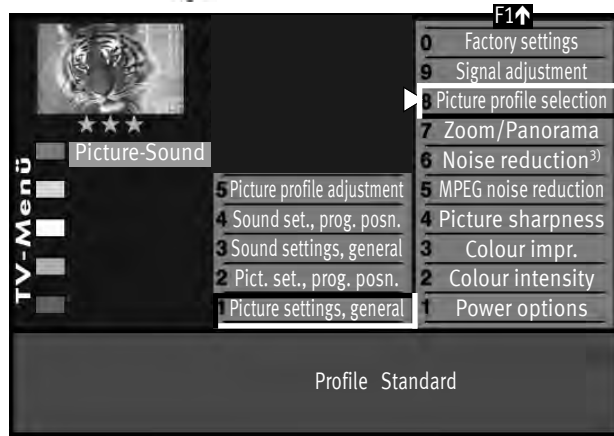
17.1.3 Assigning a selected picture profile

The picture profiles that were set up earlier can now be generally assigned to all or only individual program positions.



Assigning a selected picture profile:

- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.




- Press the **OK** key and switch to the right column.
- Select the menu item “Picture profile selection” with the cursor control key.
- Press the **OK** key and change the settings for “Picture profile selection” with the **V+/V-** key.
- Press the **OK** key to save the new settings.
- Press the **EXIT** key to close the TV menu.

A picture profile can also be temporarily changed during a program without the change being saved. See Chapter 14.1.



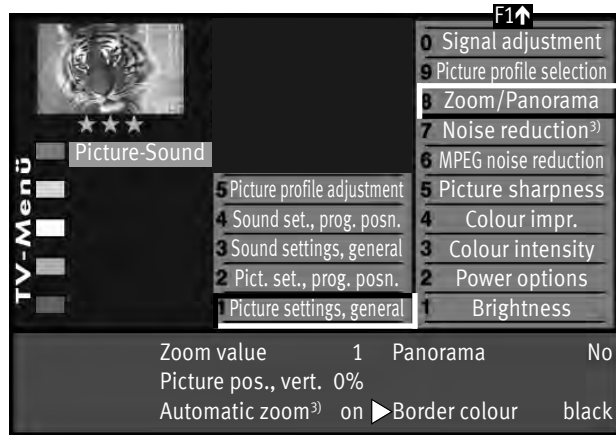
3) See glossary for an explanation.

17.1.4 Adjusting border colour


 **Various menu items cannot be set in a 2** menu (see Chapter 27).**

Displays that do not fill the screen produce black edges. These margins can be changed to a grey tone to avoid “image sticking”³⁾.

Displaying the picture in 4:3 format, for example, produces these black margins at the left and right without picture content



Adjusting border colour:


- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Press the **OK** key and switch to the right column.
- Select “Zoom/Panorama” with the assigned numeric key.
- Use the cursor control key to select the desired menu items.
- Change the settings for the border colour with the **V+/V-** key.
- Press the **OK** key to save the new setting.
- Press the **EXIT** key to close the TV menu.



EXIT


³⁾ See glossary for an explanation.


17.1.5 Setting zoom/panorama

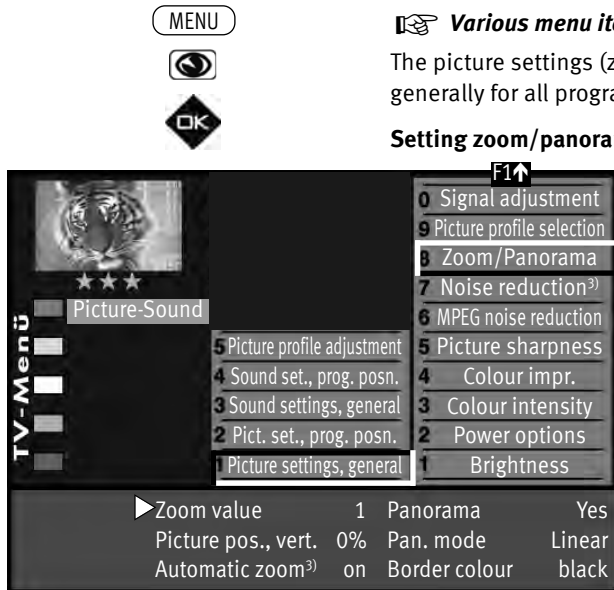
 **Various menu items cannot be set in a 2** menu (see Chapter 27).**

The picture settings (zoom picture position vertical, automatic zoom and panorama) can be set generally for all programs and saved.

Setting zoom/panorama mode:

- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Press the **OK** key and switch to the right column.
- Select “Zoom/Panorama” with the assigned numeric key.
- Use the cursor control key to select the desired menu items.
- Change the settings for the “Zoom/panorama” with the **V+/V-** key.
- Press the **OK** key to save the changed setting.
The factory setting is shown in the picture.
- Press the **EXIT** key to close the TV menu.

 **The functions “Panorama” and “Zoom” can also be combined with each other.**



3) See glossary for an explanation.



17.1.6 MPEG noise reduction

The menu item “MPEG noise reduction” is not displayed if MPEG noise reduction has already been changed in the menu item “Pict. Set., prog.posn”.

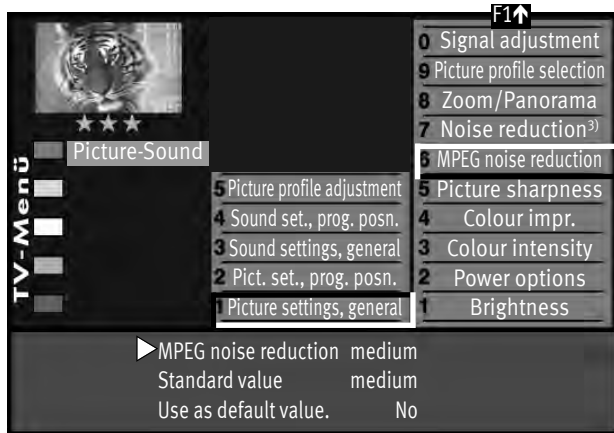
System related digital picture errors can occur in TV programs that were produced digitally. These picture defects can appear as a rectangular pattern (formation of tiny blocks) in moving areas. These picture faults can be reduced using MPEG noise reduction. The rectangular pattern (formation of tiny blocks) can be corrected in the “MPEG noise reduction” menu item.

Setting MPEG noise reduction:

- Press the **MENU** key.

The TV menu is displayed.

- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Press the **OK** key and switch to the right column.
- Select the menu line “MPEG noise reduction” with the assigned numeric key.
- In the setting window, change the setting with the **V+ / V-** key.
- Use the cursor control key to select the third line “Use as default value”.
- If the newly set value is to be saved, then press the **V+ / V-** key and set “Yes”.
- Save the changed setting with **OK** key as default value.
- Press the **EXIT** key to close the TV menu.



3) See glossary for an explanation.

MENU

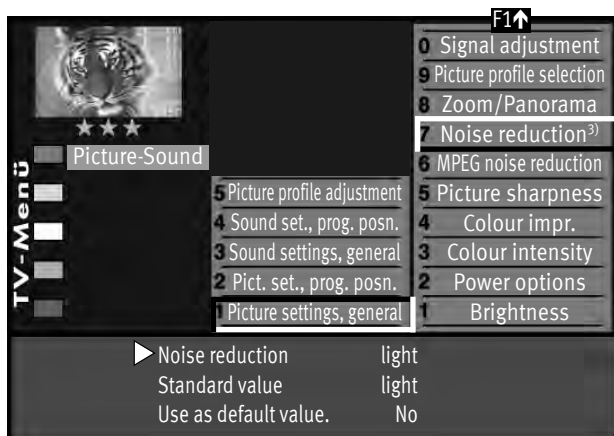


17.1.7 Noise reduction

Faults can occur in the event of unfavourable reception conditions, an antenna signal that is not strong enough or in very old films. Noise reduction can be enabled to compensate for a “noisy” picture.

Setting the noise reduction:


- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Press the **OK** key and switch to the right column.
- Select the menu item “Noise reduction” with the assigned numeric keys.
- In the setting window, change the setting with the **V+ / V-** key.
- Use the cursor control key to select the third line “Use as default value.”
- If the newly set value is to be saved as new standard value, then press the **V+ / V-** key and set “Yes”.
- Save the changed setting with the **OK** key as default value.
- Press the **EXIT** key to close the TV menu.



EXIT

3) See glossary for an explanation.





17.2 Picture settings for program via the TV menu

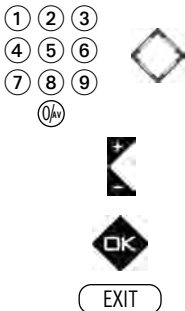
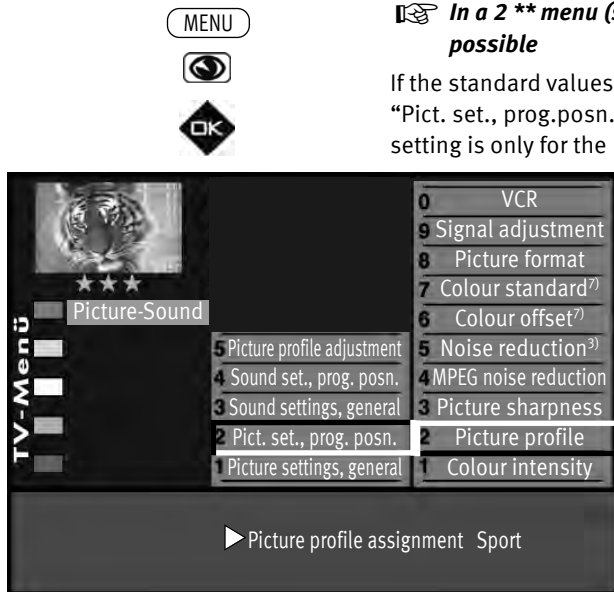
 **In a 2 ** menu (see chapter 27) picture settings for a particular program position are not possible**

If the standard values for individual program positions do not lead to a satisfying result, a deviating “Pict. set., prog.posn.” for almost all “Picture settings general” can be carried out. This different setting is only for the program position selected and cannot be overridden by the standard values set.

In addition to the “Picture settings general” there are the differing picture settings colour offset, colour standard and VCR.

Divergent picture settings for this program position:

- Select the program position whose picture settings you wish to adapt.
- Press the  key. The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Select the menu line “Pict. set., prog.posn.” with the assigned numeric key.
- Select the individual menu items with the assigned numeric keys.
- In the setting window, change the setting with the **V+ / V-** key.
- Press the  key to save the changed setting.
- Press the  key to close the TV menu.



3) See glossary for an explanation.

7) Available only for analogue stations !



17.3 Picture settings for program via station table

Divergent picture settings for this program position:

- Select the program position whose picture settings you wish to adapt.
- Press the **MENU** key.
The TV menu is displayed.



- Press the white key . The channel table menu appears on the screen and the active program position is selected.
- Press the **F2** and release the channel list for editing.
- Select the right column with the cursor control key.
- The individual menu items can be selected with the assigned numeric keys.
- Change the setting with the **V+ / V-** key.
gen. means here that the general picture setting, see page 47, is overwritten with a new setting.

The divergent settings set here remain saved compared to the default values.

- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.



³⁾ See glossary for an explanation.

⁷⁾ Available only for analogue stations !

MENU



1 2 3

4 5 6

7 8 9



18 Sound settings

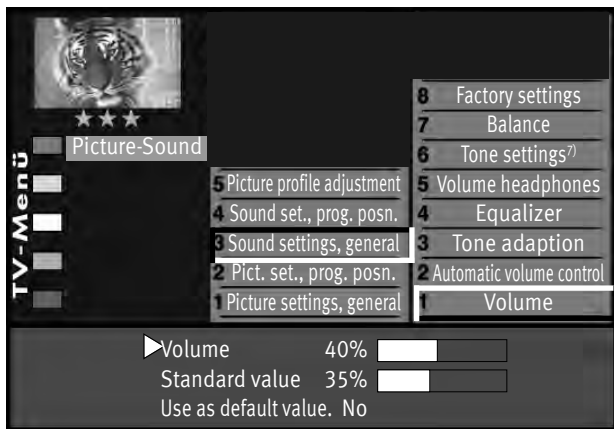
18.1 Volume

Various menu items cannot be set in a 2 menu (see Chapter 27).**

The volume can be set generally for all programs and saved as default values. If necessary, the standard values can be called up again with the **OK** key.

Setting volume:

- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Select “Sound settings general” with the assigned numeric key.
- Press the **OK** key and open the menu item for editing.
- In the setting window, change the setting with the **V+ / V-** key.
- Use the cursor control key to select the third line “Use as default value”.
- If the newly set value is to be saved, then press the **V+ / V-** key and set “Yes”.
- Save the changed setting with the **OK** key as standard value.
- Press the **EXIT** key to close the TV menu.




EXIT

If setting the default values on the individual program positions does not produce a satisfactory result, a setting different from the default values can also be set. See chapter 18.3.

7) Available only for analogue stations !


18.1.1 Automatic volume adjustment


 **Various menu items cannot be set in a 2** menu (see Chapter 27).**

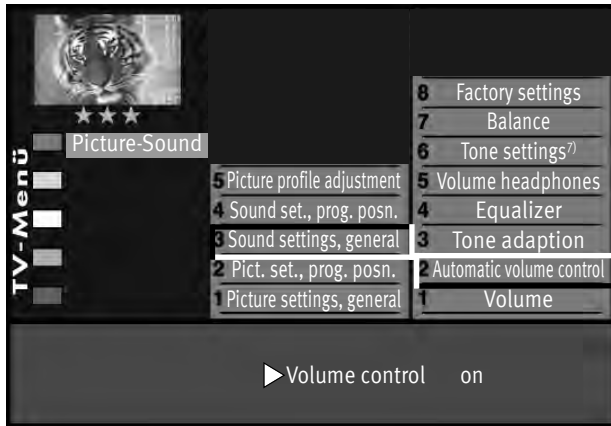
Various broadcasting channels broadcast advertising louder than the actual program. To avoid having to reach for the remote control during the many advertising breaks, you can switch on the automatic volume adjustment.

Consequently, volume differences can on the whole be balanced with volume adjustment switched on. The setting chosen here applies to all program positions.


Calling up volume adjustment:

- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “General picture settings” are pre-selected.
- Select “Sound settings general” with the assigned numeric key.
- Select “Volume control” with the assigned numeric key.
- In the setting window, change the setting with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.

 **The “Volume adjustment” in the menu “General sound settings” does not cancel the “Volume correction” in the menu Sound settings for pr...”.**



18.1.2 Sound adjustment

 **Various menu items cannot be set in a 2** menu (see Chapter 27).**

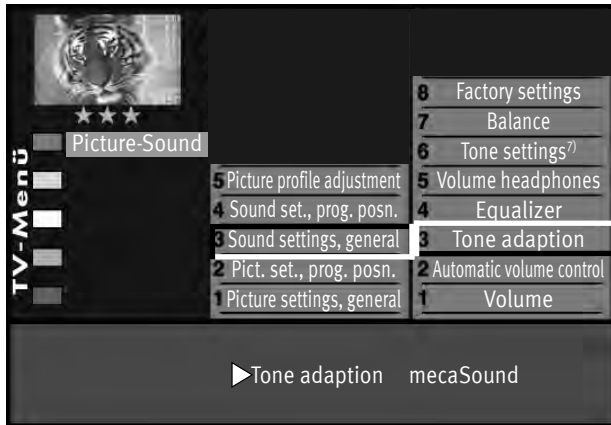
The sound playback can be changed with this menu item.

The following sound adjustment can be set:


Normal: sound playback in normal mode (Stereo or Mono).

mecaSound: virtual output increase and improved spatial playback.

mecaSurround: virtual surround sound. The efficiency of this effect is dependent on the source signal. By exploiting the characteristics of the human ear, the device attempts to generate a spatial audio impression by influencing the sound signal.



Calling up sound adjustment:

- Press the **(MENU)** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “General picture settings” are pre-selected.
- Select “General sound settings general” with the assigned numeric key.
- Select “Tone adaption” with the assigned numeric key.
- In the setting window, change the setting with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **(EXIT)** key to close the TV menu.





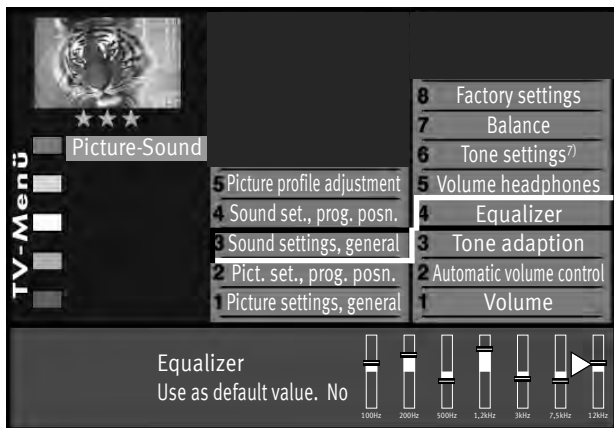
18.1.3 Equalizer

Various menu items cannot be set in a 2 menu (see Chapter 27).**

Sound frequencies can be individually adjusted to your personal tastes in the “Equalizer” menu.

Setting the equalizer:

- Press the **MENU** key. The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “General picture settings” are pre-selected.
- Select “Sound settings general” with the assigned numeric key.
- Select “Equalizer” with the assigned numeric key.
- Select the individual sliders with the cursor control key.
- Change the setting with the **V+ / V-** key.
- Select the menu item “Equalizer” with the cursor control key.
- Use the cursor control key to select the line “Use as default value”.
- If the newly set value is to be saved, then press the **V+ / V-** key and set “Yes”.
- Save the changed setting with the **OK** key use as default value.
- Press the **EXIT** key to close the TV menu.



MENU



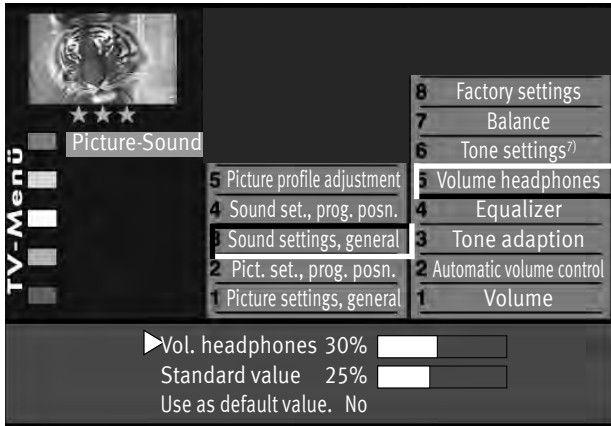
18.1.4 Headphone volume

Various menu items cannot be set in a 2 menu (see Chapter 27).**

The headphone volume can be set to a basic volume which can also be adopted as a standard value.
The device loudspeakers are not affected by this setting.

Calling up headphone volume:

- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Select “Sound settings general” with the assigned numeric key.
- Select “Volume headphones ” with the assigned numeric key.
- In the setting window, change the setting with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.

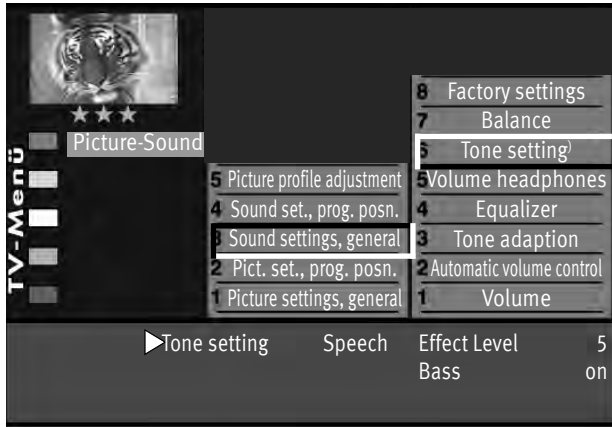


EXIT

MENU



- 1 2 3
- 4 5 6
- 7 8 9
- 0/AV



EXIT

18.1.5 Tone settings

Various menu items cannot be set in a 2 menu (see Chapter 27).**

In the menu "Tone Setting", the speech intelligibility can be adapted to your personal needs.

The tone setting can be set to "Automatic", "Normal" or "Speech". In order to make sense, the setting "Language" should be used for channels which broadcast predominantly speech programs (eg news) eg N-TV etc. In the "Speech settings", the effect level can be adjusted in 10 steps.

The "Bass" can be turned on or off. For music playback, the position "Normal" is recommended.


When set to "Automatic" a dynamic modulation is made of the speech intelligibility by evaluating the signal during the broadcast.

Selecting Tone settings:

- Press the **MENU** key. The TV menu is displayed.
- Press the blue key . The menu "Picture-Sound" as well as Picture settings, general are selected.
- Select "Sound settings, general" with the assigned numeric key.
- Select "Tone setting" with the assigned numeric key.
- In the setting window select the menu item desired with the cursor
- Change the setting with the **V+/V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.


18.2 Sound settings for program via TV menu


18.2.1 Volume correction

 **Various menu items cannot be set in a 2** menu (see Chapter 27).**

Broadcasting channels broadcast at different volumes. This volume difference can be adjusted through a correction of the volume setting. The adjustment is also retained when calling up the default values.

Setting volume correction:

- Press the **MENU** key. The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “General picture settings” are pre-selected.
- Select “Sound set., prog. posn.” with the assigned numeric key.
- Press the **OK** and change the setting in the setting window with the key **V+ / V-**.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.

 **The divergent settings can also be set or called up in the channel table menu.**

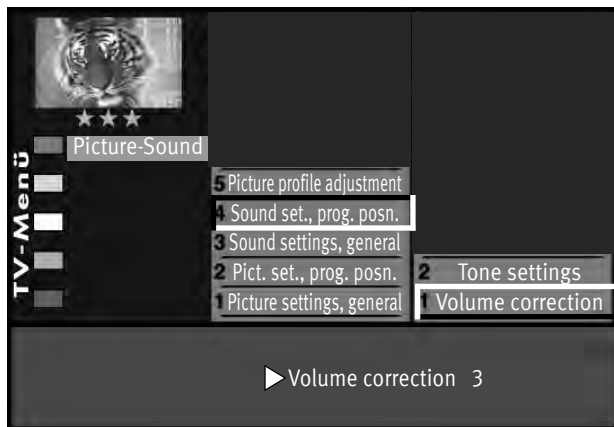
MENU



1 2 3

4 5 6

7 8 9



EXIT



18.2.2 Tone setting

Various menu items cannot be set in a 2 menu (see Chapter 27).**

The sound setting, as it was made in Section 18.1.5 for all programs can be changed here for a single program location. On presets that offer a mixed program, that speech and music share in mixed form, we recommend the "automatic" setting.

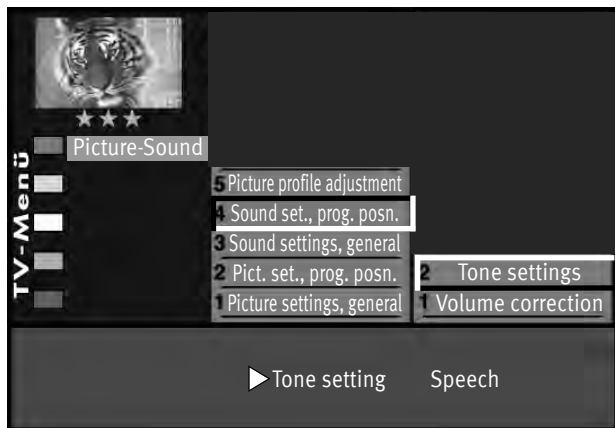
The "Automatic" setting dynamically adjusts speech intelligibility by analysing the signal while a programme is being broadcast.

The setting "Normal" is recommended for music playback.

Setting tone:

- Press the **MENU** key. The TV menu is displayed.
- Press the blue key . The menu "Picture-sound" and the menu item "Picture settings general" are pre-selected.
- Select "Sound set., prog. posn." with the assigned numeric key.
- Select "Tone settings" with the assigned numeric key.
- In the setting window, change the setting with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.

The divergent settings can also be set or called up in the channel table menu.





18.3 Sound settings for program via channel table

Various menu items cannot be set in a 2 menu (see Chapter 27).**

Sound corrections should be set if for example one channel broadcasts louder than others or one channel is only used for “Speech” e.g. a news channel.

Setting sound corrections:

- Select the program position whose sound settings you wish to adapt.
 - Press the **MENU** key. The TV menu is displayed.
 - Press the white key . The channel table menu appears on the screen and the active program position is selected.
 - Press the key **F2** and release the channel list for editing.
 - Select the right column with the cursor control key.
 - Select “Sound corrections” with the assigned numeric keys.
 - Change the setting with the **V+ / V-** key.
- gen.** means here that the general sound setting, see Chapter 18, is overwritten with a new setting.

The divergent settings set here remain saved compared to the default values.

- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.



EXIT

MENU



18.4 Program mute, preset value sound 2

In the menu “Sound settings” volume reduction (mute two-stage) can be set.

The activated mute function means the volume in the TV mode can be reduced in two stages with the mute key

Program mute, preset value sound 2

- Press the **MENU** key. The TV menu is displayed.
- Use the red key to open the “Configuration” menu.
- Press the **OK** key and switch to the right column.
- Select “Sound settings” with the assigned numeric key.
- In the setting window, change the setting with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.

In normal TV mode press the key mute

- once – the volume is reduced by 12 points.
- once more within the next five seconds – the volume is reduced to “00”.

- Press the mute key again and the volume is returned to the normal value.

Dual channel (audio description)

During films for the blind, the scenes are described in the dialogue intervals. Under “Dual channel”, select “Audio 2” if you want to receive films for the blind (with audio descriptions).



1 2 3

4 5 6

7 8 9




EXIT

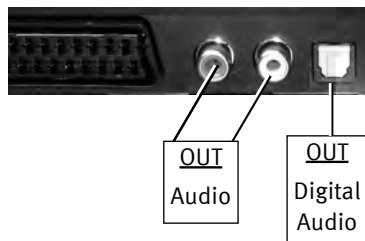
18.5 Hi-fi output

There are audio sockets (see picture) on the back of the TV set with which you can connect an AV device to the TV set.

Sound output is possible via a cinch cable or an optical audio cable (“Toslink”, available in an accessories shop) to the AV device.

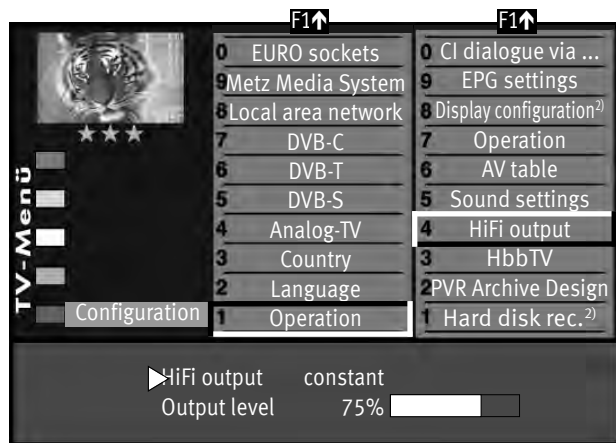
 **Settings in the “Hi-fi output” and “Sound settings” menu items are only necessary if the TV set is connected to AV devices, for example hi-fi receivers, radio headphones, surround decoders etc.**

The “hi-fi output” and “Sound settings” menu items are linked together. The link is described on pages 69, 70.



Hi-fi output settings

- Call up the TV menu with the **(MENU)** key.
 - Use the red key **(*)** to open the “Configuration” menu.
 - Press the **(OK)** key and switch to the right column.
 - Select the menu item “hi-fi output” with the assigned numeric key.
 - Set the desired parameters in the settings window using the **V+/V-** key.
 - Press the **(OK)** key to save the changed setting.
 - Press the **(EXIT)** key to close the TV menu.
- For normal TV mode, the yellow key **(M)** and the **V+/V-** key can be used to set “Speakers on”.



2) Possible only on sets equipped with this function.



18.6 Select loudspeaker

There are audio sockets (see page 119,120) on the back of the TV set with which you can connect an AV device to the TV set.

Settings in the “Hi-fi output” and “Sound settings” menu items are only necessary if the TV set is connected to AV devices, for example hi-fi receivers, radio headphones, surround decoders etc.

The “hi-fi output” and “Sound settings” menu items are linked together. The link is described on pages 78-80.

Speaker settings

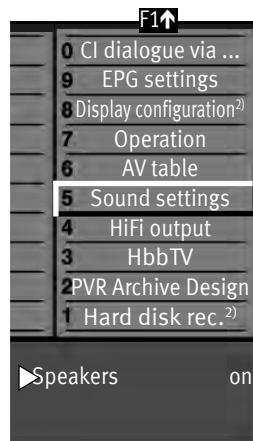
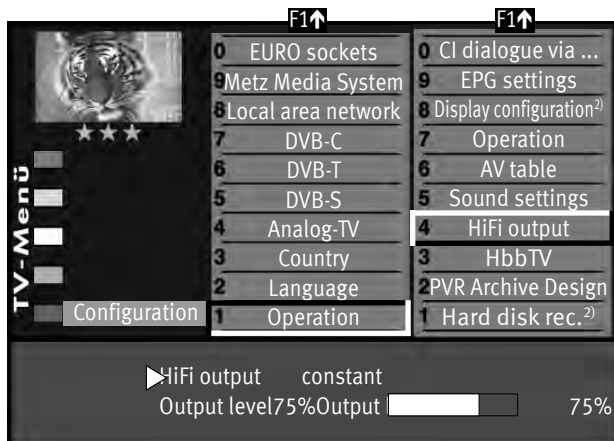
- Call up the TV menu with the **MENU** key.
- Use the red key to open the “Configuration” menu.
- Press the **OK** key and switch to the right column.
- Select “Sound settings” with the assigned numeric key.
- In the settings window select the menu item “Speakers” with the cursor control key.
- Set “Centre speaker²⁾” with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.



In TV mode the yellow key and the **V+ / V-** key can be used to set “Speakers” temporarily.

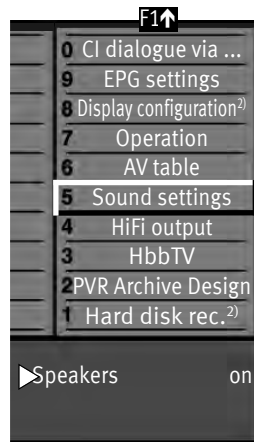
2) Possible only on sets equipped with this function.

18.6.1 Sound settings, overview

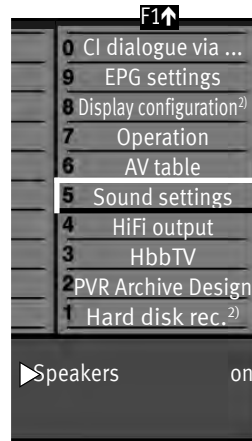


2) Possible only on sets equipped with this function.


“Hi-fi output”	“Sound settings”	
Hi-fi output “constant”	Speaker “On”	The volume on the “Cinch-AUDIO OUT sockets” on the back of the TV set remains “constant” at the % value set in the menu. Sound output also occurs via the speakers of the TV set. The volume of the TV set speakers can be changed with the V+ / V- key of the remote control.
	Speaker “Off”	The volume on the “Cinch-AUDIO OUT sockets” on the back of the TV set remains “constant” at the % value set in the menu. There is no sound output via the speakers of the TV set. The symbol for the mute setting does not appear on the screen. The volume cannot be changed with the V+ / V- key of the remote control..
	Speaker „Center ²⁾ “	The sound of an AV device connected to the "CENTER IN socket" (e.g. surround decoder) occurs via the speakers of the TV set. Hence the speakers of the TV set serve as "center speakers".



“Hi-fi output”	“Sound settings”	
Hi-fi output “variable”	Speaker “On”	The volume on the "Cinch-AUDIO OUT sockets" on the back panel of the TV set is adjustable. Sound output also occurs via the speakers of the TV set. The volume of the TV set speakers and the volume on the “AUDIO OUT sockets” can be changed with the V+ / V- key of the remote control.
	Speaker “Off”	The volume on the "Cinch-AUDIO OUT sockets" on the back panel of the TV set is adjustable. There is no sound output via the speakers of the TV set. The symbol for the mute setting appears on the screen. The volume on the “AUDIO OUT sockets” can be changed with the V+ / V- key of the remote control.



2) Possible only on sets equipped with this function.

“Hi-fi output”	“Sound settings”	
Hi-fi output „Headphone“	Speaker “On”	<p>The volume on the “Cinch-AUDIO OUT sockets” on the back panel of the TV set is adjustable. Sound output also occurs via the speakers of the TV set. The volume of the TV set speakers can be changed with the V+ / V- key of the remote control. Changing the volume level on the “AUDIO OUT sockets”:</p> <ul style="list-style-type: none"> - press the yellow key . - Select “Headph. Vol.” with the cursor control key. - Use the V+ / V- key to change the volume. <p>The headphone output on the front or side will also be changed.</p>
	Speaker “Off”	<p>The volume on the “Cinch-AUDIO OUT sockets” on the back panel of the TV set is adjustable. There is no sound output via the speakers of the TV set. The symbol for the mute setting does not appear on the screen. The volume on the “AUDIO OUT sockets” can be changed with the V+ / V- key of the remote control.</p>

18.7 Connecting headphones


The headphones connector is at the back on the left side. See page 120.

Radio headphones can also be connected to the AUDIO OUT sockets on the back of the TV set. See too page 120.

The sound settings for the radio headphones should then be set as described on page 71.


We recommend headphones with impedance that is not less than 32 Ω . For headphones with less impedance (approx. 8 Ω), the dynamic range is smaller.

The headphones volume can be saved as a default value (see Chapter 18.1.4).

 ***Setting the volume too high when using headphones or earphones can result in damage to the ears - including the complete loss of hearing.***

18.8 Sound 1, Sound 2

In dual channel programs, you can switch from Sound 1 to Sound 2.

Press the yellow key  often enough in TV mode until the sound function “Sound mode” is selected.

Set Channel 1 or Channel 2 with the **V+ / V-** key.

MENU



19 Automatic zoom

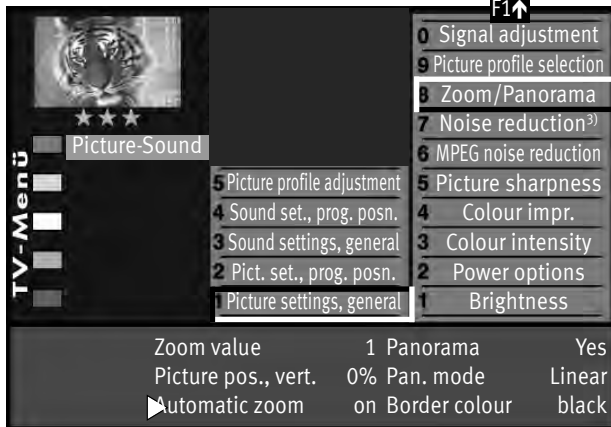
The menu item “Automatic zoom” cannot be set in a 2 menu (see Chapter 27).**

The active automatic zoom permits showing programs in wide screen format (e.g. programs in 16:9 format) as far as possible in a format filling manner on the screen.

If this function remains switched off, these film formats are not automatically adjusted.

Setting automatic zoom

- Press the **MENU** key.
The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Press the **OK** key and switch to the right column.
- Select “Zoom/Panorama” with the assigned numeric key.
- In the settings window select the menu item “Automatic zoom” with the cursor control key.
- Change the setting with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.



EXIT

3) See glossary for an explanation.

20 Video text

Video text is another free information service of the broadcasting channels. There are different ways of browsing in this electronic newspaper.


TEXT


Calling up video text

- Press the **TEXT** key. The card indexes (see picture) appear in all TOP channels (e.g. ARD, ZDF). The video text page 100 appears for non “TOP channels”.
- In the case of top channels the card indexes can be selected with the cursor control key or numeric keys.

- Open the selected card indexes with the **OK** key.

Controlling the videotext when pages of non-TOP channels are displayed

Blue key  to next subject (100 pages forwards).

Yellow key  to next chapter (10 pages forwards).

White key  to next page.

After pressing the coloured preselection key, you can also move to the next position correspondingly with the cursor control key or numeric key.

If particular pages are to be selected, enter the page number with the numeric keys. If video text sub-pages are available, the page numbers are shown as white. You can browse further in these video text pages with the cursor control key.

Split screen - TV picture / Video text

When a video text page is displayed, the screen presentation can be split by pressing the **TV/R** key. The video text page is shown on the right, on the left you can continue to watch the program running

By pressing the **TV/R** key again you can return to pure video text representation.

Double font size

The font size can be doubled with the key **F1** in video text. Pressing the key **F1** once increases the upper half of the text page. Pressing the key **F1** a second time switches to the lower half of the text page. If you press the key **F1** again, you return to the whole page view.



Quiz key or answer release

The function key **F2** is programmed to uncover concealed text, e.g. quiz solutions.

Stop page

A page switching further automatically can be stopped with the key **II** or **OK** key and once again released.

Cursor page selection

By pressing the **OK** key the page is stopped and the cursor appears next to the first three-digit page number. The cursor can be moved on the page displayed with the cursor control key. This function makes sense for content pages (e.g. page 100, 200 .. etc) in order to select particular headlines. When the cursor is on the desired page number, the page can be displayed by pressing the **OK** key.


Video text, place markers⁶⁾

As a video text reader, you will want to read particular pages repeatedly, e.g. stock market, news, weather, etc.

You can set markers according to your personal selection to find these pages quickly.

Call up the page that is to be provided with a marker.

- Press the red key ***** for “marking”. The video text page is provided with a marker. The number of the marker placed appears above the display window for the video text page. In the case of multiple pages, the marker is always placed and displayed on the corresponding sub-page.

 **A maximum of 10 markers can be placed on one program position.**

Video text, scroll by marks⁶⁾

In the opened video text the video text pages provided with markers can be browsed in sequence with the green key **G**.

You can move even more easily from the program running with the **TEXT** key. By pressing the **TEXT** key repeatedly, the video text pages with markers can be called up. The TV picture reappears after the last video text page with marker.

Video text, marker overview⁶⁾

If markers were set on a program position, the marker overview can be faded in and out with the key **F3**. The markers overview shows you where the markers are located.

The numeric keys can be used to select specific markers.

Video text, delete markers⁶⁾

Call up video text page whose marker is to be deleted. The marker can be deleted with the red key *****.

Video text, subtitles

The TV set provides the option of showing subtitles. When a program with subtitles begins the sender fades in the information on which panel the subtitles can be found.

- Open the video text with the **TEXT** key.
- In “top channels” the card index appears, press the **OK** key and open any page.
- Enter the page number on which the subtitles are to be broadcast with the numeric keys.

⁶⁾ Not possible with a set top box!

TV/R




21 Radio mode

If your TV set is connected to a router via the network socket (see also Note A), you can choose to listen to the radio on DVB or on the Internet.

Press the **TV/R** key to change from TV mode to DVB radio mode.

The "Radio source" menu is displayed. Use the numeric or cursor buttons to select your preferred radio source.

After about 30 seconds, the screen automatically turns dark. Any key stroke on the remote control switches the screen back on. After pressing the blue key , the screen remains switched on or off permanently.


Note: With the blue key , the screen can be switched on and off manually.

Press the **TV/R** key to change from Radio mode to TV mode.


21.1 DVB radio



During the channel search (see Chapter 10) an automatic search for the DVB radio programs occurs and they are saved at the radio level in a channel table.

Use the white  key to open the station table in DVB radio mode. Select a radio station using the cursor keys and press **OK**.

The radio table can be sorted (see Chapter 12) and the channel logos changed (see Chapter 11).


 **In principle, DVB radio programs can be treated just like DVB TV programs. Chapters 10 / 11 / 12 / 13 / 13.1 / 22.2 also apply to radio programs.**

21.2 Internet Radio

The "TuneIn Radio" application lets you access over 40,000 radio stations from your TV set. "TuneIn Radio" also plays podcasts, has a search function and provides information about local radio stations.

You can find your preferred station with the TuneIn Radio search. You can run the search using keywords such as the name of the station, the category or the genre.

Follow the instructions on the screen.

 **You can use the cursor control key to select the different menu items. Press **OK** to open the menu item.**



Examples of local radio in your service area

Use the cursor button to select the "Local radio" menu item and press **OK**. You will now see all the radio stations in and around your location, e.g. Nuremberg.


For more information, or if you wish to change your location, go to the TuneIn website: <http://tunein.com/support/get-started/>



22 Special functions

22.1 Picture in picture



In the case of TV sets with two receivers (only in the case of corresponding equipment or retrofitting), it is possible to display a DVB program and to open a window to show a different analogue program or DVB program from the second receiver or from the AV program position.

 **In principle, it is only possible to display one HDTV program.**
An HDTV picture can therefore not be shown as a PIP.

Accessing Picture-in-Picture (PIP):

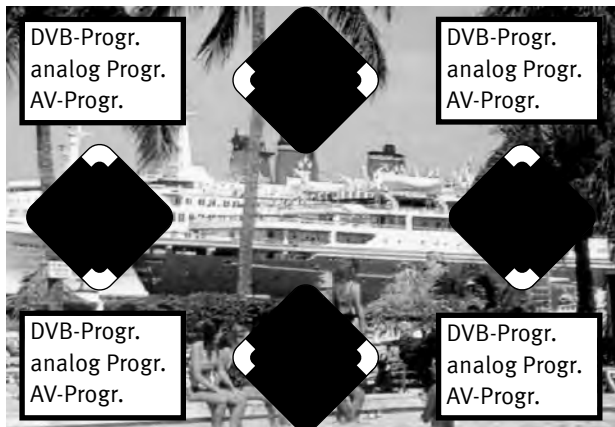
- Press **F1** (for RM16) or **PIP** (for RM17).
A small window will appear.

Depending on the receivers installed and the antenna connection used, it is possible:

- to select another program with the numeric keys or with the **+P -P** keys.
- If the picture content from an AV device connected to the TV set is to be displayed, press the **AV** key and select the AV device with the numeric keys.
- The PIP frame can be activated (red) or deactivated (grey) with the **OK** key.
- The active PIP picture (red picture frame) can be moved with the cursor control key.
The last position set is saved.
- Press the key  the picture contents are switched.
- press the green key  the PIP picture becomes the large picture and the PIP function is ended.
- To close the PIP picture, press the **EXIT** key.



or



22.2 Split Screen - Progr.1 next to Progr.2 with Teletext

If you have a TV set with **two receivers**, you can display a DVB station and open a window to show a different DVB station or an analogue station from the second receiver or from the AV programme position.

You can switch to teletext in the right window of the current station.



- Press the **(F1)** button (RM16) 2x or the **(PIP)** button (RM17) 2x. This divides the screen. The TV station that you were watching first is shown on the left, while the TV station that you just accessed is shown on the right. A red frame surrounds the right window. As long as the frame is red, you can use the numeric keys or the **+P /-P** buttons to select another station depending on your installed receivers and antenna connection.
- Press the **(TEXT)** button. The teletext for the station in the right window is displayed. The teletext controls are as described in Chapter 20.
- Press the **(TEXT)** button to exit teletext.

Displaying the screen of an AV device

- Press the **AV** button and use the numeric keys to select the AV device if you want to show the screen from an AV device (e.g. Blu-ray player or PC).
- The PIP frame can be activated (red) or deactivated (grey) with the **OK** key. When the frame in the right window is grey, you can use the **+P /-P** buttons to select a different station.

F2




4

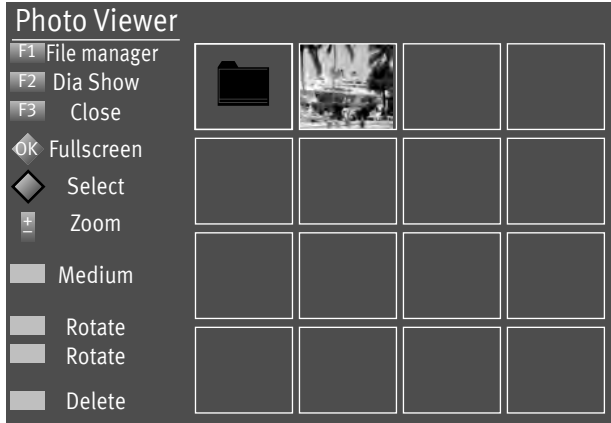


22.3 Photo display

The photo display is a picture viewer for JPEG picture formats. Automatic size adjustment for the pictures and full picture mode ensure even and pleasant display.

Calling up a picture mode:

- Insert memory stick (removable storage medium) in the USB port (see p. 119). The photo display overview appears on the screen. The photo display can also be called up as follows:
- Press **F2** for approx. two seconds - the max. possible selection is displayed or program the function key for photo display (see chapter 23 “Program function keys”)
- Press numeric key **4** and call up photo display. The photo display appears on the screen.
- Select the picture folder desired with the cursor control key and open with the **OK** key.
- The individual pictures can now be selected with the cursor control key.
- Open the selected picture with the **OK** key.
- The picture selected can be turned clockwise with the green key  anticlockwise with the red key .
- If you want to delete a picture, press the key  and answer the security question with Yes.
- Leave the photo display with the **EXIT** key.



Calling up a magnifying glass function:

- If a picture is displayed, the magnifying glass function can be called up with the **V+** key. The rectangular red frame is displayed on the screen.



- The magnification factor x2, x4, x8 can be set with the key **V+/V-**.
- The position of the rectangular red magnifying frame can be moved in the picture with the cursor control key in order to identify the picture section to be enlarged.
- Press the **OK** key and the picture section selected is displayed enlarged.
- You can move the zoomed picture section with the cursor control key.
- Return to the full picture by repeated pressing of the **V-** key until the “Magnifying glass” is no longer displayed.


Calling up a Slide show

- Select the desired picture folder with the cursor control key.
- Press the **OK** key and open the desired picture folder.
- Press **(F2)** and call up the “Slide show” function.
- The display time (3 - 60 seconds) of individual pictures can be set with the key **V+/V-**.
- Press the **OK** key (in RM 16) or **▶** (in RM 17) and start the slide show.
- If you want to stop the slide show, press the key **⏸**. Pressing the key **⏸** again restarts the slide show.
- Once the slide show has ended or been stopped with the **OK** key(RM 16) or **■** key (RM 17) or **(EXIT)** key, the photo display is called up.
- You can return to the TV picture with the **(EXIT)** key.


22.4 Delayed television viewing (time shift mode)


The TV set stores the recordings in temporary digital storage (time shift buffer). The temporary digital storage is sufficient for recording approx. 130-300 min (SD) and 70-120 min (HD=HDTV programs). This information only represents approximate values, which can vary depending on the volume of data in the recording. When using an internal or external mass storage device (hard disk), the recording duration is much longer.




- Pause the program with the key .











The program is recorded in the temporary storage.

The name of the “paused” program appears in the upper left corner of the screen. The green key  can be used to reveal the status display (play bar), which gives you information about the current position in time shift mode. The time since the program was “paused” or alternatively recorded (05:15:00 in the example) is shown on the left below the bar display.

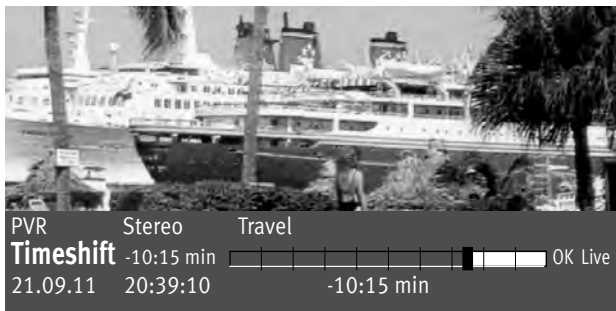
During pause mode, you can also change to a different program position (2), to watch the news for example. Then, in addition to the name of the program, a symbol  appears as a sign that the program is “parked.”

When the news is over, you can press the key  again to continue the previously paused program without having missed anything.

The time shift bar fills in with colour in accordance with the length of the pause. Everything that is further in the past than the set time is lost.

- Press the  key again to continue watching the paused and recorded program.
- Press the green key  and show the play bar.
- By briefly pressing the cursor control keys repeatedly   (RM16) or the fast forward  (RM17) and rewind key  (RM17) the playback can be forwarded in increments of +1 minutes and rewound in increments of -20 seconds.
- By holding down the cursor control keys   (RM16) or fast forward  (RM17) and rewind key  (RM17) the forward/rewind mode is activated at twice the speed. By repeated pressing the recording can be forwarded and rewound at up to 32-times normal speed.





The time since the program was “paused” (in the example the program was paused 10:15 min. ago) is shown on the left next to the bar display. The time that the replay lags behind the live broadcast is shown below the bar display (03:25 min in the example).

In pause mode the program can be forwarded or rewound in 10% increments. If you want to return to the current status of the program (“Live”) from time shift mode, then press the green key . If you want to return to the current status of the program (“Live”) from time shift mode, then press the **OK** key (RM16) or STOP (RM17) for the “LIVE picture” of the current program.

If the TV set is in standby mode or switched off, the recording will be lost. Alternatively, you can also create a regular recording from the recording stored in the time shift buffer.

Time shift buffer = Cache



Saving time shift buffer as recording

This function is only available if a hard disk recorder is installed in the TV set.

Let us assume you are in time shift mode and are watching a current programme, which has already filled at least 13 minutes of the time shift buffer. Now you wish to save the partially recorded programme.

- Press the **F2** button for approx. 2 seconds. The "Special functions 2" menu is displayed.
- Press the **0** numeric key. The timer menu opens up. The timer window shows the programme position, date, beginning and end of the running TV programme.
- Press the **OK** key to save the data for the running TV programme. The part already stored in the time shift buffer and the future part of the programme will be recorded.

22.5 Recording a program using a timer

If you would like to record a program, you can prepare TV programs for recording using the “Timer overview”. The recording can be prepared for the external or internal mass storage device (hard disk PVR) or for a video recorder or DVD recorder.

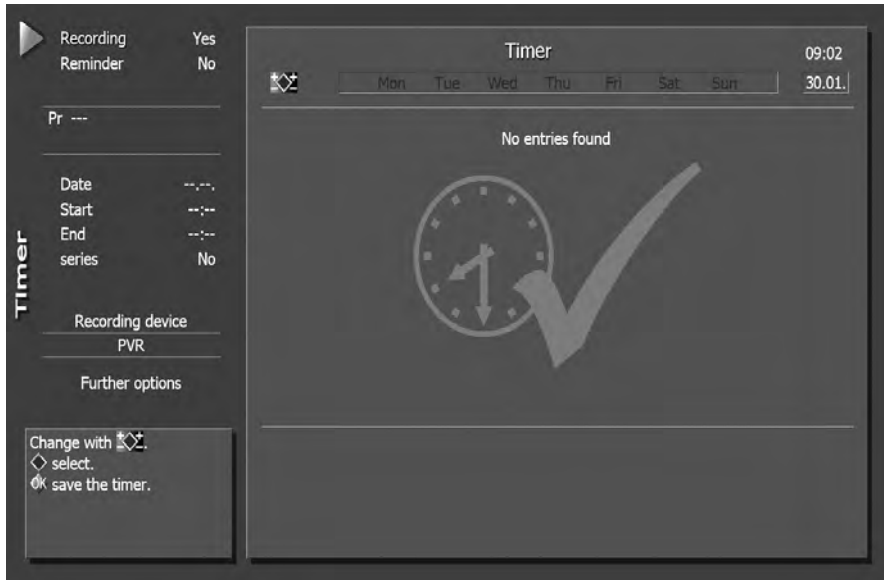
F2

F1





Manually creating a timer for a time-controlled recording:

- Press the **F2** key.
 - Press **F2** briefly - the function programmed for **F2** (see Chapter 23 “Programming function keys”) is executed.
 - Press **F2** for approx. three seconds and the max. possible selection is displayed.
- When the maximum choice is displayed with the assigned numeric key open the timer menu.
 - Press the **F1** key.
 - The cursor is on the left, beside the first “Record” line. Use the **V+ / V-** key to set the “Record” menu item to “Yes”.
 - Press cursor control key and, if you want, use the **V+ / V-** key to enable the reminder function. When the reminder function is enabled, a message will appear one minute before the starting time of the timer.
 - Use the numeric keys to set the program position (see TV channel table of the TV set) of the program that is to be recorded.
 - Press cursor control key and use the numeric keys to enter in order the date, start time, and end time of the program that is to be recorded.






EXIT

 **If you inadvertently enter a wrong number, you can delete the entry with the key  or overwrite it with the numeric keys. As further options you can set delete protection, parental control, etc.**

- Press the cursor control key and select the recording device that is to record the program with the **V+ / V-** key.
- Save the programming by pressing the **OK** key. The programming is saved in the timer memory.
- Press the **EXIT** key to close the TV menu.

Deleting the timer:

- Press the **F2** key.
- Press numeric key and open the timer archive.
- Use the cursor control key to go to the desired program and select it for deletion with the key . A pop-up box appears on the screen in which you are asked once again if the programming should be deleted. Answer the question with the respective key.

22.6 Direct recording of a program

If you want to record a program that is already running, you program a direct recording. This direct recording programming ensures that the program running is prepared for recording.

F2

0




Program direct recording:

- Press the **F2** key.
Press **F2** briefly to run the function programmed for the **F2** key (see Chapter 23 “Programming function keys”).
Press **F2** for approx. three seconds and the max. possible selection is displayed.
- Press numeric key **0** and open the timer archive.
In the timer window the program position, date and EPG data (see Chapter 25.7) of the program running or a time window of two hours are displayed.



- Select the recording device suggested with the cursor control key and change the recording device as you wish with the **V+ / V-** key.
- Save the programming by pressing the **OK** key.

 **On an external recording device (e.g. video recorder) select the AV program position and start an immediate recording with the key (REC or OTR).**



F3

1



22.7 Picture format

Calling up picture format:

- Press the **F3** key.
Press **F3** briefly to run the function programmed for the **F3** key (see Chapter 23 “Programming function keys”).
Press **F3** for approx. three seconds and the max. possible selection is displayed.

- Use the numeric key **1** to call up the “Picture format” function.
- The cursor control key can be used to navigate between the functions. Within the next five seconds the zoom level can be set with the **V+/V-** key for the picture format selected.
- The setting (apart from automatic zoom in the TV menu) will remain preserved until the program change.

Zoom / picture position

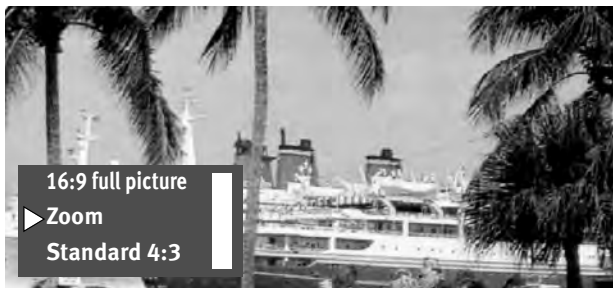
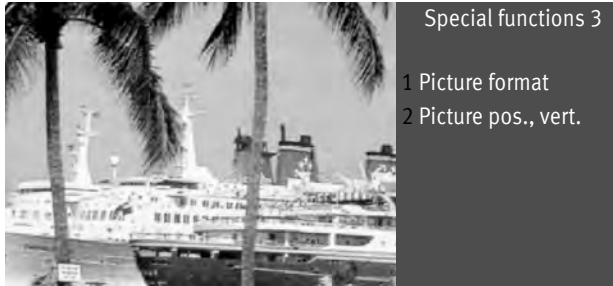
If the “zoom” function has been selected, the zoom factor can be set with the **V+/V-** keys.

In addition to the zoom factor, the picture position can be moved upwards or downwards, for example so that the channel logo or subtitles remain visible. To set the picture position press the **F3** key until the options are displayed.

Press the key **2** and move the picture with the **V+/V-** keys.

Standard 4:3

is the standard setting for all programs in 4:3 picture format.



Panorama

Programs in 4:3 format can be adjusted to the 16:9 format of the picture screen with the panorama function. The picture is evenly stretched horizontally; the picture can in addition be zoomed. The panorama function can be switched on and off in the menu "Picture-sound" under "picture settings general".



16:9 full picture

This function is principally responsible for displaying the picture format of external devices (e.g. 16:9 video recorders) in the correct aspect ratio.


Automatic

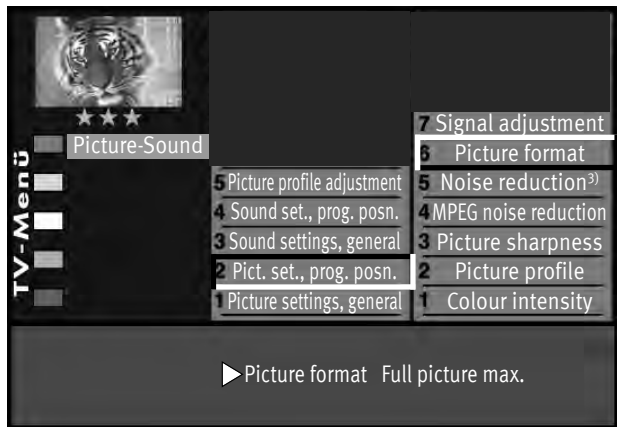
The TV set independently sets the optimal auto mode, depending on the program.

Max. full screen

TV/video images often have distorted edges due to how the programme is produced. To "cut off" these edges, the TV picture is usually enlarged somewhat.

In HD programmes, however, this "scaling" may cause you to lose fine image details. You can set the device to not cut off the edges of these programmes, but to render the picture in optimum picture quality. However, you may then see distorted or black edges depending on the programme.

 ***You can save the "Max. full screen" function for each programme position in "Audio and video – Picture settings for programme – Picture format" (see image on the left).***



22.8 Picture position

A picture that has been zoomed can be moved upwards or downwards as required, for example so that subtitles remain visible or ticker text can be moved into the non-visible area.

F3

2




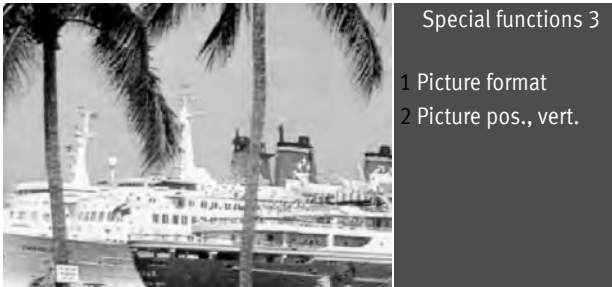
Calling up picture position:

- Press the **F3** key.

Press **F3** briefly to run the function programmed for the F3 key (see Chapter 23 “Programming function keys”).

Press **F3** for approx. three seconds - the max. possible selection is displayed.

- Press numeric key **2** and call up the function “Pictur pos., vert.”.
 - The picture position can be moved upwards or downwards with the **V+ / V-** keys, for example so that the channel logo or subtitles remain visible.
-  **The setting is not saved. However, the setting can be globally saved if it is set as described in Chapter 17.1.5.**





F2

2







22.9 Audio/language selection

Various programs are broadcast with several audio channels (e.g. **multilingual** or ).

If you are receiving such a multilingual program the information box on the bottom left of the screen features the .

Press  to see the list of available languages.

Open menu:

- Press the  key. Press  briefly to run the function programmed for the  key (see Chapter 23 “Programming function keys”).
- Press  for approx. three seconds - the max. possible selection is displayed.
- Press the numeric key **2** and call up the "Language of prog," function.
- One of the languages offered can be set with the cursor control key.



1 English

2 France

 **Symbol in black:**

Other audio options e.g. dd = “Dolby digital” are available, but none of the additional sound options offered are selected.

 **Symbol in white:**

Digital sound selected.

MENU



F1

22.10 Setting subtitles

People with a hearing impairment can make use of the subtitles function. By default, the “Subtitles” function has to be activated first of all via the TV menu.

Activating subtitles

- Call up the TV menu with the **MENU** key.
- Use the red key to open the “Configuration” menu.



- Press the **OK** key and switch to the right column.
 - Press the **F1** key.
 - Select the menu line “Subtitles” with the cursor control key and press the **OK** key .
 - In the settings window, use the **V+ / V-** key to set the “Subtitles” function to “on.”
 - If desired, a language can be selected here.
 - Press the **OK** key to save the changed setting.
 - Press the **EXIT** key to close the TV menu.
- Displaying subtitles - see next page. If a TV program has subtitles, they can be displayed by pressing the green key .

A program marked in this manner comes with subtitles.

Displaying subtitles:

- Press the **F2** key.
Press **F2** briefly - the function programmed for **F2** (see Chapter 23 “Programming function keys”) is executed.
Press **F2** for approx. three seconds - the max. possible selection is displayed.
- Use the numeric **3** key to call up the “Subtitles” function.
- Use the cursor control key to make a selection if this is offered by the channel or the program.







The channel or program is exclusively responsible for offering and displaying subtitles.




EXIT

2) Possible only on sets equipped with this function.








23 Programming function keys

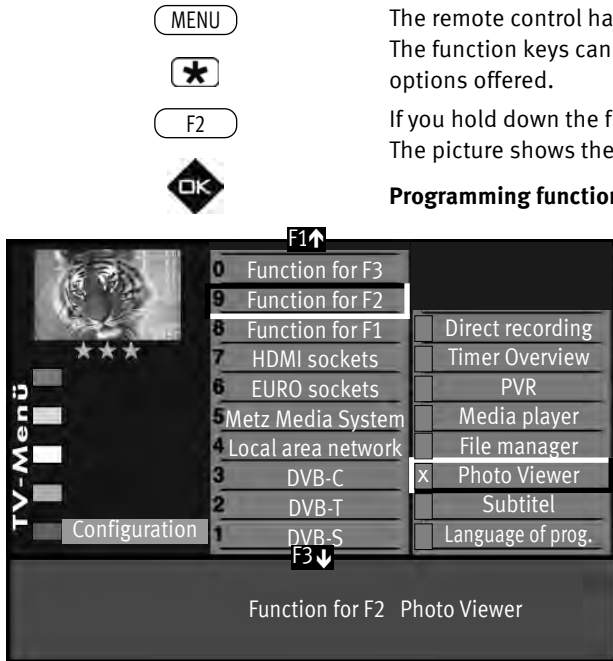
The remote control has four function key , ,  and .

The function keys can be programmed as you desire with a particular function according to the options offered.

If you hold down the function key, the options with the corresponding special functions appear. The picture shows the options for the function key .

Programming function keys with a function

- Call up the TV menu with the  key.
 - Use the red key  to open the “Configuration” menu.
 - With the cursor control key or the assigned numeric key ( in the example), select the desired “Function for ...”
 - Press the  key and select one of the functions available with the cursor control key.
 - Press the  key and the function selected is set and marked with X.
 - Clear the TV menu with the  key.
-  **Once a function key has been programmed, it can be called up by tapping the key. If you hold down the function key, all of the options for this key appear.**



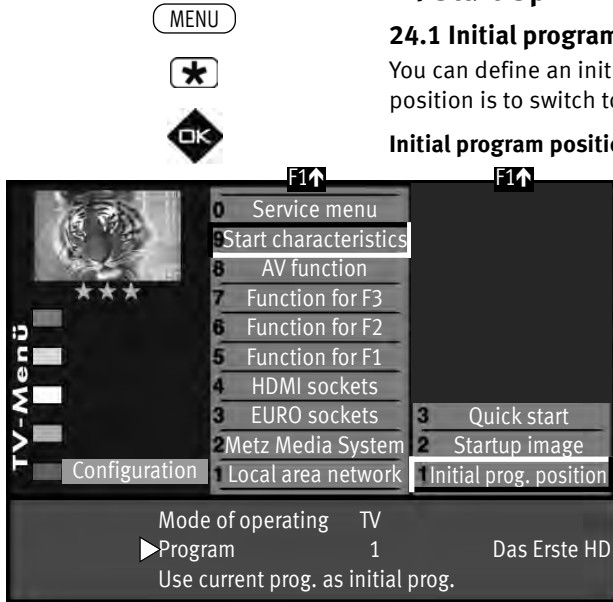
EXIT

24 Start Up

24.1 Initial program position

You can define an initial program position for this TV set. The preferred use for the initial program position is to switch to the AV program position when using an external receiver.

Initial program position settings



- Call up the TV menu with the **MENU** key.
- Use the red key ***** to open the “Configuration” menu.
- Use the cursor control key to select “Operation” and “Initial program position” and press **OK** key.
- The cursor is on the “Mode of operation” menu item. You can use the **V+ / V-** key to set the desired mode of operation (TV, Radio or AV).
- Then select “Program”.
- If you choose the TV operating mode, you can then set the desired program (e.g. 004 for “RTL”).
In the AV mode you can select an external AV connection like EURO 1, EURO 2²⁾, HDMI, etc as initial program position.
- Press the **OK** key to save the changed setting.

or, alternatively:

Using current station as the initial programme position

If you are watching your favourite station and want to use it as the initial programme position, select the "Use current station as initial programme position" menu item with the cursor control key and press the **OK** key. The setting is saved.

- Press the **EXIT** key to close the TV menu.

 **If the TV set is now switched on with the power key on the set or the key  on the remote control, the preset initial program position appears.**

MENU



F1↑

F1↑

TV-Menü

Configuration

0 Service menu
1 Start characteristics
8 AV function
7 Function for F3
6 Function for F2
5 Function for F1
4 HDMI sockets
3 EURO sockets
2 Metz Media System
1 Local area network

3 Quick start
2 Startup image
1 Initial prog. position

Mode of operating TV
▶ Program 1 Das Erste HD
Use current prog. as initial prog.



EXIT

24.2 Start Up Image

The METZ logo appears briefly after you turn on the TV set (factory setting). If you want to replace this "startup image" with one of your pictures, do the following:




Selecting photo for startup image

- Press the **(F2)** button. The "Special functions" menu is displayed.
- Press the **6** numeric key and open the "Media Player".
- With the cursor buttons, select the directory (in the example, /USB/Images Space/) that contains the image you wish to use.
- Move the cursor to the image. After a moment, the image preview will appear on the left, next to the file list.
- Now press the **TIME SHIF** button. You will now see a preview of the selected image. Answer the question, "Use as still image", by pressing the green **(Y)** button (Yes).
- Exit the Media Player with the **(EXIT)** button.

Activating the startup image

- Open the TV menu with the **(MENU)** button.
- Open the "Configuration" menu with the red **(*)** button.
- Press the **(F1)** button to show another selection and to select the start-up behaviour with the assigned numeric key.
- Select "Startup image" with the assigned numeric key.
- In the settings window, use the **V+ / V-** button to change the setting to "Own startup image".
- Use the cursor buttons to select "Display time" and adjust the display time with the **V+ / V-** button.
- Press the **OK** key and save the selected function.



 **If the startup image is not shown, the TV set was turned on from standby mode while EPG data was being collected (either the permanent display shows "EPG" or the orange LED is on).**

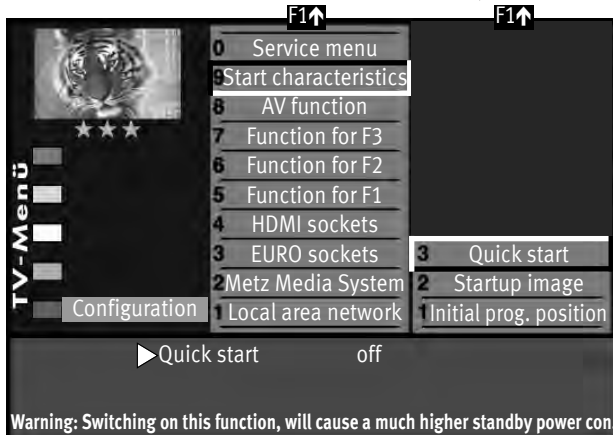
24.3 Quick start

The device starts up faster from standby mode if this function is activated.

However, this will also significantly increase power consumption during standby. To keep your electricity bill low and minimize environmental impact, you should only activate this function in the following cases:

- 1) You wish to remotely control the TV set via a RS232 cable connection (using a USB serial adapter), e.g. from a PC, and want to be able to switch on the TV set from standby mode.
- 2) The TV set is connected to your computer network via a LAN cable. You want to switch on your TV set via wireless LAN using the METZ mecaControl app on your smartphone.

Note: If you want to switch on the TV set with the Metz remote control and only then use the METZ mecaControl app to control the TV set, you should keep the quick start function turned off.



25 EPG

EPG (electronic program guide) is an electronic program guide for many TV and radio programs. So-called DVB-SI data is transmitted with the TV picture in the TV signal (DVB-S or DVB-C).

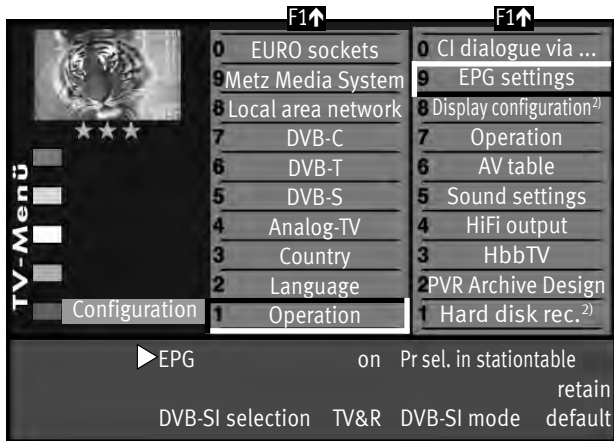
DVB-SI (Digital Video Broadcasting-Service Information) is a service provided by different broadcasters. Program details are broadcast digitally by each broadcaster exclusively for those programs it offers.

25.1 Activating the EPG

The EPG program guide is switched on the **EPG** guide.

EPG Factory settings:

- EPG on
- DVB-SI selection TV
- Prog. selection in the channel table all free slots (in the menu, “retain” is displayed, i.e. when you make an adjustment here, this change is displayed in plain text, after it is confirmed by selecting **OK** in the menu. “Retain” is then always displayed in the menu as an indication that the previously confirmed setting is retained.)



2) Possible only on sets equipped with this function.


25.2 Collecting EPG data

EPG data is broadcast by each channel for its program contents.

Information will therefore vary accordingly.

Switch on your TV, so that EPG data can be compiled and/or updated.


While EPG data is being collected in standby mode, the permanent display will show "EPG" or, on TV sets without a permanent display, the orange LED will be on.

 ***After switching on the TV set or if a recording timer has been programmed, the collection of data is interrupted until a switch back occurs to stand-by mode or the recording timer is terminated.***

 ***Do not switch the TV set off using the power switch while EPG data is being collected, as this could damage the hard disk or the time shift memory.***

Please note


All freely receivable channels found are listed in the TV set's channel table and shown in the program guide unless you make a different selection in the channel table (see next page).

 ***New TV stations are not automatically added to the EPG station list after another station search. You will have to do this manually.***

The collection process will be halted or stopped if:

- the TV set is switched off using the power switch.
- videotext is opened.
- a recording is programmed in the "AV Recording" menu.
- a "timer recording" is running or will begin in an hour.
- the videotext "subtitle" feature is switched on.

If the TV set is switched to standby during the collection process, the green LED will light up or "EPG" will appear in display 2) to indicate that the collection process is still running.


 ***Do not switch the TV set off during the collection process. Give it a chance to collect all EPG data at least one time.***

25.3 Activating Stations for EPG

The EPG programme guide does not list any stations after a station search. If you want to use the EPG programme guide, you will have to activate the stations it contains. We offer the following solutions for activating the stations:



Solution 1:

- Press the **MENU** key. The TV menu is displayed.
- Press the white button . The station table is displayed on the screen.

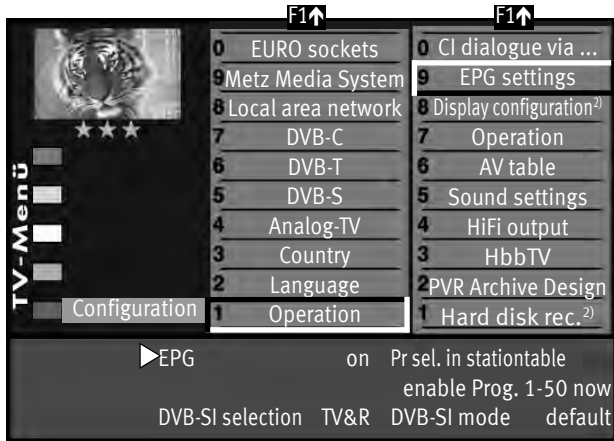


- Use the cursor control key to select the stations, either individually or in blocks, that you want to see in the EPG programme guide. Select in blocks: Select the first station of the block you wish to include and mark it with the **OK** key; then select the last station in the block with the cursor control key and press the **OK** button until the station block has been marked.
- Press the **F2** button and enter edit mode for the station table.
- Press the cursor control key and switch to the right side.
- Select the "Station contained in EPG" menu line.
- Press the **OK** key and mark the station or station block (X).

 **The EPG data for the marked stations will appear in the EPG programme guide after an update.**



⁷⁾ Available only for analogue stations !



Solution 2:

- Press the **MENU** key.
The TV menu is displayed.
- Press the white key **OK**. The channel table menu appears on the screen and the active program position is selected.
- Sort the channels important to you as described in Chapter “12 Sort channels” in the initial program positions e.g. 1-50 and save these.
- Then call up the “Configuration” menu – “EPG settings” and in the menu line “Pr. sel. in stationtable” save the selection "Programs 1-50" with the **V+ / V-** key and save with the **OK** key.

2) Possible only on sets equipped with this function.

25.4 Use EPG

When the complete data is available, the EPG TV guide appears after pressing the “EPG” key and shows the program that is currently running in that program position.

F1 Sort the display by channel list.

F2 Sort the programs of a channel from the running program.

F3 Sort all channels by time.

 **The last display to be selected is retained after exiting the EPG display.**



Select program.

V+/V-

Select weekday.

+P/-P

In F2 status: select channels.

OK

Watch the selected program or set a reminder.

+P/-P

In F1 status: time of day forwards/backwards. After pressing the **F2** key, you can switch backwards and forwards with the **+P/-P** key.

0-9

Enter a time. Programs can be selected as of the time entered.



blu: Program selection of all programs.



yellow: Users can set interests – or – program selection according to the interests set of the user.



red: The selected program is ready to be recorded.

EXIT

Back to TV picture.


Select, watch, remind program

A program can be selected in the TV guide with the cursor control key.

- Press the **OK** key and program selected
 - watch, if the program is already running.
 - or set a reminder for it, if the starting time is still in the future. A green tick appears behind the starting time.
- Press the **TEXT** key to show or hide the content description of the program. It is not possible to display the content description for all programs.


Interests settings

Areas of interest can be set in the EPG TV guide. To do this:

- press the yellow key .
- Use the cursor control key or the assigned numeric key to access one of the themes.
- Use the cursor control key to switch to the other page.
- Use the cursor control key to access the theme and mark it with the **OK** key (**X**).
- The markings (**X**) can be deleted again with the **OK** key.

 ***The display of the interest selection you configured depends on how the broadcasting channels maintain their data.***


Display interests

- Press the **EPG** key.
- Press the yellow key  twice.


25.5 Recording programs

Programming individual programs for recording:


The EPG program guide has the great advantage in TV sets with a hard disk or when using a video or DVD recorder with dialogue system that you can start recording by pressing a few keys.

- Call up the EPG program guide with the  key.
- Use the cursor control key to select the program that is to be recorded.


a) If the TV set is fitted with a hard disk:

- Press the red key  on the TV remote control.
- Set “PVR” as the recording device in the timer menu.

b) If a video or DVD recorder with dialogue system is connected:

- Switch on video or DVD recorder.
- Insert cassette in video rec.
- Press the red key  on the TV remote control.
- Set “DVD/video rec.” as the recording device in the timer menu.

c) If a normal video or DVD recorder (without dialogue system) is connected:

- Switch on video or DVD recorder.
- Insert cassette in video rec.
- Press the red key  on the TV remote control.
- Set “DVD/video rec.” as the recording device in the timer menu.
- Program a timer with date and time on the video or DVD recorder on the AV program position so that the program provided by the TV timer can be recorded.

EPG



25.6 Autom. recording of a progr. as a series using the EPG

This function is only possible when using external or internal mass storage devices (hard disk).

- Call up the EPG program guide with the **EPG** key.
- Select the program that is to be recorded with the cursor control key.
- Press the red key the TV timer is programmed.
- Select the line “Series” with the cursor control key.

The screenshot shows the EPG interface with a list of programs and recording options. The left sidebar has buttons for 'All programmes', 'Interest', and 'Record'. The main area shows a grid of programs with columns for days of the week and times. A program 'The Big Bang Theory' is highlighted. On the right, recording options are shown, including 'Recording device: PVR' and 'Further options'.

	Mon	Tue	Wed	Thu	Fri
1 Das Erste HD			10:45 - 11:00	Brisant	
2 ZDF HD			10:30 - 11:15	Notruf Hafenkant	
3 Bayerisches FS 5			10:50 - 11:20	Kunst & Krempel	
4 RTL Television			10:30 - 11:30	Familien im Bren	
5 RTL2			09:10 - 11:13	Frauentausch	
6 SAT.1			10:58 - 11:58	Richterin Salesch	
7 ProSieben			10:57 - 11:22	The Big Bang Thi	
8 MDR Sachsen			10:58 - 11:00	MDR aktuell Eins	
9 kabel eins			10:01 - 10:59	Charmed - Zaube	
9 kabel eins			10:59 - 11:57	Ghost Whisperer	
10 Einsfestival HD			10:35 - 11:05	kulturspiegel	

The Big Bang Theory

Recording device: PVR

Further options

No = nonrecurring timer
Yes = autom. from EPG
Manual series - daily
Manual series - weekly
Manual series - Mo - Fr

- The following selection can be made with the **V+ / V-** key:

Yes (EPG): the EPG program guide automatically programs all TV programs with this title that is broadcast in the future on this program position.

Daily: a recording is made daily (each day of the week) at the entered start and end time at the programmed program position.

Weekly: a recording is made weekly on the same day at the entered start and end time at the programmed program position.

Mon-Fri: a recording is made from Monday to Friday at the entered start and end time at the programmed program position.

- Save the programming by pressing the **OK** key. The programming is saved in the timer memory.

A symbol appears as an identifier for a series timer in the EPG program guide behind the programmed program.

The programmed TV programs is recorded onto the hard disk (PVR) as often as they appear in the EPG program guide.



25.7 Overview of the programmed timers

TV programs that have been programmed and are ready to record appear in the timer menu.



Figure 1

The timer menu is filled with manual timers and series timers (see Figure 1).

A series timer generates other timers.

Example: You set up a series timer with the EPG (see Chapter 25.6) by programming the evening news at 20:00. The timer menu shows this programmed show as often as the programme providers send EPG data (see Figure 1) This series timer programming constantly generates new timer programming (see Figure 1), because the series timer looks into the EPG program guide and searches for the title “Evening News” in the “BBC1” schedule.

If another “Evening News” is found in the “BBC1” schedule, then a new timer is generated¹⁴⁾ that appears in the timer menu.



As a consequence, the “Evening News” in the “BBC1” schedule is recorded until the series timer is deleted.

You leave the timer overview with the **EXIT** key.




Figure 2

25.8 Checking an active recording


Press keys  /  and call up the timer overview.

You see a red symbol ✓ behind the starting time and the bar which shows you how far the recording has got.







Once the end time of the recording has been reached or you break off the recording manually with the key , the PVR timer is stopped and its display closed.

25.9 Deleting programmed timers/series timers

If you would like to delete programmed timers or series timers, then you can do so in the timer menu.

 ***In principle, a direct recording and a manual timer are to be treated like a timer.***

Deleting timers or series timers

- Press the  key.
- When the maximum choice is displayed with the numeric key , open the timer menu.
- Select the timer or series timer with the key .
- Select the timer or series timer that you want to delete with the cursor control key.
- Press the C key - the selected timer or series timer is deleted and all timers generated by it are prepared for deletion.
- A pop-up box appears on the screen in which you are asked once again if the programming should be deleted.
 - Press the green key  and the timer is deleted.
 - Press the red key  and the timer is preserved.
- Leave the timer menu by pressing the  key.



26 Childlock

With the childlock function, you can:

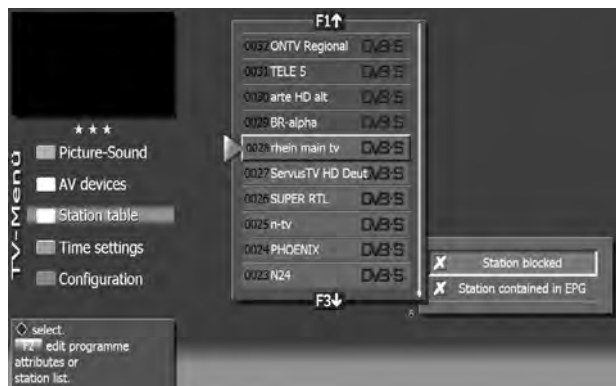
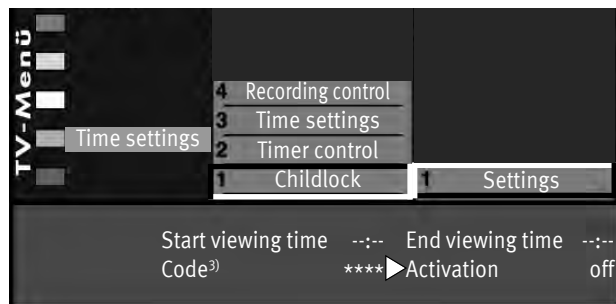
- a) Lock the TV set in general to prevent unauthorised use
- b) Lock selected stations
- c) Permit certain stations during a certain time window

a): Locking the TV set in general to prevent unauthorised use

- Press the **MENU** button. The TV menu appears on the screen.
- Open the "Timer setting" menu with the green **Timer** button.
- Select "Settings" with the cursor control key and press the **OK** key.
- Select the "Activation" menu item in the settings window with the cursor control key and select "On" with the **V+ / V-** button.
- Select "Code" with the cursor control key and enter your personal four-digit code with the numeric keys. **Make a note of this code!**
- Press the **OK** key to save the new setting.
- Exit the "TV menu" with the **XX** key and turn off the TV set.

b): Locking selected stations

- Press the **MENU** button. The TV menu appears on the screen.
- Use the white **Station** button to retrieve the station table.
- Press the **F2** button and enter edit mode for the station table.
- Select the station you wish to lock. If you want to lock several stations, mark the first station with the **OK** key, select the last station and press the **OK** key until all of the stations have been marked.
- Use the cursor control key to move to the column on the right and mark the "Sender locked" menu item with the **OK** key.



Unlocking selected stations



- Press the **(MENU)** button. The TV menu appears on the screen.
- Use the white **(📶)** button to retrieve the station table.
- Press the **(F2)** button and enter edit mode for the station table.
- Select the station you wish to unlock.
- Use the cursor control key to move to the column on the right and unmark the "Sender locked" menu item with the **OK** key.

c.) Permitting certain stations during a certain time window

Start viewing time --:--▶ End viewing time --:--
 Code³⁾ **** Activation off

If you wish to restrict TV viewing time while the childlock function is activated, you can also enter TV start and end times. You can delete incorrect entries with the **(↩)** button.











27 Range of functions

The range of functions of the TV set offers effective assistance in being able to find one's way around even better within the versatility of the TV set.

The range of functions of the TV set is identified by stars.

1 * „Just television” – under this motto the TV menu cannot be called up.

Only the remote control functions can be used:

- Zapping.
 - Program selection via numeric keys and the **+P/-P** keys.
 - Calling up video text .
 - Calling up information .
 - The special functions 1 can be selected with the key .
 - The special functions 2 can be selected with the key .
 - The special functions 3 can be selected with the key .
 - The AV devices connected can be selected with the key .
 - Calling up standard picture functions with the blue key .
 - Calling up the standard sound functions with the yellow key .
 - Calling up the “EPG” function with the key .
 - In TV mode: open archive / in archive: play.
 - All function keys for PVR can be operated (see too Chapter 3).
- If a menu is to be called up while a one-star menu is set, then:
- Press the  key for at least five seconds to open the TV menu.
 - The menu item “Operation” is selected automatically.
 - The range of functions desired can be set with the **V+/V-** key and the setting saved with the key.

3) See glossary for an explanation.

MENU



2 ** permits an individual television experience.

The TV menu is available in a simple form.

Functions as under 1 * can be set and are supplemented by the following setting options:

- childlock
- sleep timer
- automatic channel search
- Data transmission of the TV station table to a data logic video recorder.
- Settings options in the menu station table.

3 *** for all technological enthusiasts, who would like to explore the functional versatility of the professionals.

The TV menu is available in full.

Setting the operation

- Press the **MENU** key.
The TV menu is displayed.
- Press the red key and open the “Configuration” menu.
- Press the **OK** key and switch to the right column.
- Select “Operation” with the corresponding numeric key.
- Set the desired operation in the settings window using the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.



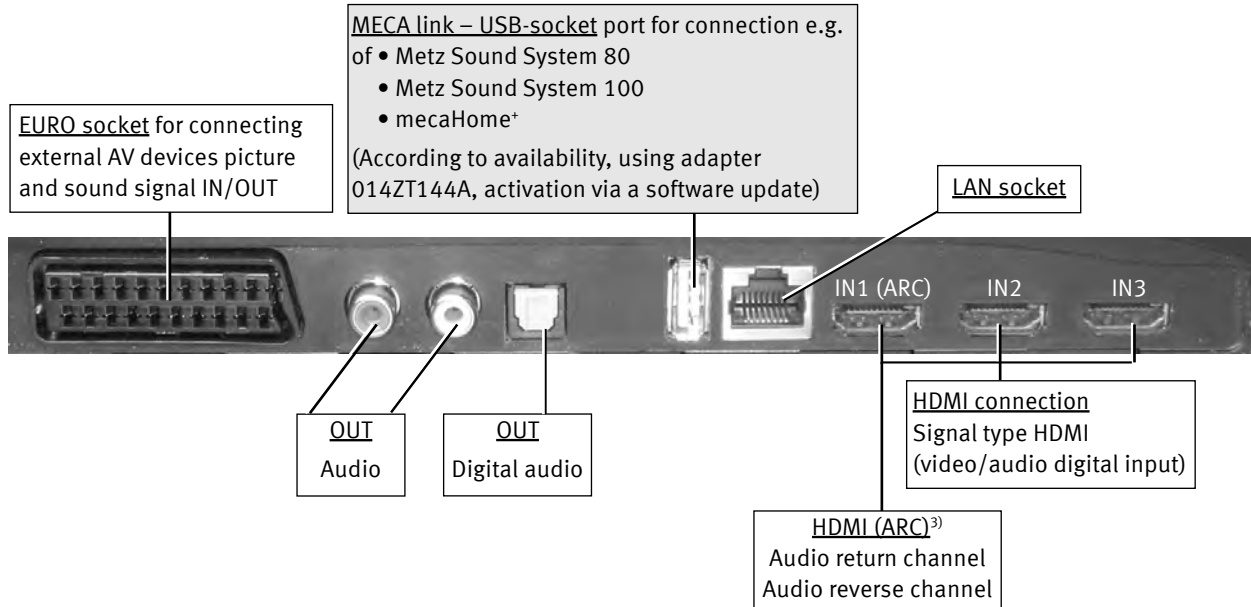
EXIT


28 Connection options, rear side

Connection options for the TV sets:

Axio pro / Carat- Media twin R

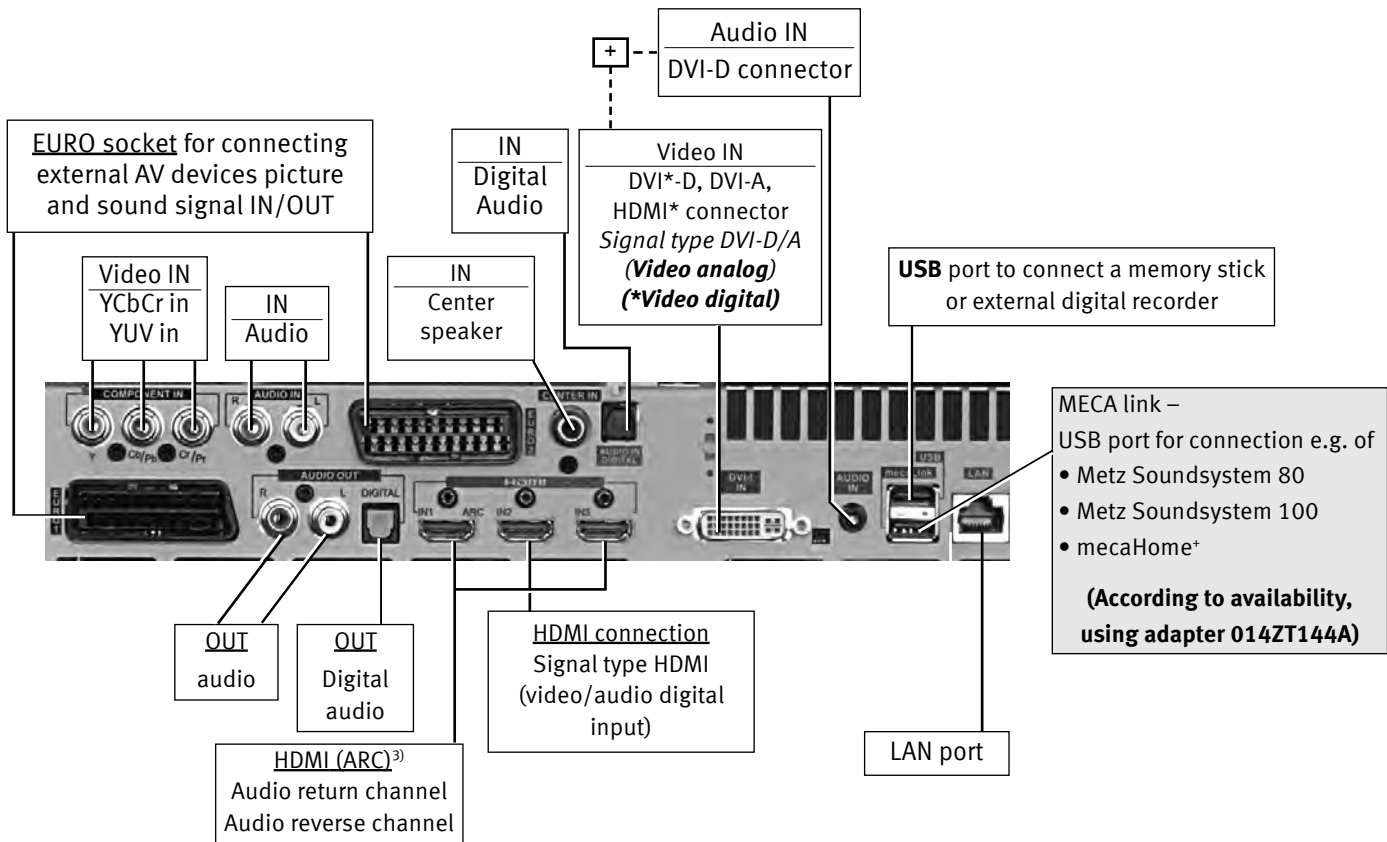
Taros - Media twin Z



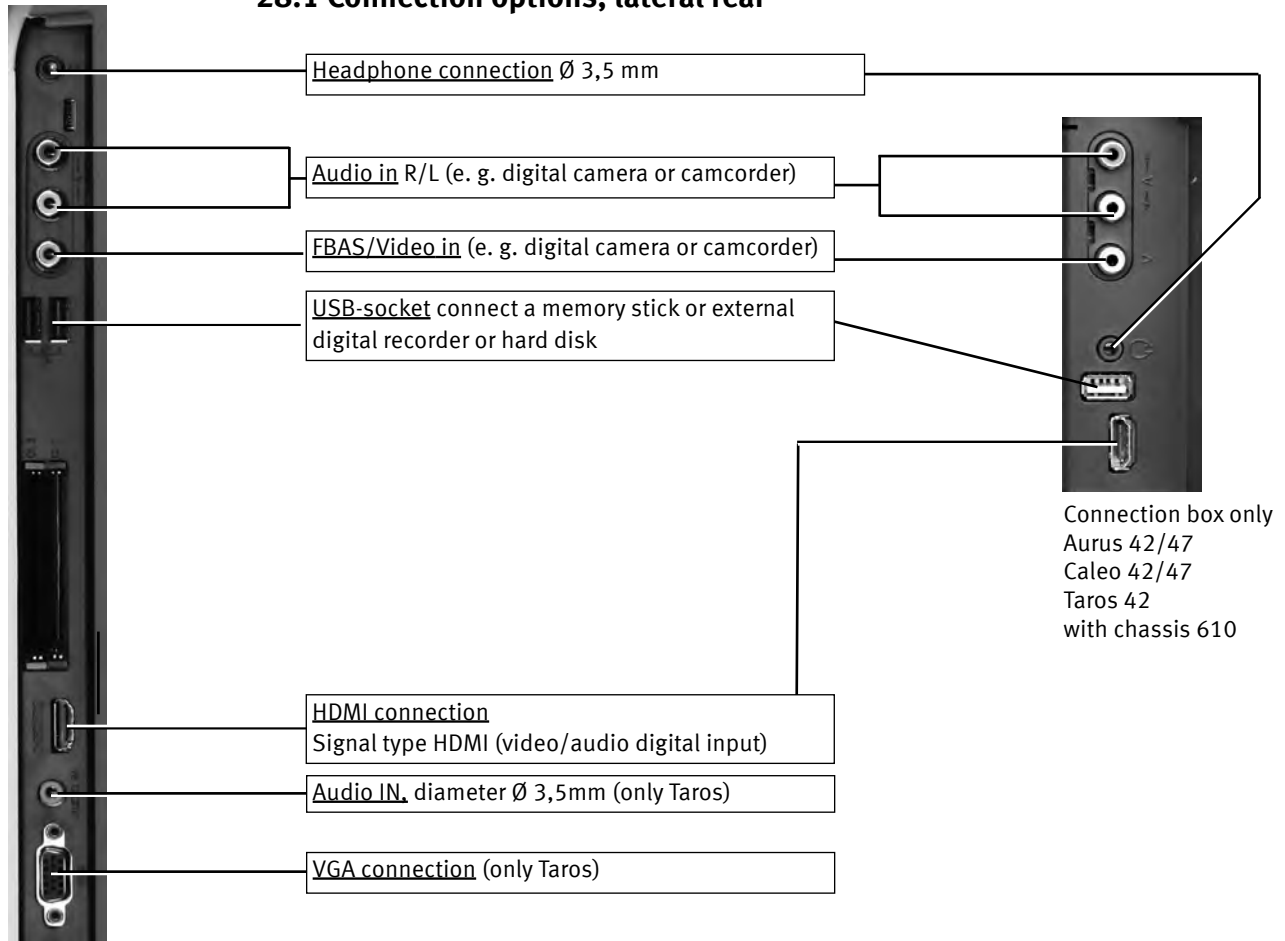
 **The digital audio signal provided can be passed on for external processing with an optical audio cable (“Toslink” available in accessories shop).**



3) See glossary for an explanation.




28.1 Connection options, lateral rear




29 Registering AV devices

AV devices (audio/video) are additional devices which emit picture and/or sound signals (e.g. video recorders, DVD players, DVD recorders, PCs, decoders, etc) and can be connected to a TV device. All customary AV devices are listed in the menu “AV devices”.

 **Only connect AV devices in the way shown in the connection plan in the TV menu of the television set!**


Registering an AV device on the TV set

- Call up the TV menu with the **MENU** key.
- Open the “AV devices” menu with the yellow key .
- Select the AV device that is to be connected with the cursor control key and press the **OK** key.
- Press numeric key **2** and set the signal types (OUT/IN) that apply to the AV device with the **V-/V+** key and confirm with the **OK** key.

Signal types:

(see too the user guide of the corresponding AV device).

There are different signal types for the transmission of picture signals. See next page.

 **Under certain circumstances, a pre-existing wiring diagram may change. The AV devices must also be correspondingly reconnected.**

MENU



vollbeschaltetes Scart- bzw. EURO-AV-Kabel	<p>FBAS: Connection of a VHS video recorder, analogue sat receiver, decoder, camcorder, photos etc. via a Scart or EURO AV cable or via a cinch cable or Hosiden cable.</p> <p>For devices with higher picture quality (e.g. DVD players, Blu-Ray players, game consoles), the following applies:</p> <p>YC: Better quality through separation of brightness and colour information (SVHS/Hi8 video recorder) when connecting a VHS video recorder, analogue sat receiver, decoder etc. via a Scart or EURO AV cable or a Hosiden cable.</p> <p>RGB: Signal type with three video basic colours – red, green, blue. Is usually needed to control a screen.</p>
Chinch-Kabel	<p>YUV: High-quality video signal (video components); consists of brightness (Y) and the two colour difference signals (U and V) and is transmitted using three lines.</p>
HDMI-Kabel	<p>HDMI: Using this interface, digital picture and sound signals are transmitted over a line with very high bandwidth (suitable for HDTV).</p>
DVI-Kabel	<p>DVI-A /DVI-D: With a DVI interface, you can choose between DVI-A (analogue, PC with VGA interface) and DVI-D (digital, PC with DVI interface).</p>

- If you want, press the numeric key **3** and specify another name for this AV device and then press the **OK** key.
- Use the cursor control key to select “Connect” and press the **OK** key. Connect the AV device to the respective EURO socket.
- Exit the TV menu with the **EXIT** key.

MENU



29.1 Registering AV devices, Data Logic

“Data Logic” is a dialogue system between TV set and AV device (e.g. video recorder and DVD recorder). For this, the AV device must be fitted with this system.

This “intelligent” system permits e.g.:

- autonomous adoption of the analogue cable TV channels (not DVBS!) in the AV device.
- Immediate recording – the AV device records what is shown on the screen.
- Autonomous switching to the AV program position when starting playback.
- Direct recording control of the AV device via the timer menu of the TV set.
- Autonomous switching off of the AV device if the TV set is switched to “stand-by”.

Set the query field “Data Logic” to “X” when making an entry in the menu “AV devices” under “DVD-/Videorec.1” and connect the AV device to the EURO socket, as shown in the plan on the screen.

Registering a Data Logic AV device on TV set

- Call up the TV menu with the **MENU** key.
- Open the “AV devices” menu with the yellow key
- Select the AV device that is to be connected with the cursor control key and press the **OK** key.
- Press numeric key **2** and set the signal types (OUT/IN) that apply to the AV device with the **V-/V+** key and confirm with the **OK** key (on this see too the user guide of the corresponding AV device).







2



- If so desired, press the numeric key **3** to specify another name for this AV device and press the key **OK**.
- Select “Data Logic” with the cursor control key and press the **OK** key.
- Then select “Connect” with the cursor control key and press the **OK** key. Connect the AV device to the corresponding EURO socket.

Data Logic, transfer analogue channel table from TV to AV device

- Call up the TV menu with the  key.
- Open the “Configuration” menu with the red key .
- Select “Analogue TV” with the assigned numeric key.
- Press the  key and select “DataLogic” with the corresponding numeric key.
- Press the  key and transfer the programme position from the TV set to the video recorder.

MENU



29.1.1 Data Logic Settings

Data Logic Mode 1 / Mode 2

Factory setting is Mode 1.

If the recording is stopped by the Data Logic Videorecorder (self-dependent, 5-10sec. after the start of the recording), switching to Mode 2 could solve this problem.

DataLogic mode settings

- Open the TV menu with the **MENU** key.
- Press the red ***** key to open the “Configuration” menu.
- Press the **OK** key and switch to the right column.
- Press the **F1** key.
- Select “Data Logic adjustment ” using the assigned numeric key.
- In the setting window, change the setting with the **V+ / V-** key.
- Save the changed setting by pressing the **OK** key.
- Exit the TV menu with the **EXIT** key.



3



MENU



29.2 Registering AV devices. Set signal type RGB

The signal type always refers to the in- and output of the AV device.

In AV devices recording and playback can occur via FBAS signal while the menu presentation output occurs via RGB signal.

A general statement in this regard is not possible. There may be a note on this in the user guide of the particular AV device.

If such an AV device with the signal type “FVAS” is registered and the picture of the recording/ playback, but no menu presentation for the AV device appears on the screen of the TV device, the signal type in the menu “AV devices” is switched to “RGB”.

Setting the signal type

- Call up the TV menu with the **MENU** key.
- Open the “AV devices” menu with the yellow key .
- Select the AV device for which the signal type is to be changed with the cursor control key and press the **OK** key.
- Press the corresponding numeric key select “Signal OUT” with the cursor control key and set the V+/V- to “RGB” with the key.
- Confirm the setting with the **OK** key.

- Press the **EXIT** key to close the TV menu.

Under certain circumstances, a pre-existing wiring diagram may change. The AV devices must also be correspondingly reconnected.



1 2 3

4 5 6

7 8 9



EXIT

MENU



29.2.1 Registering AV devices. Set signal type DVI/HDMI

The signal type always refers to the in- and output of the AV device.

AV devices fitted with a DVI or HDMI socket can be connected to the TV set with a DVI or HDMI cable. The AV device connected with signal OUT “DVI” or “HDMI” must be registered in the menu “AV devices.” The connection via DVI or HDMI permits digital picture transmission. With DVI, the sound must be connected in addition via a cinch or optical audio cable (Toslink).



Setting signal type DVI or HDMI

- Call up the TV menu with the **MENU** key.
- Open the “AV devices” menu with the yellow key .
- Select the AV device for which the signal type is to be changed with the cursor control key and press the **OK** key.
- Press the corresponding numeric key, select “Signal Out” with the cursor control key and set to “DVI-D” or “HDMI” with the V+ /V- key.
- Confirm the setting with the **OK** key.
- Press the **EXIT** key to close the TV menu.

Under certain circumstances, a pre-existing wiring diagram may change. The AV devices must also be correspondingly reconnected.

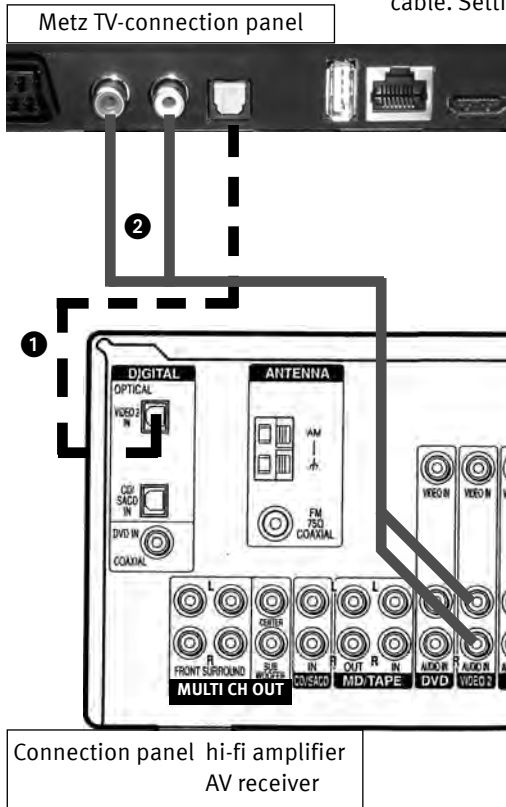


EXIT

29.3 Connecting a hi-fi amplifier/AV receiver

Registering hi-fi amplifier on TV set

The hi-fi amplifier is correctly connected automatically by inserting the cinch cable or optical audio cable. Setting a signal type is unnecessary.



Sound playback:

- For sound playback on an LCD TV set, press the yellow key and select the menu item “Speakers” with the cursor control key.
- Set “Speakers out” in connection type **1** with the **V+/-** key. The speakers of the TV set will now be muted. The sound is reproduced via the lspeakers of the hi-fi system.
- Set connection type **2** “Speakers centre” with the **V+/-** key. The TV speakers will now operate in centre box mode. The sound is redirected to your hi-fi speakers.

- 1** Digital audio signal formats (depending on the source)
- 2** Analogue audio signal R+L (stereo)
- 3** Center IN is always possible if the AV receiver offers this. Can be used in combination with **1** or **2** if this option is available.

It is always possible to use the TV speakers as the centre speaker if the AV receiver has this output available.

The advantage is that the TV speakers can be used as the centre speaker, making the set of external centre speakers unnecessary.

MENU



29.4 Displaying AV devices (AV table)

The TV set has various connection sockets (e.g. Euro, USB, HDMI, etc) to which an AV device can be connected.

After pressing the key **OK/AV** the AV table is displayed in normal TV mode.

Depending on the setting in the menu, the AV table is displayed with all AV devices and connection sockets or only the AV devices connected.

Setting the AV table



- Call up the TV menu with the **MENU** key.
- Open the “Configuration” menu with the red key *****.
- Press the **OK** key and switch to the right column.
- Select “AV table” with the assigned numeric key.
- Set the desired view in the settings window with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Clear the TV menu with the **EXIT** key.



EXIT

2) Possible only on sets equipped with this function.

MENU



F1

29.5 CEC settings

With Consumer Electronics Control (CEC), you can use the Metz remote control to operate the basic functions of any connected AV devices. To enable CEC, the AV device must support the HDMI CEC functions and be connected to the TV set over an HDMI cable. The general purpose of the CEC function is to simplify cabling while providing integrated control.

CEC settings

- Open the TV menu with the **MENU** key.
- Press the red ***** key to open the “Configuration” menu.
- Press the **F1** key.
- Select “HDMI sockets” using the cursor control key.
- Press the **OK** key and switch to the right column.
- Select “CEC settings” using the assigned numeric key.
- Switch on the function “HDMI CEC” in the settings window with the **V+/V-** key.
- Select “HDMI ARC” (ARC = audio return channel) with the cursor control key and then activate it using the **V+/V-** key.
- Save the changed setting by pressing the **OK** key.
- Exit the TV menu with the **EXIT** key.

HDMI ARC

Once the CEC function has been switched on, an audio return channel (= ARC) can be activated or deactivated on the HDMI cable. If “HDMI ARC On“ has been selected, the audio return channel will be activated automatically when the TV set is switched on, if a CEC and ARC-capable AV receiver / HiFi amplifier has been connected to the HDMI-socket “IN1 (ARC)”. ARC is an HDMI function which was introduced with the HDMI specification version 1.4a.

AV receivers that do not meet these HDMI specifications do not provide this function as a result.

HDMI CEC

The CEC function can always be switched on or off.

If the CEC function is active, the TV set can be woken from standby mode by a CEC-capable device and switched on (one-touch play). Linea TV sets do not support this function.




- ① ② ③
- ④ ⑤ ⑥
- ⑦ ⑧ ⑨

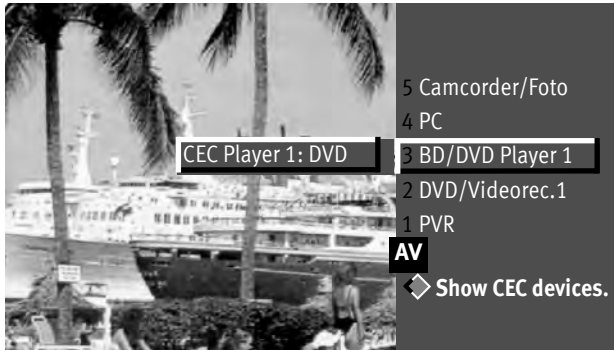


EXIT

29.5.1 Controlling AV devices with the CEC function

 **AV devices must first be named in the “AV devices” menu and assigned to connection sockets; see Chapter 29 “Registering AV devices.”**

- Briefly press the **AV** button. The function programmed for AV devices (see Chapter 23, “Programming function buttons”) is executed. Press the **AV** button for approx. 3 seconds. The max. possible selection is displayed.
- Select the CEC-capable AV device with the cursor control key.
- Press the **◀** cursor control key to show the CEC-capable AV device(s).



- With the cursor control key, select the CEC-capable AV device that you want to control.
- Press the **OK** key and confirm the selected CEC-capable AV device. You can now control the basic functions of the CEC-capable AV device using the TV remote control.

MENU



F1

1 2 3

4 5 6

7 8 9



EXIT

30 AV playback

30.1 Devices with switching voltage

AV devices must be named beforehand in the menu “AV devices” and assigned to the corresponding connection sockets, see Chapter “29 Registering AV devices.”

Playing a video cassette, DVD etc via a connected AV device is described as playback.

To see the picture, you must program an automatic program change on the EURO socket and the HDMI socket on the TV set to which the AV device is connected.

Programming a program change

This menu item cannot be set in a 2 menu (see Chapter 27, Range of functions).**

The EURO socket and the HDMI socket is programmed at the factory with the program change “On”.

- Press the **MENU** key. The TV menu is displayed.
- Press the red key . The “Configuration” menu is displayed.
- Press the **F1** key.
- Select the menu item “EURO sockets” or “HDMI sockets” with the assigned numeric key.
- Press the **OK** key and set “Change stations on” in the settings window with the **V+/V-** key.

- Press the **OK** key to save the changed setting.
- Clear the TV menu with the **EXIT** key.

If playback is started on the AV device connected, the TV set changes to the playback mode irrespective of from what program position.

2) Possible only on sets equipped with this function.

30.2 Devices without switching voltage

AV

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨

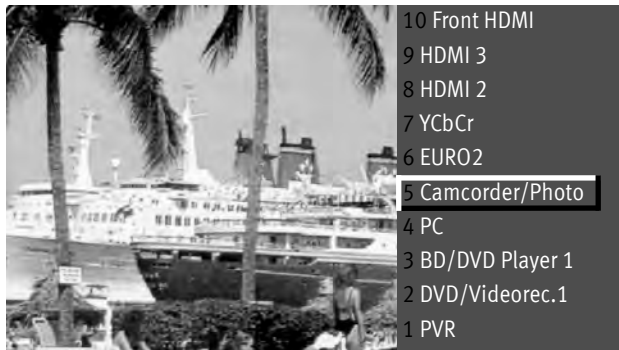
☞ *AV devices must be named beforehand in the menu “AV devices” and assigned to the corresponding connection sockets, see Chapter “29 Registering AV devices”.*

- Press **AV** key briefly - the function programmed for AV devices (see Chapter “23 Programming function keys”) is executed.
Press **AV** for approx. three seconds - the max. possible selection is disp.
- Press the corresponding numeric key to display the AV device.
- The TV set switches from the program running to the playback device selected.
- Start the playback on the AV device. This AV switch remains in effect until another AV program position is selected.

- After the playback has ended, press the key **TV/R** and return to TV mode.

☞ *If the same AV device is to be selected very often, the AV key **AV** can also be programmed for this AV device.*

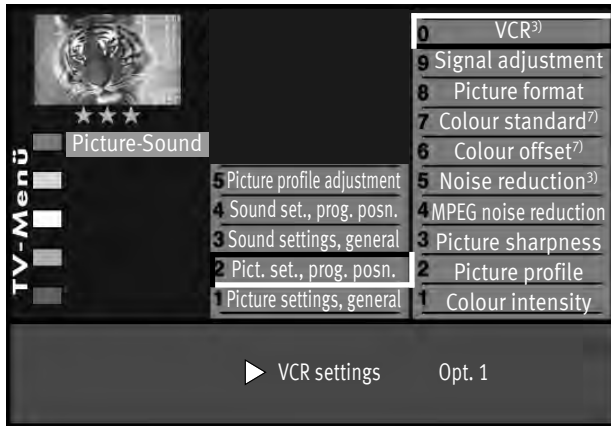
See Chapter “23 Programming function keys.”.



TV/R



- ① ② ③
- ④ ⑤ ⑥
- ⑦ ⑧ ⑨



- ① ② ③
- ④ ⑤ ⑥
- ⑦ ⑧ ⑨



30.3 AV playback, VCR function

The menu item “VCR” cannot be set in a 2 menu (see Chapter 27).**

The VCR function ensures maximum picture quality for playback of tape devices, e.g. camcorders and video recorders.

Setting the VCR function

- Press key briefly - the function programmed for AV devices (see Chapter “23 Programming function keys”) is executed. Press key for approx. three seconds - the max. selection is displayed..
- Select the AV device that is to provide the picture with the numeric keys.
- Call up the TV menu with the key.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Select the menu line “Pict. set, prog. posn.” with the assigned numeric key.
- Select the menu line “VCR” with the assigned numeric key.
- Set “Opt.1” with the **V+ / V-** key. If this setting does not produce any satisfactory result, you can switch to “Opt.2”.
- Save the setting with the key.
- Clear the TV menu with the key.

3) See glossary for an explanation.

7) Available only for analogue stations !



- ① ② ③
- ④ ⑤ ⑥
- ⑦ ⑧ ⑨



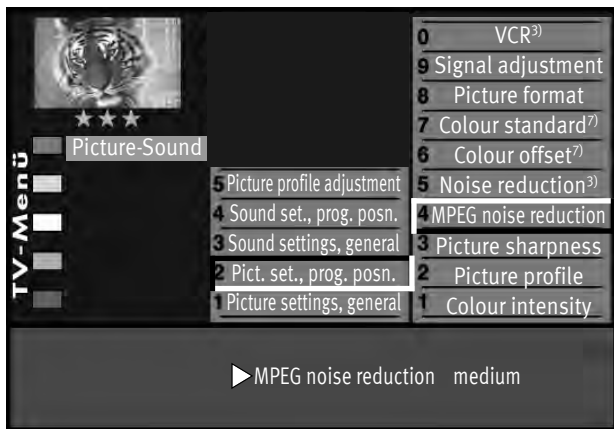
30.4 AV playback, MPEG noise reduction

In AV mode, when playing back digitally encoded films, system-related digital picture defects that can be seen as a rectangular pattern (formation of tiny blocks) in moving areas can be reduced with the help of MPEG noise reduction.

The rectangular pattern (formation of tiny blocks) can be corrected in the “MPEG noise reduction” menu item.

Setting MPEG noise reduction:

- Press the key.
- Select the AV device that is to provide the picture signal with the numeric keys.
- Call up the TV menu with the key.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Select the menu line “Pict. set., prog. posn.” with the assigned numeric key.
- Select the menu line “MPEG noise reduction” with the assigned numeric key.
- Set “MPEG noise reduction” with the key **V+ / V-**.
- Save the setting with the key.
- Clear the TV menu with the key.



- ① ② ③
- ④ ⑤ ⑥
- ⑦ ⑧ ⑨



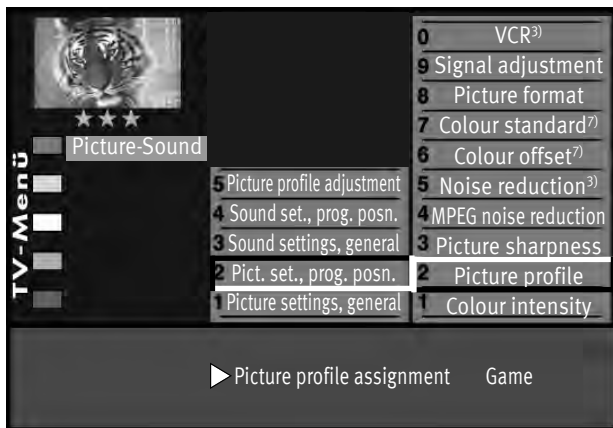
3) See glossary for an explanation.

7) Available only for analogue stations !

0/AV

1 2 3
4 5 6
7 8 9

MENU



1 2 3
4 5 6
7 8 9



EXIT

30.5 AV playback, assigning a picture profile

The picture profiles (see p. 49) can be allotted for individual AV program positions.

Assigning a selected picture profile:

- Press the 0/AV key.
- Select the AV device that is to provide the picture signal with the numeric keys.
- Press the MENU key. The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Select the menu line “Pict. set, prog.posn.” with the assigned numeric key.
- Select “Picture profile” with the assigned numeric key.
- Change the settings for “Picture profile assignment” with the V+/V- key.
- Save the changed setting with the OK key.
- Clear the TV menu with the EXIT key.

A picture profile can also be temporarily changed during a program without the change being saved. See Chapter 17.1.3 for this.

3) See glossary for an explanation.

7) Available only for analogue stations !


O/AV




MENU

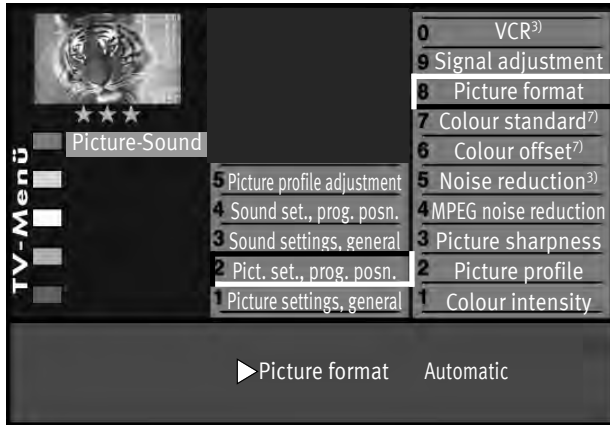


30.6 AV playback, Picture format

 **Various menu items cannot be set in a 2** menu (see Chapter 27).**

Setting the Picture format:

- Press the **O/AV** key.
- Select the AV device that is to provide the picture with the numeric keys.
- Press the **MENU** key. The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Press the assigned numeric key and select the menu item “Pict. set, prog.posn.”
- Select the function “Picture format” with the assigned numeric key.
- Set the picture format setting to the mode desired with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.



EXIT

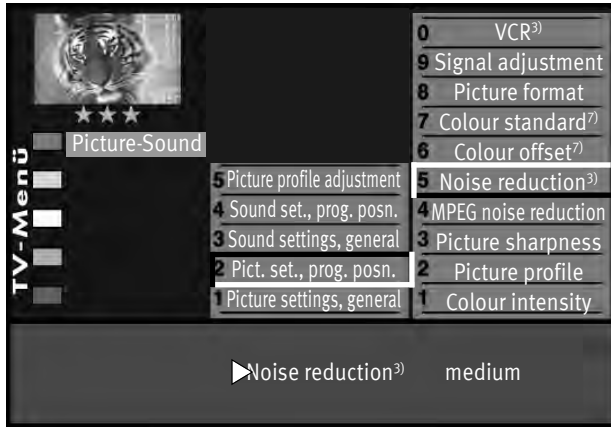
3) See glossary for an explanation.

7) Available only for analogue stations !

0/AV

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨

MENU



① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨



EXIT

30.7 AV playback, noise reduction

Various menu items cannot be set in a 2 menu (see Chapter 27).**

Faults can occur in the event of unfavourable reception conditions, an antenna signal that is not strong enough or in very old films. Noise reduction can be enabled to compensate for a “noisy” picture.

Setting the noise reduction:

- Press the **0/AV** key.
- Select the AV device that is to provide the picture with the numeric keys.
- Press the **MENU** key. The TV menu is displayed.
- Press the blue key . The menu “Picture-sound” and the menu item “Picture settings general” are pre-selected.
- Select the menu line “Pict. set, prog.posn.” with the assigned numeric key.
- Select the menu line “Noise reduction” with the assigned numeric keys.
- In the setting window, change the setting with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Press the **EXIT** key to close the TV menu.

3) See glossary for an explanation.

7) Available only for analogue stations !

O/AV

① ② ③

④ ⑤ ⑥

⑦ ⑧ ⑨

F2

0

31 Transferring with AV devices (direct recording)

 **Transferring is only possible from the front sockets to the EURO1 socket.**

If you want to transfer a recording with the AV devices connected to the TV set, e.g. from camcorder/photo (playback device) to the DVD-/video recorder (recording device), you must control this via a direct recording. In this case the direct recording has the effect that the signal entering at the front sockets is passed on to the EURO socket, which emits the signal for recording.

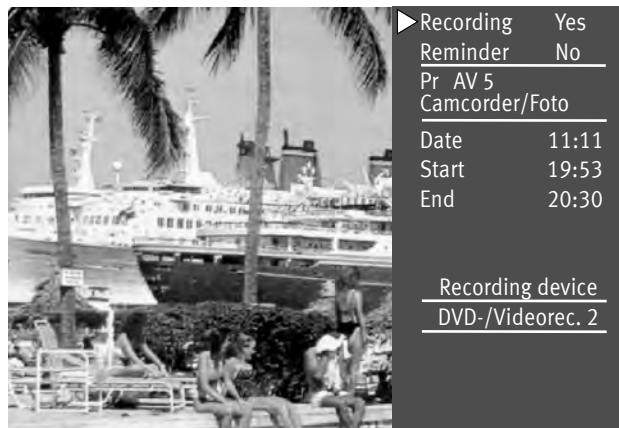
Example: You have connected a camera to the front sockets and video recorder to the EURO socket of the TV set, see Chapter 29).

Programming direct recordings for transfer:

- Press the **O/AV** key and select the playback device with the corresponding numeric key.
- Press the **F2** key briefly - the function programmed for **F2** (see Chapter 23 “Programming function keys”) is executed. Press **F2** for approx. three seconds - the max. possible selection is displayed.
- Press numeric key **0** and open the timer menu. The AV program position (DVD player), current date and a time window of two hours are displayed in the timer window.
- If two hours are not enough time for the transfer, enter a later end time with the numeric keys.
- Select the line recording device with the cursor key. If only one recording device is available, it is displayed here. If another is available, you can select the recording device with the **V+/V-** key.

- Save the programming by pressing the **OK** key.
- Select the AV program position on the recording device (in the example video recorder), normally AV1.
- Start an immediate recording with the key on the recording device (REC or OTR, etc).
- Start the film that is to be transferred on the playback device (in the example DVD player).

The TV set is now configured to pass on the signal provided by the player to the recording device.



EXIT

32 Inserting / removing a CA module

The TV set has two slots for (Cl1 / Cl2) for recording a CA module (card reader for a Smartcard or decoding card).

Insert CA module as shown in the pictures in one of the slots as far as possib.

The LCD TV set is now ready to decode the encoded channels.



Chip turned
outwards



HDMI connection
rear side TV-sets



HDMI Cable

33 Connecting a PC

Some TV sets can render an analogue PC signal via a 15-pin VGA socket.

33.1 PC [HDMI] to TV [HDMI]

Switch the PC and TV set on with the power switch and use an HDMI cable to connect the HDMI socket of the PC to the HDMI 2 socket of your TV set.

The AV device menu is factory set to connect a PC via the HDMI 2 connector.

After connecting the PC, data is exchanged between the graphics card and the TV. The possible resolutions are determined during this process

Using the TV set as a PC monitor

Press the key.

The choice of possible devices and/or connectors is shown.



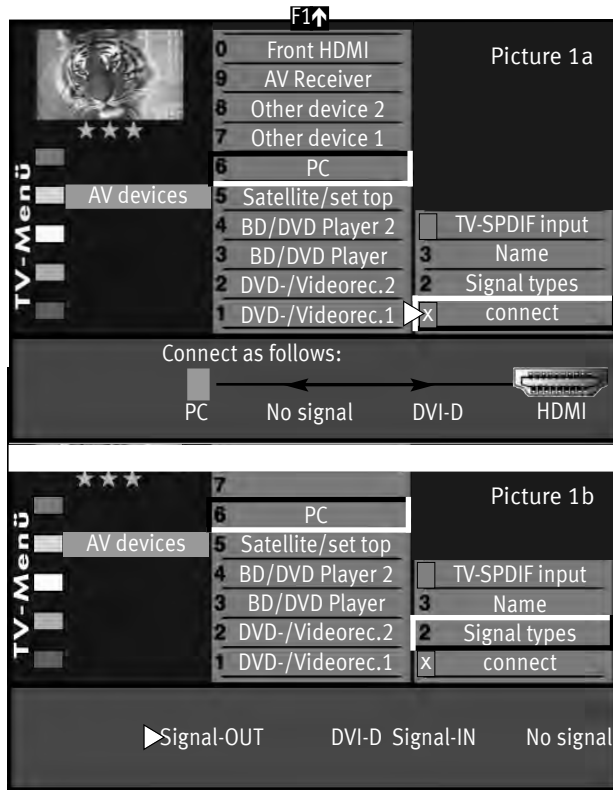
- 10 Front HDMI
- 9 HDMI 3
- 8 HDMI 2
- 7 YCbCr
- 6 EURO2
- 5 Camcorder/Foto
- 4 PC**
- 3 BD/DVD Player 1
- 2 DVD/Videorec.1
- 1 PVR

Press numeric key **4** as in the example or select the PC option with the cursor control key and press the **OK** key.


The device selection menu will disappear and you will see the PC picture.

33.2 DVI-D [PC] to HDMI [TV set]

If your PC has a DVI socket instead of an HDMI socket, you can also connect your PC to the TV set using a DVI-D socket to HDMI socket adapter cable.



If this option is used, the signal type must also be changed.

- Call up the TV menu with the **MENU** key.
- Open the “AV devices” menu with the yellow key .
- Select the “PC” AV device with the cursor control key and press the **OK** key.
- Select **(X)** the Connect menu item using the **OK** key (Picture1a).
- Go to the menu item “Signal types” with the cursor control key and press the **OK**. Set and press “DVI-D” with the **V-/V+** key. The settings must be configured as shown in Figure 1b.
- Clear the TV menu with the **EXIT** key.

For PC sound from the speakers of your TV set, see also chapter 33.3.

When the start-up procedure is finished, you can set the resolution as you wish (recommended = 1920 x 1080 - 60 Hz.) in the Windows menu “Display characteristics”.

33.3 PC sound from the speakers of your TV

- ☞ **With the HDMI setting, sound is also transmitted via the HDMI cable.**
This must, however, be supported by the HDMI output of the graphics card of your PC.

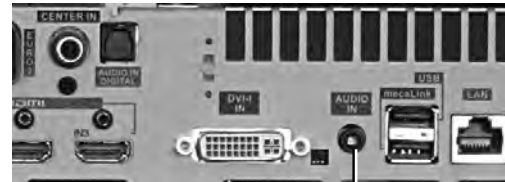
Or: if you have connected your PC via a “DVI-D to HDMI” adapter cable:



Use a standard audio cable 3.5 mm stereo jack to 3.5 mm stereo jack to connect the audio line output of the sound card of your PC to the audio-in input of the TV (only Taros).




Audio IN, diameter Ø 3,5mm (only Taros)



Audio IN, diameter Ø 3,5mm (Ch.610)





34 Cleaning the device

 **Switch off the device with the power switch before cleaning !**

 **Improper handling and cleaning can cause irreparable damage to the screen. Consequently, pay attention to the rules on handling and caring for the device.**

- Handle the screen surface very carefully and gently.
- Avoid any mechanical stress to the screen surface by knocking, shocks, pressure, scratching, scraping, etc, since this can lead to damage.
- Avoid contact with pointed, sharp or hard objects.
- The screen surface must be preserved against dirt.

Care and cleaning:

-  Switch off and unplug the device before cleaning.
 -  Take care that water or other liquids never gets into the device, since these can cause damage to the device.
 -  Unplug the set immediately if foreign bodies like water, other liquids, metal parts, etc get into the screen.
 -  Never attempt to touch the inside of the set with any objects or with your hands. There is a risk of electrical shock or an accident.
- Cleaning of the screen surface must occur with a soft, dry cleaning cloth (e.g. microfibre cloth).
 - If significant soiling nevertheless occurs, the screen surface can be cleaned with a slightly moist, soft cloth.

35 Glossary

ARC (audio return channel)

An audio return channel has been implemented in the HDMI 1.4 version to reduce the cabling effort between various HDMI components

The audio return channel is always useful if a TV set integrated in a home cinema system has a built-in digital tuner, DVD or Blu-ray player or another source of digital-/sound material.

The ARC function can establish an “audio return channel” via the HDMI cable to the AV device. In other words, the same cable that is normally responsible for transporting data from the AV device to the TV set in this case transfers audio data in the opposite direction. The audio return channel makes the audio cable (Toslink) previously required in addition to the HDMI cable superfluous.

The audio return channel supports all formats, which can also be transmitted via conventional TV SPDIF connection - among others, these are Dolby Digital, DTS and PCM audio. However, formats that cannot be transmitted via S/PDIF, e.g. all HD audio formats, are not supported by the audio return channel.

Automatic zoom

The active automatic zoom permits showing programs in wide screen format (e.g. programs in 16:9 format) as far as possible in a format filling manner on the screen.

If this function remains switched off, these film formats are not automatically adjusted.

AV program position

AV devices have one or more sockets, depending on their type.

These sockets are identified on the device itself, e.g. AV1.

These sockets can be selected on the AV device. The socket selected is correspondingly displayed in the AV device display, e.g. A1 for the AV1 socket.

Brightness

Images that remain unchanged for a long time (several hours), such as still pictures, result in “image sticking”, i.e. lasting shadow formation. Such images should be avoided if at all possible. This effect is not permanent and disappears again after a short time.

Compulsory mono

Under certain circumstances your TV may switch from mono to stereo during a program without your wishing this to happen, though no stereo channel is being received. Normally this depends on the local reception conditions. If “Compulsory mono” is set for the program position selected, all programs are played back according to the setting in mono.

Motion compensation

“Motion compensation, film” improves the picture display for black and white or cinema films. Motion becomes smoother and a more three-dimensional picture appearance results.

Noise reduction

Setting option to improve picture quality of optically noisy “snow pictures” in the event of unfavourable reception conditions. Depending on the degree of disturbance, different correction options are provided, which can be set individually for each program position.

Vertical picture position

In the case of some wide screen films subtitles are broadcast in the lower black strip. To ensure these subtitles remain visible when enlarged, you can move the picture upwards.

Picture profile

Standard: Compromise for all applications.

Sports: Setting for sports channels or sports programs.

Brilliant: Setting for animated films, DVD players and Blue Ray players.

Games: Preferred setting for recordings from game consoles.

PC Monitor: Preferred setting for recordings from a connected PC.

User: Your self-configured picture profile.

Code

The settings for parental control are secured with a four-digit numerical code, which you can set. Make a note of the code number entered. If you have forgotten the code number, consult your specialist dealer.

DHCP

The Dynamic Host Configuration Protocol permits assignment of the network configuration to clients by a server.

A client is a computer program that establishes contact with another computer program on a server, in order to make use of its services. DHCP enables computers to be connected automatically to an existing network, without the need for any manual configuration.

The client must simply be configured to retrieve an IP address automatically. When a computer connected to the network is started, it can automatically retrieve an IP address, the subnet

mask, the default gateway and also DNS server and, if in use, WINS server details from a DHCP server.

Dyn. contrast

The "Dynamic contrast" setting facilitates an automatic increase in picture contrast in the event of a low level of picture contrast.

Dyn. image sharpness

The "Dynamic image sharpness" setting facilitates an automatic increase to the sharpness of the picture in the event of a low level of sharpness.

Fine search

During the channel search with a stipulated symbol rate, the channels are synchronised at the centre of the channel. If this setting does not lead to a satisfactory result, fine tuning can then be set. The search operation takes considerably longer with the fine search set.

Film mode

The menu item "film mode" should be deactivated for news stations (e.g. N-TV) that blend in a ticker text.

Gateway

A gateway is a network transition used in telecommunications, for example in next Generation networks and in IP telephony.

These gateways convert digital voice, audio or image information from one network format to another. Transcoding of data may also occur in this connection.

Image sticking

Images that remain unchanged for a long time (several hours), such as still pictures, result in "image sticking", i.e. lasting

shadow formation. Such images should be avoided if at all possible. This effect is not permanent and disappears again after a short time.

IP Adress

Images that remain unchanged for a long time (several hours), such as still pictures, result in “image sticking”, i.e. lasting shadow formation. Such images should be avoided if at all possible. This effect is not permanent and disappears again after a short time.

Volume correction

Broadcasting channels broadcast at different volumes. These volume differences can be automatically adjusted between channels. The adjustment is also retained when calling up the default values.

Standard value

Standard value or basic values are settings (e.g. brightness, volume, colour, etc) which are the same for all programs.

Panorama

“Normal” programs in 4:3 format can be adjusted to the 16:9 format of the picture screen with the panorama function. The picture width is widened here to fill the screen.

Subnet

The term subnet is used to define an individual portion (sub-network) of an Internet Protocol (IP) network.

Symbol rate (baud rate)

The symbol or baud rate describes the data volume that is transmitted per second. The time required for the search function

increases in proportion to the symbol rate.

Station search

- 1 Freely receivable channels,
all non-encrypted channels are sought.
- 2 All channels,
all non-encrypted and encrypted channels are sought.
If a CA module and smart card are inserted, the corresponding encrypted channels are released.
- 3 Free and CICAM channels,
all non-encrypted and all encrypted channels for the smart card inserted in the CA module, are sought.

VCR

The VCR function ensures maximum picture quality for playback of tape devices, e.g. camcorders and video recorders.

36 Upgrade Kits

- **PVR hard disk 095 NV 1725 (500 GB) for Ch. 612 / 095 NS 1727 for Ch. 610**

for the digital recording and playback of DVB channels (including HDTV). Also offers the option of postponing the TV schedule (timeshift mode).

- **PVR hard disk 095 NV 1413 (750 GB) for Ch. 612 / 095 NT 1418 for Ch. 610)**

for the digital recording and playback of DVB channels (including HDTV). Also offers the option of time shift TV (timeshift mode) including remote control RM17.

- **EC-Modul 033 NV 1544 (Encoder-Modul) for Ch. 612 / 033 NT 1444 for Ch. 610**

Also enables the recording of analogue TV programs in conjunction with the hard disk recorder. Only possible in conjunction with an ET module.

- **Metz Soundsystem 100 (014LR9048)**

Active 2.1 Virtual Surround System for home theatre and hi-fi enjoyment.

For more information and to further upgrade kits, please contact your dealer or visit us on the website at www.metz.de.

37 Technical data

Mains voltage:230 -240 V ~ 50 Hz

Antenna input:75 Ohm asymmetric DIN 45325

Channel coverage:Standard channels 2 - 12, 21 - 69

Special channels S1 - S20, S21 - S41,

S42 ... S46 (Belgium channels OIR)

Operating temperature range: +5°C bis +35°C bei 75 % air humidity

Energy consumption values see separate data sheet

In- and output signals supported

HDMI IN

SDTV	640x480p	60 Hz
	720(1440)x576i	50 Hz
	720(1440)x480i	60 Hz
	720x576p	50 Hz
	720x480p	60 Hz
HDTV	1920x1080p	24Hz/ 50Hz/ 60Hz
	1920x1080i	50Hz/ 60Hz
	1280x720p	50Hz/ 60Hz
PC	640x480p	60 Hz
	800x600p	60 Hz
	1024x768p	60 Hz
	1280x800p	60 Hz
	1280x1024p	60 Hz
	1360x768p	60 Hz
	1400x1050p	60 Hz
	1440x900p	60 Hz
	1600x1200p	60 Hz
1680x1050p	60 Hz	

HDMI Audio: Linear PCM Stereo 32kHz/ 44.1kHz/ 48kHz

EURO1

RGB IN: 576i 50Hz, 480i 60Hz

Y/C IN: PAL 576i 50Hz, NTSC 480i 60Hz

FBAS IN: PAL 576i 50Hz, NTSC 480i 60Hz, SECAM 576i 50Hz, PAL 60

FBAS OUT: yes (format dependent on source)

Audio IN: Analog Stereo (Line-IN)

Audio OUT: Analog Stereo (Line-OUT)

DIGITAL AUDIO OUT SPDIF (Linear PCM Stereo bzw. Dolby Digital, depending on source)

AUDIO OUT Analog Stereo (Line-OUT)

AUDIO IN Analog Stereo (Line-IN)

Front AV

FBAS IN: PAL 576i 50Hz, NTSC 480i 60Hz, SECAM 576i 50Hz, PAL 60

Audio IN: Analog Stereo (Line-IN)

Headphones OUT: headphone impedance ≥ 32 Ohm

Errors excepted. Subject to changes !



Annex A

Metz Media System

Local area network

HbbTV

Media Player

Metz Media-System ¹⁵⁾

Metz turns your TV into a multimedia centre.

The integrated Metz Media System allows you to play videos or music and display photos on your TV – it simply “retrieves” the digital data from your PC, your network attached storage (NAS) or your digital camera, for example.

You can set up your own multimedia network at home and control this simply and conveniently using your Metz remote control.


But that’s not all, as your Metz Media System also allows you to access numerous online services using **HbbTV**, a new platform for providing additional services via TV sets. You can obtain further information on the TV channel you are currently viewing via a DSL Internet connection – or watch missed programs via the media library of the respective channel.

Media Player ¹⁸⁾

The Media Player enables you to play films, photos and music files from various components in your home network, such as a PC, notebook or network attached storage (NAS), on your TV set.

HbbTV ^{15) 16) 17)}

HbbTV (Hybrid broadcast broadband TV) is a new industry standard for connecting TVs with the Internet. The broadcasting companies transmit a digital data stream together with their TV programs, which also includes a web address.

Once the HbbTV logo appears, a connection can be established between the TV set and the Internet portal of the channel by clicking the red  key.

Up-to-date program information can then be displayed, for example, or programs that have been missed can be retrieved via the TV media library.

HbbTV also provides comprehensive teletext functions and in-depth program previews.



15) not available with analogue reception.

16) Recommended: at least a 5000 kbit/s DSL connection.

17) HbbTV availability is dependent on the channel and is therefore not offered in all countries.

18) This product is protected by certain intellectual property rights of Microsoft. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft.



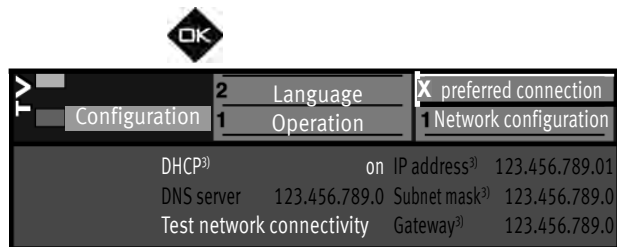
A1 Cable network (LAN)

A1.1 Network configuration – automatic LAN configuration

Precondition: The TV set is attached to your router using a network cable via the LAN socket.

- Press the (MENU) key. The TV menu is displayed.
- Press the red key (★). The “Configuration” menu is opened.

- Select the menu item “Cable network (LAN)” with the assigned numeric key.
- Confirm the menu item “Network configuration” selected with the **OK** key. The cursor is on the menu item “DHCP³⁾ on” (factory setting).
- Now press the **OK** key. The cursor returns to the menu item “Network configuration” and parameters like DNS server, IP address, subnet mask and gateway are identified automatically and entered.



- If the menu item “preferred connection” has an X next to it, the TV set will log on automatically each time it is switched on using the power switch.

2) Possible only on sets equipped with this function.

3) See glossary for an explanation.

MENU



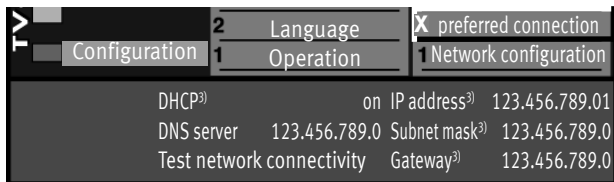
1 2 3
4 5 6
7 8 9



A1.1.1 Network configuration – manual LAN configuration

Precondition: The TV set is attached to your router using a network cable via the LAN socket, but could not be logged on automatically.

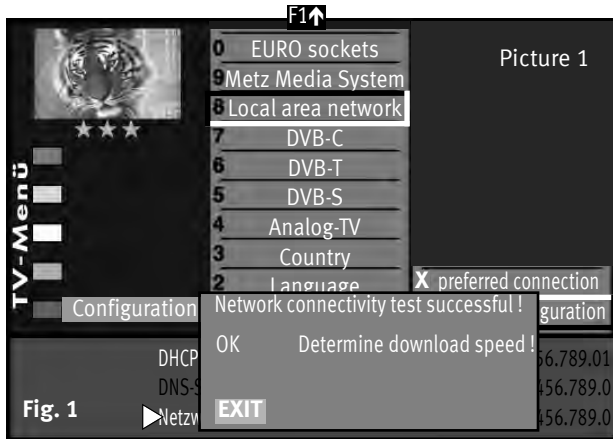
- Press the **MENU** key. The TV menu is displayed.
- Press the red key *****. The “Configuration” menu is opened.
- Select the menu item “Local area network” with the assigned numeric key.
- Confirm the menu item “Network configuration” selected with the **OK** key. The cursor is on the menu item “DHCP³⁾ on” (factory setting).
- Use the **V+ / V-** key to change the menu item “DHCP on” to “DHCP off”.
- The cursor control key can be used to navigate between the individual menu items.
- The numeric keys can be used to enter the required serial number (displayed on the identification label of the external device, e.g. router).
- Save the settings by pressing **OK**.
- If the menu item “preferred connection” has an X next to it, the TV set will log on automatically each time it is switched on using the power switch.



2) Possible only on sets equipped with this function.

3) See glossary for an explanation.

A1.2 Testing the network connection

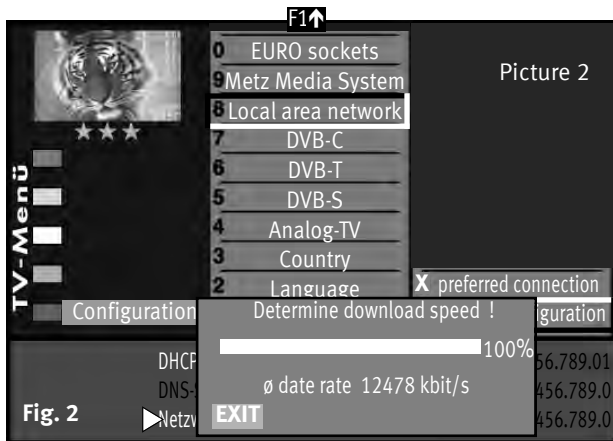


Once a connection has been established successfully, the cursor is located next to “Network configuration”.

- Press the **OK** key once again and select the menu item “Test network connection” with the cursor control key. Press **OK** again. ^

The connection test is carried out.

If the message “Connection test successful!” appears (picture 1), press the **OK** key to test the transmission speed of your DSL connection (Figure 2). The transmission speed should be at least 4000 kbit/s, in order to ensure images can be displayed smoothly, for example, when you view a program via the media library.



- Press the **EXIT** key twice and leave the “TV menu”.

The TV is now connected to the Internet and can, for example, make use of the new HbbTV television services.

2) Possible only on sets equipped with this function.

MENU

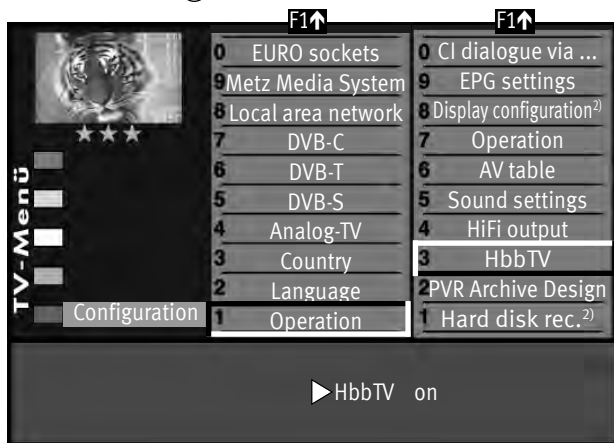


A2 HbbTV

HbbTV is not available in all countries.

Switching HbbTV on/off


- Call up the TV menu with the **MENU** key.
- Open the “Configuration” menu with the red key .
- Press the **OK** key and switch to the right column.
- Select “HbbTV” with the assigned numeric key.
- Switch the function on or off in the settings window with the **V+ / V-** key.
- Press the **OK** key to save the changed setting.
- Clear the TV menu with the **EXIT** key.



EXIT




Broadcasting channels that provide HbbTV services can be recognised via a red “HbbTV-logo” in the bottom left-hand corner of the screen.

Program information is displayed at the bottom of the screen after pressing the green  key.

The “HbbTV-logo” will also be displayed after a couple of seconds by broadcasting channels that provide HbbTV services.






 **During playback from the media library, the HbbTV logo is displayed in the upper left-hand corner of the screen. Some of the keys on the remote control are then blocked and certain functions, such as teletext, EPG, etc., are unavailable. HbbTV is not available during PVR playback or when the time shift function is being used.**

A2.1 Accessing HbbTV



- Switch to a channel that offers HbbTV.



- Press the red key . Once a connection has been established to the Internet portal of the channel in question, the HbbTV logo moves to the upper left-hand corner of the screen and the HbbTV menu is displayed.
- The HbbTV menus are controlled exclusively with the coloured or numeric keys or the cursor control key.
-  **The views and control options within the HbbTV menus are dependent on the respective provider and can therefore differ from channel to channel.**
- Press the  key to confirm your selected settings.

It may take some time, after pressing a key, before the TV set displays the selected settings.

A2.2 Exiting HbbTV

- HbbTV can be exited by pressing the red  key or the  key.



F2

Special functions 2

2 Language of prog.

4 Photo Viewer

5 File manager

6 Media player

6

A3 Opening the Media Player


The Media Player enables you to play films, photos and music files from various components in your home network, such as a PC, notebook or network attached storage (NAS), on your TV set.


- Press the **F2** key - the special functions menu appears.
- Press numeric key **6** and the “Media Player” opens.


A3.1 Using the media player

Operation of the Media Player can vary depending on the media files (audio/photo/video).


The Media Player is controlled using the cursor control key, the coloured buttons and, depending on what is being viewed, the **+P/-P** keys.


Use the blue  button or the cursor control key to choose between hard disk, PVR archive, USB storage device or network.

Use the white  button to leave the selected folder.

You can use the red  button to add or remove a selected file to/from the playlist.
This button is only shown when the cursor is placed on a photo, video or audio file.



You can use the yellow  button to change the sorting during audio playback: file name, artist's name and album title. In the PVR archive, you can choose between sorting by alphabet or date.

Use the green  button to retrieve/exit the playlist overview.

A3.1 Using the media player (continued)


Accessing the **PVR archive** on the TV set's internal hard disk.


Access to the data partitions of the internal hard disk

Access to the **USB storage device** (if connected)

Access via the **network** on your media server or the **external NAS hard drive** archive.

Basic operation of the Media Player

In this view, use the blue  button or the cursor control key to choose between hard disk, PVR archive, USB storage device or network. After a brief moment, the other symbols (PVR archive, USB storage device etc.) will disappear from the screen.

To see the symbols again, press the blue  button again.

Example:

You are on the hard disk and want to look at the photos in the "Pictures" folder. Go to the "Pictures" folder with the cursor control key and press the **OK** key.

The folder opens, and you can see the photos in a selection list. Use the cursor control key to scroll through the selection list and select a photo.



A3.2 Photos/pictures



- Select the device or data source desired with the blue key .
*In the example, we are using the **internal data partition** of the integrated hard disk and the "Picture" folder.*
- Select the desired photo folder with the cursor control key and open with the **OK** key.
- Select a photo in this photo folder with the cursor control key.



The following options are available via this Media Player screen:

1.) Full screen:

- Press the **OK** key - full screen view of the selected picture.
Press the **OK** key once more to pull up the selection list again.

2.) Overview of the selected directory:

- Press the F2 button. The cursor must be on a photo file.

3.) Add photo(s) to a playlist:

- Press the red button. You can collect your favourite photos in a playlist without removing them from their original directories.

The playlist only contains a link, which references the path for the original file.

A3.2.1 Photos – 15-photo overview

- Press the **F2** key and call up the 15-photo overview.
- Select the desired photo with the cursor control key and open it with the **OK** key or close the photo again by pressing the **OK** key again.



The following selection options are available in the 15-photo overview:

- = return to Media Player.
- = Full screen.
- = Magnifying glass.
- = Delete photo.
- = Rotate image anticlockwise.
- = Slide show.
- = Rotate image clockwise.
- = Rotate image clockwise.
- = Rotate image anticlockwise.
- = Exit folder.

Music for slide shows:

- Create a music playback list, as described in Chapter A3. 3. 1.
- Play the playback list, as described in Chapter A4.
- Start the slide show with the **F2** key.

A3.2.2 Creating photo/picture playlists


If multiple photo albums are stored on the hard-disk, you can select individual photos/pictures in the various photo albums. This selection creates a shortcut used during playback.

A “photo playlist” is created automatically based on these selections or shortcuts.



- Use the cursor control key to browse your photo albums and add photos to the photo playlist by pressing the red  button.

The link to the photos will then be included in the photo playlist.


If you have selected the wrong file, you can de-select it by pressing the red  key again.

Files that have been selected can also be deleted from the playlist directly.

This symbol is displayed when the file has been added to the playlist.

A3.3 Music



- Select the device or data source desired with the blue key .
- Select the desired music folder with the cursor control key and open it by pressing the **OK** key. The folder is opened and the content displayed on the screen.
- Select the desired music file with the cursor control key and open it by pressing the **OK** key. The music file is played and all the titles after the selected music file are played in order.





A3.3.1 Music - creating playlists

If multiple music albums are stored on the hard-disk recorder, you can select numerous individual titles in the various albums. This selection creates a shortcut used during playback.

An “Audio playback list” is created automatically based on these selections or shortcuts.

The directory containing your playable music files is currently open.

- Browse the music albums with the cursor control key and include the desired music files in the audio playback list by pressing the red key .


If you have selected the wrong file, you can de-select it by pressing the red key  again. Music files that have been selected can also be deleted from the playlist directly.



This symbol is displayed when the file has been added to the playlist



A3.4 Video

- Select the device or data source desired with the blue key .
- Select the desired video folder with cursor control key and open it by pressing the **OK** key. The folder is opened and the content displayed on the screen.
- Select the desired video file with the cursor control key and open it by pressing the **OK** key. The video recording is played.


The following file formats are supported:

Photos: .jpg

Audio: .mp3; .mp4; .aac; .m4a; .ogg; .oga

Video:

Container formats	Video codec	Audio codec	Common file extensions
Audio video interleave	MPEG1/2 MPEG4 part 10 (H.264) AVCHD	AAC HE_AAC AC3 MPEG-2 audio	.avi
Flash Video			.flv, f4v,
Quicktime movie			.mov
Matroska			.mkv
MPEG 4			.mp4, m4v
MPEG 2 transport stream			.m2ts, .mts, .ts, .tsp, .mpg, .mpeg
Video objects			.vob



 **The file extension itself does not necessarily guarantee that a file can be replayed. A container may use codecs that are not supported by the Media System. For example, an AVI file that has been encoded using DivX or Xvid.**

A3.4.1 Video - creating playlists

If multiple video recordings are stored on the hard disk, individual video files can be selected. This selection creates a shortcut used during playback.

A “Video playback list” is created automatically based on these selections or shortcuts.

The directory containing your playable video files is currently open.

- Select the desired recording with the cursor control key.
- Press the red key  and include the recording selected in the video playback list.
If you have selected the wrong file, you can de-select it by pressing the red key  again. Files that have been selected can also be deleted from the playlist directly.

 **The file extension itself does not necessarily guarantee that a file can be replayed.**

A container may use codecs that are not supported by the Media System.

For example, AVI files that have been encoded with DivX or Xvid (see also page 153 – overview of the file formats).



This symbol is displayed when the file has been added to the playlist.

F2

6



A4 Playing a playback list (in the example music)

- Press the **F2** key - the special functions menu appears.
- Press numeric key **6** and the “Media Player” opens.
- Press the green key to call up the overview of playback lists.



- Select the desired playback list (audio, video or photo) with the cursor control key and open it by pressing the **OK** key. The folder is opened and the content displayed on the screen.

- Select the desired music file with the cursor control key and open it by pressing the **OK** key. The music file is played and all the titles after the selected music file are played in order.

Files can be removed from the playback lists by pressing the red key .

This does not delete the actual file, only the shortcut to the file in the playlist.

A5 Connection to a PC or Fritzbox

A PC or Fritzbox can be connected to the TV set instead of a network attached storage (NAS) system.

A suitable media software (such as Twonky, Nero, Tversity or Fritz Media Server) must be installed on the PC or Fritzbox so that the PC hard disk can be used like a network attached storage system (NAS).

The PC or Fritzbox can then only be used as a data source !

Chapters A3 and A4 still apply even if a PC hard disk is being used as an external NAS system.



Annex B

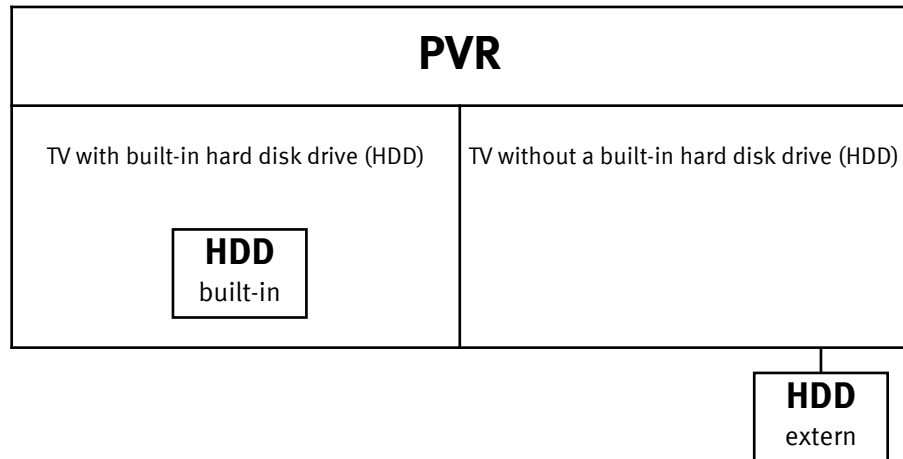
USB-recording

PVR-functions

B1 USB recording / PVR functions

PVR (Personal Video Recording) provides an opportunity to have TV or radio programmes recorded directly on an **internal mass storage device** (hard disk recorder), which is integrated in the TV set or can be retrofitted.

USB recording provides an opportunity to have a TV or radio programme recorded directly on an external mass storage device (e.g. external hard disk, USB disk). The external mass storage device is connected to the USB socket of the TV set.



External hard drive is connected via a USB cable to a TV

USB recording / PVR functions (continued)

Playback and PVR recording are fully independent of one another. You can play back a recorded programme while recording another programme on the internal hard disk or, via USB, on an external hard disk.

An **EPG (Electronic Programme Guide)** is available for recording TV programmes with your PVR.

The external and internal hard disks can hold a large number of recordings that are managed in a PVR archive. The recordings can be protected from accidental deletion. The childlock can be set for each individual recording.

It is easy to record an entire series. Simply set the TV set to record the first episode in the series. After that, the series assistant will automatically programme all the other episodes.

We recommend using external hard disks as USB storage devices.

Memory sticks can only be used to a limited extent. There are two reasons for this: First, they must have sufficient storage capacity for recording programmes (min. 8 GB). Second, they must have minimum read and write speeds.

If necessary, you can order the RM17 remote control (art. no. 017RM17L9) from a specialized retailer if it was not included with your TV set. See also page 19.

Benefits of the RM17 remote control: additional function keys for controlling PVR functions.

B2 Hard disk instructions

Important recordings on the hard disk


The hard disk is not intended to serve as a permanent memory for your recordings. Data and/or recordings that are important to the user should also be backed up on an external storage medium, a DVD for example. METZ cannot assume any liability for recorded material that is lost or damaged as a result of a malfunction or disruption of the hard disk, whether directly or indirectly.

Retrofitting kit 033NT1444 (encoder module) is necessary to record analogue programmes (e.g. cable TV) on the internal hard disk or to copy a recording from a DVD or video recorder to the internal hard-disk recorder.



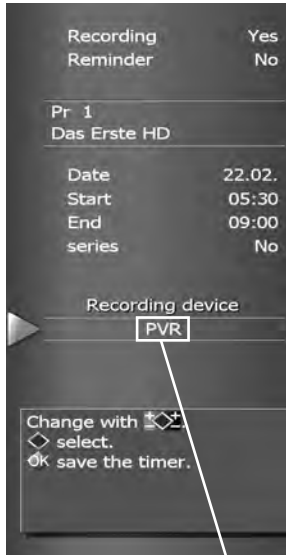
You will need the encoder module (retrofitting kit, see Chapter 36) to record analogue stations (e.g. cable TV) on the internal hard disk or to copy a recording from a DVD or video recorder to the internal hard disk.

Installation and handling

- Do not subject the TV set to shocks or vibrations, especially if the TV set is in operation.
- Place the TV set on an even, stable surface that is free of vibrations.
- Do not cover or block the cooling vents or other ventilation openings on external hard disk devices or the TV set.
- Do not set up the TV set in places where it can get very hot or moist or where the TV set is exposed to rapid temperature changes.
- Do not transport the TV set while it is switched on and also not directly after switching it off.
- The hard-disk recorder must be shut down before switching off the LCD TV set. Press the green key  for this on the remote control and wait until "Please wait" disappears from the display. Now the LCD TV set can be switched off with the power button on the TV set.

Hard disk drive

A hard disk drive is very sensitive. The hard disk may fail if it is used improperly or in an unsuitable environment. Indications of this are if the playback is unexpectedly blocked and noticeable mosaics appear in the picture, among other things. If the hard disk drive fails, playback of recordings is impossible. In such a case, please contact your specialist dealer.



If the letters **PVR** are red while programming recording of an analogue channel, you need to have the **033NV1544 encoder module** retrofitted by your specialist dealer.

Notes regarding the internal hard disk²⁾

When recording something to the hard disk in TV mode, **REC** appears in the upper right hand corner of the screen on TV sets without OLED display. In the case of TV sets with OLED display, REC appears on the right next to the time or programme name when recording something to the hard disk **REC**.



When an external hard disk is used, the internal hard disk is deactivated and not visible in the TV menu. If you log off the external hard disk, the internal hard disk will reappear in the TV menu and can therefore be used again. Simultaneous access to the internal and external hard disks is not possible!

Notes regarding external hard disks¹³⁾

You can connect the external hard disk to the TV set at any time.

Before an external hard disk can be used, it must be formatted via the TV set using Metz's own file system.

If the external hard disk has already been formatted as a USB PVR device:

Connect external hard disk

Plug the hard drive cable into the USB socket on your TV set. The following messages may be shown:

USB PVR was successful integrated to TV set	You can now use the hard disk for PVR functions
Recording, playback or timeshift running, external device cannot be connected	The internal hard disk is being used for a PVR recording, playback or timeshift mode. End the recording, playback or timeshift mode.

Log off external hard disk

If you wish to remove the hard disk – after it has been formatted – log the hard disk off while a TV programme is running by pressing the keys **F2** (special function 2) and **7** (**USB-PVR disconnect**) on the TV set.

Once the message “**USB device can be removed**“ appears on the TV set, remove the hard disk connection cable from the USB port of the TV set and then press the **EXIT** key.

**Log off
external hard disk**

F2

Special functions 2

2 Language of prog.

3 Subtitle

5 File manager

6 Media player

7 USB-PVR disconnect

8 PVR

9 Timer overview

0 Direct recording

7

MENU



1 2 3

4 5 6

7 8 9



EXIT

B3 Format external hard disk

An external hard disk up to a capacity of 1 terabyte is certainly suitable and must be formatted as the “Primary partition” in “FAT32” or “NTFS”.

Please note: If the external hard disk is not recognised, connect it to your PC and check the partition!

This must be a **PRIMARY partition, not Extended.**

After connecting the external hard disk to the TV set, the hard disk must be formatted so that the TV set recognises it properly and can make PVR recordings.

After formatting via the TV set, the external hard disk is no longer suitable for PC applications.

If you want to use the hard disk again on your PC, it has to be reformatted (FAT32 or NTFS).

Please note: All PVR recordings will be deleted when formatting the disk on a PC.

Format external hard disk on the TV set

- Open the TV menu with the **MENU** key.
- Press the red ***** key to open the “Configuration” menu.
- Press the **OK** key. The cursor will move to the right-hand column.
- Select “External hard disk” using the assigned numeric button and then press **OK**. The cursor is on “Do not format”.
- Select “Hard-disk recorder external” with the assigned numeric key.
- Use the cursor control key to select the line “format”.
- Select “Format yes” using the **V+/V-** key and press **OK**. Confirm the security question by pressing the green key (Yes).

An overview of all connected USB devices will be displayed. The name and maximum recording length of your hard disk will also be displayed. Now press the numeric button that is displayed in front of your hard disk.

- The external hard disk will now be prepared for PVR recordings by formatting it with the METZ file system.

- You can close the TV menu by pressing the **EXIT** key.

2) Possible only on sets equipped with this function.
13) only for connection via USB socket

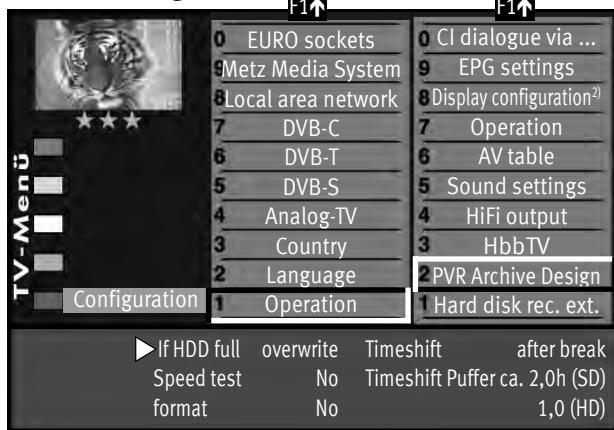
MENU



1 2 3

4 5 6

7 8 9



EXIT

B3.1 Settings of the external hard disk

A variety of settings can be selected for the internal/external hard-disk recorder in this menu:

If the HDD is full . . .

If the hard disk is full, **no more recordings** are carried out or the oldest are released for **overwriting**.

Time shift (delayed viewing)

Time shift mode runs permanently or is started by pressing the key (pause). It can also be switched off.

Speed test (recommend when using USB memory sticks)

If you want to use a USB memory stick for USB recording, we recommend carrying out a speed test first of all. The colour displayed in the test bar let you know whether your USB stick is suitable for USB recording.

Red: speed of the media is not suitable

Yellow: media only suitable to a limited extent due to its speed (e.g. not suitable for HD programmes).

Green: speed of the media is suitable.

Formatting (only for use with external USB storage media)

The external hard disk is prepared for PVR and formatted.

Any data stored on the storage media will be deleted.

Change settings

- Open the TV menu with the key.
- Press the red key to open the “Configuration” menu.
- Press the key. The cursor will move to the right-hand column.
- Select the menu item “External hard disk” or “Hard disk” by pressing the assigned numeric button.
- Select the function in the settings window that you wish to change by using the cursor control key. Now use the **V+ / V-** key to change the settings.
- Accept the changed settings by pressing the key.
- Close the “TV menu” with the key.

2) Possible only on sets equipped with this function.


13) only for connection via USB socket

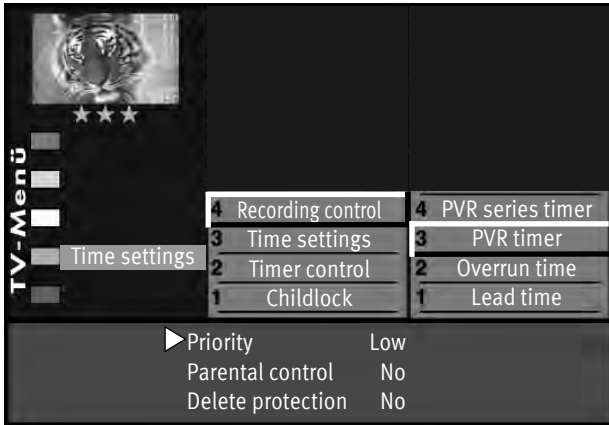
MENU



B4 Recording control

B4.1 PVR timer basic settings


- Call up the TV menu with the **MENU** key.
- Open the menu “Time settings” with the green key .
- Select the menu item “Recording control” with the assigned numeric key.
- Select the menu item “PVR timer” with the assigned numeric key.
 - In the settings window, set the priority you want (“High” or “Low”) with the **V+ / V-** key.
If the programming of a timer and a series timer produces an overlap, then the set priority is used to establish which recording has priority.
Example: A series timer is set to “High” priority and almost at the same time a timer is set to “Low” priority. The program that was created by the series timer is recorded. The program that was created by the timer is not recorded.
- Parental control and/or deletion protection can be set for the timed recording. In order to enable parental control, it must be enabled in the “Parental control” menu item, (see Chapter 26).
- Accept the changed settings with the **OK** key.
- Close “TV menu” with the key **EXIT**.



EXIT




B4.2 PVR series basic settings

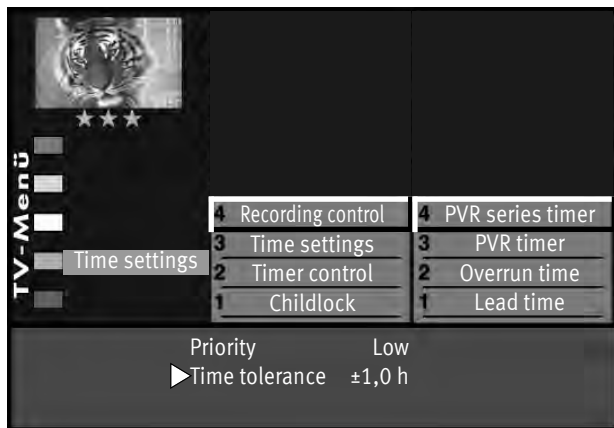
- Call up the TV menu with the **MENU** key.
- Open the menu “Time settings” with the green key .
- Select the menu item “Recording control” with the assigned numeric key.
- Select the menu item “PVR series timer” with the assigned numeric key.
- In the settings window, set the priority you want ("High" or "Low") with the **V+ / V-** key.

If the programming of a timer and a series timer produces an overlap, then the set priority is used to establish which recording has priority

- In the “Time tolerance” menu item, you can establish the time window in which other episodes of the program are to be sought.
- Accept the changed settings with the **OK** key.
- Close “TV menu” with the key **EXIT**.

 ***If a high value is assigned to the time tolerance (e.g. 3.5 hours), then multiple timers may be generated in the timer menu that you might not want at all.***

Example: You would like the “Evening News” program at 8:00 p.m. on “BBC1”. If a time tolerance of 3.5 hours is set, then the “Evening News” is recorded at 5:00 p.m. and 8:00 p.m.



B5 The PVR Archive







- Press **F2** for approx. 3 seconds and the max. possible selection is displayed.
- Press **8** on the keypad to open the PVR archive.
The PVR archive is integrated with the Media Player interface by default. If you prefer using an older version of the PVR function, you can switch to the classic interface (see Chapter B9).
This operating manual describes the Media Player interface.
If the cursor is placed on a recording, you can press the **⏸** button to open a preview window.
- Press the **OK** key. The playback starts.

F2

8



Sorting: In the example is the latest recording results first

Key	Function
	Start playback
F1	Open options – Delete protection – Parental control – Endless playback – Genre – Programme name
F2	Conflicts
Return Key 	Delete recording
Blue Key 	Switch between available media such as hard disk recorder, USB device or network
Yellow Key 	Sort alphabetically Date – last recording appears at the top of the list
 TIMESHIFT	10 seconds preview of the TV recording in 10% increments. Finish with the  key.

Symbols used by the PVR archive



The broadcaster usually allocates programmes to a particular genre*) when recording, although not all use this function. If a programme was not allocated to a genre after recording, you can do this afterwards manually. Also see Chapter B9.

- | | | | |
|---|------------|---|-----------|
|  | Films |  | Serie |
|  | News |  | Shows |
|  | Recreation |  | Sports |
|  | Children |  | Education |
|  | Music |  | Art |

HD = HD-programme, **DD** = Dolby Digital
Info-Text = Sent by broadcaster

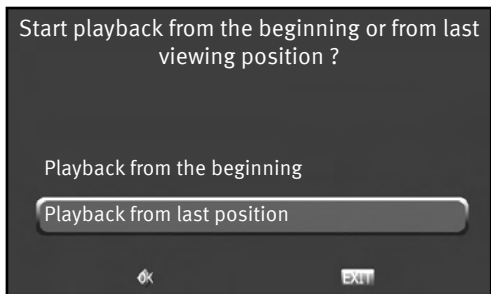
Recording is incomplete...
 at the beginning  at the end

Indicates a **radio programme** recorded via PVR

Delete protection  Endless playback

Childlock

*) Genre, dividing into groups




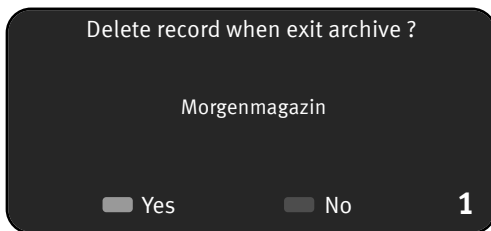
B5.1 Playing programs from the PVR archive

- Press the **F2** key and then the numeric key **8**. The PVR archive is opened.
- Select the desired recording with the cursor control key.
- Press the OK key and play the selected recording.




If the recording has already been opened the following message appears:

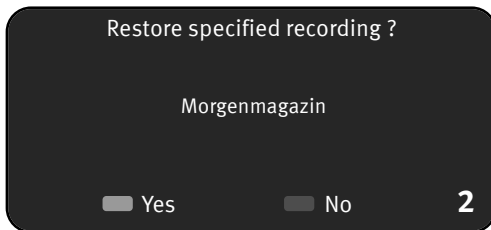
- Select **“Playback from the beginning”** or **“Playback from last position”** with the cursor control key and press **OK** to start playback.



You can stop the playback with the STOP button  (RM17) or the **F2** and **8** button (RM16). The archive appears on the screen – or – press the **TV/R** button. This stops playback and takes you back to the live picture of the current programme.



B5.2 Deleting programs from the PVR archive

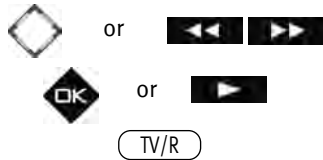
- Press the **F2** key and then the numeric key **8**. The PVR archive is opened. Select the desired recording with the cursor control key.
- Press RETURN . A pop-up box appears on the screen (pic. 1) in which you are asked once again if the recording should be deleted.
 - Press the green key  (Yes) and the recording is deleted. The recording will be marked by changing the color from white to black. If you now leave the archive with the **EXIT** key, the recording will be deleted irrevocably.
 - Press the red key  (No) and the recording is retained.



As long as you do not leave the PVR Archive, the recording is only marked for deletion. If you want to keep the recording, the marking for deletion has to be cancelled. Select the recording you want to retain with the cursor key and press RETURN . Confirm the displayed message (pic. 2) with the green key  (Yes). The text color changes from black to white, and the marking is removed.

- Return to the TV picture with the **EXIT** key.

B5.3 Fast-forwarding and rewinding recordings



- During playback, it can be forwarded in increments of +1 minutes and rewind in increments of -20 seconds by pressing the cursor control **< >** (RM16) or **<<>>** **>><<** keys (RM17) briefly and repeatedly.
- During pause mode, playback can be forwarded and rewind in increments of 10% by briefly and repeatedly pressing the cursor control **< >** (RM16) or **<<>>** **>><<** keys (RM17).
- During playback holding down the cursor control **< >** (RM16) or **<<>>** **>><<** keys (RM17) enables replay mode at twice the speed.

By repeatedly pressing the cursor control **< >** (RM16) or **<<>>** **>><<** keys (RM17), playback can be forwarded or rewind at up to 32 times the speed.

- Stop forward/rewind mode with the **OK** key or the **>** key.
- Stop the playback with the **TV/R** key and return to the TV picture.

B5.4 Slow motion

- During playback hold down the key **⏸** for approx. two seconds to enable slow-motion.
- Use the **OK** key or the **>** key to stop slow-motion and return to normal replay mode.

B5.5 Pause – Pause Playback

- You can pause playback with the **⏸** button. The TV set displays the paused frame as a still image. To resume playback, press the button **⏸** again.



B6 Editing Recordings




Placing markers

You can set markers in a recording to mark important or interesting spots.

Cut marks

You can use cut marks in a recording. The cut marks hide parts of the recording so you only see the most interesting scenes. The hidden parts are still physically stored on the data storage medium.









B6.1 Editing Recordings – Placing Markers

- Press the green  button during playback. The status bar appears.
- Press the white  button and enter editing mode.
- Select the spot that you want to mark.
- Press the blue  button and place a marker at this spot.

Tip: Press the Pause  button and then set the markers.







B6.1.1 Editing Recordings – Deleting Markers

You can only delete markers in pause mode!



- Use the cursor control key   (RM16) or   buttons (RM17) to select markers for deletion.
- Press the blue  button and delete the marker.
- Press the   button (RM16) or the  button (RM17) to return to regular playback.



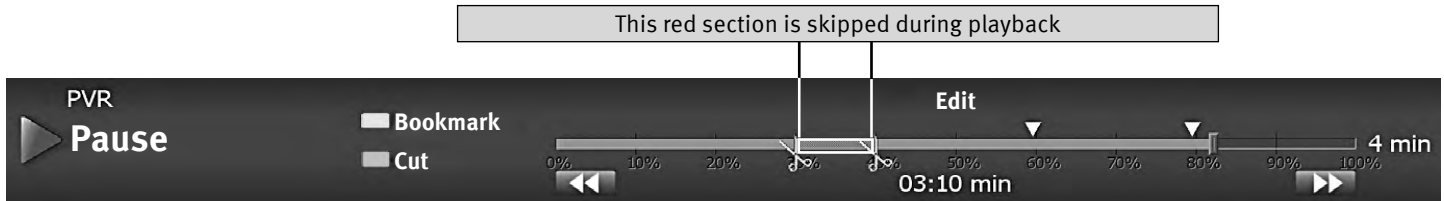
B6.2 Editing Recordings – Placing Cut Marks

- Press the green  button during playback. The status bar appears.
- Press the white  button and enter editing mode.
- Use the cursor control key   (RM16) or   buttons (RM17) to select the part that you wish to cut.







Tip: Press the Pause  button and then set the markers.

- Press the red button  and set a cut mark at that spot.
A cut always consists of a starting and ending cut point.
Then, go to the end of the scene and press the red  button again.
The area between the two cut symbols turns red.

The section between the cut marks is automatically skipped during playback.



B6.2.1 Editing Recordings – Deleting Cut Marks

- Press the  button during playback.
- Use the cursor control key   (RM16) or   buttons (RM17) to select the cut mark that you want to delete.
- Press the red  button and delete the cut mark.
The second cut mark will be deleted automatically.

F2

8



F1

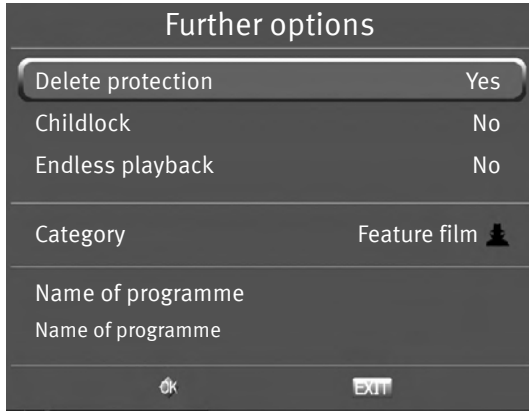


B7 Further options

B7.1 Delete protections

Delete protection prevents recordings from being automatically overwritten when the hard disk is full. Delete-protected files can only be deleted manually after the delete protection has been deactivated.

- Press the **F2** key and then the numeric key **8**. The PVR archive is opened.
- Select the desired recording with the cursor control key, which you wish to protect against accidental deletion.
- Press the **F1** key. The “Further options” window appears. The cursor is positioned over delete protection.



- Set delete protection to “Yes” in the window with the **V+/V-** key.
- Press **OK** and save setting. A lock symbol appears next to the recording in the archive.

Deactivating delete protection:

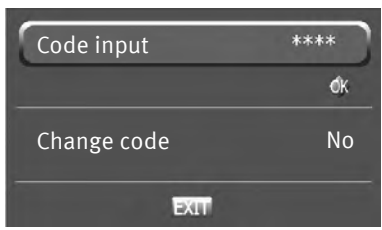
- Press the **F2** key and then the numeric key **8**. The PVR archive is opened.
- Use the cursor control key to select the recording for which you want to remove delete protection.
- Press the **F1** button. The “Further options” window appears. The cursor is positioned over delete protection.
- Set delete protection to “No” in the window with the **V+/V-** key
- Press **OK** and save setting. The lock symbol next to the recording in the archive is deleted.





B 7.2 Childlock

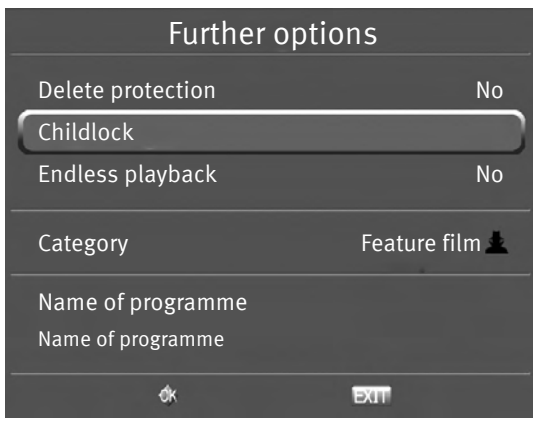
The childlock function is set in much the same way as delete protection. If you activate the childlock for a recording, the system will not play back the recording until the viewer has provided the 4-digit code that you entered when you activated the childlock.



- Press the key and then the numeric key numeric key. This opens the PVR archive.
- Use the cursor control key to select the recording for which you want to activate the childlock.
- Press the button. The "Further options" window appears.
- Use the cursor control key to select the "Childlock" menu item.
- Select "Yes" using the **V+ / V-** key and press the OK key.
- Now, use the numeric keys to enter a 4-digit code and press the key.



Please note: Press the button one more time to fully activate the feature.



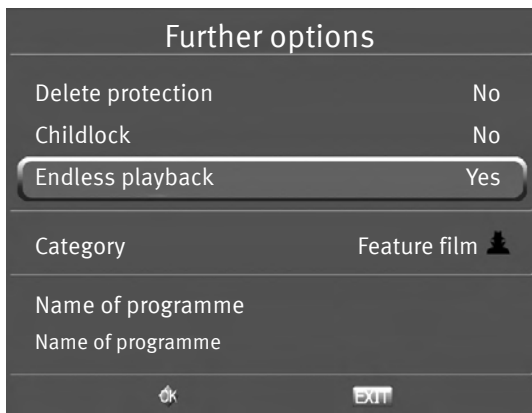
The "Further options" window closes. You are in the PVR archive again. A crossed-out teddy bear symbol appears below the preview window.



F2 8



F1



B7.3 Continuous playback

With this function you can continually have a recording continually repeated.

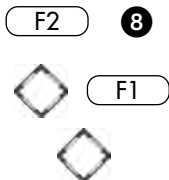
Activating endless playback:

- Press the **F2** key and then the numeric key **8**. The PVR archive is opened.
- Select the desired recording with the cursor control key to which you wish to allocate endless playback.
- Press the **F1** key. The “Further options” window appears. The cursor is positioned over delete protection.
- Select “Endless playback” with the cursor control key.
- Set the endless playback to “Yes” with the **V+/V-** key
- Press **OK** and save setting.

The setting "Endless playback Yes" will remain active even if you start watching other TV programmes in the archive.

Deactivating endless playback:

- Press the **F2** key and then the numeric key **8** numeric key. This opens the PVR archive.
- Use the cursor control key to select the recording.
- Press the **F1** button. The “Further options” window appears. The cursor is on “Delete protection.
- Use the cursor control key to select the "Endless playback" menu item.
- Press the **V+/V-** key and select "No".
- Press the **OK** key and save the setting.

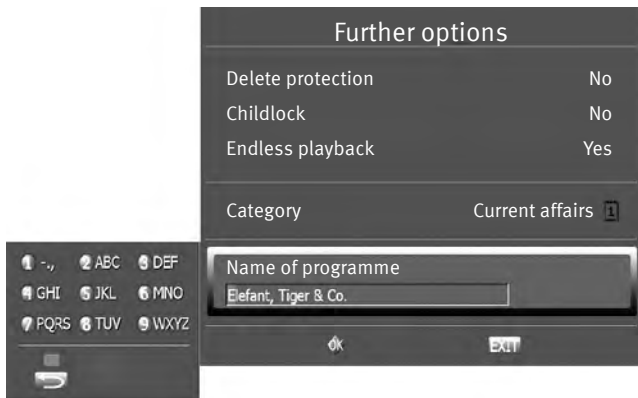
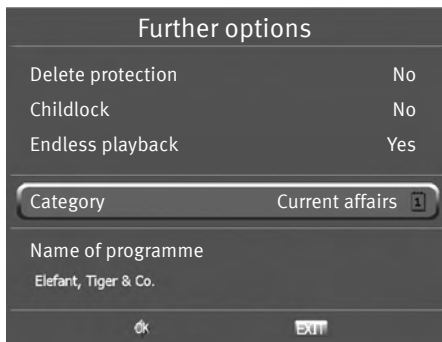


B7.4 Setting categories manually

Recordings are automatically provided with a category assignment. If you do not agree with this automatic assignment or a category assignment happens to be missing, you can change this automatically.

Setting category assignments:

- Press the **F2** key and then the numeric key **8**. The PVR archive is opened.
- Select the desired recording whose category is to be changed with the cursor control key.
- Press the **F1** key. The “Further options” window appears. The cursor is positioned over delete protection.
- Select “Category” with the cursor control key.
- Change the category assignment with the **V+ / V-** key.
- Press **OK** and save setting.



B7.5 Change file name

If you do not like the name of a TV program you recorded, you can change the name.

The file name can be written with the numeric keys, as with a mobile phone.

*) Genre, dividing into groups

TV/R


EPG




B8 Copying radio broadcasts to the hard disk

To be able to record radio broadcasts using the EPG, TV & R must be set in the TV menu – Configuration – EPG settings under the menu item DVB-SI Selection, see Chapter 25.1. Only then do you have the full EPG functionality for radio broadcasts as well.


Programming individual radio channels for recording via EPG

- Switch to radio mode with the **TV/R** key.
- Call up the program guide with the **EPG** key.
- Select the radio program you wish to record with the cursor control keys.
- Press the red key  on the remote control. The TV timer appears.

- Save the programming by pressing the **OK** key. The programming is saved in the timer memory. The red  symbol appears as an identifier for a recording timer in the EPG program guide behind the programmed program. The programmed program is recorded only once on the hard disk (PVR).
- Close the “EPG menu” with the **EXIT** key.



B8.1 Playing a radio recording

- Press the **F2** key and then the numeric key **8**. The PVR archive is opened.
- Select the desired recording with the cursor control key. Radio recordings are identified by the RADIO extension.
- Press the **OK** key and the selected radio recording is played.
- By pressing the key  playback of the radio recording is stopped and you return to the PVR archive – or press the **TV/R** key and stop the playback of the radio recording and return to the running TV picture.

EXIT

MENU



B9 Selecting the PVR Archive View

The PVR archive is integrated with the Media Player interface by default.

If you prefer using an older version of the PVR function, you can switch to the classic interface.

- Open the TV menu with the **MENU** button.
- Press the red ***** button and open the "Configuration" menu.
- Press the **OK** key and switch to the right column.
- Use the assigned numeric key to select the "PVR archive view" menu item.
- Use the **V+ / V-** keys to select your preferred PVR archive view.
- Press the **OK** key and save the setting.
- Exit the TV menu with the **EXIT** key.



EXIT



B10 The File Manager

With the “File Manager”, data on a USB data storage medium and the built-in hard-disk can be managed and processed, similar to a file manager on a PC.

Plug the memory stick (removable storage medium) into the USB port while the TV is switched on and running.

Call “File Manager”

• Press the key and then the numeric key . The “File Manager” is opened.

- When the “File Manager” is displayed, the USB data storage medium is shown in the left column with a red frame.
- Press the **OK** button to display the content of the USB data storage medium.
- Select the desired picture file with cursor control buttons. If you select a folder, then it can be opened with the **OK** button.
- You can execute the various functions with the different buttons as shown on the screen:

OK button: open/close file

/ **button:** Scroll forwards-backwards

button: from file manager to photo display

Blue button : change between the USB data storage medium and the harddisk.

Yellow button : mark the picture file for further processing, e.g. move / copy.

White button : Remove the picture file marking.

Green button : Create new folder.

Red button : Change name of file.


button: Delete file.



TV/R





**Back to
TV picture**

Transfer files from memory stick (removable storage medium) to the internal hard disk


- Call the “File Manager” as described in the previous page.
- Select the USB storage device. Use the yellow  button to select the files you wish to copy.
- Copy the marked files to the hard-disk with the **V+** button or move them with the **V-** button.

Create new folder






- Press the green  key and "Name" will appear on the screen.
- The new folder will be identified as a suggestion with the date (02.03. in the example) and the time of creation (13_28 in the example).
- This suggested name can be deleted with the red  button character by character, or all characters can be deleted with the  button.
- A new name can be created with the numeric keys.
- Save the newly created folder with the **OK** key. You can cancel the process with the  button.


Copy or move files

- Open the selected folder with the **OK** key.
- Select the desired picture file with the cursor control buttons.
- Mark the picture file with the yellow  key.
- Use the cursor control key to change to another column.
- Use the cursor control keys to select the target folder into which the marked file is to be added.
- Open the selected target folder with the **OK** key.
- Use the cursor control key to change to the other column where the previously marked file is located.
- Move the marked picture file to the target folder with the **V-** key or copy it to the target folder with the **V+** key.





Change filename (not within the Film Archives)

- Select the desired picture file with the cursor control buttons.
- Use the red  button to delete each character individually or use the  button to delete all characters.
- A new name can be created with the numeric keys.
- Save the newly created name with the  key.

Copying recordings from the internal hard disk to an external USB storage device.





 **Note: Encrypted recordings which were recorded using a CA module with smartcard cannot be copied.**

This function can be used to copy your recordings to a USB storage device (**FAT32 formatting**). Insert the memory stick or hard disk into the USB port while the TV is switched on.

- Press the  key and then the numeric key . The “File Manager” is opened. The red bar is positioned over the option USB1 in the left-hand window.
- Press  to open the USB storage device.
- Use the cursor control key to change to another column.
- Press the blue  button and open the film archive on the hard disk.
- Use the cursor control key to select the recording that you wish to copy.
- Press the **V+** key and copy the recording to the USB storage device. The copying process is started and progress is displayed in percent in a separate window.

 **If the file is larger than 2GB, it will automatically be split up on the USB storage device.**

Copying recordings from a USB storage device to the internal hard drive.

- Plug the memory stick (removable storage medium) into the USB port while the TV is switched on and running.
- Press the  key and then the numeric key **5**. The “File Manager” is opened. The red bar is positioned on USB1 in the left-hand window.
- Press the  key. The screen shows the contents of the USB storage device.
- Press the cursor control key and go to the right-hand window of the File Manager.
- Press the blue  button and open the film archive on the hard disk.
- Press the cursor control key and go to the USB storage device in the left-hand window of the File Manager.
- Use the cursor control key to select the recording that you wish to copy. If the recording was automatically divided during copying:
 - select the first part of the recording ending in "000.ts" using the cursor control key
 - or**
 - select all partial recordings using the cursor control key and mark them with the yellow  button.
- Press the **V+** key and copy the recording to the hard disk.





The copy process starts and the progress is displayed as a percentage in a separate window. The partial recordings will be automatically merged when they are copied back from the USB storage device to the internal hard disk.

B11 Conflicts


Conflicts may arise when programming recordings if:

- the TV set is switched off with the power switch at the time of the planned recording.
- there is an overlap between series timer and normal timer.



Show conflicts

- Press the  key and then the numeric **8** key. The PVR archive is opened.
- Press the  key and show the conflicts, if any. The conflict box shows which program was not recorded and the reason.
- The conflict reports can be deleted with the  key.
- Close the window with the  key.

Problem, Possible causes, Remedy

Problem	Possible cause	Remedy
TV set does not respond to remote control	<ul style="list-style-type: none"> • No direct line of sight contact between remote control and TV set. • Direct sunlight shining on infrared window of TV set. • Remote control batteries flat. • TV set switched off with the power switch. • Processor fault. 	<ul style="list-style-type: none"> • Establish sight contact. • Avoid sunlight exposure. • Replace batteries. • Switch on the TV set with the power switch. • Switch the TV set on and off with the power switch.
After switching on, the message “Code entry” appears on the screen.	<ul style="list-style-type: none"> • Childlock was programmed and all programs have been blocked. 	<ul style="list-style-type: none"> • Enter the code number with which you programmed parental control.
The TV set does not switch to the program position desired.	<ul style="list-style-type: none"> • Childlock was programmed and only those programs marked with a teddy in the program table are released. 	<ul style="list-style-type: none"> • Enter the code number with which you programmed parental control.
The TV set was switched off with the key  , but the green LED remains on.	<ul style="list-style-type: none"> • EPG data of the electronic program guide are being collected. • A recording is running. 	<ul style="list-style-type: none"> • None; once the data has been collected in full the TV set will switch off automatically.
No sound is output on the TV speakers.	<ul style="list-style-type: none"> • “Speaker off” or "Speaker centre" is set in the “Configuration” – “Operation” – “Sound setting” TV menu. 	<ul style="list-style-type: none"> • Set the “Configuration” – “Operating” – “Sound setting” TV menu to “Speaker on”.

Problem	Possible cause	Remedy
Direct recording of an analogue terrestrial channel (that can be received via the normal home antenna or cable) does not work with Data Logic.	<ul style="list-style-type: none"> • The Data Logic video recorder is not connected to the home antenna with an antenna cable. 	<ul style="list-style-type: none"> • Connect Data Logic video recorder to the home antenna with an antenna cable.
General problems with the external AV device connected.	<ul style="list-style-type: none"> • The AV device was not properly registered on the TV device. 	<ul style="list-style-type: none"> • Select the corresponding AV device with the cursor in the “AV devices” menu, set the signal OUT/-IN according to the AV device and press the OK key. <p>Only connect AV device as shown in the wiring diagram in menu.</p>
Data Logic does not work AV device (video rec.) breaks off recording independently.	<ul style="list-style-type: none"> • The Data Logic video recorder with data exchange was not properly registered on the TV device. • The Euro AV cable (Scart cable) is not fully mounted. • Incorrect Data Logic setting. 	<ul style="list-style-type: none"> • Call up “AV devices” on the TV set and register the Data Logic video recorder as video recorder 1 with “Datalogic on”. • Use fully mounted Euro AV cable (Scart cable). • Switch the Data Logic setting from Mode 1 to Mode 2.
A film is played back by the AV device in 16:9 format, the presentation on the screen is in 4:3 format.	<ul style="list-style-type: none"> • The picture format for this AV program position (e.g. AV2) was not properly set in the TV menu. 	<ul style="list-style-type: none"> • the AV program position and picture format to 16:9 or “Automatic” (see Chapter 30.6 AV playback).

Problem	Possible cause	Remedy
The menu of the connected AV device (e.g. DVD player, video rec.) is not displayed on the TV screen.	<ul style="list-style-type: none"> The AV device was registered in the TV menu with the “FBAS” signal type. 	<ul style="list-style-type: none"> Register AV device in connection menu with the “RGB” signal type (see Chapter 29.2 Set RGB signal type).
No EPG data available or only certain data.	<ul style="list-style-type: none"> The TV set was unable to collect any data, because it was switched off with the power switch on the TV set. 	<ul style="list-style-type: none"> Switch TV set to stand-by mode only with the key  of the remote control (see Chapter 25.2 Collect EPG data).
No program information appears after pressing the green key  .	<ul style="list-style-type: none"> The time shift mode is activated. 	<ul style="list-style-type: none"> End time shift mode.
No channel reception. Channel or frequency change by the broadcasters.	<ul style="list-style-type: none"> The reception data of a channel have been changed by the channel provider. 	<ul style="list-style-type: none"> Find out more e.g. at “www.lyngsat.de” for DVB-S, “www.ueberall-tv.de” for DVB-T e.g. “www.kabeldeutschland.de” for DVB-C on the changed data of the channel. <p>Carry out a manual channel search with the new reception data of the channel, on this see Ch.10.3.2, 10.4.1 and 10.6.1.</p> <p>The channels found will be added to the end of the channel table.</p> <p>Automatic channel search searches the entire reception area and adds all (in the case of DVB-S several hundred) channels found to the end of the channel table.</p>

Problem	Possible cause	Remedy
One channel displays picture faults (stripes or formation of tiny blocks).	<ul style="list-style-type: none"> • The signal quality is poor, see Ch. 10.8. 	<ul style="list-style-type: none"> • Reception, especially for DVB-S, is disrupted by a bad weather front at the reception location or at the broadcasting station. This can also occur with the DVB-C which is supplied via DVB-S to the cable network.
Encrypted channels are not recognised despite CA module inserted.	<ul style="list-style-type: none"> • The CA module has no contact. • The decoding card has been inserted incorrectly. • The decoding card is not released for these channels. 	<ul style="list-style-type: none"> • Remove CA module and reinsert it, see Ch. 32. • Remove the decoding card and insert properly, see Ch. 32. • Check the offer on your decoding card.
List in the EPG is incomplete.	<ul style="list-style-type: none"> • The TV set cannot collect any data. • The number of channels to be shown in the EPG is too high. 	<ul style="list-style-type: none"> • Operate TV set in standby mode until the red LED display appears. • Minimise the number of channels to be displayed to 50, see Ch. 25.3.
Programmed recording was not carried out.	<ul style="list-style-type: none"> • The TV set was switched off with the power switch at the time of the planned recording. • A timer overlap occurred 	<ul style="list-style-type: none"> • Leave the TV set on with the power switch. • on this see Chapter B10, Conflicts
Recording carried out only in part.	<ul style="list-style-type: none"> • A timer overlap occurred. 	<ul style="list-style-type: none"> • Check series timer programming

Battery Disposal

Do not dispose of batteries with domestic rubbish! Please return spent batteries to collecting points should they exist in your country.

Please only return fully discharged batteries. Normally, batteries are fully discharged if the device they power

- switches itself off and indicates “batteries spent”
- they no longer function flawlessly after prolonged use.

To prevent short circuits, please cover the battery poles with adhesive tape strips.



These symbols can be found on batteries containing harmful substances:

Pb = the battery contains lead

Cd = the battery contains cadmium

Hg = the battery contains mercury

Li = the battery contains lithium



Your Metz product was developed and manufactured with high-quality materials and components which can be recycled and/or re-used.



This symbol indicates that electrical and electronic equipment must be disposed of separately from normal garbage at the end of its operational lifetime.



Please dispose of this product by bringing it to your local collection point or recycling centre for such equipment.

This will help to protect the environment in which we all live.

15-photo overview	163
A	
Analogue TV	26, 28
Antenna supply	30
Audio codec	167
Automatic channel search	31, 33, 40
Automatic zoom	82
AV device	122
AV playback	133
AV receiver	129
AV table	130
B	
Battery Disposal	201
C	
CA module	141
Card reader	141
CEC function	132
CEC settings	131
Change file name	189
Channel table	46
Childlock	115, 187
Colour standard	29
Connect external hard disk	175
Container formats	167
Continuous playback	188
Copying recordings	194, 195
Copying, moving, deleting individual channels	46
Cursor page (video text)	84
D	
Data Logic	124, 125, 126
Data Logic AV device	124
Delete photo	163
Delete protections	186
Direct recording	140

DiSEqC	38
Double font size	83
DVB-C	26, 33, 34
DVB-S2	26
DVB-T	26, 30, 32
DVI	128
DVI-A /DVI-D	123
E	
Energy setup	56
EURO socket	119, 120
F	
FBAS	123
FBAS/Video	121
Fritzbox	170
H	
Hard disk drive	174
HbbTV	158
HbbTV Accessing	159
HbbTV Exiting	159
HD channels	48
HDMI	119, 120, 123, 128
HDMI ARC	131
HDMI CEC	131
HDMI connection	119, 120, 121
Headphone connection	121
Headphones	81
Hi-fi amplifier	129
Hi-fi output	76, 78, 79, 80
L	
LAN	156
LAN socket	119
Language	23
LNB supply voltage	37
Log off external hard disk	175

M

Magnifying glass	163
Manual channel search	32, 34, 41
Media Player	154, 160, 161
Metz Media-System	154
MPEG noise reduction	136
Music	165
Music - creating playlists	166

N

NAS	170
NAS hard drive	161
Network configuration	155, 156
Noise reduction	139

O

Optical audio cable	129
Optional channels	44

P

Pause Playback	183
Pay TV channels	44
Photo playlist	164
Photos / pictures	162
Picture format	138
Picture in picture	87
Picture profile	137
picture viewer	89
Place markers (Video text)	84
Playback	169
Playlist	164
Portal channels in DVB	44
PRIMARY partition	176
Prog. Info	43
Program selection	48
Program table	48
Programme information	49

PVR archive	161
-------------------	-----

R

Radio (DVB)	85
Radio (Internet)	86
Radio recording (DVB)	190
RGB	123, 127
Rotate image	163

S

SAT channel search, automatic	40
SAT channel search, manual	41
SAT system	35
SAT system, DiSEqC	38
SCR freq.	36
SCR no.	36
Setting categories	189
Signal quality	43
Single cable	35
Slide show	163
Slow motion	183
Smartcard	141
Sorting channels, block-by-block	47
Sound 1	81
Sound playback	129
Sound settings	77, 78, 79, 80
Speed test	177
Split screen	83, 88
Subtitles	84
Symbols used by the PVR archive	181

T

Tandem	35
Testing the network connection	157
Thunder storms	7
Tone settings	71
Tuneln	86

TV standards	27
U	
Unicable	35
USB storage	161
USB-PVR disconnect	175
USB-socket	121
V	
VCR function	135
Video - creating playlists	168
Video codec	167
Video text	83
Y	
YC	123
YUV	123
Z	
Zoom	82



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