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1. SAFETY AND PRECAUTIONS

Please read through this section carefully and follow the instructions to maximize the reliable operation and lifetime of your LCD display. Always keep these instructions handy and close by your LCD display. Keep the instructions and the packaging so that if you sell or give away your LCD display you can give them to the new owner.

OPERATING SAFETY

- **Never open the housing** of the LCD display! When the housing is open there is a danger of injury from electric shock!

- Do not insert **any objects** through the slots and openings of the monitor. This may lead to an electrical short-circuit or even fire resulting in damage to your LCD display.
  - Slots and openings in the LCD display are for ventilation purpose. **Do not cover these openings**, as this may lead to overheating.

- Do not allow **children** to play **unattended** with electrical equipment. Children may not always correctly recognize danger.

- **This LCD display is intended for personal use only. It not intended for commercial use in a heavy industry environment.**

- An **injury hazard** exists when the **display breaks**. Wear protective gloves to pack the broken parts and send them into your service center for proper disposal. Then wash your hands with soap, because it is possible for chemicals to escape.

- Never exert pressure on the display. This could break the monitor.

- Do not touch the display with your fingers or with sharp objects to avoid damage.

Contact the Call Center immediately in any of the following situations. Do NOT plug in or turn on your display:

- if the power cable/power supply overheats or is damaged
- if liquid has gotten into the monitor
- if the LCD display is dropped or the housing damaged

REPAIR

- Leave all repairs of your LCD display to **authorized and qualified personnel** only.
- Should a repair be necessary, please contact one of our authorized **service partners** only.

NOTES FOR SERVICE ENGINEERS

- Before opening the housing, **disconnect the product from all power sources and remove any connecting cables**. If the display has not been disconnected from the power outlet before being opened, there is a danger to life through electric shock. There is also a risk of damage to the components.

- Internal components of the LCD display may be damaged by **electrostatic discharge** (ESD). Carry out repairs in an **ESD-protected workshop**. If no such workshop is available, wear an **antistatic wrist strap** or touch a highly conductive metal object. We can repair damage sustained by inappropriate handling for a fee.

- Use only **original spare parts**.
POINT OF USE

- Keep your LCD display and all units connected to it away from moisture and avoid dust, heat and direct sunlight. Failure to observe these instructions can lead to malfunctions or damage to the LCD display.
- Do not place any containers filled with liquid (vases or similar) on the LCD TV. The container could tip over and the liquid could impair electrical safety.
- Pay attention to sufficiently large distances in the wall unit. Maintain a minimum distance of 10 cm around the device for sufficient ventilation.
- Place and operate all units on a stable, level and vibration-free surface in order to avoid the LCD display from falling.
- The optimum viewing distance is 5 times the screen diagonal.

ENVIRONMENTAL CONDITIONS

- The LCD display can be operated most reliably at ambient temperatures between +41°F and +95°F (5°C to 35°C) and at a relative humidity between 20% and 85% (without condensation).
- When switched off, the monitor can be stored most reliably between +14°F and +140°F (-10°C - +60°C), up to the maximum height of 39,000 ft (12,000 m) above sea level at a relative humidity between 10% and 85% (without condensation).
- After transporting your LCD display please wait until it has assumed the ambient temperature before connecting and switching it on. Extremely high variations in the temperature or humidity may result in condensation forming on the inside of the LCD display which could cause an electrical short-circuit.

CONNECTING

Observe the following instructions to connect your LCD display properly:

POWER SUPPLY

- Operate your LCD display only with grounded outlets with AC 100-230V~/ 50 Hz. If you are not sure about the power supply at your location, check with your power company.
- Use only power connection cable provided.
- For additional safety we recommend use of a surge protector to protect your LCD display from damage resulting from voltage surges or lightning.
- To remove the LCD display from the power supply, disconnect the plug from the AC outlet.
- The mains switch installed does not detach the LCD TV from the mains supply completely.
- The power outlet must be in the vicinity of your LCD display and within reach of the power cables. DO NOT stretch the power cables tightly to reach a power outlet.
- You should arrange the LCD display cables in a manner that no one can trip over or step on them.
- To avoid damage of cable do not place any objects or furniture on the cable.

REMOTE OPERATION

- Open the battery compartment of the remote by removing the cover.
- Insert Micro / AAA type batteries into the battery compartment on the back of the remote. Pay attention to the polarity of the batteries (marked on the base of the battery compartment) at the same time.
- Environmental note: Batteries, also non-metal ones – must not be disposed of in the domestic waste. Used batteries must be put into the used battery collection container at the seller or into public disposal facilities.
STANDARDS/ELECTRO-MAGNETIC COMPATIBILITY
Your display fulfils the requirements for electro-magnetic compatibility and electrical safety specified in the following standards:

EN 55013, EN 55020, EN 60065
EN 61000-3-2, EN 61000-3-3

- When connecting ensure that Guidelines for Electro-Magnetic Compatibility (EMC) are observed.
- Provide a space of at least three feet from high-frequency and magnetic sources of interference (television sets, loudspeakers, mobile telephones, etc.) in order to avoid malfunctions.

ERGONOMICS
- For ergonomic reasons we suggest not to use dark text with a blue background. This would cause bad readability and would increase eye strain.
- While working with display you should take breaks periodically to avoid tension and fatigue.
- In order to protect your eyes and to create a pleasant working area you should avoid glare, reflections and strong contrasts on the screen.

TRANSPORT AND RECYCLING
- Keep the original packaging and use it to protect the LCD display during transport or storage.

PRECAUTIONS

Caution! There are no parts which can be serviced or cleaned inside of the monitor housing.

You can increase the life of your LCD display by taking the following precautions:

- Before cleaning always disconnect the power line and all connection cables.
- Do not use any solvents, caustic or gaseous cleaning agents.
- Clean the display with a soft, lint-free cloth.
- Ensure that no water droplets remain on the screen. Water can cause permanent discoloration.
- Do not expose the screen to bright sunlight or ultraviolet radiation.

IMPORTANT ADDITIONAL SAFETY INSTRUCTIONS
When using any electronic equipment, basic safety precautions should always be taken. Following the guidelines below can reduce the risk of fire, electric shock and injury to person:

- Do not use this product near water (e.g., near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool).
- Avoid using a telephone/modem (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone/modem to report a gas leak in the vicinity of the leak.
- Use only the power cord indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
- Keep batteries away from children at all times.
FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment. Shielded interface cables, if any, must be used in order to comply with the emission limits.
2. INTRODUCTION

Thank you for purchasing our LCD Multi-display. We thank you for your confidence in our products and are pleased to greet you as a new customer. We focused on great features, ease of use and reliability in manufacturing your LCD display.

SERVICE

Service and support will be available every time you use your new monitor. Contact us, we will be glad to help you. This manual contains a separate chapter on the subject of Troubleshooting on page 25.

PERFORMANCE CHARACTERISTICS

Advantages in relation to CRT (cathode ray tube) displays:

- Less space required
- Lower weight
- Power savings
- Low radiation

Features

- High resolution display
- 499 channel slots, 3 AV settings, PC Mode
- Multi-standard PAL, SECAM, NTSC
- The following connections are available:
  - Tuner connection
  - SCART/AV1 (Video, S-Video, RGB, YCrCb, YPrPb)
  - SCART/AV2 (Video, S-Video, RGB, YCrCb, YPrPb)
  - Front AV.SV (Video/S-Video and Audio In)
  - Headphones
  - Analogue and digital PC input (DVI-I connection)
  - PC Audio In
- Easy to operate remote
- Easy to operate Picture Menu system
- Completely automatic APSAS installation system
- TOP/FLOF Teletext function with 2,100 page memory and multi-page text
- Completely digital picture improvements:
  - Dynamic noise reduction
  - Comb filter
  - Perfect Clear
  - Image sharpness
  - CTI
- Dual-tuner PIP: PIP from two different signal sources
- Full picture format independent of the signal source
- Headphones socket for screened listening pleasure
- Integrated 2-way loudspeaker system with 6 loudspeakers
- Decoder function
- Intelligent Swap Function
- Sleep Timer
- Child Lock
- Plug and Play: automatic recognition of your operating system
3. CONTROL ELEMENTS AND FRONT CONNECTIONS

The Buttons on the device control the basic functioning of the LCD TV, including the On-Screen Menu. You will reach the advanced functions through the remote.

**Operating display**
A yellow light indicates that the device is switched on but is in Readiness Mode.
The light shines blue if the device is switched on.

**Sensor window**
Point the remote to this region of the screen.

**Power:** Switches the LCD TV on or into Readiness Mode

**P+/P-** Program +/-
Setting Buttons in the Screen Menu

**↑/↓** Volume +/-
Setting Buttons in the Screen Menu

**EXIT Button**

**MENU Button**

**Headphones output**

**Front AV.SV input**

**Note:** Please read chapter “10. Connecting External Devices” on page 25 for further information about operating external device.
5. REMOTE CONTROL

This is for a remote that is suitable for your LCD-TV; you will find the relevant Button identification and arrangement on the following page:
### SUMMARY OF CONTROL BUTTONS

<table>
<thead>
<tr>
<th>Device on or switch to Readiness Mode</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Switches the device on or into Operating Mode alternately</td>
</tr>
</tbody>
</table>

### Selecting the Signal Source

<table>
<thead>
<tr>
<th>TV</th>
<th>Switch to the TV mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>Switches to PC mode (VGA or DVI)</td>
</tr>
<tr>
<td>AV.SV</td>
<td>Switches to video mode or S-video mode</td>
</tr>
<tr>
<td>SCART 1</td>
<td>Switches to SCART 1. Switches between video, S-video, RGB and Auto if pressed several times.</td>
</tr>
<tr>
<td>SCART 2</td>
<td>Switches to SCART 2. Switches between video, S-video Auto if pressed several times.</td>
</tr>
</tbody>
</table>

### Menu Setting

<table>
<thead>
<tr>
<th>MENU/ENTER</th>
<th>Display the main on-screen menu or enter the next menu.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P+/P-</td>
<td>Press to select the item you want to adjust in the OSD menu.</td>
</tr>
<tr>
<td>VOL-/VOL+</td>
<td>Press to decrease or increase the value in the OSD control bar.</td>
</tr>
<tr>
<td>EXIT</td>
<td>One level back in the Menu.</td>
</tr>
</tbody>
</table>

### Changing Channels

<table>
<thead>
<tr>
<th>P-/P+</th>
<th>Press P- or P+ to change programs in TV mode or Teletext page in TELETEXT mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>To select programs directly in TV mode.</td>
</tr>
<tr>
<td>RTN</td>
<td>Press to return to the previous program.</td>
</tr>
</tbody>
</table>

### Sound Control

<table>
<thead>
<tr>
<th>VOL+/VOL-</th>
<th>Press to turn up or turn down the volume.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUTE</td>
<td>Press to switch the sound on or off.</td>
</tr>
<tr>
<td>SOUND</td>
<td>Press to change directly to the Sound Menu</td>
</tr>
</tbody>
</table>

### Teletext Control

<table>
<thead>
<tr>
<th>TELETEXT</th>
<th>Press to show the Teletext Service. Press again to return to TV viewing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEX</td>
<td>Press to show the list of Teletext contents.</td>
</tr>
<tr>
<td>STOP</td>
<td>Press to stop the automatic page change.</td>
</tr>
<tr>
<td>INTERRUPT</td>
<td>Press to switch to TV while waiting for the next page.</td>
</tr>
<tr>
<td>REVEAL</td>
<td>Press to display concealed information, such as solutions of riddles or a quiz.</td>
</tr>
<tr>
<td>EXPAND</td>
<td>Press to enlarge the top half or bottom half of the Teletext page.</td>
</tr>
<tr>
<td>P-/P+</td>
<td>Press P- or P+ to use Page Catching</td>
</tr>
</tbody>
</table>

### PIP Control

<table>
<thead>
<tr>
<th>ON/OFF</th>
<th>Press to watch one of the video sources on Sub-display, whilst in OC mode. Press again to turn off the Sub-display.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIP SOURCE</td>
<td>Selects the source of the PIP Window.</td>
</tr>
<tr>
<td>POSITION</td>
<td>To shift the PIP Window.</td>
</tr>
<tr>
<td>SIZE</td>
<td>Sets the size of the PIP Window.</td>
</tr>
</tbody>
</table>

### Other Functions

<table>
<thead>
<tr>
<th>RESET</th>
<th>Reset the original factory setting, such as Contrast and Color.</th>
</tr>
</thead>
<tbody>
<tr>
<td>YELLOW BUTTON</td>
<td>Press to switch sound picture on and off</td>
</tr>
<tr>
<td>RED BUTTON</td>
<td>Press to call up the Picture Menu</td>
</tr>
<tr>
<td>BLUE BUTTON</td>
<td>Press, to call up the Sound Menu</td>
</tr>
<tr>
<td>ARC</td>
<td>Changes the format.</td>
</tr>
<tr>
<td>APC</td>
<td>Adjusts the backlight in three levels.</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>Displays the current signal source, program number and sound options.</td>
</tr>
<tr>
<td>SLEEP</td>
<td>Press to select a preset time interval for automatic power off.</td>
</tr>
<tr>
<td>TIME</td>
<td>Press to display the digital or the analog clock alternately and switch off</td>
</tr>
</tbody>
</table>

---

5. REMOTE CONTROL
6. APSAS FIRST TIME INSTALLATION

1. After removing the LCD display packaging, ensure the product is installed in a safe and well ventilated position.

2. Insert two AAA type batteries into battery compartment on the rear of the remote control.

3. Connect the external 75 Ohm aerial cable and the electricity cable to the relevant connections and make sure that the mains switch on the back is switched on.

4. The initial Installation Menu will appear when you switch on your LCD TV for the first time by pressing the POWER Button on the remote. Carry out the following settings and use the P+ / P-, VOL+ / VOL- and MENU Buttons to control the menus.

5. The flags of all locations for which the LCD TV is suitable will appear on your screen.

6. Please select the flag of the location where you are with the P+/P- / VOL+ / VOL- setting Buttons and confirm your selection with the MENU Button. The Menu will appear after you have made your selection.

7. The location will have been set in accordance with your flag selection. You can return to the flag selection at the Location Select Menu Point, if you want to correct the country setting again.

8. The language of the country suitable to the selected location will have been preset automatically. However, you can select any other Menu language at the Language Menu Point.
9. Please go to the Start Menu Point with the assistance of the P+/P- setting Buttons, after you have selected your preferred language.

The initial sound setting will be started automatically by selecting Continue by means of MENU and the P+/P- Buttons. The device will automatically search for, sort and store all the television channels receivable at your location. The following Menu will appear at the same time:

```
Automatical Search
Frequency
Channel type
Last station
Found so far
```

10. This Menu simply has a display function to inform you about the progress of the initial installation. However, press the MENU Button if you want to cancel the station search. No television channels will, however, be stored in this case. You will reach the start of the initial installation again if you switch the device off and on again.

11. The program table will appear on the screen after the initial sound setting has finished. You can move, rename, delete and add channels, or carry out fine adjustments in the program table (you will find details about this in "Program table" from Page 18).

```
Program table
SCART1    TV........
SCART2    TV........
AV.SV     TV........
PC        TV........
TV 1      ARD    TV........
TV 2      ZDF    TV........
TV 3      ...... TV........
```

- Delete
- Moving
- Edit

12. Press EXIT to reach the TV Mode directly, if you do not want to carry out any changes to the automatically stored and sorted channels.
7. General Controls & Adjustment

Turning the LCD Display On and Off

The mains switch of the LCD TV is located on the back of the device. The device moves to Readiness Mode if this switch is switched on.

The operating display shines yellow in Readiness Mode. It is possible to switch the device to the normal Operating Mode by means of the POWER Button on the remote or on the device.

The operating display shines blue in the normal Operating Mode. It is possible to switch the LCD TV back to the Readiness Mode by means of the POWER Button on the remote or on the device.

Please wait 15 seconds before operating the mains switch again if you switch the device off with the mains switch.

Note: The energy consumption of the LCD TV reduced to the minimum necessary in Readiness Mode. No energy is consumed, but there is no complete detachment from the mains, if the mains switch of the LCD TV is switched off!

Calling up Menus and Operating the On-Screen Control

1. Press the MENU Button when the device is switched on. The Main Menu will appear on the screen then.

2. You navigate through the Menus with the P+/P- Buttons. Press the MENU Button when the cursor is on the required Menu Point. This will activate that Menu Point.

3. The Menu Points can be called up and activated directly by means of the Number Buttons.

4. A selection window will appear or the Setting / Entry Mode will be switched on when a sub-menu is activated, according to the Menu Point.

5. You can leave the relevant Menus, sub-menus, selection window or the Setting / Entry Mode again by pressing EXIT.

6. The Buttons that each function in the respective Menu has are displayed in the last line of the Menu.

7. Functions that cannot be selected in a particular additional status of the device are presented in grey type.
CONTINUE SWITCHING CHANNELS

You have three different possibilities to switch through the channels available:
1. Through direct entry of the channel number:
   You will call up the channel directly through the 0-9 Buttons. You can enter the following digit within 2 seconds after entering the first digit, in order to call up multi-digit channel numbers.
2. You switch through the channels running by pressing the P+/P- Buttons briefly.
3. A list of channels, within which you are able to change the P+/P- Buttons, is displayed by pressing these Buttons for a longer time. This list of channels can also be displayed directly by pressing the DISPLAY Button.

SWITCH BETWEEN TV / PC / AV

Switch on connected devices (video recorder, DVD player, PC, SAT receiver, etc.) and press the relevant button on the remote:
1. Press the TV button to switch to TV mode.
2. Press the PC button to switch to PC mode.
3. Press the AV.SV button to switch to video mode.
4. Press the SCART 1 or SCART 2 Button, to select the SCART/AV1 or SCART/AV2 input.

The Scart sockets have automatic recognition whether the connected device has been switched on (provided that this is supported by the connected device). In most cases, switching over to the Scart inputs used takes place automatically through this and does not have to be selected manually.

VOLUME CONTROL

USING VOLUME CONTROL
Press VOL-/ VOL+ button to turn up or turn down the sound volume.

USING MUTE
At any time, you can temporarily turn off the sound by pressing the MUTE button.
1. Press the MUTE button and the sound cuts off.
2. Press the MUTE again or VOL- / VOL+ button to turn the sound back to the previous level.

PICTURE (CONTRAST, COLOR, BRIGHTNESS, etc.)

Your LCD TV offers you the possibility of establishing values for the picture for the TV, PC operation and AV settings according to your taste.
For example, lower brightness and contrast values are used for the PC Mode than for other types of operation. Apart from this, there is the possibility of selecting optimized factory presets for contrast and brightness (EVENING, DAYTIME).
Variation 1: Press the RED Button to reach the Picture Menu directly.
Variation 2: Press the MENU Button to call up the Main Menu, set the cursor on PICTURE by means of the P+/P- Buttons and call up the appropriate Menu by means of the MENU Button.
2. Preset:
Here, you can choose between the optimal factory presets or manual contrast and brightness setting. The selection is made with the **VOL+/VOL** Buttons or through a menu by means of **MENU**. The preset can also be selected outside the Picture Menu by means of the **APC** Button.

- **DAYTIME:**
  Here, the contrast of the picture is increased, to achieve an optimum presentation of the picture in daylight or in the case of night scenes.

- **EVENING:**
  The contrast of the picture is reduced here. An attractive picture arises through this, particularly in the evening, when there is little surrounding light.

- **MANUAL:**
  You can establish contrast and brightness yourself, to adjust the picture to your requirements.

3. You can adjust the contrast, brightness and color values with the **VOL+/VOL** Buttons, depending on the preset. Contrast and brightness are only available if the PRESET Menu Point has been set at **MANUAL**.

4. Format:
The required picture format can be set with the **VOL+/VOL** Buttons. This setting can also be carried out directly outside the Picture Menu with the **ARC** Button.

- **AUTO:** The device selects the picture setting suitable to the channel transmitted at the time independently and adjusts it continuously to the channel in this mode.

- **4:3:** This setting sets the side ratios of the picture at 4:3 for traditional television programs. Black bars appear on both sides of the screen.

- **PANORAMA:** Adjusts a 4:3 video source to the 16:9 ratio, where the corners of the picture are mainly stretched. This reduces distortion in the center of the picture.

- **CINEMA:** Some DVD films or Cinemascope broadcasts do not fill the upper and lower edges of the screen. The Cinema function stretches the height, to fill the screen.

- **WIDE PICTURE 16:9:** 16:9 broadcasts are reproduced without distortion. 4:3 video sources are stretched evenly to fill the screen. Distortion arises both in the centre and at the corners of the picture here.

5. Tint:
The color impression can be changed for NTSC images (e.g. video cassettes from the USA) with the **VOL+/VOL** Buttons.

6. PC Settings:
This Point can only be selected in PC Mode. See chapter „11. PC Mode“on page 28 for a more detailed explanation.
ADDITIONAL PICTURE SETTINGS

Move the cursor to ADDITIONAL PICTURE SETTINGS with the P+/P- Buttons and press the MENU Button.

Continue Picture
1. Noise reduction
2. Sharpness
3. Comb filter
4. Color registration
5. Backlight
6. White balance
7. Perfect Clear

Further fine adjustments in relation to the impression made by the picture can be carried out in this Menu.

1. Noise Reduction:
The picture quality can be improved, in the case of grainy pictures with this function.
The AUTOMATIC/OFF/WEAK/MEDIUM/LOUD settings can be selected through a menu with the VOL+/VOL- Buttons or the MENU Button.

The device will adjust the noise reduction automatically to the reception quality at the AUTOMATIC setting. The MEDIUM and LOUD settings should only be selected in the case of a heavily distorted picture, because jerky movements can arise if the picture content is moving fast. This setting can be set individually for each channel slot.

2. Sharpness:
The picture sharpness can be adjusted to your personal requirements with the VOL+/VOL- Buttons. You reach the Settings Mode by pressing the MENU Button. The menu is faded out, in order to be able to assess the picture, and the setting can be carried out through a setting bar. This setting can be set individually for each channel slot.

3. Comb Filter:
Disruptive wave lines in check patters in the picture content can be avoided by activating this function.

4. Color Registration:
This function serves to even out differences arising between the colored parts of the picture and the picture contours.

The setting can take place in the Menu with the VOL+/VOL- Buttons. You also reach the Settings Mode, by pressing the MENU Button. The menu is faded out and it is possible to carry out the setting through a setting bar. This setting can be established individually for each channel slot.

5. Backlight:
The brightness of the background lighting of the LCD TV can be controlled with this function. You can choose between the WEAK/ MEDIUM/ NORMAL/ FULL settings through one menu with the VOL+/VOL- Buttons or the MENU Button.

6. White Balance:
You can adjust the whiteness impression to your requirements in three stages with the VOL+/VOL- Buttons.

7. Perfect Clear:
You can activate a special digital Picture Improvement Mode with the VOL+/VOL- Buttons under this Point.
**SOUND (BALANCE, EQUALIZER, ETC.)**

Different settings in relation to the sound reproduction of your LCD TV can be made in this Menu.

**Variation 1:** Press the **BLUE** Button to reach the Sound Menu directly.

**Variation 2:** Press the **MENU** Button to call up the Main Menu, set the cursor on **SOUND** by means of the **P+/P-** Buttons and call up the associated Menu by means of the **MENU** Button.

### Sound

1. **Volume:** This Point corresponds to the volume setting, which can also be regulated directly outside the Menu with the **VOL+/VOL-** Buttons.

2. **Balance:** Differences in volume between the left and the right loudspeaker can be evened out here, managed around an optimum sound impression, if your viewing position in front of the LCD TV is not central.

3. **Equalizer:** You can increase or reduce individual frequencies of the sound reproduction at this Point, as you can in the case of your stereo equipment. It is only possible to select this Menu Point if the PRESET Menu Point is set at **MANUAL**. Set the Selection Bar at **EQUALIZER** by means of the **P+/P-** Buttons and press the **MENU** Button.

### Equalizer

1. **Preset**
2. **Basic settings**

3. **120 Hz**
4. **500 Hz**
5. **1500 Hz**
6. **5000 Hz**
7. **10000 Hz**

- You can choose between **POP/ CLASSIC/ LANGUAGE/ JAZZ/ FLAT** Equalizer presets under **PRESET**. The selection is made either through the **VOL+/VOL-** Buttons or through a Menu that can be reached through the **MENU** Button.

Each Equalizer preset corresponds to a particular predetermined setting in relation to increasing or lowering the individual frequencies to achieve particular sound effects.

The individual frequencies cannot be changed and are thus presented as grey, if one of the presets previously listed has been selected.
4. Preset:
Fast selection for the equalizer presets – see Equalizer

5. Headphones:
You can adjust the volume, bass and treble settings for headphones under this Point. Move the Selection Bar to HEADPHONES with the \textbf{P+/P-} Buttons and call up the relevant Menu by pressing the \textbf{MENU} Button. The values can be changed by means of the \textbf{VOL+/VOL-} Buttons.

6. Surround Sound:
The different NORMAL/WIDE/CINEMA surround sound settings can be selected through a Menu by means of the \textbf{VOL+/VOL-} Buttons or by pressing the \textbf{MENU} Button.

7. Audio Channel:
You can select the audio channel with this function. For example, it offers the possibility of choosing between two languages in the case of dual language broadcasts.

You can choose between the STEREO/ MONO/ DUAL SOUND A/ DUAL SOUND B/ MONO C settings either with the \textbf{VOL+/VOL-} Buttons or through a Menu, accessible by means of the \textbf{MENU} Button, after you have set the Selection Bar at AUDIO CHANNEL with the \textbf{P+/P-} Buttons.

The sound channels that can be selected are dependant on the broadcast that you are watching at the time. Settings that cannot be selected are represented in grey. The setting that you make in this Menu will be set back after a channel slot change.

If you want a long-term change to the audio channel on one station (e.g. you want to always receive the second language of one station), make this setting in the PROGRAM EDIT Menu – see chapter “Setting channels manually” on page 20. You will also find a more description in relation to the possible settings in this section.

8. Automatic Volume:
The volume of your LCD TV will be regulated automatically after this function has been activated, so that loud sound passages (e.g. during advertising breaks) are no longer disruptive.

9. Loudness:
You can switch a volume-dependant sound adjustment on or off under this Point.
**8. TV Mode Adjustment**

**Adjusting TV Settings**

1. Select "TV" mode as signal source using the TV key on the remote control.
2. Press the **Menu** key and select **TV** on the screen menu.

   ![Main Menu](image)

   1. Picture
   2. Sound
   3. Program table
   4. Installation
   5. Child lock
   6. Sleep timer
   7. Swap Funktion

3. Select the PROGRAM TABLE Menu Point with the **P+/P-** Buttons and press the **MENU** Button.

**Program Table**

The program table indicates the names and numbers of the channels. You can change program names, edit, delete, add or move programs or carry out fine adjustments in this list.

![Program Table](image)

- **Delete**
- **Moving**
- **Edit**

**Note:** The SCART1, SCART2, AV.SV and PC programs cannot be deleted or moved.

**Delete a Program**

4. Go to the program in the program table that you want to delete with the help of the **P+/P-/Vol+/Vol-** Buttons.
5. Press the **RED** Button to call up the delete function directly or call up an Edit Functions Menu with the **MENU** function and select **DELETE**.
6. Now, you will reach the security query. Select **DELETE** with the assistance of the **P+/P-** Buttons and carry the action out directly with the **MENU** Button or by pressing the **RED** Button again.
MOVING AND SORTING CHANNELS

1. Go to the channel slot in the program table that you would like to move or sort with the assistance of the P+/P-/Vol+/Vol- Buttons.

2. Press the GREEN Button to call up the sorting function directly or call up an Edit Functions Menu with the MENU function and select MOVE.

3. The respective channel will now be marked in color.

4. Move the channel to the channel slot that you require with the assistance of the P+/P-/Vol+/Vol- Buttons.

5. Store the changes that you have carried out by pressing the GREEN or the MENU Button again.

CHANGING THE NAMES OF CHANNELS

1. Go to the channel slot that you would like to edit with the help of the P+/P-/Vol+/Vol- Buttons.

2. Either press the YELLOW Button to call up the processing function directly or call up an Edit Functions Menu with the MENU function and select EDIT.

3. The screen will now display the CHANNEL EDIT or AV EDIT Menu:

Programm edit
1. Frequencyongabe
2. Tuning
3. Channel grid
4. Channel type
5. Channel number
6. Change name
7. TV-Ssoundard
8. Color standard
9. Audio channel
10. Adjustment
11. Decoder

AV edit
1. Change name
2. Color standard
3. Adjustment

4. Go to the CHANGE NAME Menu Point with the assistance of the P+/P- Buttons and press the MENU Button.

5. Now, you can select the letters required with the P+/P- Buttons. You will reach the next position with the VOL+/VOL- Buttons (each channel name can be 8 symbols long). You will leave the name selection with the MENU or EXIT Button.

6. Press the EXIT Button and confirm that you would like to store the changes that you have carried out with YES.
**Setting channels manually**

1. Go to the channel slot in the program table that you would like to edit with the assistance of the P+/P- /Vol+/Vol- Buttons.

2. Either press the **YELLOW** Button to call up the processing function directly or call up an Edit Functions Menu with the **MENU** function and select **EDIT**.

3. Now the screen will display the PROGRAM EDIT or AV EDIT Menu:

```
Programm edit
1. Frequency input
2. Tuning
3. Channel grid
4. Channel type
5. Channel number
6. Change name
7. TV-standard
8. Color standard
9. Audio channel
10. Adjustment
11. Decoder
```

```
AV edit
1. Change name
2. Color standard
3. Adjustment
```

4. Frequency entry:
   Here, you can change the reception frequency or enter it directly. Position the Selection Bar at FREQUENCY ENTRY with the P+/P- Buttons. Now, you will be able to change the reception frequency with the VOL+/VOL- Buttons.

   At the same time, attention should be paid that that the display bar of the 2nd TUNING Menu Point is positioned in the center, because the station is set optimally then.

   You can also enter the reception frequency directly with the number Buttons by pressing the **MENU** Button. You will leave direct sound entry again with the **MENU** Button.

5. Channel grid:
   The channel grid can be changed with the **MENU** Button (Menu) or the VOL+/VOL- Buttons. The channel grid represents the setting of the channels to the frequencies available and can vary according to the location (e.g. CCIR in Germany differs from the setting necessary in France).

6. Channel type:
   The channel type can be changed with the **MENU** Button (Menu) or the VOL+/VOL- Buttons. It is possible to select between channels and special channels or special channels in individual states (e.g. C1 in France), depending on the setting of the channel grid.

7. Channel number:
   You can enter the channel number of the channel slot that you require directly here. You can increase or decrease the current sound channel number with the VOL+/VOL- Buttons. A cursor will appear and you will be able to enter the channel number directly with the number Buttons when you press the **MENU** Button.

8. TV Standard:
   The TV standard can be changed with the **MENU** Button (menu) or the VOL+/VOL- Buttons. Settings related to the transmission norm (location-dependant) of a station can be made here.
9. Color Standard:
The color standard can be changed with the **MENU** Button (menu) or the **VOL+/VOL-** Buttons. Changes to the color norm of a station can be made here.

10. Audio channel:
The preferred audio channel can be selected with the **MENU** Button (Menu) or the **VOL+/VOL-** Buttons. The device selects the optimum sound setting in accordance with the NICAM priority (a digital sound norm used by some stations) before stereo or mono, independently the AUTOMATIC position. Setting it to MONO can sometimes be advantageous in the case of audio problems on a stereo station. The second language on a dual language station can be selected with DUAL SOUND B. The MONO C setting is only relevant to NICAM stations that broadcast in several languages.

11. Adjustment:
The ADJUSTMENT Menu Point on this channel slot should be positioned at VCR, to avoid picture distortion (conversion to fast time constants), if you want to operate a video recorder through an HF channel slot (connection with aerial cable) or through an AV channel (connection with Scart cable). The setting can be made by means of the **MENU** Button (Menu) or the **VOL+/VOL-** Buttons.

12. Decoder:
This setting is important for the operation of a decoder on the SCART/AV2 socket, in order to be able to receive encrypted stations. The setting can be made by means of the **MENU** Button (Menu) or the **VOL+/VOL-** Buttons.

The OFF setting usually means normal television operation without a decoder. The decoded picture signal is presented automatically at all other settings. The difference between the decoder settings consists of whether the respective station decrypts the sound additionally or not. The following Table is intended to explain the connections.

<table>
<thead>
<tr>
<th>Decoder Setting</th>
<th>Station/Sound</th>
<th>Station/Picture</th>
<th>Sound Output</th>
<th>Picture Presentation of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Decrypted</td>
<td>Decrypted</td>
<td>TV</td>
<td>TV</td>
</tr>
<tr>
<td>External/Internal Sound</td>
<td>Analog Nicam Decrypted</td>
<td>Encrypted</td>
<td>Analog NICAM TV</td>
<td>Decoder</td>
</tr>
<tr>
<td>External Sound</td>
<td>Analog Nicam Encrypted</td>
<td>Encrypted</td>
<td>Analog NICAM Decoder</td>
<td>Decoder</td>
</tr>
<tr>
<td>Internal Sound</td>
<td>Analog Nicam Decrypted</td>
<td>Encrypted</td>
<td>Analog TV Nicam TV</td>
<td>Decoder</td>
</tr>
</tbody>
</table>

**Note:** Read the instructions for use of your decoder or ask the provider of the encrypted channel for the correct setting.

13. Press the **EXIT** Button and confirm that you want to store the changes carried out with **YES**.

**Note:** The settings described above are only necessary in exceptional cases (manual setting of a new station, connection of a decoder, etc.). The automatic APSAS station search carries out most of the settings independently.
MANUAL ADDITION OF CHANNELS

1. Go to the first empty channel slot following the channel slots already stored in the program table with the P+/P- / Vol+/Vol- Buttons. Press the MENU Button and select the NEW TV signal source.

2. Now enter the channel type and subsequently the channel number or the relevant frequency. Check the remaining settings for correctness in relation to the required station (see chapter „Setting channels manually“ from page 20).

3. Press the EXIT Button and confirm that you want to store the changes carried out with YES.

ADD NEW CHANNELS AUTOMATICALLY

This function is very useful if the range of channels in your reception area (e.g. on the cable network) is increased. An automatic station search, which will store all channels newly added since the last station search, is started.

1. Press the MENU Button to reach the Main Menu.

2. Select the INSTALLATION Point with the P+/P- Buttons and press the MENU Button again.

3. Select the SEARCH FOR NEW CHANNELS Menu Point with the P+/P- Buttons, press the MENU Button and select START. The AUTOMATIC STATION SEARCH Menu will now appear on the screen:

   Frequency
   Channel type
   Last station
   Found so far

Cancel

4. This Menu serves to display the progress of the station search so far. You can cancel the station search at any time with the MENU or the EXIT Button. No new stations will be stored in this case.

5. You will reach the program table when the station search has finished, as following the initial installation. New channels will have been added following the channels already available. Please refer to chapter „Program table“ on Page 18, if you want to change the sorting or the names.
9. **Teletext**

Teletext is a free service that is broadcast by the majority of television stations and offers current information in relation to news, the weather, television programs, share prices, subtitles and other subjects. Your LCD TV offers many useful functions for operating Teletext and multi-page text, storing sub-pages or fast navigation.

**To operate Teletext**

1. Select a TV station on which Teletext is being transmitted.
2. Press the **Teletext** button once to appear the Teletext screen.
   Press the **Teletext** button again to switch off Teletext. The previous program re-appears.

**Teletext Page Selection**

1. Enter the required Teletext page as a three digit numbers.
2. The selected page number is displayed at the top left corner of the screen. The Teletext page counter searches until the selected page number is located, so that the desired page is displayed on the screen.
3. Fasttext movement by the **4 colored buttons**.
   Four subject-heading pages can be selected quickly by pressing the corresponding colored button **Red**, **Green**, **Yellow**, or **Blue** on the remote control handset. The function of the respective Color Button is displayed at the lower edge of the picture (e.g. +/-, to turn on page forward/back or the title of the Teletext block to be reached).
4. Fast navigation with Page Catching:
   This function enables the fast selection of page numbers displayed on the current Teletext page. Navigate to the page number that interests you with the **P+/P-** Buttons (a flashing cursor appears at the same time) and press the **MENU** Button to call it up.
5. Some Teletext pages also contain sub-pages that are displayed at the lower edge of the picture. You can turn between the sub-pages forward and back by pressing the **POSITION/SIZE** Buttons.

**Select Teletext display functions**

Your LCD TV offers you several possibilities of presenting several Teletext pages or the television picture and Teletext clearly at the same time.

1. Multi-page text:
   This function presents several interconnected Teletext pages on one screen. Press the **DISPLAY** Button. You will receive one large and two small display windows. The main page will be presented in the large picture; the associated, following sub-pages or those pages that can be selected quickly by pressing the **YELLOW** or **BLUE** Buttons are presented in the small pictures. Press the **DISPLAY** Button again to return to the normal, full Teletext picture.
2. Split Screen:
   Press the **PIP ON/OFF** Button (= divided screen), to display the current television picture as split screen, in addition to Teletext.
3. Television picture in Multi-Page Text:
   The television picture in the upper field of the two small Teletext pictures will be presented in Multi-Page Mode by pressing the **PIP ON/OFF** Button again.
4. Teletext as Picture in Picture:
The television picture is presented as a full picture and the current Teletext page is presented as a small picture in the picture inserted into the upper right screen area, by pressing the **PIP ON/OFF** Button again.

**USEFUL FEATURES FOR TELETEXT**

**INDEX**
* Press this button to select the index page that displays the list of Teletext contents.

**STOP**
The Teletext page you have selected may contain more information than what is on the screen; the rest of the information will be displayed after a period of time on a sub-page.
* Press **STOP** button to stop the automatic page change.
  - The **STOP** symbol will be displayed at the top left-hand corner on the screen and the automatic page change will be stopped.
* Press **STOP** button again to continue.

**INTERRUPT**
In the Teletext mode, pressing **INTERRUPT** button will switch the screen to the TV mode while waiting for the next text page.
* Select required page number in Teletext mode.
* Press **INTERRUPT** button to switch to TV mode while waiting for the text page. The upper and lower row of the videotext page information is displayed for 6 seconds, before it disappears.
* When the required text page is found, the page number is displayed in a black box in the upper left corner.
* Press **INTERRUPT** button again to revert to Teletext mode.

**REVEAL**
* Press this button once to display concealed information, such as solutions of riddles, puzzles, or a quiz.
* Press this button again to conceal the revealed answers.

**EXPAND**
Select double height text.
* Press this button to enlarge the top half of the page.
* Press this button again to enlarge the bottom half of the page.
* Press this button once more to return to the normal display.
10. CONNECTING EXTERNAL DEVICES

CONNECTION OF AN EXTERNAL DEVICE TO THE SCART SOCKET

Please connect the SCART/AV1 or the SCART/AV2 socket of the LCD TV to the device to be connected with a EURO AV cable (Scart cable), to connect a video recorder, a DVD player, a SAT receiver or similar to one of the two Scart sockets of your LCD TV, for example.

Note: Please pay attention to the instruction for use of the device to be connected.

CONNECTING A CAMERA RECORDER

Connect the device to the front AV.SV socket of your LCD TV with a commercially available cable (cinch cable and/or S-video cable), in accordance with the colored cable and socket identification, to connect a camera recorder.

Note: Please pay attention to the instructions for use of your camera recorder.

CONNECTING A VIDEO RECORDER TO THE AERIAL SOCKET

Please connect the aerial input of the LCD TV to the aerial output of your video recorder by means of an aerial cable, to connect a video recorder to the aerial socket of your LCD TV. Please connect your domestic aerial to the aerial output of your video recorder.

You can choose any channel slot on the LCD TV to represent the picture and sound signals of your video recorder. The selected channel slot must be coordinated with the station frequency of the aerial output of your video recorder to achieve this (usually between channels 30 and 40) – see chapter „Setting channels manually” on Page 20.

You should set the ’10th ADJUSTMENT’ Menu Point in the PROGRAM EDIT Menu to VCR after carrying out the tuning, to avoid picture distortion.

Note: Please pay attention to the instructions for use of your video recorder.

CONNECTING A DECODER

You need a decoder to be able to receive encrypted channels. Please connect it to the SCART/AV2 socket of your LCD TV by means of a EURO AV cable (Scart cable). Please refer to the chapter ”Setting channels manually” on page 20 for advanced settings in relation to decoder operation.

Note: Please pay attention to the instructions for use of your decoder.

CONNECTING A PC

Your LCD TV offers the possibility of connecting a PC. To do this, connect the DVI-I socket of the LCD TV to the graphics card of your PCs and the Line output of your PC to the PC Audio In input.

The DVI-I socket has both an input for classic analog signals (DVI-A) and for digital signals (DVI-D). A 15-pole analog SubD VGA output can be connected directly to the DVI socket of the LCD TV with an adapter or an adapter cable.

Note: Please pay attention to the instructions for use of your PC and the sound and graphics cards and the technical data of your LCD TV, to select the necessary settings for the resolution and image repetition rate on the PC.
SETTINGS FOR EXTERNAL DEVICES (PICTURE, SOUND, NAME, ETC.)

Please refer to the Chapters „Picture (Contrast, Color, Brightness, etc.)“ on Page 13 and „Additional picture settings“ on Page 15, to change the picture for AV settings. The functions described in these Chapters also apply to the AV positions.

You will find more precise descriptions in chapter „Sound (Balance, Equalizer, etc.)“ on page 16, if you want to adjust the sound. The points described there also apply to the AV settings.

You will find more precise descriptions in Chapters „Changing the names of channels“ and „Setting channels manually“ on Pages 19 and 20, if you want to adjust the channel names or the channel settings.

AV MENU SETTINGS

The type of input signal, the source of the output signal and the volume offset in comparison the basic volume can be established for the Scart 1, Scart 2, and AV.SV AV settings in this Menu.

1. Press the MENU Button to reach the Main Menu.

2. Select the INSTALLATION Menu Point with the P+/P- Buttons and press the MENU Button again.

3. Position the Selection Bar on AV SETTINGS Menu Point by means of the P+/P- Buttons and press the MENU Button again. This will take you to the following Menu:

<table>
<thead>
<tr>
<th>AV Settings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AV1 Signal type</td>
<td></td>
</tr>
<tr>
<td>2. AV1 Video Out</td>
<td></td>
</tr>
<tr>
<td>3. AV1 Volume Offset</td>
<td></td>
</tr>
<tr>
<td>4. AV2 Signal type</td>
<td></td>
</tr>
<tr>
<td>5. AV2 Video Out</td>
<td></td>
</tr>
<tr>
<td>6. AV2 Volume Offset</td>
<td></td>
</tr>
<tr>
<td>7. AV.SV Signal type</td>
<td></td>
</tr>
<tr>
<td>8. AV.SV Volume Offset</td>
<td></td>
</tr>
</tbody>
</table>

4. AV 1 Signal type:
   You can choose between different settings for the signal type supplied by an external device attached to the SCART/AV 1 socket with the VOL+/VOL- Buttons or by pressing the MENU Button (Menu). Please always bear in mind that your external device must also supply the respective signal type to achieve perfect pictures.

   **Note:** Please pay attention to the instructions for use of the connected device.

- **VIDEO/RGB AUTO:**
  FBAS (e.g. Video recorder) and RGB signals (e.g. playing console) can be represented at this setting, if this function is supported, automatically recognized and presented by the device connected.

- **S-VIDEO:**
  Serves to connect S-VIDEO signals. In the case of this signal type, the picture and the color signals are separate, in order to avoid disruptive wave lines in checked patterns.

- **RGB:**
  Serves to connect sources of RGB signal sources (e.g. playing console) that do not support automatic recognition.
5. AV1 Video Output:
You can choose between different settings for the output signal emitted at the SCART/AV 1 socket with the VOL+/VOL- Buttons or by pressing the MENU Button (Menu).

**Note:** No signals can be emitted in the Readiness Mode!

- **AUTO:**
  The pictures and sounds presented by the device are output at the SCART/AV 1 socket (exception: The device is at the SCART 1 AV setting).

- **TV:**
  The signal received through the aerial is always output at the SCART/AV 1 socket (even if your LCD TV is operated at one AV setting).

- **AV2 (Copy Mode):**
  The picture and sound signal coming from the SCART/AV 2 socket is emitted at the SCART/AV 1 socket, independently of the mode (TV, PC, etc.) in which the LCD TV is operating. This function is very useful for transferring from one external device to another.

- **AV.SV (Copy Mode):**
  The same function as under the AV2 setting, with the difference that the picture and sound signals are emitted from the front AV.SV input, through the Cinch sockets to the SCART/AV 1 socket (e.g. to transfer from a video camera to a video recorder).

6. AV1 Volume Offset:
You can establish a volume offset (shifting – quieter or louder) for the sound input signals at the SCART/AV 1 socket, in comparison to the basic volume of your device, with the VOL+/VOL- Buttons.

7. AV2 Signal Type/ AV2 Video Output/ AV2 Volume Offset:
The settings and functions for the AV position described above also apply to the AV2 position.

8. AV.SV Signal type:
You can choose whether the picture signal of your external device (e.g. camera) is processed by the video input (yellow) or by the S-video input (4-pole black socket) with the VOL+/VOL- Buttons or by pressing the MENU Button (Menu). In both cases, the sound signal is processed by the red and white cinch socket.

9. AV.SV Volume Offset:
You can establish a volume offset (shifting – quieter or louder) for the sound input signals at the cinch sockets at the front AV.SV input, in comparison to the basic volume of your device, with the VOL+/VOL- Buttons.

10. You leave the Menu with the EXIT Button.
11. PC Mode

Connection
Your LCD TV offers you the possibility of connecting a PC. Your LCD TV can represent both analog and digital input signals. Connect the DVI-I socket of the LCD-TV to the graphics card of your PC. Connect the Line output of your PC to the PC Audio In input (black jack socket next to the DVI-I input on the side of the device), to transmit the PC sound signals to the LCD TV.

Note: Please pay attention to the instructions for use of your PC and the sound and graphics card and the technical data of your LCD TV, in order to select the necessary settings for the resolution and the image repetition rate on the PC.

Settings in the PC Mode
Press the PC Button to switch to the PC Mode. All pictures and sound in the PC Mode function precisely as in TV Mode.
Press the MENU Button to reach the Main Menu, select the PICTURE Menu Point and press the MENU Button again. Move the Selection Bar to the PC SETTINGS Point with the P+/P- Buttons and press the MENU Button again. You will reach the Menu for the PC SETTINGS:

PC settings
1. Mode
2. Change name
3. Input
4. Horizontal position
5. Width
6. Vertical position
7. Phase
8. Frequency

1. Mode:
This Point shows whether there is a signal at the DVI-I input socket of the LCD-TV. It is not possible to reach the settings for the picture presentation as long as NO SIGNAL is displayed (displayed in grey).

2. Change name:
It is possible to give a name to the PC setting. Press the MENU Button to reach the Entry Mode (cursor appears). Now, you will be able to select the symbols with the P+/P- Buttons and change the position with the den VOL+/VOL- Buttons. Leave the Entry Mode by means of the MENU or the EXIT Button.

3. Input:
It is possible to choose between the AUTO/ANALOG/DVI settings with the VOL+/VOL- Buttons or through a Menu that can be reached by pressing the MENU Button.

- AUTO:
  Your LCD TV recognizes the signal type (analog or digital) at the DVI socket automatically.

- ANALOG:
  At this setting, your LCD TV will expect an analog input signal at the DVI-I socket. Please pay attention to the correct selection of the output on your graphics card (VGA or DVI-A).

- DVI:
  At this setting, your LCD TV will expect a digital input signal at the DVI-I socket. Please pay attention to the correct selection of the output on your graphics card (DVI or DVI-D).
4. Horizontal position:
   You can change the horizontal position of the PC image with the **VOL+/VOL-** Buttons.

5. Width:
   You can change the width of the PC image with the **VOL+/VOL-** Buttons.

6. Vertical Position:
   You can change the vertical position of the PC image with the **VOL+/VOL-** Buttons.

7. Pixel phase:
   You can optimize the presentation of text on the LCD TV (e.g. in the case of quivering
   letters) with the **VOL+/VOL-** Buttons.

8. Frequency:
   Potential disruptions to the picture (unsteady picture or wave lines) can be balanced
   with the **VOL+/VOL-** Buttons. This setting should only be changed in the case of prob-
   lems.

9. You leave the Menu with the **EXIT** Button.
12. Picture in Picture (PIP)

You can use the PIP function to display two programs at the same time.

1. Press the PIP ON/OFF Button on the remote. Channel slot 1 will be displayed as a small picture when you call up the PIP function for the first time, after switching the LCD TV on.

2. You will now be able to have the required channel slot or AV setting (SCART 1, PC, AV, SV, etc.) displayed in the small picture with the PIP SOURCE ▲/▼-Buttons. The PIP channel viewed most recently will be displayed if you switch off the PIP function and switch it on again later.

3. The large and the small picture can be exchanged by pressing the PIP ON/OFF Button for about 2 seconds, if the small picture has already been displayed.

4. You can choose the corner of the large picture in which the small picture should be displayed with the PIP POSITION Button.

5. You can select 3 different sizes for the small picture with the PIP SIZE Button.

Note: Not all signal combinations of large and small pictures are necessary. In these cases, the OSD channel display shows ‘NoPIP’.
13. COMFORT FUNCTIONS

CHILD LOCK
You can block all the functions of the device with the Child Lock. The entry of a PIN will be required automatically when the device is switched on again, if the Child Lock has been activated and the device has been switched off.

The picture and the sound will not be switched on and the operation of the device will not be permitted until a PIN number has been entered.

1. Press the MENU Button. The Main Menu will be displayed.

   Main Menu
   1. Picture
   2. Sound
   3. Program table
   4. Installation
   5. Child lock
   6. Sleeptimer
   7. Swapfunktion

2. Move the Selection Bar to the CHILD LOCK Menu Point with the P+/P- Buttons and press the MENU Button to call up the sub-menu.

   Child lock
   1. PIN   xxxx
   2. Child lock   On/Off

3. Press the MENU Button and then enter a single digit number = your PIN number. The CHILD LOCK Point cannot be selected as long as no PIN number has been entered; the Point cannot be selected and is represented as grey.

4. The CHILD LOCK can be switched on under the relevant Menu Point after entering your PIN number. You will have to call up the CHILD LOCK Menu again and set the CHILD LOCK to OFF after entering your PIN number, in order to switch off the Child Lock again later.

SLEEP TIMER
The Sleep Timer switches the device into the Readiness Mode automatically according to the period of time selected by you.

Variation 1: Press the SLEEP Button to reach the Sleep Timer Menu directly.

Variation 2: Press the MENU Button to call up the Main Menu, position the Selection Bar on Sleep Timer by means of the P+/P- Buttons and call up the relevant Menu by means of the MENU Button.

   Sleeptimer
   1. Sleeptimer
   2. Current counter in minutes:

You can set the switching off time in steps of 5 MIN./10 MIN./15 MIN./30 MIN./1 HOUR/2 HOURS/OFF by operating the SLEEP Button or the VOL+/VOL- Buttons, or call up this Menu by pressing the MENU Button. The OFF setting means that the Sleep Timer is switched off.

You can check how many minutes still remain until switching off at any time in the CURRENT COUNTER line by calling up the Sleep Timer Menu again.
**SWAP FUNCTION**

The Swap Function enables you to change between two channels positioned separately or to switch back to a preferred channel fast. For example, if you want to switch channels during an advertising break, you can switch back quickly at any time, by pressing the RTN Button, to see whether the advertising break has already finished and your desired program is continuing. Each further operation of the RTN Button will lead to a switch between the channel most recently viewed and your preferred channel.

**ESTABLISH SWAP CHANNEL (PREFERRED CHANNEL)**

Variation 1: Press the MENU Button to call up the Main Menu. Position the Selection Bar on SWAP FUNCTION by means of the P+/P- Buttons and press the MENU Button again. You can choose between MANUAL/ 3 MIN/ 5 MIN/ 10 MIN settings with the VOL+/VOL- Buttons or through a Menu that can be reached by means of the MENU Button.

The Swap Channel must be defined in accordance with Variation 2 in the case of the MANUAL setting. The channel viewed is automatically defined as the Swap Channel after the period has expired whenever a period of time is set.

SWAP CH will be faded in into the left upper corner. Now, you will be able to select any other channel slot and switch between the channel viewed and your Swap Channel by pressing the RTN Button for a short time. The channel that is your preferred channel will be displayed for 4 seconds at each channel change.

Variation 2: Press on the channel slot to which you want to revert quickly as long as the RTN Button appears, until SWAP CH OSD is faded in. You will now have established your preferred channel manually.

However, if a period of time has been set in the SWAP FUNCTION Menu, your preferred channel will change automatically with your television viewing.

**REVERTING TO THE FACTORY SETTING**

This function sets all settings of the LCD TV, such as brightness, color, contrast, sharpness and white balance, etc. back again to the status of delivery from the factory.

1. Press the MENU Button to reach the Main Menu.

2. Select the INSTALLATION Point with the P+/P- Buttons and press the MENU Button again.

3. Select the FACTORY SETTINGS Point with the P+/P- Buttons and press the MENU Button again. Now, select SET and confirm this selection with the MENU Button.

**Note:** You can set most important picture and sound (brightness, color, contrast, volume) settings back to the factory settings by pressing the RESET Button for a longer period.
SWITCHING ON MODE

You can establish your preferred Operating Mode of the LCD TV after switching it on with this setting.

1. Press the **MENU** Button to reach the Main Menu.

2. Select the INSTALLATION Menu Point with the **P+/P-** Buttons and press the **MENU** Button again.

3. Move the Selection Bar to the SWITCH ON WITH Menu Point with the **P+/P-** Buttons. Now, you will be able to choose between the PC/CH 1/LAST CH/AV/INSTALLATION modes of operation by means of the **VOL+/VOL-** Button, or by pressing the **MENU** Button (Menu).
   - PC: Switch on in PC Operating Mode
   - CHANNEL 1: Switch on with channel slot 1
   - LAST CHANNEL: Switch on with the channel most recently viewed.
   - AV: Switch on with AV setting most recently used.
   - INSTALLATION: Switch on as at the status of the initial installation – see chapter „6. APSAS First Time Installation“ on page 10.

SETTINGS FOR ALL CHANNELS

1. Press the **MENU** Button to reach the Main Menu.

2. Select the INSTALLATION Menu Point with the **P+/P-** Buttons and press the **MENU** Button again.

3. Select the SETTING ALL CHANNELS Menu Point with the **P+/P-** Buttons and press the **MENU** Button again.

   ![Settings of all programs](image)

4. Sharpness Setting:
   This function sets the sharpness setting for all channels. You can choose between settings 0-3 through a Menu by pressing the **MENU** Button. There is a more detailed description of this function in chapter „Additional picture settings“ on page 15.

5. Noise Reduction Setting:
   This function sets the noise reduction setting for all channels. You can choose between the AUTOMATIC/ OFF/ WEAK/ MEDIUM/ LOUD settings through a Menu by pressing the **MENU** Button. You will find a more detailed description of the settings in chapter „Additional picture settings“ on page 15.

6. Decoder Setting:
   This function sets the decoder function for all channels. You can choose between the OFF/ EXTERNAL/ INTERNAL SOUND/ EXTERNAL SOUND/ INTERNAL SOUND settings through a Menu by pressing the **MENU** Button. You will find a more detailed description of the settings in chapter „Setting channels manually“ on page 20.
**TIME DISPLAY**  

In TV Mode, the time will be displayed by pressing this Button. Press the **TIME** Button while your LCD TV is transmitting a television channel with Teletext transmission. The current time will be displayed in the form of a digital clock in the right upper corner of the screen. The display will switch to an analog clock if the **TIME** Button is pressed again. The time display will disappear as soon as the **TIME** Button is pressed a third time.

**SWITCH PICTURE FORMAT** - **ARC**

You can change the representation of the picture format of your LCD TV quickly with the **ARC** Button. You will find a more detailed description in relation to the possible picture formats in chapter „Picture (Contrast, Color, Brightness, etc.)“ on page 13.

**SWITCH PICTURE PRESETS** - **APC**

You can choose between the possible DAYTIME/EVENING/MANUAL presets quickly with the **APC** Button. You will find a more detailed description in relation to these presets in chapter „Picture (Contrast, Color, Brightness, etc.)“ on page 13.

**PICTURE STATUS FUNCTION – YELLOW BUTTON**

You can freeze the picture at any time by pressing the **YELLOW** Button. Operate the **YELLOW** Button again to let the picture continue.
14. TROUBLESHOOTING

Many times, problems have simple causes. We would like to give you some tips to solve some common problems. Should these tips not help, please call us!

**There is no picture or sound.**
- Make sure the AC adapter is properly inserted in the power outlet.
- Make sure the input mode is set to correctly.
- Make sure the main power switch of the main unit is on.

**There is no picture. There is no picture from AV.**
- Make sure the Contrast/Brightness is properly adjusted.
- Make sure all external devices are connected properly.
- Check that the correct AV setting has been selected.

**There is no sound.**
- Make sure the volume is not set to minimum.
- Make sure the sound is not set to mute.
- Make sure that headphones are not connected.

**There is no picture or sound, just noise.**
- The reception may be weak. Make sure the aerial is not disconnected.

**Picture is not clear.**
- The reception may be weak.
- Make sure the aerial is not disconnected.

**The picture is too bright or too dark.**
- Check the settings of contrast / brightness / Backlight in the menu picture settings.

**Remote control does not work.**
- Check the batteries in the remote control are not flat.
- Make sure the remote sensor window is not under strong lighting.
- Switch the device on and on again with the main switch on the back of the device.

**The picture is not sharp.**
- The reception may be weak.
- Make sure the aerial is not disconnected.
- Check the settings of the picture sharpness and the noise reduction in the Picture Menu.

**The picture jitters.**
- The reception may be weak.
- Make sure the aerial is not disconnected.

**The picture is doubled or tripled.**
- Make sure the aerial is facing the right direction.
- There may be reflected electric waves from mountains or buildings.

**The picture is spotted.**
- There may be interference from automobiles, trains, high voltage lines, neon light, etc.
- There may be interference between the antenna cable and power cable. Try moving them further apart.

**There are stripes on the screen or colors fade.**
- Is the unit receiving interference from other devices? Transmission antennas of radio broadcasting station and transmission antennas of amateur radio and cellular phones may also cause interference.
- Place the unit as far apart as possible from device that may cause possible interference.

**The Child lock cannot be deactivated.**
- Enter 1973 as the PIN number. The devices should be fully functioning again with this.
15. **OTHER QUESTIONS**

**DO YOU REQUIRE ADDITIONAL SUPPORT?**
If the suggestions in the above section have not solved your problem, please contact the hotline. We will try and help you over the telephone. However, before you contact your Technology Center, please keep the following information available:

- What additional peripheral devices are you using?
- What messages are appearing on the screen?
- During which operational step did the problem arise?
- How does your computer configuration look, if you have connected a PC to the device?
- What software were you using when the error occurred, if you have connected a PC to the device?
- What steps have you already taken to solve the problem?
- Give us your Customer Number, if you have already received one.
**Warranty**

We warrant to our customers that this product is free from defects in materials and workmanship as follows: for a determined period from the date of original purchase, defective parts or a defective product returned to a repair facility or an Authorized Service Facility (“ASF”) for such product, as applicable, and proven to be defective upon inspection, will be exchanged for new or comparable rebuilt parts, or a refurbished product, as determined by the repair facility or the ASF.

Limited warranty repair or replacement shall not extend the original limited warranty period of the defective product. This limited warranty does not cover any supplies or accessories, including but not limited to: software, blank media, user-installed drives, etc.

EXCLUSIONS: this limited warranty does not apply, and you will have no remedy hereunder with respect to (a) products that have been modified, opened, repaired or otherwise altered, except by an ASF, (b) products that have been damaged or destroyed after delivery to the customer, (c) any third party software, interfaces, parts, supplies, peripherals or other products or any defects resulting from use of the product in connection with such third party products, (d) defects resulting from improper or inadequate maintenance, calibration or site preparation, (e) defects resulting from any misuse, abuse, accident, neglect, negligence or any use other than in accordance with the handling or operating instructions provided, (f) defects resulting from exposure to unusual physical or electrical stress or from any operation other than in accordance with the published environmental specifications for the product.

TO THE EXTENT ALLOWED UNDER APPLICABLE LAW, THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND WE SPECIFICALLY DISCLAIM ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND NO IMPLIED WARRANTY APPLIES TO THE PRODUCT AFTER THE APPLICABLE PERIOD OF THE EXPRESS LIMITED WARRANTY STATED ABOVE. Some countries, states or provinces do not allow exclusions or limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This limited warranty gives you specific legal rights and you might also have other rights that vary from country to country, state to state, or province to province.

Our limited warranty is valid in any country or locality where we have a support presence for this product and where we have marketed this product. The level of warranty service you receive may vary according to local standards. We will not alter form, fit or function of the product to make it operate in a country for which it was never intended to function.

TO THE EXTENT ALLOWED UNDER APPLICABLE LAW, THE REMEDIES IN THIS LIMITED WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL OUR COMPANY OR ITS SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. IN NO EVENT SHALL RECOVERY OF ANY KIND AGAINST OUR COMPANY BE GREATER IN AMOUNT THAN THE PURCHASE PRICE OF THE PRODUCT SOLD BY US WHICH CAUSED THE ALLEGED DAMAGE. WITHOUT LIMITING THE FOREGOING, YOU ASSUME ALL RISK AND LIABILITY FOR LOSS, DAMAGE OR INJURY TO YOU AND YOUR PROPERTY AND TO OTHERS AND THEIR PROPERTY ARISING OUT OF USE OR MISUSE OF, OR INABILITY TO USE THE PRODUCT NOT CAUSED DIRECTLY BY THE NEGLIGENCE OF OUR COMPANY. Some countries, states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT AS LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Please note the following:

Be sure to keep your purchase receipt in a safe place. Our company, at its option, may require a copy of the receipt to validate the warranty period effective date (i.e. date of purchase). Warranty liability only applies to material or factory faults. It does not apply to damage due to breakage, for example, a crack in the housing. Our service includes unit exchange or send-in repair:

**Unit Exchange**

In locations where Unit Exchange is available, we will send you a replacement unit. You must return the defective unit to our company (using the shipping carton that the new one came in.)

**Send-In Repairs**

In locations where Send-In Repair Service is available, repair service can be obtained by shipping your unit to the Repair Center. The unit will be repaired and returned to you. For either Unit Exchange or Send-In Repairs, you must have an authorized RMA number from our support before shipping your defective product.

Replacement products may be either new or equivalent in performance to new. Replacement or repaired products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use. Out-of-Warranty Support

In addition to providing free technical support during the warranty period, We are also available to support your product after the warranty period has ended. This out-of-warranty support will be provided on a fee basis.

**Duplication of the Instructions for Use/Technical Data**

The documents contain legally protected information. All rights reserved. Duplication in a mechanical, electronic or any other form is forbidden without the written authorization of the manufacturer.
**PIXEL ERRORS WITH LCD TVs**

Active matrix LCDs (TFT) with a resolution of 1280 x 720 pixel (WXGA), which are in turn composed of three sub-pixels each (red, green, blue), contain about 2.4 million addressable transistors. Because of this very high number of transistors and their extremely complex production process occasionally defective or incorrectly addressed pixels or sub-pixels may occur.

There have been several attempts in the past to define the acceptable number of defective pixels. But this can be difficult and varies widely between different manufacturers.

MEDIION, therefore, adheres to the clear and strict requirements of **ISO 13406-2, class II**, for the warranty handling of all TFT display products. These requirements are summarized below.

Within ISO-standard 13406-2 the general requirements regarding pixel defects are defined. Pixel defects are classified into three failure types and four failure classes. Each individual pixel is made up of three sub-pixels in the primary colors (red, green, blue).

**Types of Pixel Failures:**

- **Type 1:** A constantly lit pixel (a bright, white spot), even though it is not addressed. A white pixel is caused when all three sub-pixel are lit.
- **Type 2:** A pixel that does not light up (dark, black spot), although it is addressed.
- **Type 3:** Abnormal or defective red, green or blue sub-pixels. (E.g. constantly lit with half the brightness, one color is not shining, blinking or flickering, but not belonging to Type 1 or 2 Pixel Failures)

In addition: A cluster of type 3 (= 2 or more defective sub-pixels in an array of 5 x 5 pixel). A cluster is an array of 5 x 5 pixel (15 x 5 sub-pixel).

**Classes of Pixel Failures:**

<table>
<thead>
<tr>
<th>Failure class</th>
<th>Type 1</th>
<th>Type 2</th>
<th>Type 3</th>
<th>Cluster v. Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>II</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>III</td>
<td>5</td>
<td>15</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>IV</td>
<td>50</td>
<td>150</td>
<td>500</td>
<td>50</td>
</tr>
</tbody>
</table>

The acceptable number of defects of the above mentioned types in each failure class refers to one million pixels and has to be calculated according the physical resolution of the display.

This leads to a maximum *allowed* number in **class II type failure**:

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Mill. Pixel</th>
<th>SubPixel</th>
<th>Type (s. above)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1024 x 768 (15&quot;)</td>
<td>0.786432</td>
<td>2.359296</td>
<td>2 2 4 - 2</td>
</tr>
<tr>
<td>1280 x 720 (27&quot; 16:9)</td>
<td>0.921600</td>
<td>2.764800</td>
<td>2 2 5 - 2</td>
</tr>
<tr>
<td>1280 x 1024 (17,18, 19&quot;)</td>
<td>1.310720</td>
<td>3.932160</td>
<td>3 3 7 - 3</td>
</tr>
<tr>
<td>1600 x 1200 (19&quot;)</td>
<td>1.920000</td>
<td>5.760000</td>
<td>4 4 10 - 4</td>
</tr>
</tbody>
</table>

Class I type failure only applies to special applications, e.g. medical applications, and results in corresponding price increases. Class II type failure is the established standard for quality conscious manufacturers with high quality displays.

**Example 1:**

A 15” - XGA-display consists of 1024 horizontal and 768 vertical picture dots (pixel), which amounts to a total of 786,432 pixel. Related to one million pixels this translates into a factor of about 0.8.

Class II type failure consequently allows for two defects each of type 1 and type 2 and 4 defects of type 3 and 2 clusters of type 3.

**Example 2:**

A 17” - SXGA-display consists of 1280 horizontal and 1024 vertical picture dots (pixel), which amounts to a total of 1,31 million pixels. Based on one million pixels this translates into a factor of about 1.31.

Class II type failure consequently allows for three defects each of type 1 and type 2 and 7 defects of type 3 and 3 cluster of type 3.

These cases are normally not covered by warranty.

If the number of failures exceeds the figures of any category mentioned above then this may be covered by the warranty.