

General: the Service Default Mode (SDM) and Service Alignment Mode (SAM) are described in chapter 6.

Alignment conditions:

- All electrical adjustments should be performed under the following conditions:
- Power supply voltage: 240V ± 10%, 50Hz ± 5%
- Warm-up time: ~ 10 minutes
- The voltages and oscillograms are measured in relation to the tuner earth.
- Test probe: Ri > 10MΩ; Ci < 2,5 pF.

8.1 Adjustments on the large signal panel

8.1.1 95V/140V supply voltage

For 21" TV-sets

Connect a voltmeter to the cathode of D6567. With the aid of R3532 adjust the power supply voltage to 95V ± 0,5V.

For sets 21"

Connect a voltmeter to the cathode of D6567. With the aid of R3559 adjust the power supply voltage to 140V ± 1V.

8.1.2 Vg2 adjustment

Connect a pattern generator displaying a full black picture. Switch the TV-set to the service default mode (see chapter 6). Connect an oscilloscope to the picture tube cathodes for red, green and blue (pins 6, 8 and 11 of the picture tube socket). Set the oscilloscope to DC, 50V/div and 2 ms/div. Measure the DC level of the measuring pulses at the end of the frameblanking (see fig. 8.1). Using the Vg2 potentiometer on the line transformer (bottom potentiometer) the measuring pulse with the highest level must be set to +160V ± 2V.

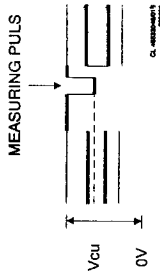


Figure 8.1

8.1.3 Focusing

Is aligned using the focuspotentiometer on the line transformer (top potentiometer).

8.2 Alignments on the small signal panel

8.2.1 40.4 MHz IF filter (only for sets with SECAM LL' reception)

Using a signal generator (e.g. PM5326) and a capacitor of 5,6 pF supply a 40.4 MHz signal to pin 17 of the tuner. Connect an oscilloscope to pin 1 of filter 1016. Switch on the set and select in the installation menu MANUAL; SYSTEM EUR.W. Align coil L5117 for maximum DC output voltage.

8.2.2 AFC

Switch the set to service default mode (see chapter 8). Using a pattern generator (e.g. PM5518) supply a signal on a frequency of 475,25 MHz. Align coil L5114 for optimal picture quality.

8.2.3 Picture demodulator (only for sets with SECAM LL' reception)

Using a signal generator (e.g. PM5326) supply a 32,95MHz signal via a 5,6 pF capacitor to pin 17 of the tuner. Align the signal level of the generator so that the DC-voltage on pin 5 of the tuner is 5V. Switch on the set and select in the installation menu MANUAL; SYSTEM FRANCE. Align capacitor C2106 for minimal voltage on pin 5 of the tuner.

8.2.4 RF-AGC

If the signal of a strong local transmitter is distorted, align the value for AX (AGC crossover) in the service menu (see chapter 8) until the picture is no longer distorted.

8.2.5 Audio demodulator (Not for sets with LL' and NICAM reception possibility)

Using a signal generator (e.g. PM5326) supply a 38,9MHz signal via a 5,6 pF capacitor to pin 17 of the tuner. Connect an oscilloscope (2ms/div) to pin 12 of IC7033 (TDA3845). Align coil L5030 for minimal amplitude.

8.3 Picture tube alignments

8.3.1 Whitebalance

Connect a pattern generator and select a white picture. Set contrast to maximum (63) for 21" or to 40 for 21" tv-sets. Use the ↑/↓ keys to select an alignment and the ←/→ keys to change the value. Set GD to 50, RD to 57 and BD to 45. If necessary change the settings for RD and BD for a correct white balance.

8.3.2 Geometry adjustments (for software versions M12COx-3.x and M12BAx-x.x)

Connect a pattern generator and select a geometry pattern (signal at 475,25 MHz)

- Switch to the Service Default Mode, then to the Service Alignment Mode.
- Select the desired alignment with the ↑/↓ keys.
- Change the selected alignment with the ←/→ keys.
- A value between 0 and 63 can be selected.
- Changed values are stored immediately.

Vertical

VP: Vertical Shift
Set this for the correct vertical position.

VA: Picture height
Set this for the correct picture height.

VL: Vertical linearity
Set this so that the vertical centre of the picture is at the centre of the tube.

VS: Vertical S-correction
Set this so that the height of the squares in the top of the picture equal the height in the bottom of the picture.

Horizontal

HD: Horizontal shift.
Set this so that the horizontal centre of the picture is on the centre of the tube.

For sets with a screen size larger than 21", the following alignments can be done as well. For 21" sets these alignments have no function.

HW: East-west width
Align the picture width with this.

HP: East-west parabola correction
Set this so that the vertical lines at the sides of the screen are straight.

HC: East-west corner-correction.
Set this so that the vertical lines are straight in the corners.

HT: Trapezium correction
Set this so that the vertical lines are as vertical as possible.

Adjustments for 16:9 sets (reserved)
16 = N *3 tube (options SS, D1, D2, D3 and D4 not available (blue))
16 = Y 16:9 tube (options SS, D1, D2, D3 and D4 available)

8.4 Options

E2: Number of Euro/Scart connectors (options N or Y)
N 1 Euro/Scart connector present
Y 2 Euro/Scart connectors present

UO: Tuner type
N UHF/VHF tuner (item 1000 is UV916S)
Y UHF tuner (item 1000 is UV944S)
Used in the United Kingdom (05 sets)

LL: Nicam L (options N or Y)
N Nicam L not present
Y Nicam L present (Nicam L panel required and item 7353 is MSP3410)

NI: Nicam (stereo) sound (options N or Y)
N Only 2CS stereo, no Nicam (item 7353 is MSP3400)

TT: Teletext (options N or Y)
Y No Teletext present
N Teletext present (Eastern Europe) teletext type (options N or Y)

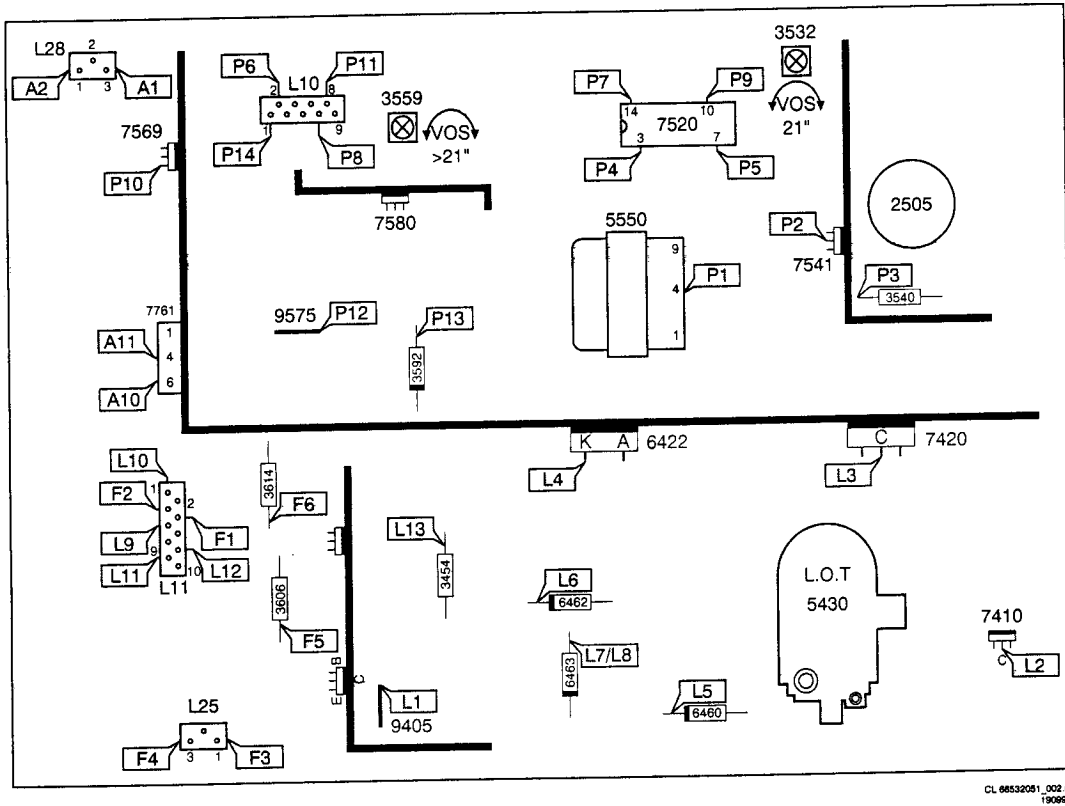
ET: 2CS and Nicam stereo (item 7353 is MSP3410)
Y No Eastern Europe teletext (58 sets)
N Eastern Europe teletext (58 sets)

14: 14:9 Picture format supported by 4:3 tube (options N or Y)
N Not supported
Y Supported

HI: Histogram (not with software version M12BAx-x.x)
N No Histogram present (options VG, VA and NL not available (blue))
Y Histogram present (options VG, VA and NL available)

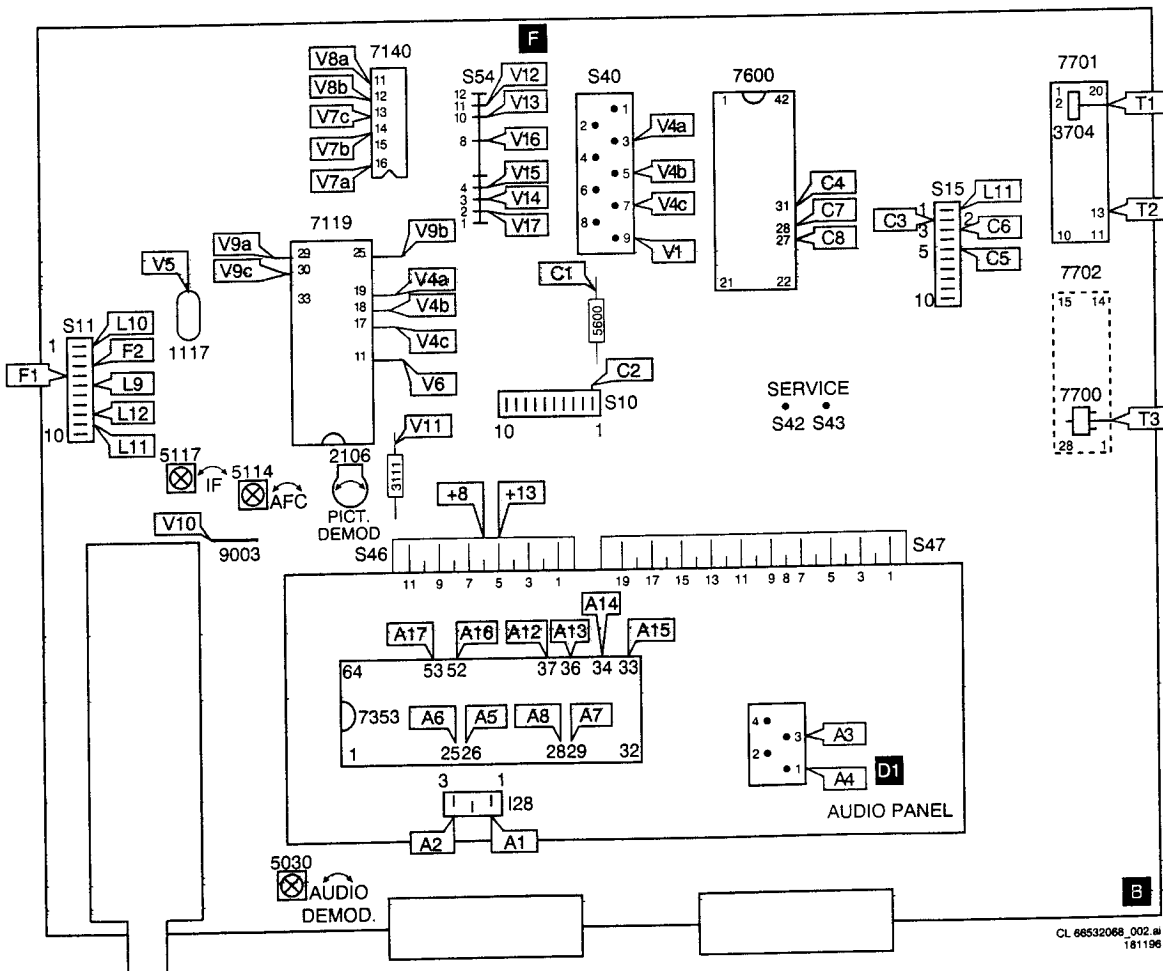
M2: MD1.1E or MD1.2E chassis (only with software version M12BAx-x.x)
N MD1.1E chassis
Y MD1.2E chassis

Large signal panel / Groß-Signal Platine / Platine forts signaux



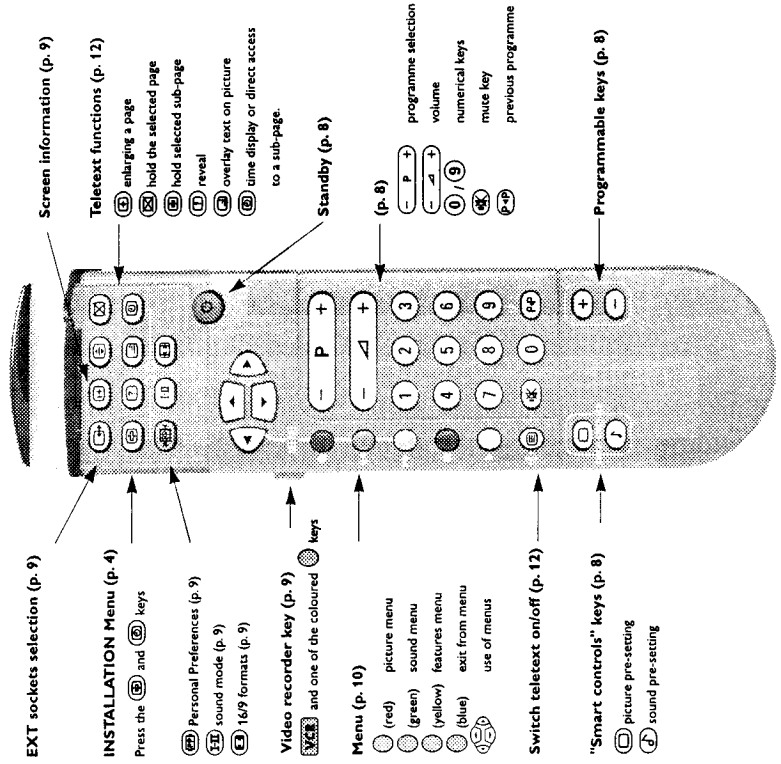
CL 66532061_002.ni
190996

Small signal panel / Klein-Signal Platine / Platine petits signaux



CL 66532068_002.ni
181196

Remote control keys



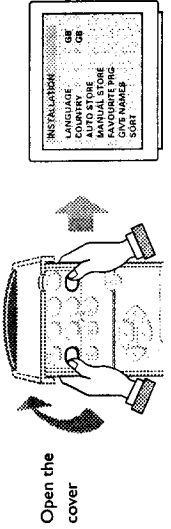
The keys on the TV set

The television has 3 keys: MENU, - and +. These keys are located on the top, front or side of the set, (if on the front or side of the set they may be concealed by a flap). The MENU key is used to select the function to be altered. The - and + keys are used to select programmes or modify the selected MENU item.

Installation Menu

This Menu enables you to tune in the channels on the TV set.

To call up the INSTALLATION menu:



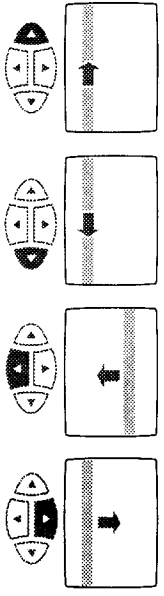
Open the cover

Press the **[P]** and **[M]** keys at the same time. The INSTALLATION menu appears on the screen.

If the menu display is not stable, press the **[P]** key

To use the menus:

These 4 keys allow you to move around in the menus, make adjustments and access the sub-menus.



To exit from the menus

Press the blue **[0]** key.

Selecting the menu language

From the INSTALLATION menu:

- ◆ Select the LANGUAGE adjustment using the **[<] [>]** keys.
- ◆ Select the language you wish to use by means of the **[0]** or **[1]** keys.
- ✕ The text for all the menus will appear in the language you have chosen.

Selecting the country

- ◆ Select the COUNTRY adjustment using the **[<] [>]** keys
- ◆ Select your country using the **[0]** or **[1]** keys (GB for Great Britain).
- Warning: it is essential for correct channel tuning that these two adjustments are set correctly.*

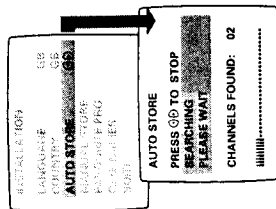
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
 8 Cherry Tree Rd, Chinnor
 Oxon OX9 4QY
 Tel:- 01844-351694 Fax:- 01844-352554
 Email:- enquiries@mauritron.co.uk

Tuning-in the TV channels

There are two ways the television can be tuned in : automatic store or manual store (tuning - in channel by channel).

Automatic store

- From the INSTALLATION menu (Ⓜ and Ⓜ keys) (after ensuring LANGUAGE and COUNTRY have been set correctly)
- Select AUTO STORE (Ⓜ and Ⓜ keys) and press
- The AUTO STORE menu appears. Searching begins. The message SEARCHING PLEASE WAIT appears on the screen.
- The TV set searches through the complete frequency range in your local region and stores all the programmes it finds. The search operation takes a few minutes. When the search is complete, the INSTALLATION menu reappears automatically.
- This TV set is equipped with an Easy Tune system which automatically sorts the programmes by name.
- If the transmitter emits the correct signal, the programmes are correctly numbered.



In certain cases, the system may ask you to indicate your local region using keys

Ⓜ to Ⓜ

- If no signal is emitted, the programmes will be numbered in descending order starting from 99, 98, 97, ... Should this occur, the SORT menu should be used to re-number the programmes.

If no picture is found, refer to the chapter entitled "Tips" (page 17).

Sort

- This menu allows you to re-number the programmes in the order you prefer.
- Select SORT (Ⓜ and Ⓜ keys) and press
- The SORT menu appears.

The menu provides a list of all the programme numbers with their names (where provided), or frequencies or channels.

- Using the Ⓜ and Ⓜ keys, select the programme to be re-numbered. If, for example, you want to re-number programme 96 as 2: Select 96 using Ⓜ and Ⓜ keys (or type Ⓜ).
- The number chosen (96) will appear in blue in the list. Press the key to enter.
- A yellow rectangle appears on the name of the programme (or on its frequency or channel).

Enter the new number using keys Ⓜ to Ⓜ.

In our example, type Ⓜ. Programme 02 appears.

The number (02) appears in blue in the list.

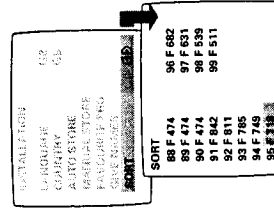
Press the key to enter (can be used to cancel).

The exchange of numbers is now complete. In our example, programme No. 96 has become No. 02 (and programme No. 02 has become No. 96).

Repeat this operation for other programmes you wish to re-number

To exit from the menu

- Press the blue key.



Manual store

From the INSTALLATION menu (Ⓜ and Ⓜ keys).

- Select MANUAL STORE (Ⓜ and Ⓜ keys) and press
- The MANUAL STORE menu appears.

1 Select channel or frequency mode

For certain countries this adjustment is not available.

- Select CHANNEL/FREQUENCY (Ⓜ and Ⓜ).
- Use the Ⓜ keys to select tuning mode. FREQ. (frequency search) or CHAN.C and CHAN.S (channel search if you know the channel numbers on which the programmes are broadcast).

2 Selecting the TV system

- Select SYSTEM (Ⓜ and Ⓜ).
- Use Ⓜ to select EUROPE, EUR, W, EUR, E, UK or FRANCE (according to model).

Selecting EUROPE guarantees automatic detection, with the exception of transmissions from France (standard LL; select FRANCE) or in certain cases of poor reception where EUR, W (BG), EUR, E (DK) or UK (I) should be selected.

For more information see glossary on p. 18

3 Search

- Select SEARCH (Ⓜ and Ⓜ) and press
- The search begins. As soon as a programme is found, the search will stop. Go to section 4.

- If you know the frequency (or the channel) of the programme you wish to receive, you can enter its number in directly using keys numbered Ⓜ to Ⓜ.

If no picture is found, refer to "Tips" chapter (page 17).

If you want to return the search, press again.

Fine tuning

If reception is not satisfactory, you can use the fine tuning function.

- Select FINE TUNE (Ⓜ and Ⓜ).
- Hold down the Ⓜ keys to adjust.

4 Programme number

- Select PRG NUMBER (Ⓜ and Ⓜ)
- Use the Ⓜ keys or the Ⓜ to Ⓜ keys to enter the required number.

5 Store

- Select STORE (Ⓜ and Ⓜ) and press
- The OK message appears. The programme and its name (if it has one) are stored.

repeat 3, 4, 5 for each programme to be stored.

To exit from the menu:

- Press the blue key.

Favourite Programmes

This menu allows you to choose which programmes can be accessed using the **FAV** key on the remote control.

From the **INSTALLATION** menu:

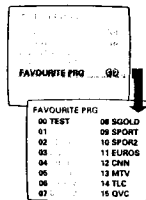
- Select **FAVOURITE PRG** (**FAV** key) and press
- ▶ The **FAVOURITE PRG** menu appears. All programmes found during the search are automatically included in the menu and appear in green.
- Use the **UP**/**DOWN** keys to select any programme you wish to remove from the list of favourites.
- Press **ENTER** to de-activate (or activate) a programme.
- ▶ The de-activated programmes appear in white, the activated programmes appear in green.

Only the programmes and EXT sockets that are displayed in green in this menu can be accessed using the **FAV** key.

Warning: If all programmes are de-activated the **FAV** key will cease to function.

■ To exit from the menu:

- Press the blue **EXIT** key.



Programme names

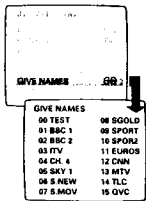
This menu allows you to name and modify names for programmes and EXT sockets.

From the **INSTALLATION** menu:

- Select **GIVE NAMES** (**NAME** key) and press
- ▶ The **GIVE NAMES** menu appears with the list of programmes found automatically during installation.
- Certain programmes may not be named (the signal needed for identification is not always transmitted) or may be inappropriately named (only 5 characters are displayed).
- Use the **FAV** key to select the required programme.
- Use the **UP**/**DOWN** keys to move to the area in which the programme name appears (up to 5 characters)
- ▶ A yellow rectangle appears in the chosen area.
- Use the **UP**/**DOWN** keys to select the character to be modified.
- Use the **LEFT**/**RIGHT** keys to modify the selected character.
- Use the **LEFT**/**RIGHT** keys to move around in the next programme.

■ To exit from the INSTALLATION menu:

- Press the blue **EXIT** key twice.



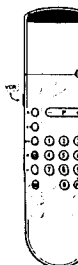
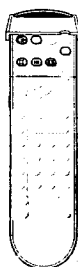
Using the remote control

Press:	Result:
POWER	Standby The TV set is switched off and the red indicator lights up. To switch the TV set on again, press POWER or keys 0 to 9 . <i>For further information, see "Tips" (p. 17)</i>
UP / DOWN	Selecting TV programmes Move up or down a programme. <i>N.B. Only programmes activated in the FAVOURITE PRGS menu can be accessed (see p. 7).</i>
LEFT / RIGHT	Volume The volume is adjusted.
0 to 9	Numerical keys Choose a programme. The number (and name if it exists) appears on the screen. For a 2 figure number, the second figure must be entered before the dash disappears.
MUTE	Mute key Disables or enables the sound.
PREV	Previous programme Return to the last programme watched.
SMART / CONTROLS	"Smart Controls" keys To access the presets of the TV set. Picture presets: (PICTURE key). Each time it is pressed, a different picture preset is selected: RICH, SOFT, NATURAL or MANUAL. Sound presets: (SOUND key). Each time it is pressed, a different sound preset is selected: SPEECH, MUSIC, THEATRE or MANUAL. The values corresponding to these presets are given in the PICTURE and SOUND menus (see p. 10).
+ / -	Programmable keys These allow direct access to any adjustment made in the PICTURE and SOUND menu (see p. 10). To program the keys: If, for example, you wished to gain direct access to the BRIGHTNESS adjustment. Display the PICTURE menu (red PICTURE key) and select BRIGHTNESS (BRIGHTNESS key). Use keys UP and DOWN to adjust, rather than the UP / DOWN keys. The keys are now programmed. Exit from the menu (blue EXIT key). Press + and - again. This will give you direct access to the brightness adjustment. Repeat for any other adjustment you may wish to make.

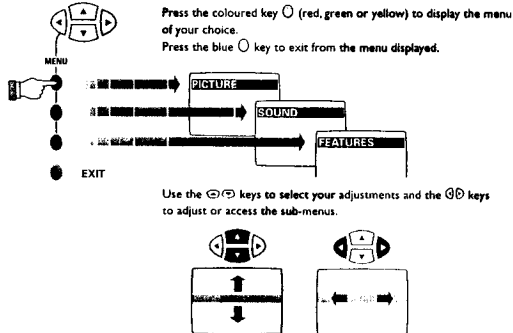


Other functions

Press:	Result:
EXT	Select EXT sockets Pressing this key selects E1 (EXT1), E2 (EXT2) and E2 Y/C in turn (see p. 15).
INFO	Screen information Press for 3 seconds to activate/de-activate the continuous display of the programme number. Press briefly to display the number, name (if there is one), sound mode and time remaining (see SLEEPTIMER p. 11).
TIME	Time display The time is displayed in the top right-hand corner of the screen. <i>This function only works if the programme broadcasts teletext.</i>
PERSONAL	Personal Preferences Restores the settings made in the FEATURES menu (see p. 11)
SOUND	Sound mode Pressing this key allows you to switch from STEREO to MONO sound (in case of stereo transmission), or to choose between language I or language II (in case of bilingual transmissions). For TV sets fitted with NICAM reception, the DIGITAL message appears when a NICAM broadcast is received. The PERSONAL key allows you to switch from DIGITAL STEREO to MONO or, for bilingual transmissions, to choose between DIGITAL I, DIGITAL II or MONO.
16/9	16/9 Formats Movies and other programmes may be broadcast in a wide screen format. These may have an aspect ratio of 14/9 or 16/9, pressing this button vertically squeezes the picture to adapt the aspect ratio to that of the transmission. Pressing the button again returns the screen format to 4/3. <i>For more information, see glossary (p. 18).</i>
VCR	Video recorder keys Press the VCR key and one of the following keys simultaneously: <ul style="list-style-type: none"> record, rewind, fast forward, stop, play, programming (on certain models), 1- or 2- digit programmes, programme selection, enter a programme number, standby <i>These keys function with video recorders in our range and with all models which use the RCS signalling standard.</i>



Using the menus



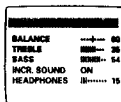
Picture

- Display **PICTURE** menu (red **PICTURE** key).
- Use **UP**/**DOWN** to select the adjustments and **LEFT**/**RIGHT** to adjust.
- ▶ You can now access the adjustments: BRIGHTNESS, COLOUR, CONTRAST, SHARPNESS and TINT. Sharpness adjusts the clarity of the picture. Tint adjusts the colour temperature of the picture from "cool" (blue white) to "warm" (red white).
- NOISE REDUCT. Useful in case of poor reception to reduce picture noise (snowy picture).
- DYNAMIC CONTR. (only on certain models) Automatically adapts the contrast to suit the picture content.
For picture adjustment see also "Tips" (p. 17).



Sound

- Display **SOUND** menu (green **SOUND** key).
- ▶ You can now access the BALANCE, TREBLE, BASS, HEADPHONES adjustments and activate the INCR. SOUND option. INCR. SOUND enhances the stereo effect, giving the impression that the speakers are positioned further apart. For mono transmissions a stereo effect is created.
- HEADPHONES: Allows you to adjust the headphones volume independently from the loud-speakers on the TV set.



■ To exit from the menu:

- Press the blue **EXIT** key.

Directions for use

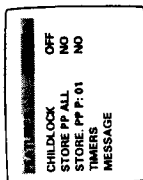
Directions for use

Features

Child Lock

The child lock function is an electronic lock which disables the keys on the TV set.

- Display the FEATURES menu (yellow key).
- Select CHILD LOCK () keys).
- Use keys to switch to ON.
- Switch off the TV set and remove the remote control. The television can no longer be used.
- ▶ The TV set can only be switched on using the remote control.
- To cancel: Return CHILD LOCK to OFF in the features menu.



Storing adjustments

This function allows you to store your own picture and sound adjustments. The adjustments are restored every time your set is switched on, or by pressing the green key on your remote control.

General storing

- First carry out your PICTURE and SOUND adjustments and adjust the volume (key) and then:
- Display the FEATURES menu (yellow key).
- Select STORE PP ALL () keys) and press .
- ▶ The message OK appears. All the PICTURE and SOUND menu adjustments as well as the volume are stored.

Storing adjustments for each programme

This function allows you to correct any differences in levels which may exist between TV channels and/or EXT sockets. It allows you to store BRIGHTNESS, COLOUR, SHARPNESS, NOISE REDUCT. and volume adjustments (key).

Carry out desired corrections to settings for the programme (or EXT connection), and then:

- Display the FEATURES menu (yellow key).
- Select STORE PP P: ___ () keys) and press .
- ▶ The message OK appears. The adjustments are stored. Repeat for each programme that needs correcting.

Programming

Sleeptimer

- From the FEATURES menu (yellow key).
- Select PROGRAMMING () and press .
- ▶ The PROGRAMMING menu appears.
- Select SLEEPTIMER and use to enter the length of time after which the TV will switch to standby mode (up to 180 mins). Press the key to display the length of time remaining.
- To cancel: Switch SLEEPTIMER back to 0.

11

Programmed Switch on

The following adjustments allow you to program the TV to automatically switch on with the programme of your choice.

- Select the adjustments using keys:
 - SET CLOCK: Use keys to or the keys.
- N.B.:* Every time the TV is switched on the clock is automatically updated on the basis of the teletext information in programme No. 1. If the TV set does not feature teletext, this update will not occur.
- START TIME: Use keys to or keys.
 - STOP TIME: Use keys to or keys.
 - PRG NUMBER: Use keys to or keys.

DAILY: Set this option to ON (key) if you want the programming to apply every day.

TIMER ACTIVE Set this option to ON to activate the timer.

- Press the blue key to exit from menu.

If you now switch the TV set onto standby (key), it will automatically switch on at the time programmed.

- To cancel: Switch TIMER ACTIVE back to OFF.

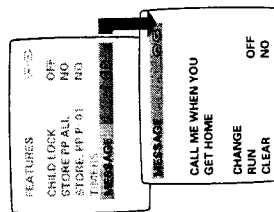
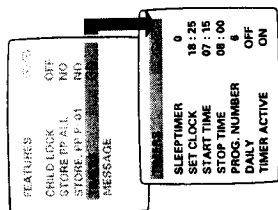
N.B.: For programming to function correctly do not use the on/off key on the front of the TV set to switch off the TV.

The programmed switch on-off can be used together with the child lock function in order to limit the use of the TV set to a certain length of time.

Message

This menu allows you to leave a message which will appear on the screen when the TV is switched on (e.g.: "call me when you get home").

- From the FEATURES menu (yellow key).
 - Select MESSAGE () and press .
 - ▶ The MESSAGE menu appears. Select the adjustments using keys:
 - CHANGE: Press the key to display CHANGE menu.
 - Use the keys to select the positioning of the characters (44 characters spaced over 2 lines).
 - Use the keys to select each character.
 - When the message has been entered:
 - Press the blue key to return to previous menu.
 - Press the blue key to switch to ON.
 - Exit from the menu by pressing the blue key.
 - ▶ The message will remain on the screen.
 - To erase the message: Press the blue key.
- N.B.:* The message will reappear every time the TV is switched on.
- To cancel: Switch RUN back to OFF.
 - CLEAR: Press key to erase message.
 - To exit: Press the blue key repeatedly.



12

Teletext (special features)

- ① **Temporary interruption of the display**
To stop or return to the selected display. The symbol is displayed and the television programme reappears on the screen. This function allows you to wait when the search for pages takes a long time.
- ② **Enlarging a page**
To display the upper part, the lower part and then to return to the normal page size.
- ③ **Overlaying teletext on the TV picture**
To activate/deactivate the screen overlay.
- ④ **Reveal**
To reveal/conceal hidden information (solutions to games or questions/answers).
- ⑤ **Stop the sequence of sub-pages (hold)**
Appears on the top left-hand corner of the screen. You stop or start the sequence. The message disappears automatically. If this is the case, this key will allow you to access a sub-page directly, press ⑥. The page number followed by four dashes will appear in the bottom left-hand corner of the screen. Type the number of the sub-page required using 4 numbers. E.g. type 0002 to consult sub-page 2. The page counter searches and then the sub-page is displayed. Press ⑦ to return to current page.
- ⑥ **Direct selection**
To access a sub-page directly, press ⑥. The page number followed by four dashes will appear in the bottom left-hand corner of the screen. Type the number of the sub-page required using 4 numbers. E.g. type 0002 to consult sub-page 2. The page counter searches and then the sub-page is displayed. Press ⑦ to return to current page.
- ⑦ **Subtitles**
Consult the main index to find out the page number for subtitles. Enter the subtitle page number (e.g. 888). The page counter searches and then the subtitles appear on screen. If no subtitles are available the page counter will continue to search. To exit from subtitles, press ⑧. When subtitles is switched on, you have to switch off teletext (key) to be able to change programmes.



Teletext

Teletext is an information system, broadcast by certain TV channels, which can be consulted in the same way as a newspaper. It also provides subtitles for the hard of hearing or people who are unfamiliar with the broadcast language (cable TV network, satellite channel, etc.).

Press: **Result:** Display or exit from teletext. The main index page presents a list of subjects to which you have access. Each subject has a corresponding page number (always 3 digits). If the selected TV channel does not broadcast teletext, P100 is displayed and the screen remains black (if this is the case, switch off teletext and choose another TV channel).

Switch teletext on/off

Selecting a page
E.g. page 120, type ① ② ③. The number is displayed in the top left-hand corner of the screen, the page counter starts searching and then the page selected is displayed. Repeat to consult another page. If > xxx < flashes briefly or the counter continues searching, this means the page selected is not broadcast or is not available. If this is the case, choose another number.

Direct access to a subject
Coloured zones are displayed at the bottom of the screen. The coloured keys allow access to the subjects or their corresponding pages.

Main Index
To return to the main index (generally on page 100), press the white key ④.

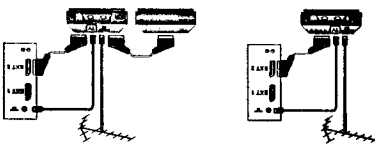
Previous page
To return to the page displayed previously.

- ① **Previous page**
To return to the page displayed previously.
- ② **Main Index**
To return to the main index (generally on page 100), press the white key ④.
- ③ **Direct access to a subject**
Coloured zones are displayed at the bottom of the screen. The coloured keys allow access to the subjects or their corresponding pages.
- ④ **Main Index**
To return to the main index (generally on page 100), press the white key ④.
- ⑤ **Previous page**
To consult the previous page (-) or the next page (+).

Connecting peripheral equipment

The EXT2 socket has audio and video inputs/outputs and RGB inputs. The EXT2 socket has audio and video inputs/outputs and S-VHS inputs. For further information see battery (p. 18).

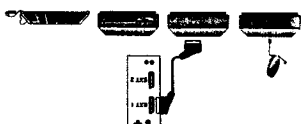
Video recorder ...with Decoder



- If your video recorder has a euroconnector socket, carry out the above connections. Euroconnector sockets ensure better picture quality.
- If your video recorder does not have a euroconnector socket (or if this is already being used by another device), then the only connection possible is via the serial cable. Your video recorder is then considered as a TV programme by your TV set. You will therefore need to tune in your video recorder's test signal and assign it programme number 0 (see manual store chapter, p. 5).
- To reproduce the video recorder picture, press the key. Refer to your video recorder's instructions concerning the test signal (the video recorder must be equipped with an Hi-Fi module).

Connecting other equipment

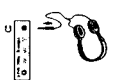
(satellite receiver, decoder, CDV/CDI, games...) Connect to EXT1 socket. If the external product produces S-VHS signals, it should be connected to the EXT2 socket.



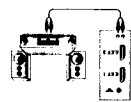
- **To select connected equipment**
Use key to select E1 (EXT1), E2 (EXT2) or for S-VHS or Hi-8 equipment, E2 V/C. Most equipment (decoder, video recorder) carries out the switchover itself.

To make a copy of recordings:

- Carry out one of the following connections, then:
• Press ① to select E1.
• On the video recorder, select the euroconnector socket as the recording source.

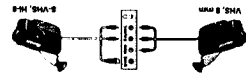


Headphones
To adjust the headphones volume, use the HEADPHONES adjustment in the SOUND menu (p. 10). To adjust the volume on the TV set, use the or keys. You can also access the HEADPHONES adjustment directly using programmable keys ⑨ and ⑩ on the remote control (see p. 8).



Amplifier

Use an audio connection cable and connect the sockets "L" and "R" on the set to the "AUDIO IN" "L" and "R" input on your Hi-Fi amplifier.



- Carry out one of the following connections and then:
• Use the key to select E2 (for VHS or Hi8 cameras) or E2 V/C (S-VHS or Hi-8 cameras).

Front connections

NB: If a peripheral is connected to EXT2, it is advisable to switch it off while using S-VHS connectors.



11. List of abbreviations

AC	Alternating Current
AF_AMP	Audio frequency amplifier
AGC	Automatic gain control
AM	Amplitude modulation
ATS	Automatic Tuning System
AQUADAG	Earth from the CRT
AUD_TERR_AM	Audio (AM) from the antenna
AUDI_TERR_AM	Audio (AM) from the antenna
AUDIO L	Audio left
AUDIO R	Audio right
AUDIO_L	Left to DBE module
AUDIO_R	Right to DBE module
B	Blue signal to CRT panel
B_IN	Blue signal input
BC_INFO	Beam current information
B_SC_INPUB	Blue input from Euro connector
B_TXT	Blue Teletext signal
(B-Y) IN	B-Y input signal
(B-Y) OUT	Colour difference signal out
BC_INFO	Black current info from CRT panel
BG DK STEREO	System PAL BG DK; stereo sound
BG LI NICAM	System PAL BGI; NICAM sound
BG LI STEREO	The stereo signal from PAL BGI or SECAM L
BG_ST/NIC	System BG stereo with NICAM sound
Bk	Burst key pulse
BLANK	Blanking signal
BLK	Black stretch
BLKSTR	Black stretch
BLS	Black line S
BLKSCREEN	Blank screen, signal from the microcomputer
BM	Black matrix
B_OSD	Blue on screen display signal
C_AFU	Centre signal to module
C_FILTER	Chrominance filter
C_FRONT	Chrominance signal from separate controls panel
C_INPUB	Chrominance from Euro connector 2
CRT...	Cathode ray tube
CTI	Indicator for different CRT types
CURRSENZE	Colour transient improvement
CUT_OFF	Current sense to detect current
CVBS	Signal to align the black level of the RGB signals
CVBSY_FRONT	Composite Video Blanking Synchronisation
CVBSY_SC2/FRONT_INPUB	CVBS or luminance from separate controls
CVBS_COMB/TXT	CVBS/luminance signal from Euro connector/front input
CVBS_SC1_INPUB	CVBS signal to teletext
CVBS_SC2	CVBS signal from Euro connector 1
CVBS_SC2_OUT	CVBS signal from Euro connector 2
CVBS_SECAM	CVBS outgoing signal from Euro connector 2
CVBS_TERR	CVBS signal to SECAM IC
CVBS_TERR/SAT	CVBS from the antenna
CVBS_TXT	CVBS Signal from antenna or from satellite
CVBS_SAT	CVBS to Teletext
D/A	CVBS signal from satellite tuner
DACA_L	Digital to analogue converter
DACA_R	Left output signal from DFP to headphone (independent volume controlled)
DACAM_L	Right output signal from DFP to headphone (independent volume controlled)
DACAM_R	Left output signal from DFP to loudspeaker
DC	Right output signal from DFP to loudspeaker
DEGAUSS	Direct Current
DELAY	Degaussing
DET	Luminance delay
DFP	Detector
DEMOM	Digital Sound Processor
	Demodulator
EAR1	Earth 1 (ground)
EARTH	Earth (ground)
EAST EU	East Europe
EHT	Extra high tension
EHTINFO	Voltage related to beam current
EHTINFO1	Voltage related to beam current to CRT panel
EW	East-west
EW_COMP	East-west compensation
EW_D	East-west drive
FBI_IN	Fast blanking in
FBI_OFF	Fast blanking off
FBL_PRESENT	From Euro connector, detects if there is a full page RGB at the Euro connector or OSD or a MENU from an external source
FILA_CRT	Filament for the CRT
FM	Frequency modulation
FOLDB	Foldback
FRAMEDEFL_R	Frame deflection right signal
FRONT_DETECT	Signal to detect if on separate controls panel video signals are present
FRONT_INPUB	Input from separate controls panel at front side of the TV set
G_IN	Green signal in
G_OSD	Green (on screen display) signal
G_SC_INPUB	Green input from Euro connector
G_TXT	Green Teletext signal
G-Y	Colour difference signal
G_Y MATRIX	RGB luminance matrix
GND..	Ground ..
GND_AUDIO	Ground
GND_KEYBOARD	Ground of keyboard
GND_LIGHTNING	Ground on mains module
GND_LINE_SS	Ground from SS-panel for line drive
GND_SOUND_SUPPLY	Ground to the audio amplifier
GND_VO	Ground to the deflection
GND_B	Ground B
GND_D	Ground D
GV	Green signal to CRT panel
H	Horizontal pulse
HDRIVE	Horizontal drive signal
HEATER	Output voltage to the tube heater
HFBL	Feedback from line deflection
HPUULSE	From deflection module, horizontal pulse for OSD synchronisation
HIST	Histogram
I/BG	To Sound module, selects the audio system
IDENT	Identification
I NICAM	System NICAM/PAL I
IF	Intermediate-frequency
INT/EXT	Internal or external switching
IRQ	From the Satellite or Teletext module, interrupt signal from these modules
ITT	Type indication Sound module
I/C	Inter IC bus
I/O	Input/Output
LED	Light emitting diode
LF	Low frequency
L/L	To BIMOS module and Sound module, switches between the L and L' system
LINEDEFL_CS	Connection for geometry correction panels
LINEDEFL_LIN	Connection for geometry correction panels
LOT	Line output transformer
NC	Not connected
NICAM	Near Instantaneous Compensating Audio Multiplex (digital sound system)
NICAM L	System L-NICAM
NO_NORDIC	Not used in set for Nordic countries
NTSCM/BG	Switching signal
OK	Correct
OSC	Oscillator

For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
 8 Cherry Tree Rd, Chinnor
 Oxon OX9 4QY
 Tel: 01844-351694 Fax: 01844-352554
 Email: enquiries@mauritron.co.uk

PAL	Phase Alternating Line (colour system)
P_GND	Audio power ground
PHASE COMP	Phase compensation
PLL	Phase lock loop
POR	Power-on reset
PROT	Protection
R	Red signal to CRT panel
RC5	Remote Control signal
R-IN	Red input signal
(R-Y)IN	Colour difference (R-Y) input signal
R_OS	Red (on screen display) signal
R_SC INPUT	Red input from Euro connector
R_TXT	Red Teletext
R_Y OUT	Colour difference signal out
RGB	Red Green Blue
SAND	Sand castle
SAND1	Sand castle signal to Scan module
SBUS	Sound bus
SCART_L	Sound signal L from Euro connector
SCART_R	Sound signal R from Euro connector
SAT	Satellite
SCL	I ² C Clock signal
SDA	I ² C data
SDAa	To every other module, serial data
SDAI	Serial data pulse
SECAM	SEquentiel Couleur A Memoire (colour system)
SECAM L	System L-SECAM
SELECT	Selection signal for Euroconnectors or separate controls
SEP CTRL	Separate controls
SF	Super flat
SIF	Sound IF
SIF SAT	Sound IF from satellite tuner
SNDL	Sound left
SNDL_CL_OUTPUT	Left sound to CL output from sound module
SNDL_FRONT	Left sound signal from separate controls panel
SND_HEADP_OUTPUT	Output sound left to the headphone connector
SNDL_SC1_INPUT	Left sound output signal from the audio module
SNDL_SC1_OUTPUT	Output signal, sound left to Euro connector 1
SNDL_SC2_FRONT_INPUT	Input signal sound L from Euro connector 2 or front input
SNDL_SC2_OUTPUT	Output signal sound L to Euro connector 2
SNDL_SPEAKER	Sound L signal to loudspeaker
SNDR	Sound right
SNDR_C1/L_OUTPUT	Right CL/VL audio signal from Dolby
SNDR_CL_OUTPUT	Sound right, constant level output to rear citches
SNDR_FRONT	Sound right from separate controls panel
SNDR_HEADP_OUTPUT	Output sound right to the headphone connector
SNDR_SC1_INPUT	Input signal, sound right to Euro connector 1
SNDR_SC1_OUTPUT	Output signal sound R to Euro connector 1
SNDR_SC2_OUTPUT	Right sound to Euro connector 2 output from sound module
SNDR_SPEAKER	Sound R signal to loudspeaker
SNDR_SUBW	Sound R signal to subwoofer
SOUND_ENABLE	To the Audio Amplifier module, switches on and off the amplifier
SOUND_SUP	Supply voltage of amplifier
STANDBY	To supply module, switches the set in and out of standby
STATUS1	Status signal from Euro connector input to control module
STATUS2	Status signal from Euro connector 2 input to control module
STD.	Indicator for different standards
SVHS	Super VHS
SYNC	Synchronisation signal
SYNC_TXT	Synchronisation signal from Teletext
SYS	System switching signal
SYS.	Indicator for different systems
1SC	One carrier sound
2SC	Two carrier sound

TCLK	Teletext clock signal
TDATA	Teletext data signal
TUNING	Tuning voltage
TUN	Indicator for different tuners
VDRIVE	Vertical drive
VDRIVE+VD	Vertical drive positive side
V0S	140 Volt (95 Volt for 21")
VFRAME (+ or -)	Positive or negative supply voltage for frame amplifier
VG1_CRT	VG1 input to the picture tube
VG2	G2 input to the picture tube
VIF	Video intermediate frequency
VDD	Supply voltage
V0D	Voltage used in horizontal output stage
V0D1	Voltage used in horizontal output stage
V0LOT	Voltage to line output transformer
V0CONN	Voltage to Scan module
VP	Video processor
VPROT	Protection voltage
VPULSE	From deflection module, vertical pulse for OSD synchronisation
VSS	Ground
VSCAVEM	Supply voltage for SCAVEM
VT	Tuning voltage
Y_COMB	Y (or CVBS) signal to TDA8366
Y_FRONT	Luminance signal from separate controls panel
Y_OUT	Luminance signal out
YUV_ON/OFF	To Histogram/black stretch module, switch on & off
UPR	Indicator for different control systems
WEST-EU	West Europe
21" EUR	21" Europe
+	Present, in diversity tables
.	Not present in diversity tables

LARGE SIGNAL PANEL

[A] Various

Table with 3 columns: Part number, Description, and Quantity. Includes parts like 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710, 2711, 2712, 2713, 2714, 2715, 2716, 2717, 2718, 2719, 2720, 2721, 2722, 2723, 2724, 2725, 2726, 2727, 2728, 2729, 2730, 2731, 2732, 2733, 2734, 2735, 2736, 2737, 2738, 2739, 2740, 2741, 2742, 2743, 2744, 2745, 2746, 2747, 2748, 2749, 2750, 2751, 2752, 2753, 2754, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2768, 2769, 2770, 2771, 2772, 2773, 2774, 2775, 2776, 2777, 2778, 2779, 2780, 2781, 2782, 2783, 2784, 2785, 2786, 2787, 2788, 2789, 2790, 2791, 2792, 2793, 2794, 2795, 2796, 2797, 2798, 2799, 2800, 2801, 2802, 2803, 2804, 2805, 2806, 2807, 2808, 2809, 2810, 2811, 2812, 2813, 2814, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 2823, 2824, 2825, 2826, 2827, 2828, 2829, 2830, 2831, 2832, 2833, 2834, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 2842, 2843, 2844, 2845, 2846, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2854, 2855, 2856, 2857, 2858, 2859, 2860, 2861, 2862, 2863, 2864, 2865, 2866, 2867, 2868, 2869, 2870, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878, 2879, 2880, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2894, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 2909, 2910, 2911, 2912, 2913, 2914, 2915, 2916, 2917, 2918, 2919, 2920, 2921, 2922, 2923, 2924, 2925, 2926, 2927, 2928, 2929, 2930, 2931, 2932, 2933, 2934, 2935, 2936, 2937, 2938, 2939, 2940, 2941, 2942, 2943, 2944, 2945, 2946, 2947, 2948, 2949, 2950, 2951, 2952, 2953, 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961, 2962, 2963, 2964, 2965, 2966, 2967, 2968, 2969, 2970, 2971, 2972, 2973, 2974, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2986, 2987, 2988, 2989, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000.

SMALL SIGNAL PANEL

[B] Various

Table with 3 columns: Part number, Description, and Quantity. Includes parts like 3762, 3763, 3764, 3765, 3766, 3767, 3768, 3769, 3770, 3771, 3772, 3773, 3774, 3775, 3776, 3777, 3778, 3779, 3780, 3781, 3782, 3783, 3784, 3785, 3786, 3787, 3788, 3789, 3790, 3791, 3792, 3793, 3794, 3795, 3796, 3797, 3798, 3799, 3800, 3801, 3802, 3803, 3804, 3805, 3806, 3807, 3808, 3809, 3810, 3811, 3812, 3813, 3814, 3815, 3816, 3817, 3818, 3819, 3820, 3821, 3822, 3823, 3824, 3825, 3826, 3827, 3828, 3829, 3830, 3831, 3832, 3833, 3834, 3835, 3836, 3837, 3838, 3839, 3840, 3841, 3842, 3843, 3844, 3845, 3846, 3847, 3848, 3849, 3850, 3851, 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863, 3864, 3865, 3866, 3867, 3868, 3869, 3870, 3871, 3872, 3873, 3874, 3875, 3876, 3877, 3878, 3879, 3880, 3881, 3882, 3883, 3884, 3885, 3886, 3887, 3888, 3889, 3890, 3891, 3892, 3893, 3894, 3895, 3896, 3897, 3898, 3899, 3900.

LARGE SIGNAL PANEL

[A] Various

Table with 3 columns: Part number, Description, and Quantity. Includes parts like 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300.

SMALL SIGNAL PANEL

[B] Various

Table with 3 columns: Part number, Description, and Quantity. Includes parts like 3634, 3635, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3643, 3644, 3645, 3646, 3647, 3648, 3649, 3650, 3651, 3652, 3653, 3654, 3655, 3656, 3657, 3658, 3659, 3660, 3661, 3662, 3663, 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671, 3672, 3673, 3674, 3675, 3676, 3677, 3678, 3679, 3680, 3681, 3682, 3683, 3684, 3685, 3686, 3687, 3688, 3689, 3690, 3691, 3692, 3693, 3694, 3695, 3696, 3697, 3698, 3699, 3700, 3701, 3702, 3703, 3704, 3705, 3706, 3707, 3708, 3709, 3710, 3711, 3712, 3713, 3714, 3715, 3716, 3717, 3718, 3719, 3720, 3721, 3722, 3723, 3724, 3725, 3726, 3727, 3728, 3729, 3730, 3731, 3732, 3733, 3734, 3735, 3736, 3737, 3738, 3739, 3740, 3741, 3742, 3743, 3744, 3745, 3746, 3747, 3748, 3749, 3750, 3751, 3752, 3753, 3754, 3755, 3756, 3757, 3758, 3759, 3760, 3761, 3762, 3763, 3764, 3765, 3766, 3767, 3768, 3769, 3770, 3771, 3772, 3773, 3774, 3775, 3776, 3777, 3778, 3779, 3780, 3781, 3782, 3783, 3784, 3785, 3786, 3787, 3788, 3789, 3790, 3791, 3792, 3793, 3794, 3795, 3796, 3797, 3798, 3799, 3800.