

1.1 Supply Voltage Adjustment

Connect a digital voltmeter to the cathode of diode D609 at the AV mode of the TV and set the screen voltage to the minimum with the screen potentiometer. Adjust the main supply voltage (B+) with P601 potentiometer to the following value (after supply adjustment, readjust Screen and focus voltage).

14"	: 105 VDC (for A34EAC01X06)
20"	: 112 VDC (for A48EAK02X101)
21"	: 110 VDC (for A51EFS13X191)

2. SERVICE ADJUSTMENTS

To enter the Service Mode, 'Service In/Out' button on the Service Remote Control or activate the "Picture Menu" with the user remote control and press "9301" (Press "0" button to exit the Service Mode).

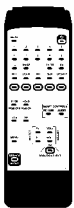
While the service menu is on screen, version and the date of the software are written on right bottom of the screen.

For Example:

SE1.641-A01

07/26/04

12:57:37



2.1 AGC Adjustment

- Switch on the Service Menu
- Find the "AGC(UHF)" with P+/P-
- Set its value to 30 for BG, BG/DK and I systems
- Find the "AGC(VHF)" with P+/P-
- Set its value to 30 for BG, BG/DK and I systems
- Find the "AGC(LPRIME)" with P+/P-
- Set its value to 20 for LL' system
- Exit from the service menu.

2.2 Screen Adjustment

- Switch the TV to the AV mode
- Do not make any connection from the scart switch
- Switch on the service menu
- Set the value of "BLUEBLACK" option to "OFF"
- Set the value of the "SCREEN ADJ." to "40"
- Press "OK" button on the RC
- There should appear a horizontal line on the center of the set
- Adjust the screen potentiometer to set the line at the first seen point.
- Exit from the service menu

2.3 White Balance Adjustment

- Apply a white pattern with a pattern generator to the antenna input.
- Enter the Service Menu and access to VIDEO sub-menu

- Set the value of "BLACK LEVEL G" and "WHITE POINT B" to "30" and "32" with V+ / V- buttons.
- Adjust "WHITE POINT R" and "WHITE POINT G" for red and green drives
- If white balance can not be adjusted properly slightly change the values of "BLACK LEVEL G" and "WHITE POINT B".
- Exit from Service menu.

2.4 Geometry Adjustments

- Apply the cross hatch pattern with a pattern generator to the antenna input.
- Enter Service Menu and access to GEOMETRY sub-menu
- Adjust Vertical Amplitude with "VER.AMPLITUDE" option.
- Adjust vertical centring with "VER.SHIFT", raster centring with "VER.SLOPE", vertical linearity with "S-CORRECTION" and horizontal centring with "HOR.SHIFT".
- Adjust the vertical amplitude for 16:9 mode with "VER.AMP.16:9"
- Adjust the centring of the OSD Menu with "HOR.OSD.POS" and "VER.OSD.POS".
- Adjust the contrast of the OSD and Teletext with "OSD CON" and "TXT CON"
- Exit from the Service Menu.

2.7 Options Menu

Enter the Service Menu with the Service RC and access to OPTION sub-menu and check the adjusted values are same as below.

TUNER	: Phillips, Sharp&Alps, Panasonic, Temic. Note : Select Sharp&Alps when Samsung tuner is used.
ACG(UHF)	: Automatic Gain Control for UHF Band
ACG(VHF)	: Automatic Gain Control for VHF Band
AGC(LPRIME)	: Automatic Gain Control for SECAM LL' Systems.
TYPE	: Label(sorts according to the catching order), ATS(Automatic Tuning System)
STANDBY	: CUSTOMER MODE (the units starts up in St.by mode,default value), FACTORY MODE(the unit directly goes to ON mode, can be used during repair)
AV1 SVHS	: ON(SHVS from Scart one is available), OFF
AV2	: ON(Scart 2 is available), NO
SOUND	: BG, I, BG+DK, BG+LL'
BG	: Europe, New Zeland, Australia
TEXT	: NON-TEXT, FASTEXT
ON TIMER	: ON(available) OFF(unavailable)
4-KEY	: INTERNAL(), EXT.3 KEY(front panel with 3 button), EXT.4KEY(front panel with 4 button)
BLUEBLACK	: ON(blueblack acticated), OFF(Blueblack inactivated)
AUTO WSS	: ON(Autosense of Widescreen), OFF
CHILD LOCK	: ON(hinders children access), OFF
ZAPP	: ON(Zapp available), OFF
PROTECTION	: The period of getting into protection
SIMPLE HOTEL	: ON(Hotel mode, available), OFF
MAX VOLUME	: Used for Hotel Mode, limits the max volume in hotel mode
RGBIN	: ON (When Scart RGB exists, aerial isn't showed-for only for some Hotel TVs), NO (Default)

2.7 Hotel Mode

If "Simple Hotel" option in the Service Menu is selected as "ON", to access set up menu "4658" should be typed whilst the "Features Menu" is on screen. After finishing the adjustments by taking the TV to St.by or shutting down, the access can be re-inhibited.

2.7 Factory Settings for Service Mode

Values given in Table 1 are typical values and can vary according to the CRT type.

		14"	15"	20"	21"
AGC(UHF)	Automatic Gain Control 1 (UHF)	30	30	30	30
AGC(VHF)	Automatic Gain Control 2(VHF)	30	30	30	30
AGC(LPRIME)	Automatic Gain Control for SECAM LL'	20	20	20	20
STANDBY	Stand By	Fac. Mode	Fac. Mode	Fac. Mode	Fac. Mode
VER.AMPL*	Vertical Amplitude	46	36	03	03
VER.SHIFT*	Vertical Shift	28	31	33	33
VER.SLOPE*	Vertical Slope	28	32	32	32
S-CORRECT*	S Correction	24	30	30	30
HOR.SHIFT*	Horizontal Shift	41	30	34	34
VER AMP 16:9*	Vertical Amplitude for 16:9 Mode	11	00	12	12
YC DELAY PAL	YC Delay Pal	07	07	07	07
YC DELAY SECAM	YC Delay Secam	07	07	07	07
YC DELAY NTSC	YC Delay NTSC	07	07	07	07
HOR.OSD POS*	Horizontal OSD Position	41	37	37	37
VER.OSD POS*	Vertical OSD Position	07	04	04	04
OSD CON	OSD Contrast	06	06	06	06
TXT CON	Teletext Contrast	00	00	00	00
TXT BRI	Teletext Brightness	30	30	30	30
PWL	Peak White Limiting	08	08	08	08
CATH.DRV.LEV	Cathode Drive Level	07	08	10	10
BLACK LEV R	Black level offset red	36	32	19	19
BLACK LEV G	Black level offset green	30	32	27	27
WHITE POINT R	White Point Red	42	32	32	32
WHITE POINT G	White Point Green	41	32	32	32
WHITE POINT B	White Point Blue	32	33	32	32

Table 1

2.8 Exit from Service Menu

To exit from the service menu, TV/TX button should be typed on the Remote Control.