

3 ALIGNMENT INSTRUCTIONS

3.1 MICROCONTROLLER CONFIGURATION : SERVICE MODE

To switch the TV set into service mode please see instruction below.

- 1 - Select PR. number 91
- 2 - Adjust sharpness to minimum and exit all menus.
- 3 - Within 2 seconds press the key sequence : **RED - GREEN - menu**

The software version is displayed beside the word Service, e.g. "SERVICE V0.22".

To exit SERVICE menu press menu key or **Stand By** key.

3.2 SERVICE MODE NAVIGATION

Pr Up/Down remote keys : cycle through the service items available.

Vol +/- remote keys : Dec./Increment the values within range - Cycle trough option bits.

OK key : Toggle bits in option byte

Order	Item	Default setting
1	HOR CEN	39
2	RED GAIN	32
3	GRN GAIN	32
4	BLUE GAIN	32
5	RED BIAS	32
6	GRN BIAS	32
7	AGC LEVEL	NO ADJUSTMENT
8	G2-SCREEN	-
9	OPTION1	0001 1001
10	OPTION2	0010 1111
11	AVL	-
12	PARABOLA	20
13	HOR WIDTH	50
14	CORNER T	39
15	CORNER B	39
16	HOR. PARAL	25
17	V.LINEAR	-
18	V.SLOPE	36
19	EW TRAPEZ	25
20	S CORRECT	22
21	VERT CENT	43
22	VERT SIZE	24

3.3 MICROCONTROLLER CONFIGURATION : OPTION BITS

There are two option bytes available (16 bits in all). These option bits are available from Service mode. First find the OPTION1/OPTION2/OPTION3 control, and then use the Volume PLUS/MINUS buttons on the remote control keypad to locate the bits, and OK key to toggle them. The table below shows the two option bytes available;

3.4 OPTION1

	B7	B6	B5	B4	B3	B2	B1	B0
1	TOP Teletext OFF	FASTEXT (FLOF) OFF	TUBE 4:3	VAI bit set to 1 in SECAM L	Dolby Virtual OFF	SVHS3 disabled	TUNER OPTIONS 00=PHILIPS 01=Not used 10=Alps 11=Parstnic(DW)	
0	TOP Teletext ON	FASTEXT (FLOF) ON	TUBE 16:9	VAI bit set to 0 in SECAM L	Dolby Virtual ON	SVHS3 enabled		

3.5 OPTION2

	B7	B6	B5	B4	B3	B2	B1	B0
1	Fixed to '0'	Fixed to '0'	Nu Must be Set to 1 for Future compatibility	Fixed to '0'	5 keys local keyboard	Full ATSS	PAT& TAT Enabled	n.u. Must be set to 1 for future compatibility
0					7 keys local keyboard			

- OPTION SETTING BY MODEL

CHASSIS	MODEL	OPTION BIT[b7...b0]			DW[hex]	REMARKS
CP-780	DUB-2850GB	I	0001	1001	19	OPTION "b1,b0" - Depends on Tuner
		II	0010	1111	2F	

3.6 NVM default setting

The purpose of this message, when you change a virgin EEPROM, is to allow to modify the NVM DATA to desired values.

1 - Introduction :

The NVM default values are fixed for the user, but for flexibility in service, these data are stored in NVM and can be changed when the TV set is in a special mode call "NVM EDITOR". This mode can only be access from "FACTORY" mode.

2 - Entering into "FACTORY" mode.

To switch the TV set into FACTORY mode, use the factory remote control, and press on "SVC" key. The factory menu will appear on the screen, showing "FACTORY" , plus other relevant information like software version and date.

WARNING : When in "FACTORY" mode you should not press any key other than the keys described in the procedure below. Unwanted key stroke could misadjust the TV set.

3 - Entering into "NVM EDITOR" mode.

To switch the TV set into NVM EDITOR mode, use the user remote control, and press on "PICTURE/OK" key. The NVM EDITOR window will appear on the screen. This mode allow you to access all data stored in NVM. The current NVM address is given in column "ADDR." in both DECimal and HEXadecimal format. The column DATA gives the value contained at selected address in both DECimal and HEXadecimal format.

4 - Navigation in "NVM EDITOR" mode.

Use Program Up/Down keys to select the desired address. Use Volume Up/Down keys to change the data at selected address. You must press "PICTURE/OK" key to store value after modification.

The data can be adjusted between 0 and 63.

5 - Exit "NVM EDITOR" mode.

To switch the TV set back into FACTORY mode, use the user remote control, and press on "MENU" key.

The factory menu will appear on the screen, showing "FACTORY".

6 - Exit "FACTORY" mode.

To exit "FACTORY" mode, use the factory remote control, and press on "SVC" key. The factory menu will disappear from the screen.

NVM DATA CHANGE LIST

No	Register Name	Address	(hex)	CP-780
			Default	DUB-2850GB
1	OCP_THRESHOLD	0x58F	0x91	<-
2	DCXO	0x590	0x4E	<-
3	AGC_PHILIPS	0x5C1	0xAB	<-
4	AGC_NC	0x5C2	0xAB	0x04
5	AGC_ALPS	0x5C3	0xB6	<-
6	AGC_PARTSNIC	0x5C4	0xB6	<-
7	AGC_PHILIPS_START	0x5C5	0x16	<-
8	AGC_NC_START	0x5C6	0x16	0x00
9	AGC_ALPS_START	0x5C7	0x16	<-
10	AGC_PARTSNIC_START	0x5C8	0x16	<-
11	AVLLEV	0x621	0x5	<-
12	Nor1_Bright	0x64A	0x23	<-
13	Nor1_contrast	0x64B	0x2E	<-
14	Nor1_Colour	0x64C	0x1C	<-
15	Nor1_Sharpness	0x64D	0x23	<-
16	Nor1_Tint	0x64E	0x20	<-
17	Nor1_JVC_Bri	0x64F	0x2D	<-
18	Nor1_JVC_Cont	0x650	0x2A	<-
19	Nor1_JVC_Colour	0x651	0x1B	<-
20	Nor1_JVC_Sharp	0x652	0x23	<-
21	Nor2_Bright	0x653	0x28	<-
22	Nor2_Contrast	0x654	0x13	<-
23	Nor2_Colour	0x655	0x19	<-
24	Nor2_Sharpness	0x656	0x1B	<-
25	Nor2_Tint	0x657	0x20	<-
26	PresetGainRGB	0x673	0x2A	<-
27	PresetGainRGB	0x674	0x2A	<-
28	PresetGainRGB	0x675	0x2A	<-
29	Cathode_Drive	0x67B	0x1	<-
30	Y_delay_PAL_BG	0x686	0x5	<-
31	Y_delay_SECAM_BG	0x687	0x8	<-
32	Y_delay_PAL_DK	0x688	0x5	<-
33	Y_delay_SCM_DK	0x689	0x5	<-
34	Y_delay_PAL_I	0x68A	0x7	<-
35	Y_delay_SECAM	0x68B	0x5	<-
36	Y_delay_SECAM-L	0x68C	0x8	<-
37	Y_delay_AV	0x68D	0xA	<-
38	G2_Bright	0x68E	0x1A	3D
39	G2_Contrast	0x68F	0x42	77