

ADJUSTMENTS

ADJUSTMENTS NECESSARY AFTER REPLACEMENT OF MODULES:

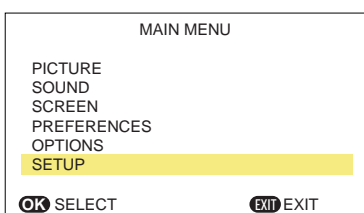
- After replacement of MAIN module or Video module, perform the adjustments of "video screen position" and "DVD/HD/DTV screen position".
 - After replacement of POWER or PDP module, perform the adjustment of "+170V/+70V" and "+5V". When replacing PDP module, also perform "screen position" adjustments and reset the "usage time" as shown below.
- Replacing another module does not require further adjustment unless abnormal conditions are encountered.

OSD CONTROLS

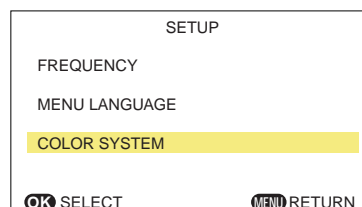
Before entering the service mode, it could be necessary to configure the plasma monitor in the On Screen menu.

ACCESSING COLOR STANDARD

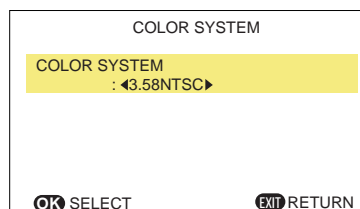
- Using the remote control, press "menu" button.
- The "main" menu appears on the screen.



- Press the \wedge / \vee buttons to select the "setup" line.
- The "setup" menu appears on the screen.



- Select the "color system" line.
- The "color system" menu appears on the screen.



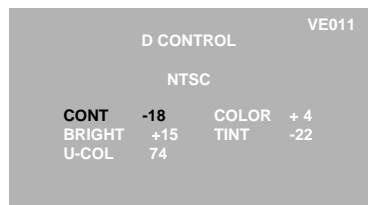
- Press the \langle / \rangle buttons to select the color standard.

SERVICE MODE

It is necessary to enter the Service Mode in order to carry out alignment of the set. Most adjustments must be made with the RCU.

1 ACCESSING SERVICE MODE

- Using the remote control, press successively the zoom "-" (Q-), exit, mute (M) and zoom "-" (Q-) buttons.
- The main service menu appears on the screen.



2 NAVIGATION INSIDE THE SERVICE MODE

- Press the "menu" button to select the menu.
 - Press the \wedge / \vee buttons to select the menu line.
 - Press the \langle / \rangle buttons to make adjustments.
- NB : the value of the adjustment is memorized automatically.

3 EXITING FROM SERVICE MODE

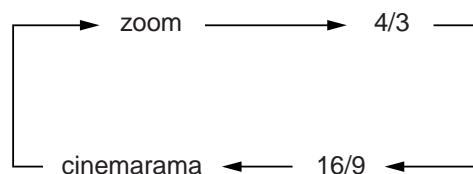
- To exit the service mode menu press successively, the zoom "-" (Q-), exit, mute (M) and zoom "-" (Q-) buttons on the remote control.

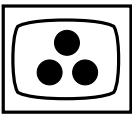
4 CLEARING THE USAGE TIME

- Enter the service mode and select the "usage time" menu.
- Using the remote control, press successively the mute (M), \wedge , \vee , and zoom "-" (Q-) buttons.

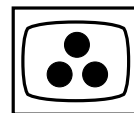
ZOOM SEQUENCE

It could be necessary to change the zoom mode in order to carry out some alignments of the set. Press the "format" button of the remote control. The mode switches as shown in the margin.



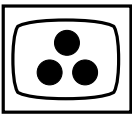


<p>POWER</p> <p>+170V +70V</p>	<p>RV4 (D+170V ADJ)</p>	<p>Apply colour bar test pattern to either Video, HD/DVD or VGA input</p>		<p>Adjust RV4 to obtain the specified PDP module voltage value +/-1V at TP3 (+170V). This value is indicated on the label pasted on the back of PDP module</p>
	<p>RV3 (D+70V ADJ)</p>			<p>Adjust RV3 to obtain the specified PDP module voltage value +/-1V at TP2 (+70V). This value is indicated on the label pasted on the back of PDP module</p>
				<p>Check that the voltage at TP2 and TP3 does not change. If it changes, perform the previous adjustments again.</p>
<p>POWER</p> <p>+5V</p>	<p>RV2 (D+5V ADJ)</p>	<p>Apply colour bar test pattern to either Video, HD/DVD or VGA input</p>		<p>Adjust RV2 :</p> <p>$V = 5.1 \text{ V} \pm 0.1 \text{ V}$</p>
<p>MAIN</p> <p>Video screen position</p>	<p>SERVICE MODE</p> <p>"POSITION" menu</p>	<p>NTSC test pattern :</p> <p>Video input</p> <p>Select VIDEO input with the Remote Control or keyboard</p> <p>Select "full screen" with the "zoom" key of the Remote Control</p>	<p>If there is any displacement of the display range in the PDP module, select "MHPOS" and "MVPOS" lines, and adjust correctly.</p> <p>Select "H POS" line and adjust </p> <p>Select "V POS" line and adjust </p> <p>Check that "H PHA" = 0 and "H CLK" = 0</p> <p>Adjust separate for cinema; 4/3; 16/9 and PAL.</p>	
<p>MAIN</p> <p>DVD/HD screen position</p>	<p>SERVICE MODE</p> <p>"POSITION" menu</p>	<p>HDTV test pattern :</p> <p>DVD/HD input</p> <p>Check HD SELECT = 1035i</p> <p>Select DVD/HD input with the Remote Control or keyboard</p> <p>Select "full screen" with the "zoom" key of the Remote Control</p>	<p>If there is any displacement of the display range in the PDP module, select "MHPOS" and "MVPOS" lines, and adjust correctly.</p> <p>Select "H POS" line and adjust </p> <p>Select "V POS" line and adjust </p> <p>Check that "H PHA" = 0 and "H CLK" = 0</p> <p>Repeat adjustment for NTSC.</p>	
		<p>DTV 1080i test pattern :</p> <p>DVD/HD input</p> <p>Check HD SELECT = 1080i</p> <p>Select DVD/HD input with the Remote Control or keyboard</p> <p>Select "full screen" with the "zoom" key of the Remote Control</p>	<p>If there is any displacement of the display range in the PDP module, select "MHPOS" and "MVPOS" lines, and adjust correctly.</p> <p>Select "H POS" line and adjust </p> <p>Select "V POS" line and adjust </p> <p>Check that "H PHA" = 0 and "H CLK" = 0</p> <p>Repeat adjustment for HD SELECT =1080B</p>	
		<p>DTV 720P test pattern :</p> <p>DVD/HD input</p> <p>Check HD SELECT = 1080i</p> <p>Select DVD/HD input with the Remote Control or keyboard</p> <p>Select "full screen" with the "zoom" key of the Remote Control</p>	<p>If there is any displacement of the display range in the PDP module, select "MHPOS" and "MVPOS" lines, and adjust correctly.</p> <p>Select "H POS" line and adjust </p> <p>Select "V POS" line and adjust </p> <p>Check that "H PHA" = 0 and "H CLK" = 0</p> <p>Repeat adjustment for DTV 480P</p>	

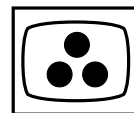


RGB/PC signal timing table:

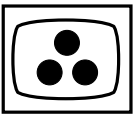
PC mode	1	2	3	4	5
Signal name	VU-6010 NTSC	VU-6010 PAL/SECAM	PC98 400@56Hz	IBM 400@70Hz	PC98 480@60Hz
Definition	640*240	768*288	640*400	640*400	640*480
Dot clock frequency (MHz)	12.214	14.752	21.053	25.175	25.175
H frequency (kHz)	15.734	15.557	24.826	31.469	31.469
V frequency (Hz)	59.94	50.39	56.423	70.086	59.94
H total (uS)	63.534	64.262	40.285	31.778	31.778
(dots)	776	948	848	800	800
H display period (uS)	52.4	52.06	30.4	25.422	25.422
(dots)	640	768	640	640	640
H front porch (uS)	1.146	1.288	2.803	0.675	0.596
(dots)	14	19	59	17	15
H sync pulse width (uS)	8.76	8.677	3.04	2.542	3.813
(dots)	107	128	64	64	96
H back porch (uS)	1.228	2.237	4.037	3.138	1.946
(dots)	15	33	85	79	49
V total (mS)	16.652	20.055	17.723	14.268	16.683
(line)	262	312	440	449	525
V display period (mS)	15.3	18.513	16.112	12.711	15.253
(line)	240	288	400	400	480
V front porch (mS)	0.191	0.321	0.282	0.413	0.191
(line)	3	5	7	13	6
V sync pulse width (mS)	1.144	1.093	0.322	0.064	0.064
(line)	18	17	8	2	2
V back porch (mS)	0.064	0.064	1.007	1.08	1.176
(line)	1	1	25	34	37
H sync polarity	Neg	Neg	Neg	Neg	Neg
V sync polarity	Neg	Neg	Neg	Neg	Neg
Scan type	Interlaced	Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
VGROM NO.	1	2	3	4	5



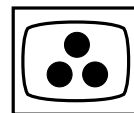
PC mode	6	7	8	9	10
Signal name	MAC@13Ó	VESA 480@72Hz	VESA 480@75Hz	VESA 480@85Hz	XGA-2 480@75HZ
Definition	640*480	640*480	640*480	640*480	640*480
Dot clock frequency (MHz)	30.24	31.5	31.5	36.0	31.5
H frequency (kHz)	35	37.861	37.5	43.269	39.375
V frequency (Hz)	66.667	72.809	75	85.008	75
H total (uS)	28.571	26.413	26.667	23.111	25.4
(dots)	864	832	840	832	800
H display period (uS)	21.164	20.317	20.317	17.778	20.32
(dots)	640	640	640	640	640
H front porch (uS)	2.116	0.762	0.508	1.556	0.508
(dots)	64	24	16	56	16
H sync pulse width (uS)	2.116	1.27	2.032	1.556	3.048
(dots)	64	40	64	56	96
H back porch (uS)	3.175	4.064	3.81	2.222	1.524
(dots)	96	128	120	80	48
V total (mS)	15	13.735	13.333	11.764	13.333
(line)	525	520	500	509	525
V display period (mS)	13.714	12.678	12.8	11.093	12.19
(line)	480	480	480	480	480
V front porch (mS)	0.086	0.237	0.027	0.023	0.279
(line)	3	9	1	1	11
V sync pulse width (mS)	0.086	0.079	0.08	0.069	0.051
(line)	3	3	3	3	2
V back porch (mS)	1.114	0.739	0.427	0.578	0.813
(line)	39	28	16	25	32
H sync polarity	Sync on G	Neg	Neg	Neg	Neg
V sync polarity	Sync on G	Neg	Neg	Neg	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
VGROM NO.	6	7	8	9	10



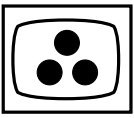
PC mode	11	12	13	14	15
Signal name	VESA 600@56Hz	VESA 600@60Hz	VESA 600@72Hz	VESA 600@75Hz	VESA 600@85Hz
Definition	800*600	800*600	800*600	800*600	800*600
Dot clock frequency (MHz)	36	40	50	49.5	56.25
H frequency (kHz)	35.156	37.879	48.077	46.875	53.674
V frequency (Hz)	56.25	60.317	72.188	75	85.061
H total (uS)	28.444	26.4	20.8	21.333	18.631
(dots)	1024	1056	1040	1056	1048
H display period (uS)	22.222	20	16	16.162	14.222
(dots)	800	800	800	800	800
H front porch (uS)	0.667	1	1.12	0.323	0.569
(dots)	24	40	56	16	32
H sync pulse width (uS)	2	3.2	2.4	1.616	1.138
(dots)	72	128	120	80	64
H back porch (uS)	3.556	2.2	1.28	3.232	2.702
(dots)	128	88	64	160	152
V total (mS)	17.778	16.579	13.853	13.333	11.756
(line)	625	628	666	625	631
V display period (mS)	17.067	15.84	12.48	12.8	11.179
(line)	600	600	600	600	600
V front porch (mS)	0.028	0.026	0.77	0.021	0.019
(line)	1	1	37	1	1
V sync pulse width (mS)	0.057	0.106	0.125	0.064	0.056
(line)	2	4	6	3	3
V back porch (mS)	0.626	0.607	0.478	0.448	0.503
(line)	22	23	23	21	27
H sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
V sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
VGROM NO.	11	12	13	14	15



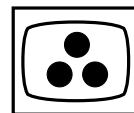
PC mode	16	17	18	19	20
Signal name	MAC@160	I/O dater wide	CEREB wide 1	VESA wide (NEC 1)	VESA wide (NEC 2)
Definition	832*624	852*480	864*480	848*480	1024*576
Dot clock frequency (MHz)	57.2832	34.006	42.526	33.75	47.25
H frequency (kHz)	49.725	31.722	37.5	31.02	35.795
V frequency (Hz)	74.55	59.966	75	60	60.059
H total (uS)	20.111	31.524	26.667	32.237	27.937
(dots)	1152	1072	1134	1088	1320
H display period (uS)	14.524	25.055	20.317	25.126	21.672
(dots)	832	852	864	848	1024
H front porch (uS)	0.559	0.659	0.508	0.474	0.339
(dots)	32	22	22	16	16
H sync pulse width (uS)	1.117	3.764	2.032	3.319	3.048
(dots)	64	128	86	112	144
H back porch (uS)	3.91	2.047	3.81	3.319	2.878
(dots)	224	70	162	112	136
V total (mS)	13.414	16.676	13.333	16.667	16.65
(line)	667	529	500	517	596
V display period (mS)	12.549	15.132	12.8	15.474	16.091
(line)	624	480	480	480	576
V front porch (mS)	0.02	0.378	0.027	0.193	0.056
(line)	1	12	1	6	2
V sync pulse width (mS)	0.06	0.095	0.08	0.258	0.112
(line)	3	3	3	8	4
V back porch (mS)	0.784	1.072	0.427	0.741	0.391
(line)	39	34	16	23	14
H sync polarity	Sync on G	Neg	Pos.	Pos.	Pos.
V sync polarity	Sync on G	Neg	Neg	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
VGROM NO.	16	17	18	19	20



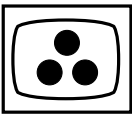
PC mode	21	22	23	24	25
Signal name	VESA wide (NEC 3)	VESA wide (NEC 4)	CEREB wide 2	VESA 768@60Hz	VESA 768@70Hz
Definition	1280*720	1360*765	1024*600	1024*768	1024*768
Dot clock frequency (MHz)	76.5	85.5	51.2	65	75
H frequency (kHz)	45.106	47.712	37.879	48.363	56.476
V frequency (Hz)	60.142	60.015	60.317	60.004	70.069
H total (uS)	22.17	20.959	26.4	20.677	17.707
(dots)	1696	1792	1352	1344	1328
H display period (uS)	16.732	15.906	20	15.754	13.653
(dots)	1280	1360	1024	1024	1024
H front porch (uS)	0.627	0.749	1	0.369	0.32
(dots)	48	64	51	24	24
H sync pulse width (uS)	2.301	2.058	3.2	2.092	1.813
(dots)	176	176	164	136	136
H back porch (uS)	2.51	2.246	2.2	2.462	1.92
(dots)	192	192	113	160	144
V total (mS)	16.627	16.662	15.579	16.666	14.272
(line)	750	795	628	806	806
V display period (mS)	15.962	16.034	15.84	15.88	13.599
(line)	720	765	600	768	768
V front porch (mS)	0.089	0.084	0.026	0.062	0.053
(line)	4	4	1	3	3
V sync pulse width (mS)	0.177	0.168	0.106	0.124	0.106
(line)	8	8	4	6	6
V back porch (mS)	0.399	0.377	0.607	0.6	0.513
(line)	18	18	23	29	29
H sync polarity	Pos.	Pos.	Neg	Neg.	Neg.
V sync polarity	Pos.	Pos.	Pos.	Neg.	Neg.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
VGROM NO.	21	22	23	24	25



PC mode	26	27	28	29	30
Signal name	VESA 768@75Hz	VESA 768@85Hz	MAC@190	VESA 1024@60Hz	VESA 1024@75Hz
Definition	1024*768	1024*768	1024*768	1280*1024	1280*1024
Dot clock frequency (MHz)	78.75	94.5	80	108	135
H frequency (kHz)	60.023	68.677	60.24	63.981	79.976
V frequency (Hz)	75.029	84.997	74.93	60.02	75.025
H total (uS)	16.66	14.561	16.600	15.63	12.501
(dots)	1312	1376	1328	1688	1688
H display period (uS)	13	10.836	12.8	11.852	9.481
(dots)	1024	1024	1024	1280	1280
H front porch (uS)	0.203	0.508	0.4	0.444	0.119
(dots)	16	48	32	48	2
H sync pulse width (uS)	1.219	1.016	1.2	1.037	1.067
(dots)	96	96	96	112	144
H back porch (uS)	2.235	2.201	2.2	2.296	1.837
(dots)	176	208	176	248	248
V total (mS)	13.328	11.765	13.347	16.661	13.329
(line)	800	808	804	1066	1066
V display period (mS)	12.795	11.183	12.749	16.005	12.804
(line)	768	768	768	1024	1024
V front porch (mS)	0.017	0.015	0.050	0.016	0.013
(line)	1	1	3	1	1
V sync pulse width (mS)	0.05	0.044	0.050	0.047	0.038
(line)	3	3	3	3	3
V back porch (mS)	0.466	0.524	0.498	0.594	0.475
(line)	28	36	30	38	38
H sync polarity	Pos.	Pos.	Ñ	Pos.	Pos.
V sync polarity	Pos.	Pos.	Ñ	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
VGROM NO.	26	27	28	29	30



PC mode	31	32	33	34	35
Signal name	IDC-3000G PAL 625P	IDC-3000G NTSC 525P	HDTV -J	DTV (480P)	DTV (720P)
Definition	768*576	640*480	1920*1034	644*483	1280*720
Dot clock frequency (MHz)	29.687	24.39	74.25	24.37	74.25
H frequency (kHz)	31.389	31.47	33.75	31.469	45.000
V frequency (Hz)	50	59.9	60/60	59.94	60
H total (uS)	31.933	31.775	29.63	31.777	22.222
(dots)	948	775	2200	774	1650
H display period (uS)	25.87	26.24	25.86	26.427	17.239
(dots)	768	640	1920	644	1280
H front porch (uS)	0.269	0.41	0.59	0.75	0.943
(dots)	8	10	44	18	70
H sync pulse width (uS)	2.526	2.46	0.59	2.35	1.077
(dots)	75	60	44	57	80
H back porch (uS)	3.267	2.665	2.59	2.25	2.963
(dots)	97	65	192	55	220
V total (mS)	19.911	16.522	16.652	16.683	16.667
(line)	625	525	562/562	525	750
V display period (mS)	18.35	15.106	15.319	15.348	
(line)	576	480	517/517	483	720
V front porch (mS)	0.223	0.252	0.148	0.191	0.111
(line)	7	8	5	6	5
V sync pulse width (mS)	0.223	0.22	0.148	0.191	0.111
(line)	7	7	5	6	5
V back porch (mS)	1.115	0.944	1.037	0.953	0.444
(line)	35	30	35	30	20
H sync polarity	Neg	Neg	Neg	Neg	Neg
V sync polarity	Neg	Neg	Neg	Neg	Neg
Scan type	Non Interlaced	Non interlaced	Interlaced	Non Interlaced	Non Interlaced
VGROM NO.	31	32	33	34	35



PC mode	36	37	38	39
Signal name	HDTV -W	SSPE	JSPE	MAC@120
Definition	1920*1080	1024*512	852*480	1152*870
Dot clock frequency (MHz)	74.25	40	16	100
H frequency (kHz)	33.75	33.727	15.75	68.681
V frequency (Hz)	60/60	60.012	59.94	75.062
H total (uS)	29.630	29.650	63.750	14.560
(dots)	2200	1186	1020	1456
H display period (uS)	25.859	25.600	53.250	11.520
(dots)	1920	1024	852	1152
H front porch (uS)	0.593	0.600	1.250	0.320
(dots)	44	24	20	32
H sync pulse width (uS)	1.185	1.200	4.750	1.280
(dots)	88	48	76	128
H back porch (uS)	1.993	2.250	4.500	1.440
(dots)	148	90	72	144
V total (mS)	16.652/16.682	16.663	16.683	13.322
(line)	562/563	562	262.5/262.5	915
V display period (mS)	16.000/16.000	15.15	15.236/15.236	12.667
(line)	540/540	511	239/239	870
V front porch (mS)	0.059/0.074	0.178	0.064/0.096	0.044
(line)	2/2.5	6	1/1.5	3
V sync pulse width (mS)	0.148/0.148	0.148	0.191/0.191	0.044
(line)	5/5	5	3/3	3
V back porch (mS)	0.444/0.459	1.186	1.211/1.243	0.568
(line)	15/15.5	40	19/19.5	39
H sync polarity	Neg	Neg	Neg	Sync on G
V sync polarity	Neg	Neg	Neg	Sync on G
Scan type	Interlaced	Non Interlaced	Interlaced	Non Interlaced
VGROM NO.	36	37	38	39