

PATTERN GENERATOR



USER MANUAL VPG-V

Package Contents-

- 1 VGA Pattern Generator VPG-V
 - 1 power adapter DC 12V 1.25A
 - 1 user manual
 - 1 VGA 1.2M cable (HD-15 Male to Male)
- Any thing missed, please contact with your vendor.

V1.0

Introduction

Through the use of portable VGA pattern generator VPG-V, you are able to use 38 timings and 34 patterns, and operate it continuously for 6~8 hours after the battery has been fully charged or it can be operated by connecting with an external AC adaptor.

VPG-V is ideal for:

- TV / Monitor production line
- VGA image input devices
- Image transmission devices

Features

- Intelligent functionality.
- With 162 MHz pixel frequency.
- Support total 38 timings. (up to UXGA)
- Support Sync Type: H/V (TTL), SOG.
- Low cost.
- Single interface easily use.
- Portable design, working time up to 8 hours by inside Re-chargeable battery.
- Auto Power-off on Battery mode.
- Provide total 34 patterns, Include: Color bar, Gray, Grid, Block...
- By 16x2 Character LCD and key buttons, easily control.

Specifications

Function	VPG-V
Video Output Connector	1 HD-15 Female
Select Switch	7
LCD Module: 16*2 Character Display	1
Max. Resolution	1600x1200 @ 60 Hz
Highest Pixel Frequency	162 MHz
Cable Distance	5M (Max.)
Power Adapter (Min.)	DC 12V 1.25A
Housing	Plastic
Weight	385 g
Dimensions (LxWxH)	190x95x35 mm

HD-15 Connector pin definition

Pin #	Signal
1	Red video
2	Green video
3	Blue video
4	NC
5	Ground
6	Analog ground
7	Analog ground
8	Analog ground

Pin #	Signal
9	NC
10	Ground
11	NC
12	NC
13	Horizontal sync
14	Vertical sync
15	NC

FRONT VIEW



1. Video Output
2. LCD Module: 16*2 Character Display
3. Function Keys
4. "↻": Return
5. "⏻": Power On/Off
6. Power Jack

Installation

1. Insert the external AC adaptor into AC outlet, connect the power cord to VPG-V for charging.
2. Switch off the monitor.
3. Connect the HD-15 extension cord between the VPG-V and monitor.
4. Switch on the power of the monitor.
5. Press the VPG-V power key for more than 3 seconds to switch on/off the VPG-V.

Operation

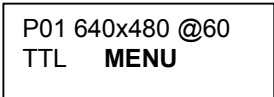
A. Starting status (power switch on mode):



1. After pressing power On/Off key for 2~3 seconds, it will sound a long "beep".
2. Only valid for the corresponding key found below the LCD. After confirming the press, it will sound a short confirm "beep".
3. Factory preset starting value: P01 640x480 @60
 P01 → Pattern 01
 640x480 → Resolution 640X480
 @60 → Refresh rate 60Hz

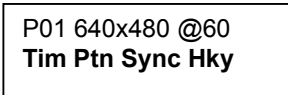
B. Operation Guide:

a.



Start setting: Key → "MENU" Switch

b. After pressing "MENU" option →



1> **Tim:** (Timing selector)



Note: The chosen option will blink

Key: "▲": Increasing
 "▼": Decreasing

"◀", "▶": Choosing Resolution or Refresh rate

"↵": Enter

2> **Ptn:** (Pattern selector)



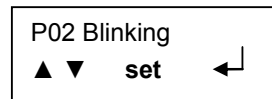
Note: Pattern Index option will blink

Key: "▲": Increasing

"▼": Decreasing

"↵": Enter

P02 Blinking setup guide



Set: Setting black and white blinking frequency (frames/number)



Note: The chosen option will blink

BLK: Black, WHT: White

Key: "▲": Increasing

"▼": Decreasing

"◀", "▶": Choosing BLK or WHT

"↵": Enter

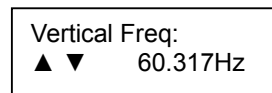
3> **Sync:** (Sync selector)



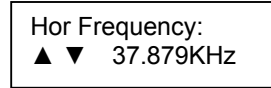
INFO: Currently output timing information



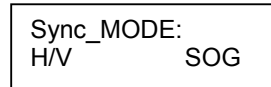
Ver: Vertical frequency option



Hor: Horizontal frequency option



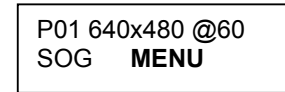
Key: "▲", "▼": Choosing last or next item
 MODE: Output synchronization selector (H/V or SOG)



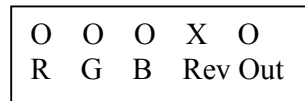
Note: The chosen option will blink

After choosing, press "RETURN" key to return to upper level. The lower corner of LCD will display "H/V" or "SOG" text

Example:



4> **Hky:** (Hot key selector)



O: Enable X: Disable

R: Red component output

G: Green component output

B: Blue component output

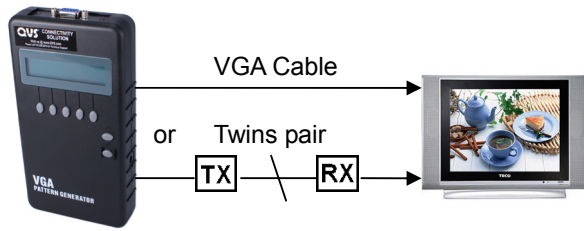
Rev: Pattern reverse

Out: Video Output On/Off

Note:

1. After purchasing and before using the VPG-V first time, please charge it continuously for more than 16 hours.
2. If there is no image while using the VPG-V, please ensure the following matters:
 - a. If it is unable to switch on → there is a possibility of dead battery or inferior battery. Please connect it with the transformer.
 - b. If it is able to switch on but there is no image →
 - Lower the resolution or change the resolution and vertical frequency.
 - Please ensure the compatibility of Sync MODE: H/V or SOG of the monitor.
3. We suggest you to charge the battery when the battery power indicator has become low.
4. The VPG-V will save the last setting automatically.

Assembly application diagram:



****VGA Output signal specification chart:**

NO	Resolution	Refresh Rate (Hz)	Pixel Freq (MHz)	Sync Polarity	
				Hor	Ver
1	640x350	85	31.5	P	N
2	640x400	85	31.5	N	P
3	640x480	60	25.175	N	N
4	640x480	72	31.5	N	N
5	640x480	75	31.5	N	N
6	640x480	85	36	N	N
7	720x400	85	35.5	N	P
8	800x600	56	36	P	P
9	800x600	60	40	P	P
10	800x600	72	50	P	P
11	800x600	75	49.5	P	P
12	800x600	85	56.25	P	P
13	848x480	60	33.75	P	P
14	1024x768	60	65	N	N
15	1024x768	70	75	N	N
16	1024x768	75	78.75	P	P
17	1024x768	85	94.5	P	P
18	1152x864	75	108	P	P
19	1280x768	60 RB	68.25	P	N
20	1280x768	60	79.5	N	P

21	1280x768	75	102.25	N	P
22	1280x768	85	117.5	N	P
23	1280x960	60	108	P	P
24	1280x960	85	148.5	P	P
25	1280x1024	60	108	P	P
26	1280x1024	75	135	P	P
27	1280x1024	85	157.5	P	P
28	1360x768	60	85.5	P	P
29	1400x1050	60 RB	101	P	N
30	1400x1050	60	121.75	N	P
31	1400x1050	75	156	N	P
32	1600x1200	60	162	P	P
33	1920x1200	60 RB	154	P	N
34	1280x800	60	83.5	N	P
35	1366x768	60	80	N	N
36	1440x900	60	106.5	N	P
37	1440x1050	60	125.25	N	N
38	1680x1050	60	146.25	N	P

RB: Reduced Blanking

P: Positive

N: Negative

****Pattern chart:**

1. FLAT	2. Blinking BLINKING	3. BW_GRADUALLY	4. GRID_4x3
5. GRID_16x12	6. COLOR_GRID	7. COLORBAR_1	8. COLORBAR_2
9. COLORBAR_3	10. COLORBAR_4	11. GRAY_8	12. GRAY_16

13. GRAY_32	14. GRAY_64	15. DYNAGRAY DYNA GRAY	16. GRAY_1
17. COLORGRAY64	18. BWSWING	19. BW2SWING	20. WINDOW_1
21. WINDOW_2	22. WINDOW_3	23. WINDOW_4	24. VLINE_1
25. VLINE_2	26. VLINE_3	27. H Pattern_1	28. H Pattern_2
29. BLOCK_1	30. BLOCK_4x3	31. BLOCK_16x12	32. HLINE_1
33. HLINE_2	34. HLINE_3		

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