SAFETY GUIDELINES

WARNING

An electrical current of over 10 milliamps passing through the heart will stop most human hearts. Voltage of as low as 35 Volts dc or ac rms should be considered hazardous since it can produce lethal current under certain conditions. Be sure to observe the following safety precautions:

1. There are no high voltages in the color pattern generator, but the equipment under test usually contains hazardous high voltage. Always follow the safety recommendations of the manufacturer of your equipment.

2. Some equipment may be wired as a "hot chassis" type; equipment using two-wire power plugs are always suspect and it may even include those with polarized plugs. Never touch chassis of "hot chassis" type equipment to avoid the possibility of serious, possibly fatal electrical shock.

3. Don’t expose yourself needlessly to high voltage; only remove housings and covers when necessary.

4. Familiarize yourself with the equipment being tested and the location of its high voltage points. However be aware that high voltage may appear at unexpected points in defective equipment.

5. Never work alone. Someone should be nearby to render aid if needed. Training in CPR (Cardio-pulmonary resuscitation) is highly recommended.

FEATURES:
- Tests MDA, CGA, EGA, VGA, SVGA, & MAC Monitors
- Resolution 720x350, 640x480, 800x600, 1024x768, 1280x1024, 512x384, 830x624, & 1152x870
- Interlaced & Progressive
- Provides Color bars, Cross-hatch, Dots, Color Raster & Window
- Connectors are 9pin D(MDA, CGA & EGA), 15pin D(MAC), 15minipin D (VGA, SVGA, and 8514A)
- Single push button selectable patterns
- Multiple monitor testing or burn-in

BASIC OPERATION:
1. Place the monitor type switches to the proper position for the type of monitor to be tested.
2. Connect the monitor to the proper video output connector.
3. Turn on the power to both the monitor and the test unit.
4. Press the video pattern push-button to step to the desired pattern.

Setting Auto Manual Switch to AUTO allows the output To scroll through the patterns automatically.
1. **Power** -- Slide switch for power on or off.

2. **Power Indicator** -- LED to show when power is on.

3. **System Type Switch** -- Selects Mac or PC Columns

4. **Monitor Type Selector** -- Selects Monitor type/Resolution

5. **Video Pattern** -- Step through Colorbar, Crosshatch, Dot, and Raster Push button.

6. **MDA, CGA or EGA Connector**
   9 pin Female, D type

7. **MAC Connector**
   15 pin Female, D type

8. **VGA, SVGA, & 1814A Connector**
   15 mini-pin Female, D type

~ BACK PANEL ~

9. **DC Power Jack** (9v DC 300mA)

10. **Four DB15 mini-pin Female Jacks**
    Allows burn-in or testing of multiple Monitors

11. **RGB BNC** --- Red, Green, and Blue video with sync on green

12. **H/HV & V BNC** -- Horizontal and Vertical Sync outputs
## SPECIFICATIONS

### OPERATING CHARACTERISTICS

<table>
<thead>
<tr>
<th>Type</th>
<th>Resolution</th>
<th>Horizontal (KHz)</th>
<th>Polarity</th>
<th>Vertical (Hz)</th>
<th>Polarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDA</td>
<td>720 x 350</td>
<td>18.4</td>
<td>+</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>CGA</td>
<td>640 x 200</td>
<td>15.8</td>
<td>+</td>
<td>60</td>
<td>+</td>
</tr>
<tr>
<td>EGA</td>
<td>640 x 350</td>
<td>21.8</td>
<td>+</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>VGA</td>
<td>640 x 480</td>
<td>31.5</td>
<td>-</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>SVGA</td>
<td>800 x 600</td>
<td>35.2</td>
<td>+</td>
<td>56</td>
<td>+</td>
</tr>
<tr>
<td>8514A</td>
<td>1024 x 384</td>
<td>35.5</td>
<td>+</td>
<td>87</td>
<td>+</td>
</tr>
<tr>
<td>VESA</td>
<td>1024 x 768</td>
<td>48.5</td>
<td>-</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1280 x 1024</td>
<td>64.0</td>
<td>+</td>
<td>60</td>
<td>+</td>
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</table>

### CONNECTOR PIN ASSIGNMENTS

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>15-HD Function</th>
<th>15-DB Function</th>
<th>TTL 9-D Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red Video</td>
<td>Ground</td>
<td>Ground</td>
</tr>
<tr>
<td>2</td>
<td>Green Video</td>
<td>Red Video</td>
<td>Intensity</td>
</tr>
<tr>
<td>3</td>
<td>Blue Video</td>
<td>Hor. /Composite Sync</td>
<td>Red Video</td>
</tr>
<tr>
<td>4</td>
<td>Not used</td>
<td>Not used</td>
<td>Green Video</td>
</tr>
<tr>
<td>5</td>
<td>Ground</td>
<td>Green/Sync on Green</td>
<td>Blue Video</td>
</tr>
<tr>
<td>6</td>
<td>Ground</td>
<td>Ground</td>
<td>Intensity</td>
</tr>
<tr>
<td>7</td>
<td>Ground</td>
<td>Not used</td>
<td>Intensity</td>
</tr>
<tr>
<td>8</td>
<td>Ground</td>
<td>Not used</td>
<td>Hor. Sync</td>
</tr>
<tr>
<td>9</td>
<td>Not used</td>
<td>Blue Video</td>
<td>Ver. Sync</td>
</tr>
<tr>
<td>10</td>
<td>Ground</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Not used</td>
<td>Ground</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Not used</td>
<td>Ver. Sync</td>
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</tr>
<tr>
<td>13</td>
<td>Hor. Sync.</td>
<td>Ground</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Ver. Sync</td>
<td>Ground</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Not used</td>
<td>Hor. /Composite Sync</td>
<td></td>
</tr>
</tbody>
</table>

### MISCELLANEOUS:

- **Power:** External AC adapter (9v DC 300mA)
- **Dimensions:** 3 1/8” x 9 7/16” x 9 1/4” (including external hardware)
USE of PATTERNS

The primary use of this pattern generator is to provide a quick check of the operating condition of a monitor and to allow for the adjustment of the external controls for the best performance.

CROSSHATCH or DOT --- These patterns are used to check static and dynamic convergence, linearity and pin cushion settings.

COLOR BARS ---- The color bars are used to test the monitors ability to produce proper colors.

RASTER ---- Typically used to check the purity of the primary colors. When these are properly adjusted the white raster should appear pure white.

Service Information

Contact B&K Precision to receive a repair Return Authorization tracking number. This number must be clearly written on the exterior of the shipping carton and will assist us with the processing of your return. Return all merchandise to B&K Precision Corp. with pre-paid shipping. The flat-rate repair charge includes return shipping to locations in North America. For overnight shipments and non-North America shipping fees contact B&K Precision Corp.

Warranty Service: Please return the product in the original packaging with proof of purchase to the below address. Clearly state in writing the performance problem and return any leads, connectors and accessories that you are using with the device.

Non-Warranty Service: Return the product in the original packaging to the below address. Clearly state in writing the performance problem and return any leads, connectors and accessories that you are using with the device. Customers not on open account must include payment in the form of a money order or credit card. For the most current repair charges contact the factory before shipping the product.

B&K Precision Corp.
1031 Segovia Circle
Placentia, CA 92870
Phone: 714-237-9220
Facsimile: 714-237-9214

Include with the instrument your complete return shipping address, contact name, phone number and description of problem.
Limited One-Year Warranty

B&K Precision Corp. warrants to the original purchaser that its product and the component parts thereof, will be free from defects in workmanship and materials for a period of one year from the date of purchase.

B&K Precision Corp. will, without charge, repair or replace, at its' option, defective product or component parts. Returned product must be accompanied by proof of the purchase date in the form a sales receipt.

To obtain warranty coverage in the U.S.A., this product must be registered by completing and mailing the enclosed warranty card to B&K Precision Corp., 1031 Segovia Circle, Placentia, CA 92870 within fifteen (15) days from proof of purchase.

Exclusions: This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alternations or repairs. It is void if the serial number is alternated, defaced or removed.

B&K Precision Corp. shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights and you may have other rights, which vary from state-to-state.

Model Number: ____________ Date Purchased: ____________

1031 Segovia Circle
Placentia, CA 92870

714.237.9220 VOICE
4.237.9214 FAX

OTHER TEST & MEASUREMENT PRODUCTS AVAILABLE FROM B&K PRECISION

B & K Precision offer many different types of electronic test equipment to suit your needs. Below is a list of the different product categories we offer.

- High-Performance Oscilloscopes
- Oscilloscope Accessories
- High Performance Multimeters
- Handheld Digital Multimeters
- Bench Top Digital Multimeter
- Digital Multimeter Accessories
- Power Supplies
- Function Generators
- Frequency Counters
- Spectrum Analyzers
- SIMM Module Tester
- Universal Device Programmers
- Insulation Testers
- Digital Thermometers
- Capacitance & Semiconductor Testers
- Component Testers
- LCR Meters
- Telephone Product Testers
- Video Testers
- CRT Tester/Restorer & Analyzers

For more information on these products please contact B&K Precision for your local distributor or to request literature. You can contact us at:

B&K Precision Corp. 1031 Segovia Circle • Placentia CA, 92870

PHONE (714)-237-9220 • FAX (714)-237-9214

(800)-462-9832

www.bkprecision.com