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MODEL 606, 607, 608, 609 Video Test Generators *Quick Start Guide*

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Preparation for first time use

Battery Types Used

The Model 606, 607, 608 and 609 generators come with four (4) size AA rechargeable Nickel Metal Hydride (NiMH) batteries. These 1500 mA-H rated batteries can normally be recharged about 1000 times before needing replacement. **Only suitable NiMH batteries can be safely recharged in the generator.**

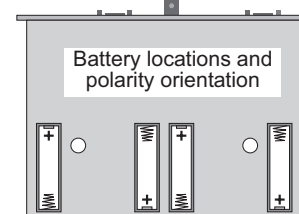
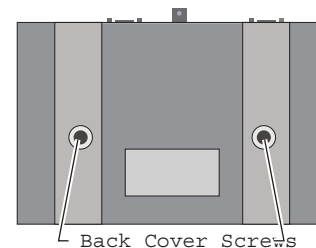
You can use alkaline AA batteries with the generator provided that you never use an external power supply with the generator while the alkaline cells are in the unit. **Attempting to operate the generator or recharge alkaline cells with the external power supply may cause operator injury and/or damage the generator!** Never mix battery types in the generator.

AC Power Supply

The AC power supply that comes with the generator has an input voltage range of 100-240 VAC from 47 to 63 Hz. The output is rated at 9.0 VDC @ 1.67 Amp. This is sufficient to operate the generator and recharge the batteries at the same time. **Attempting to operate the generator or recharge the batteries with any other type of external power supply may cause operator injury and/or damage to the generator!**

Battery Installation

- 1) Place the generator face down on a suitable padded surface.
- 2) Remove the two back cover screws shown in the top figure.
- 3) Lift the back cover off the generator and locate the four battery holders as shown in the middle figure.
- 4) Install the batteries making sure to match up their polarities for each battery holder. The supplied batteries may not have any printed polarity indication. The outer metal can is the negative terminal. The insulated metal button as shown in the end view in the lower figure is the positive terminal.
- 5) See the information on page 8 to determine if the jumper should be set to enable user re-calibration of the output levels.
- 6) Replace the back cover and retaining screws.
- 7) The supplied batteries may not come fully charged. Connect the supplied Quantum Data AC power supply and charge the batteries for at least 8 hours.

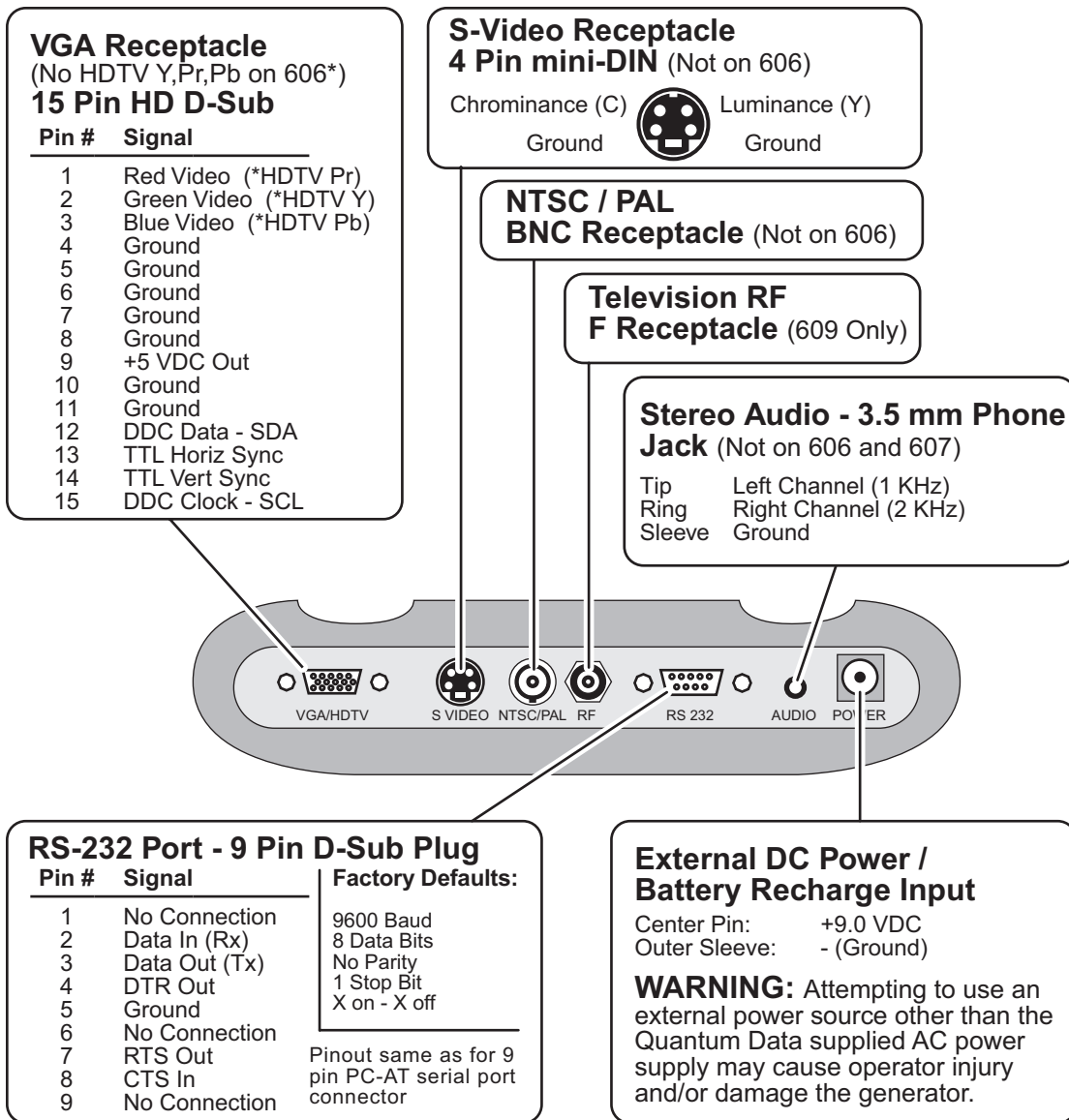


Low Battery Indication

A "BATTERY LOW" message will blink on the LCD when the NiMH batteries need recharging or alkaline cells need replacement.

Making Connections

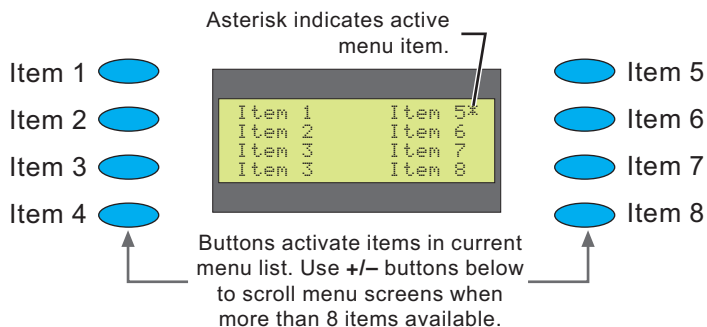
Test Signal Output Connectors



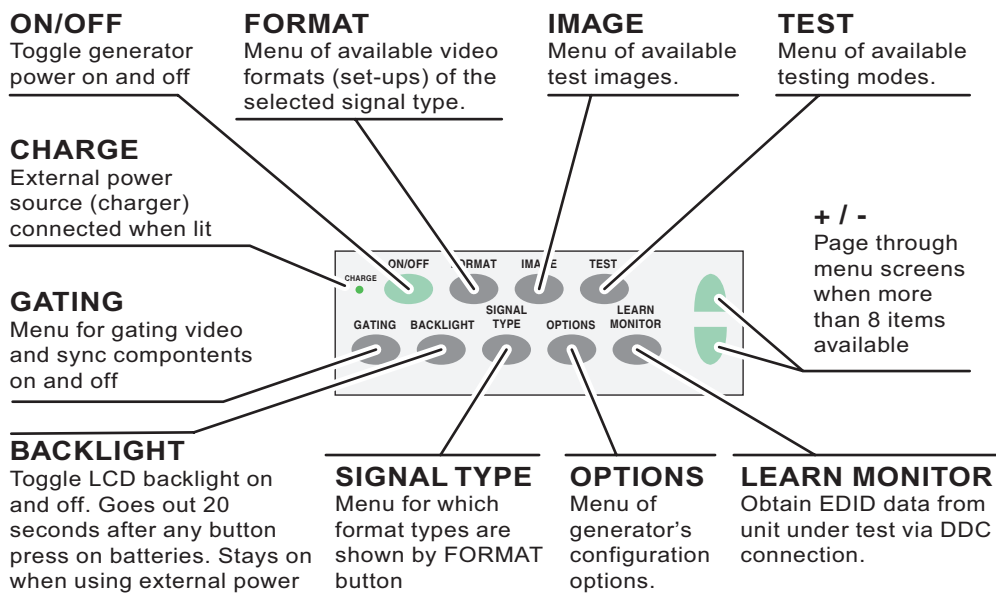
Front Panel Controls and Indicators

LCD Window

The LCD window either displays messages to the operator or shows a selection menu. The figure shows an example of a selection menu.



Function Buttons

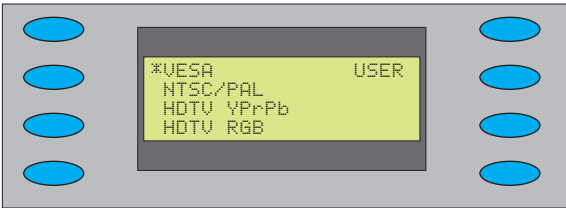


Signal Type and Format Menus



Signal Type Menu

Selecting one of the video types shown will display a menu list of matching formats. Pressing the FORMAT button will return to the selected menu list

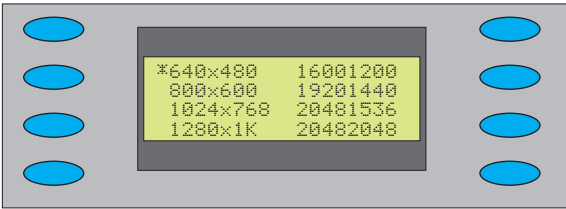


- NOTES:**
- VESA** = Red, Green, Blue component color video per VESA standards. (VGA connector used for all outputs)
 - NTSC/PAL** = Composite color baseband video signal (BNC connector) and Separate Luminance and Chrominance video signals (S Video connector) or RGB component video (VGA connector) per NTSC and PAL standards.
 - Formats in the **Format** menu using modulated RF output (Model 609 only) will have a **_Cnn** in their name where the **nn** portion represents the given NTSC-M or PAL-G television channel used.
 - HDTV YPrPB** = Luminance plus color difference signals per HDTV standards
 - HDTV RGB** = RGB component color video signals per HDTV standards
 - USER** = Section of non-volatile memory reserved for user defined video formats of any type.



Format Menu

Select from list of video formats stored in the generator's memory of the type selected from the **Signal Type** menu. Use **+/-** buttons to page through list when more than 8 items of a given type are available. You can use the Quantum Data VGM software package to add your own formats. You can also edit or replace any of the factory default formats. A total of 120 video formats can be stored in the generator's non-volatile memory. Unused locations are labeled on the LCD as being empty.



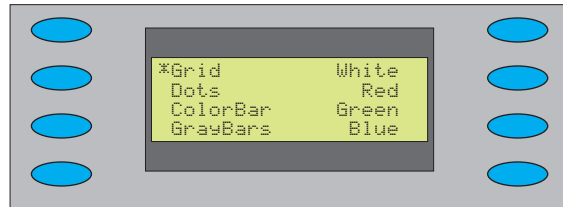
The **Options** menu allows you to remove all formats from all storage locations as well as put all factory default formats back into their original locations.

Image and Gating Menu

Image Menu



Select from list of available test images (patterns). Use +/- buttons to page through list if more than 8 items. The current firmware does not support adding your own test images or modifying the built-in ones.

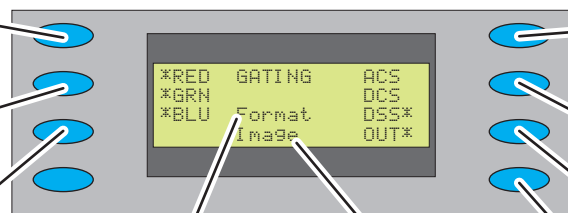


Gating Menu

Red Color Component ON/OFF

Green Color Component ON/OFF

Blue Color Component ON/OFF



Current Video Format

Current Test Image

ACS - Select Analog Composite Sync (Composite Video)

DCS - Select Digital Composite Sync

DSS - Select Digital Separate (H&V) Sync

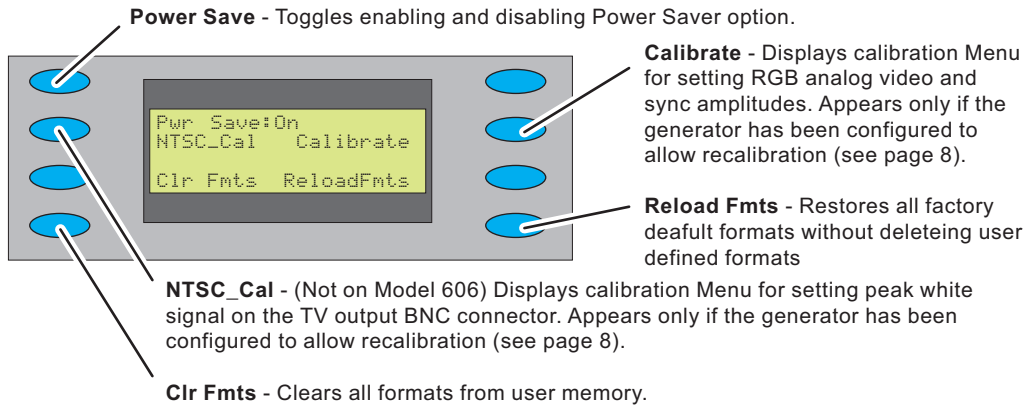
OUT - All test signal outputs ON/OFF

Options Menu - Clear Formats, Reload Formats



Options Menu

This menu is used for system level options.



Options Menu - Pwr_Save Button (added in version 2.02 firmware)

When On and running from batteries: Unit will shut down after 30 minutes of no front panel activity and the unit is not running in Burn-in test mode.

When On and running from external power: Current units ignore 30 minute shutdown timer. Older units updated to current firmware will shut down after 30 minutes of no front panel activity and the unit is not in Burn-in test mode.

When Off: Unit ignores 30 minute shutdown timer and will continue to operate from either an external power source or until the internal batteries are discharged.

Options Menu - Clr Fmts and Reload Fmts Buttons

Pressing the **Clr Fmts** button displays a confirmation request menu to clear all formats in memory. **Selecting Yes will cause all video formats in memory to be lost. There is no way to abort or undo this operation.** The LCD window will show "Initializing EEROM" when the process is completed. Pressing the **FORMAT** button will display the Formats menu to list the restored memory contents.

Pressing the **Reload Fmts** button restores all factory default formats to their original memory locations. Any user formats in those locations will be lost. User formats saved in other memory locations are left alone. The LCD will show **Reloaded** when the process is completed.

Options Menu - Output Calibration

All Model 606, 607 and 608 video test generators use programmable hardware to set all of the amplitude calibration factors analog video outputs. These calibration factors are stored in Flash EPROM and are not lost if the batteries are run down or removed. Firmware updates will not affect these factors in most cases. A hardware jumper inside the unit enables user modification of the settings.

All generators leave our factory with the analog video and sync output amplitudes calibrated to published specifications. You can recalibrate these amplitudes over a nominal range to meet your specific testing conditions.



WARNING: There is no way to recall any of the original factory calibration settings once you have saved any of your own settings. Saving your calibration settings or resetting to nominal overwrites all previously saved factory or user settings.

Equipment needed

DC voltmeter capable of measuring from 0 to 1 volt with a minimum resolution of 2 millivolts

Precision 75 ohm (+/- 1%) input terminator for the meter

Test cable to connect the voltmeter to the R, G, B and Ground pins on the VGA connector.

Additional Equipment for Model 608 NTSC Output Re-calibration:

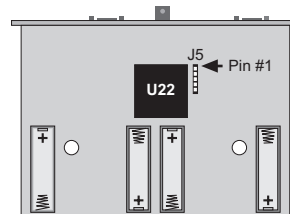
Oscilloscope with a precision 75 ohm (+/- 1%) input impedance and suitable gain and bandwidth to display a 1.00 Volt pk-pk signal with 3.579 MHz color carrier

One 75 ohm coaxial cable to connect the oscilloscope to the BNC TV output.

Enabling user re-calibration

All generators leave our factory with an internal hardware jumper set to disable user modification of the calibration settings. You can check the current jumper setting by turning on the generator and pressing the OPTIONS button. If "Calibrate" is one of the menu choices, the jumper is set to enable re-calibration. The following steps describe changing the jumper setting if the menu choice does not appear.

- 1) Turn off the generator and follow the directions on page 2 for removing the back cover.
- 2) Locate **J5** as shown in the figure on the right.
- 3) The generator leaves our factory with a removable shorting jumper on **pin 1** or **pin 2**. You will need to provide a suitable shorting jumper to enable user calibration if the original jumper is missing.
- 4) Place the jumper so it connects **pin 1** to **pin 2**. Placing the jumper so that it only connects to pin 1 or pin 2 will disable user calibration.
- 5) You can replace the back cover but do not need to screw it down if you intend to reset the jumper after performing the re-calibration. You can replace the screws if you intend to leave the jumper as is. The re-calibration procedure does not require access to any test points inside the case.



Options Menu - Output Calibration Continued

Setting calibration factors to nominal values

The **Reset** selection in the main calibration menu (top figure on right) sets all of the generator's calibration factors to default nominal values. You need to select "Yes" in the following confirmation menu to reset.

Nominal values are not the same as the factory set values for a given unit. This operation overwrites any previously saved calibration factors and can not be undone.

Calibration Procedure

- 1) Make sure the generator is running with fully charged batteries or from the external AC power supply.
- 2) Press the OPTIONS button and select **Calibrate**. See the previous section, *Enabling user-calibration*, if the selection is not listed.
- 3) You will get the menu shown in the first figure on the right. Select **Full Scale** to get the menu shown in the second figure.
- 4) Make sure that the DC Volt meter has a 75 ohm (+/- 1%) input termination in place. This termination is required for all calibration steps. The negative lead of the meter connects to any ground pin (4, 5, 6, 7, 8, 10 or 11) on the VGA connector for all steps.
- 5) Set the meter's scale factor to be able to measure a nominal 1000 millivolts DC and connect the positive input to the generator's red output (pin #1 of VGA connector).
- 6) Use the **R_FS+** and **-R_FS** menu buttons to set the DC output level to 1000 mV +/- 3 mV.
- 7) Move the meter input to the generator's blue output (pin #3 of VGA connector) and use the **B_FS+** and **-B_FS** menu buttons to set the DC output level to 1000 mV +/- 3 mV.
- 8) Move the meter input to the generator's green output (pin #2 of VGA connector) and use the **G_FS+** and **-G_FS** menu buttons to set the DC level to 1000 mV +/- 3 mV.
- 9) Press **Save** and then the **Back** menu button to return to the previous menu.
- 10) Select **Zero** to get the menu shown in the third figure.
- 11) Move the meter input to the generator's red output and use the **R_Zero+** and **-R_Zero** menu buttons to set the DC output level to 0 mV +/- 3 mV.
- 12) Move the meter input to the generator's blue output and use the **B_Zero+** and **-B_Zero** menu buttons to set the DC output level to 0 mV +/- 3 mV.
- 13) Move the meter input to the generator's green output and use the **G_Zero+** and **-G_Zero** menu buttons to set the DC level to 1000 mV +/- 3 mV.
- 14) Press **Save** and then the **Back** menu button to return to the previous menu.
- 15) Select **Blank** and then use the **Blank+** and **-Blank** menu buttons to set the DC level for the green output to 286 mV +/- 3 mV. Press **Save** then **Back** menu buttons to return to the previous menu.

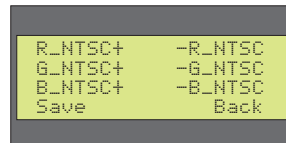
```
Calibrate
Black      Blank
Full Scale Zero
Reset      BP Sync
```

```
R_FS+      -R_FS
G_FS+      -G_FS
B_FS+      -B_FS
Save       Back
```

```
R_Zero+    -R_Zero
G_Zero+    -G_Zero
B_Zero+    -B_Zero
Save       Back
```

Options Menu - Output Calibration Continued

- 16) Select **Black** and then use the **Black+** and **-Black** menu buttons to set the DC level for the green output to 340 mV +/- 3 mV. Press **Save** and then the **Back** menu button to return to the previous menu.
 - 17) This completes the calibration adjustments for a Model 606 generator.
Skip steps 18 through 28 for the Model 606 and continue with step 29.
 - 18) Select **BP_Sync** and then use the **BP_Sync+** and **-BP_Sync** menu buttons to set the DC level to 600 mV +/- 3 mV. Press **Save** and then the **Back** menu button to return to the previous menu.
 - 19) This completes the calibration adjustments for a Model 607 generator.
Skip steps 20 through 28 for the Model 606 and continue with step 29.
 - 20) Disconnect the DC voltmeter from the generator and connect an oscilloscope to the NTSC/PAL connector on the generator using a suitable 75 ohm coaxial cable. Make sure that oscilloscope has a 75 ohm input impedance or that you have a suitable 75 ohm terminator attached if it has a high impedance input.
 - 21) Press the OPTIONS button and select **NTSC_CAL**. You will get the menu shown on the right.
 - 22) Adjust the oscilloscope's timebase and sweep trigger to view one stable horizontal scan line of video. Adjust the oscilloscope's gain and vertical positioning so that you can see both the blanking and peak (white) video levels. The sync tips do not need to be displayed.
 - 23) Adjust the Red, Green and Blue calibration factors to get minimum pk-pk color sub-carrier modulation of the white level. If the modulation increases, you are adjusting in the wrong direction. First adjust Green, then Red and then Blue.
 - 24) Increase or decrease Red and Green by equal amounts to set the average white video level to 714 mV (+/- 5 mV) above Blanking.
 - 25) Adjust Blue for minimum modulation.
 - 26) Individually adjust Red and Green to get a 714 mV (+/- 5 mV) average white level with minimum sub-carrier modulation.
 - 27) Adjust Blue for minimum modulation.
 - 28) Repeat steps 26 and 27 until the average white level is 714 mV (+/- 5 mV) and sub-carrier modulation can not be reduced any further.
- Note:** The modulated RF output on the Model 609 does not have any calibration settings.
- 29) Remove the shorting jumper between pins 1 and 2 on J5 if you wish to prevent someone from changing the calibration settings. The jumper can be positioned to just attach to pin 1 or pin 2 in this case.
 - 30) Make sure the rear cover is fastened back in place as described on page 2.



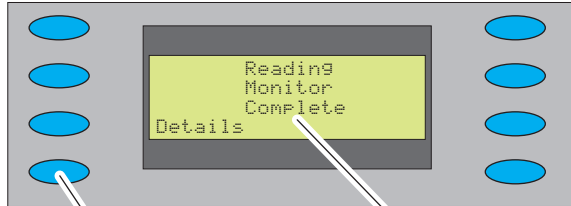
```
R_NTSC+   -R_NTSC
G_NTSC+   -G_NTSC
B_NTSC+   -B_NTSC
Save      Back
```

Learn Monitor Function (DDC/EDID Data)



Learn Monitor

Reads back EDID data from a VESA® DDC compliant display connected to the generator's VGA output. A list of standard VESA video formats supported by the monitor is extracted from the EDID data and compared against all of the VESA formats in the generator's built in library. A table is then built of all the matching formats. This table can be viewed by pressing the **EDID Detail** menu button. This table of formats is used for the DDC Step Test function.



Show details of EDID after successful read back from display under test

Complete indicates EDID data was read back correctly.
Failed indicates unable to read back valid EDID data

EDID Detail

Lists all of the matching VESA standard video formats from the last successful **Learn Monitor** operation. The list is left as is if the operation fails. The **+/-** buttons can be used to page through the list if there are more than eight (8) learned formats. You can not select the formats using the menu buttons. However, you can go through all the formats using the DDC Step Test function.

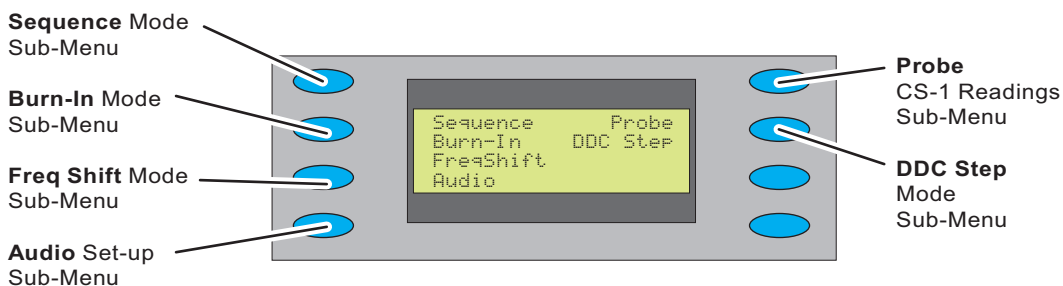
NOTE: It is possible that the display's EDID data will include non-VESA formats. These non-standard formats will not be listed.

Test Menu and Sequence Mode Sub-menu



Test Menu

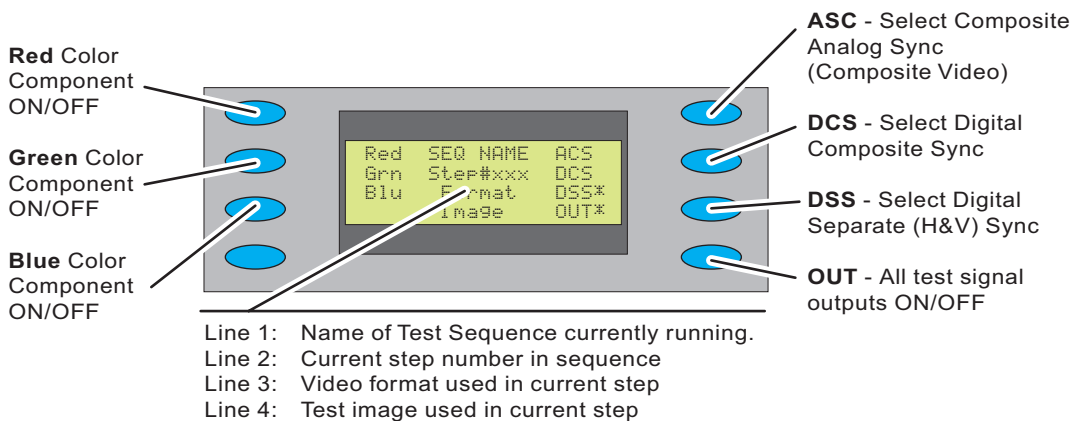
Select special test operating modes.



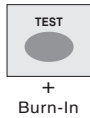
+
Sequence

Sequence Mode

Uses +/- buttons to manually step through a sequence of defined tests. Each step loads a given video format and test image. Menu buttons permit the operator to gate video color information, change sync types and turn all signal outputs on and off. The current firmware includes a sample test sequence. You can use Quantum Data's VGM software to create and save your own test sequence. Use the Burn-in Test menu selection if you wish for the generator to automatically cycle through all of the steps.

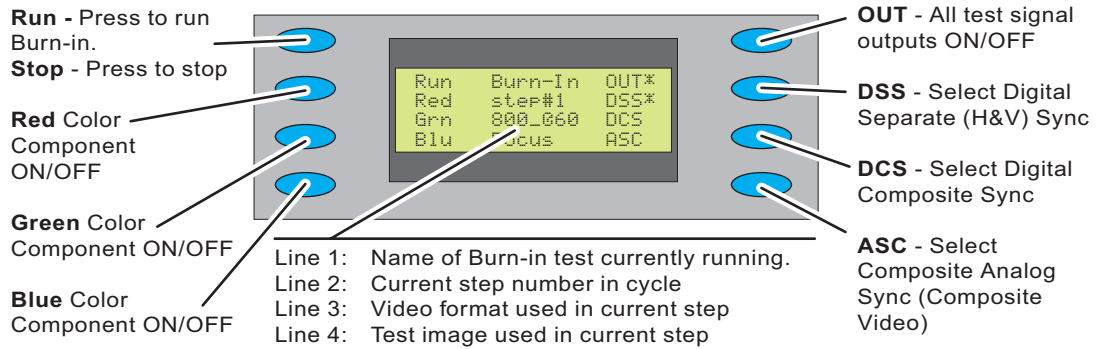


Burn-in Mode, and Frequency Shift Sub-menus

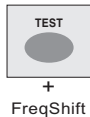


Burn-in Mode

Uses **Run/Stop** menu button to have the generator automatically and continuously cycle through a sequence of defined tests. Each step loads a given video format and test image. Menu buttons permit operator to gate video color information, change sync types and turn all signal outputs on and off. The current firmware includes a sample burn-in sequence. Future versions of generator firmware and Quantum Data's VGM software may permit user defined burn-in sequences to be created and downloaded into the generator.

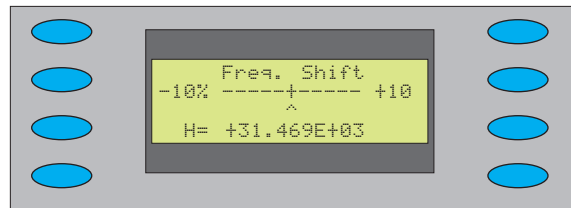


NOTE: The 30 minute Power-Save Timer is ignored when running in Burn-in mode. The unit will continue to operate until the battery charge is exhausted if running from internal batteries.



Freq Shift Mode

Uses **+/-** buttons to increase and decrease the horizontal scanning frequency of the current video format +/- 10% in 2% increments. The ^ pointer indicates the percent deviation and the bottom number shows the actual frequency.



DDC Step and Probe Mode Sub-menus



+
DDC Step

DDC Step Mode

Uses + button to step through video formats in list produced by *Learn DDC* function. Uses - button to step through all available test images. Pressing **Run** menu button causes generator to automatically cycle through all test images for every video format in the list. Pressing **Stop** menu button restores manual stepping.

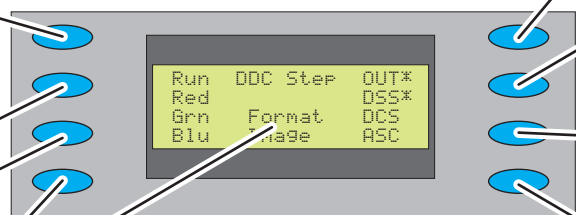
Run - Press to run
Automatically cycle
through all format and
test images

Stop - Press to return to
manual format and
image stepping

Red Color Component
ON/OFF

Green Color
Component ON/OFF

Blue Color Component
ON/OFF



Line 1: Video format used in current step

Line 2: Test image used in current step

OUT - All test
signal outputs
ON/OFF

DSS - Select
Digital Separate
(H&V) Sync

DCS - Select
Digital Composite
Sync

ASC - Select
Composite Analog
Sync (Composite
Video)

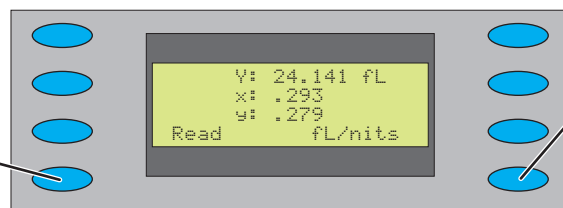


+
CS1 Probe

CS-1 Probe Test Mode

Uses the Quantum Data Model CS-1 color sensor to measure the chromaticity and luminance (brightness) of the test CRT display. The CS-1 probe connects directly to the serial port on the generator. Chromaticity is shown as x,y C.I.E. coordinates and the luminance (Y) can be shown either in units of foot-Lamberts or nits. The CS-1 needs to be over a fully lit white area of the CRT screen for accurate readings. The built-in Flat_Wht test image is suitable for use with the CS-1

Read - Take new
reading.



fL/nits - Toggle
between foot-
Lamberts and
nits for units of
measure and
take new reading.

Error Codes: 1, 7 - CS-1 not seeing a usable test image.
5, 8 - Generator did not find a Model CS-1 probe.
2, 3, 6 - Probe malfunctioning.

Audio Mode Sub-menu and Installing Firmware

Audio Menu



Audio menu buttons independently toggle stereo audio output channels on and off (Models 608 and 609 only).

Left channel is also as the monophonic audio source for the modulated RF output on the Model 609.



Installing New Generator Firmware

The generator's operating system firmware is stored in Flash EPROM that can be updated via the serial port

Firmware updates are available from <http://www.quantumdata.com/support/downloads/>.

To install a firmware update:

1. With the generator turned off, connect it to the PC using a suitable null modem serial cable.
2. Hold down the upper left menu button on the generator and press the POWER button for about one second and then release both buttons. The LCD screen will indicate the unit is ready for the upload. (NOTE: Remove batteries and external power if you need to cancel the upload)
3. Expand the .zip archive file that contains the firmware update.
4. If you have HyperTerminal, double-click the HyperTerminal setup file (QD60x Upgrade.ht) to start HyperTerminal with the proper communications setup. (If you are using a Com port other than Com 1, in HyperTerminal choose File > Properties to select the desired Com port.)
If you are using a terminal communications program other than HyperTerminal, set your communications parameters to 9600 bps, 8 data bits, 1 stop bit, no parity, software handshaking (Xon / Xoff), and ANSI terminal emulation.
5. In HyperTerminal, select Transfer > Send Text File.
6. In the Send Text File dialog box, double-click the firmware filename to start the transfer.
The generator will display the progress of the update and then go through a power up cycle at the completion of the update. The model number and firmware revision number will be on the LCD.
7. Press the OPTIONS button on the generator and then select "Clear Fmts" from the menu. When asked to confirm clearing the formats memory, press the Yes button.
8. After all locations are cleared, press the Options button, and then select Reload Fmts. This will load the nonvolatile memory with the new firmware's factory default formats.


Operating with VGM Software

Current Capabilities

The current firmware in the Model 606, 607 and 608 generators allows you add and delete video formats and test sequences that are stored in the generator's non-volatile memory. About 120 formats and one test sequence can be stored with the current firmware. The easiest way to create and edit formats and sequences is to use Version 3.00 of Quantum Data's Video Generator Manager (VGM). The current release of VGM was originally created for use with our Model 801, 802 and 822 video generators. It has limited support for the Model 600 series. You can download, edit and upload video formats and sequences using the current releases of firmware and VGM 3.00. VGM 3.00 runs under MS-Windows 95, 98 and recent versions of NT.


Please refer to the VGM 3.00 help file for additional information on performing specific steps.

Connecting to the Generator

- 1) Connect the generator to the computer using a suitable RS-232 cable.
- 2) Install the VGM software if you have not all ready done so and start VGM.
- 3) Click the  Connect button on the main VGM screen and then choose the correct serial port connection from the port selection dialog box. VGM will attempt a connection at the Model 800 series default rate of 2400 Baud and then scan through the rates until it finds the Model 600 series' 9600 Baud rate.
- 4) The generator will now be listed in the connections pane of the Main VGM screen. Double click on the Generator's entry in that pane.
- 5) VGM will scan the contents of the generator for lists of available formats and test images and then open a Generator screen.

Programming Video Formats with VGM Software


Selecting a Format to Edit

- 1) You can either choose to start with a default format in the VGM format editor or choose any of the formats available in the generator. Refer to the VGM help file for information on using the VGM's default format.
- 2) If you want to edit one of the formats available in the generator, you start from the list of available formats. The instruction on the previous page tell you how to get to this point.
- 3) Select the format you wish to edit by single clicking its name in the list. Click the  Load Data button to load the format into the Main VGM screen's buffer pane.
- 4) Double click on the format in the buffer pane. This will start the format editor using the selected format's information.

Using the Format Editor


The format editor works as described in the VGM help file except that the physical size entries have no affect on how test images are displayed on the Model 600 series. However, the integer portion of the horizontal size in millimeters is used to identify the storage location of the format in the generator. Unlike our other models, the generators in the 600 series store formats by specific numeric locations and not by name. If you do not change this number, the edited format will replace the previous version of the format when you upload it back to the generator. You will not get any warnings that you are about to overwrite a memory location.

Saving a Format and Uploading it to the Generator

- 1) You need to save your edited format to disk before you can upload it to the generator. Select **File > Save As** from editor menu bar and select a suitable name and storage location.
- 2) Select the edited format in the Main VGM buffer pane and select the generator in the connections pane.
- 3) Click the  Send Data button to upload the selected format to the selected generator. The format will be stored using the numbered storage location set in the editor.
- 4) You will need to disconnect from the generator, power cycle the generator, and reconnect in order for the added format to appear in the list of available formats.

Programming Test Sequences with VGM Software

Selecting a Sequence to Edit


- 1) You can choose to start with a blank default sequence in the VGM Sequence editor, the sequence currently saved in the generator or a previously created sequence saved on disk. Refer to the VGM help file for information on using the VGM's default sequence or sequence saved on disk.
- 2) If you want to edit the sequence saved in the generator, start by clicking the  Sequence List Button on the VGM Generator screen.
- 3) Select the Sequence (there is only one) by single clicking its name in the list. Click the Load Data button to load the Sequence into the Main VGM screen's buffer pane.
- 4) Double click on the Sequence name in the buffer pane. This will start the Sequence editor using the selected Sequence's information.

Using the Sequence Editor

The basic operation of the Sequence editor is as described in the VGM help file except that the current generator firmware only supports selecting a format and test image for each step. Any output gating or sync selections made for a given step will be ignored by the generator. You must also explicitly name a format and image for each step. Unexpected formats and images may load if you leave either the format or image selection as "No Change" from the previous step. Also, you can not test or play the Sequence with VGM. The Sequence will only work using the generator's front panel buttons.



Saving a Sequence and Uploading it to the Generator

- 1) You need to save your edited Sequence to disk before you can upload it to the generator. Select **File > Save As** from editor menu bar and select a suitable name and storage location.
- 2) Select the edited Sequence in the Main VGM buffer pane and select the generator in the connections pane.
- 3) Click the  Send Data button to upload the selected Sequence to the selected generator, overwriting the previously stored Sequence. Only one Sequence can be stored in the generator at any given time. You will get a warning if you start to save a Sequence using the same name as the currently stored Sequence.

Specifications Summary

Video Formats:

Storage: 100 Total
Built-in: VESA Standards
NTSC (607, 608, 609)
PAL (607, 608, 609)
HDTV (608, 609)
Edit Method: Quantum Data's MS-Windows based VGM software

Test Patterns (Images)

Blank Raster, Flat White, Flat Red, Flat Green, Flat Blue, Grid, Grids, Overscan, Cutoff, Window, Focus, Color Bar, Gray Bar, HV Regulation, Dots, SMPTE Bar, Ramp, Burst, Pulse Bar

Horizontal Timing

Frequency: 1 KHz to 250 KHz
Total Pixels: 144 to 4096
Active Range: 16 to 4096 pixels

Vertical Timing

Frequency: 1 Hz to 650 Hz
Active Lines: 1 to 4096
Scan Types: Progressive, 2:1 Interlace

Sync Types

Separate Digital Horizontal and Vertical
Digital and Analog Composite
Bipolar HDTV (608, 609)

Video Outputs

Timing Accuracy: 2%
Connectors: See diagram on page 3.

RF Output (Not all Models)

Channels: UHF channels with frequencies per NTSC (M) and PAL (G). Specific channel usage/availability determined by current firmware.
Video: Color per NTSC (M) and PAL (G)
Audio: Mono 1 KHz Tone per NTSC (M) and PAL (G)
Connector: Female F type

Audio Outputs (Not all Models)

Connector: 3.5 mm Stereo phone jack
See pg. 3 for wiring info.
Signals: Left — 1 KHz Tone
Right — 2 KHz Tone

User Interface

Display: 20x4 character backlit LCD
Buttons: 9 function buttons, 8 Menu buttons, 2 page up/down buttons. See page 4 for more information.

Computer Interface

Type: RS-232, 9 pin D-sub
See pg. 3 for pinout
Protocol: 9600 Baud, 8-N-1, Xon/Xoff

VESA EDID/DDC Support

Reads a monitor's EDID data through HD-15 VGA connector and shows list of supported standard formats. DDC test mode for cycling through supported standard formats.

Battery Power Operation

Type: Four AA batteries installed internally.
1500 mA-H rated rechargeable NiMH batteries supplied with unit.
Use Time: 8 hours typical with supplied NiMH batteries when fully charged. Shortened when using backlight or RF output.

AC Power Operation

Type: External Charger / Power Supply supplied with unit
AC Input Range: 86 to 250 VAC @ 46 to 66 Hz

Generator Size and Weight

Size: 5.5 x 8.25 x 2 inches
140 x 210 x 51 mm
Weight: 4 lb. w/ supplied batteries installed



Who to contact if you have questions or require service

United States

Quantum Data, Inc. Elgin, IL Headquarters

Tel: (847) 888-0450 -or-
1-888-252-6133 for support
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Singapore and Malaysia Test System Integration

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E-mail: tsics@singnet.com.sg

Taiwan SuperLink Technology Corp.

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E-mail: stc@tpts1.seed.net.tw

Declaration of Conformity

Manufacturer's Name: Quantum Data, Inc.
Manufacturer's Address: 2111 Big Timber Rd.
Elgin, IL 60123-1100; USA

The manufacturer hereby declares that the product:

Product Name: Video Test Generator
Model Numbers: 606, 607, 608, 609

conforms to the following standards or other normative documents:

CENLEC EN55022, RF Emissions: 1998

EN55022 Conducted Emissions, AC Mains (0.15-30 MHz) Class A
EN55022 RF Radiated Emissions (30-1000 MHz) Class A

CENLEC EN61326, Electrical Equipment for measurement, control and laboratory use - EMC Requirements: 1997

Complies with Sections Listed Above

89/336/EEC EMC Directive

Supplementary Information

The external power supply and power cord supplied with the unit are required for electromagnetic compatibility.

Use of premium quality shielded cables is required for electromagnetic compatibility.

When and Where Issued

07-September-2001
Romeoville, IL; USA

Marks of Compliance



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Documentation based on firmware version: 2.02.

"Model 606, 607, 608, 609
Quick Start Guide"
Part# 68-00189
Rev. I (15-May-2003)