Setup Guide — RGB 580xi

This guide provides basic instructions for an experienced installer to set up and operate the Extron RGB 580xi.

IMPORTANT: Refer to www.extron.com for the complete user manual and installation instructions before connecting the product to the power source.

Installation

Refer to the *RGB 580xi User's Manual* for details.

CAUTION *Installation and service must be performed by authorized personnel only.*

Step 1 — Powering down

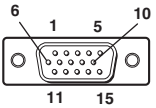
Turn off or disconnect all equipment from power sources.

Step 2 — Mounting

Mount the interface as desired.

Step 3 — Video input

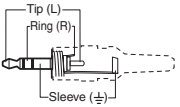
Connect an RGBHV, RGBS, RGsB, or RsGsBs analog video input to the front panel 15-pin HD input connector. The pinout table is shown below.



Pin	Description	Wire ID	Pin	Description	Wire ID
1	red signal	red coax	10	horizontal sync ground	black coax shield
2	green signal	green coax	10	vertical sync ground	yellow coax shield
3	blue signal	blue coax	10	audio ground	black wire
4	horizontal shift +	green wire	10	LED ground	yellow wire
5	horizontal shift –	brown wire	10	shift ground	grey wire
6	red coax ground	red coax shield	11	audio right	red wire
7	green coax ground	green coax shield	12	audio left	white wire
8	blue coax ground	blue coax shield	13	horizontal sync	black coax
9	LED red	orange wire	14	vertical sync	yellow coax
			15	LED green	pink wire

Step 4 — Audio input

Connect an unbalanced stereo input to the front panel 3.5 mm stereo mini jack.



Step 5 — Video output

Connect a display device to the rear panel video output BNC connectors, as shown below.

RGBHV

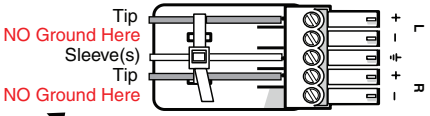
RGBS

RGsB (Sync on Green)

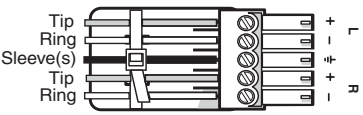
RsGsBs (output only if input is RsGsBs)

Step 6 — Audio output

Connect an audio device to the 3.5 mm, 5-pole captive screw connector for balanced or unbalanced audio output. Wire the male connector as shown here.



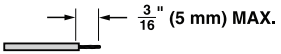
Unbalanced Audio Output



Balanced Audio Output

CAUTION

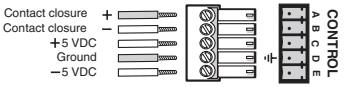
For unbalanced audio, connect the sleeve(s) to the ground contact.
DO NOT connect the sleeve(s) to the negative (-) contacts.



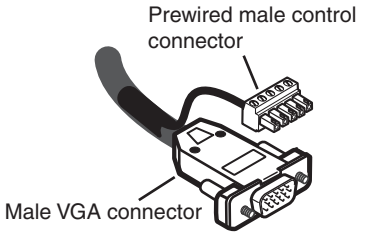
Do not tin the wires!

Step 7 — Contact closure

For contact closure, connect an optional contact closure device to the front panel 5-pin, captive screw connector. Making contact closure between pins A and B transmits a channel signal through the rear panel RS-232 port. The RGB 580xi SI/CCSI AAP models provide one-button contact closure operation. Wire the male connector as shown below on the left. The Extron VGA and control cable assembly comes with the male control connector prewired, as shown at right.



Contact closure wiring



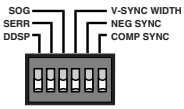
Prewired male control cable connector

NOTE *The contact closure pins on the RGB 580xi's front panel are not to be used for horizontal shift control. See the horizontal shift control wiring in the 15-pin HD pinout table in* ***Step 3****.*

Pin	Contact closure	Description
A	Contact closure +	Contact closure + circuit
B	Contact closure -	Contact closure - circuit
C	+5 V	+5 V source for powering AAP devices
D	Gnd	Signal ground for powering AAP devices
E	-5 V	-5 V source for powering AAP devices

Step 8 — Setting the DIP switches

The DIP switches control DDSP (Digital Display Sync Processing), serration pulse output, SOG (sync on green) output, vertical sync width, sync polarity, and composite sync output. Moving a switch up sets it to On and moving it down sets it to Off.



NOTE *The default for all DIP switches is Off (down).*

1 — DDSP (Digital Display Sync Processing) — This feature may be necessary for digital display devices such as LCD, DLP (digital light processing) and plasma displays. Use this option if the image is not displayed properly after other options, such as serration pulse and vertical sync pulse width, have been explored.

On — The interface uses DDSP instead of ADSP. DDSP does not process the sync signal.

NOTE *DDSP disables the horizontal shifting control.*

Off — The interface performs sync processing operations, such as centering, with ADSP.

2 — Serr (serration pulse) — Many LCD and DLP projectors and plasma displays must have serration pulses removed from the sync signal in order to display properly. Flagging or bending at the top of the video image is a sign that the serration pulses should be removed.

On — The interface outputs serration pulses in the vertical sync interval.

Off — The interface does not output serration pulses.

3 — SOG (sync on green)

On — The interface outputs sync on green.

Off — The interface outputs separate horizontal and vertical sync (on the H and V connectors) for RGBHV.

4 — V-Sync Width (vertical sync pulse width) — For some digital display devices, if no picture appears, the picture cuts in and out, or the picture is scrambled, try adjusting the output vertical sync pulse width or switching from ADSP to DDSP.

On — The vertical sync pulse is narrow.

Off — The vertical sync pulse is wide.

5 — Neg Sync — This switch controls sync polarity.

On — Both the horizontal and the vertical sync signals are forced to negative polarity on output.

Off — Output sync polarity follows (is the same as) input polarity.

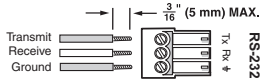
6 — Comp Sync — This switch controls composite sync output.

On — The interface outputs combined horizontal and vertical sync for RGBS.

Off — The interface outputs RGBHV or RGsB video.

Step 9 — RS-232 control

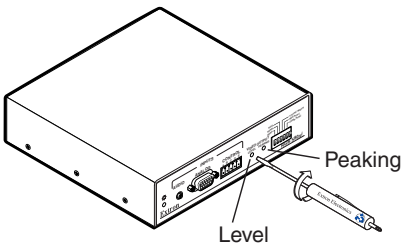
For two-way RS-232 communication, connect an RS-232 device (control system or PC) to the 3-pole captive screw connector. Software for RS-232 control is included with the interface. Refer to the "Remote Control" section of chapter 3 of the user's manual for further details. Wire the male connector, as shown here.



Front Panel Adjustments

Video signals passing through long cable runs of over 125 feet (38.1 meters) can decrease in strength, creating signal loss. The longer the cable, the greater the cable resistance and capacitance, and the greater the level and peaking adjustments that will be required to compensate for the resultant signal loss. These adjustments change the level and peaking of the output signal to compensate for capacitance caused by up to 1000 feet (304.8 meters) of Extron SHR cable.

NOTE *If the displayed image is too bright or too dark, try changing the level setting. If the edges of the displayed image seem to exceed their boundaries, or if thin lines and sharp edges look thick and fuzzy, try changing the peaking setting. See the illustration below.*



1. **Level adjustment control** — The Video Output Level control alters the brightness of the displayed image. To adjust the video output level, view the display while using a small, flat-blade screwdriver to rotate this potentiometer.

   If the interface receives a typical (0.7 volts p-p) analog computer video input, the output is as follows:

- At the minimum level setting (the counterclockwise limit of this control), the interface outputs video at 0.5 volts p-p.
- Unity level is 0.7 volts p-p, the same as the input signal. Set the control to approximately one-half turn between the minimum and maximum level settings to output unity level video.
- At the maximum level setting (the clockwise limit of this control), the interface outputs video at 1.45 volts p-p.

Select a level setting of 0.7 volts or above to compensate for the decrease in signal level that occurs when the signal passes through long cables. Set the level at the maximum setting for cable lengths over 500 feet for all computer signals of 15 kHz to 135 kHz.

2. **Peaking control** — The Video Output Peaking control affects the sharpness of a picture. Increased peaking can compensate for detail (mid- and high-frequency) loss from low bandwidth system components or capacitance in long cables.
   - The minimum setting (at the counterclockwise limit) provides no peaking.
   - The maximum setting (at the clockwise limit) provides 100% peaking.

   Adjust this control while viewing the displayed image to obtain the optimum picture sharpness.

Operation

Turn on the input devices (computer, audio device) and output device(s) (projector, monitors, speakers). After powering up the RGB 580xi, the image should now appear on the screen, and sound should be audible. If you are experiencing problems, please refer to the "Troubleshooting" section of the user's manual.

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