

VGA + RCA to Captive Screw Modules Installation Guide

The Extron VGA + RCA to Captive Screw modules provide a series of wall mounted plates that accept video and audio signals through one female HD 15 connector and one 3.5 mm Tip-Ring-Sleeve (TRS) connector. Depending on the style, there may also be three RCA receptacles. The signals are output from the back of the unit via captive screw connectors. The captive screw connectors will take wires 18 AWG (1.02 mm) to 26 AWG (0.404 mm) in size.

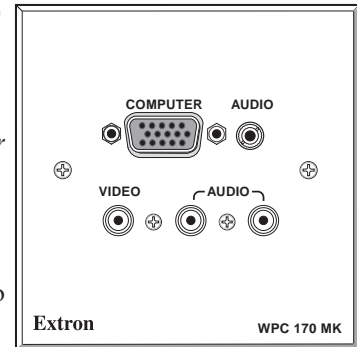
The units come in three different form factors:

- EU, which mounts onto European junction boxes (WPC 150 EU and WPC 170 EU)
- MK, which mounts onto UK junction boxes (WPC 150 MK and WPC 170 MK)
- MAAP, which mounts onto Extron's three-space MAAP products

NOTE In North America, the product must be installed only in UL-listed products or in a listed junction box, in accordance with the National Electrical Code.

Each form factor is available in two styles:

- The VGA + RCA style has a female HD-15 receptacle (RGB video), a 3.5 mm TRS receptacle (balanced or unbalanced audio), and three RCA plugs (composite video and audio).
- The VGA/Audio style has a female HD 15 receptacle (RGB video) and a 3.5 mm TRS receptacle (audio). There are no RCA inputs.



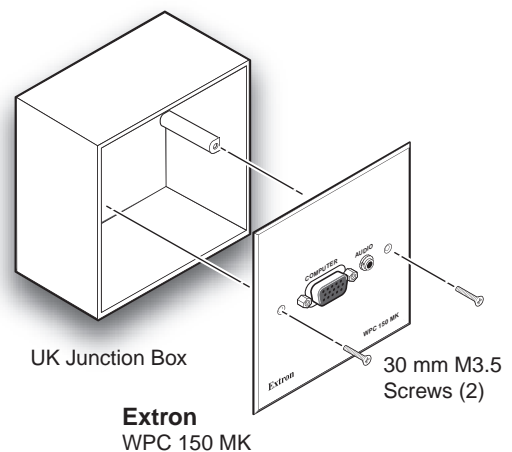
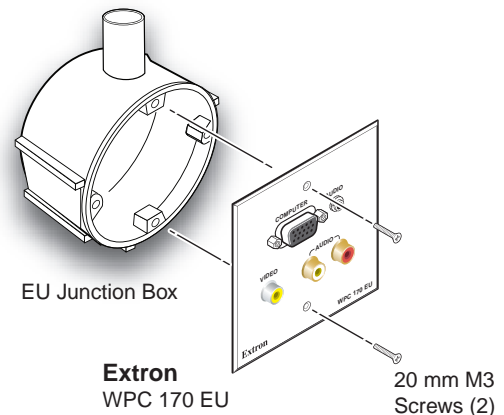
VGA Wiring

NOTE Extron recommends Extron MHR VGA bulk cable (part number 22-024-01) or assembled cables (part numbers 26-112-15, 26-112-36, 26-238-01, and 26-238-25). The wire colors for these products are shown in the VGA Connections table at the top of page 2. If other cable products are used, the colors may not correspond to those shown in the table.

The minimum output wiring requirements for these modules are RGBHV and audio. The DDC and ID bit DIP switches, the +5 V pin, and the DDC pins are optional but they can affect the monitors supported by the system (see the table at right of "DDC and ID bit DIP switch settings" on page 2).

To connect wires from the VGA input to these modules, the wires must be cut to different lengths (see the table in the "VGA Connections" section on page 2). Follow these instructions:

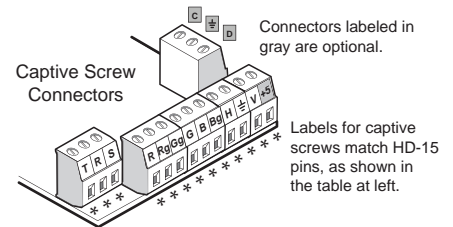
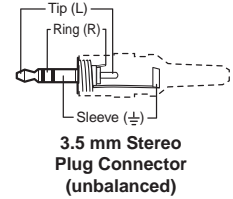
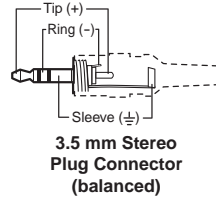
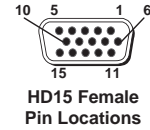
1. Run the unterminated end of the cable to the junction box.
2. Strip away 3 inches from the end of the cable's outer jacket.
3. Unravel each of the coaxial shields and twist each, individually, to make a wire.
4. Cut 1 inch from the end of the individual wires marked with an asterisk in the VGA Connections table on the next page.
5. Strip 3/16 inch (5 mm) of the inner jacket from the end of each wire and secure the wire to the appropriate captive screw connector (see the VGA Connections and RCA Connections tables on the next page).
6. Secure the faceplate to the junction box using the screws provided (see the figures at right).
7. Connect the video/audio device.



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VGA connections

HD-15 pin	TRS	Captive Screw pin	Color
1 Red*		R	Red coax
2 Green*		G	Green coax
3 Blue*		B	Blue coax
4 ID Bit 2		N/A	Green (Not used)
5 Ground		⊕ (right block)	Violet
6 Red Gnd*		Rg	Red coax shield
7 Green Gnd*		Gg	Green coax shield
8 Blue Gnd*		Bg	Blue coax shield
9 DDC +5V* (see note at right)		+5	Gray
10 Sync Gnd*		⊕ (main block)	Black (red/black pair)
11 ID Bit 0		N/A	Blue (Not used)
12 ID Bit 1 or DDC		D	Yellow
13 H sync*		H	Red (red/black pair)
14 V sync*		V	White (white/black pair)
15 ID Bit 3 or Clock		C	Black (white /black pair)
*	Tip	Audio T (Left)	Orange
*	Ring	Audio R (Right)	Brown
*	Sleeve	Audio S (Ground)	Shield

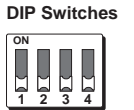


* Cut these wires 1" shorter. See the table at left.

NOTE VGA pin 9 may be used to detect DDC availability. Check the manual for your display to see if this feature is required for DDC communication. If you are unsure, do not use the pin.

DDC and ID bit DIP switch settings

These two tables show the function of the DIP switches (table at left) and how the switches can affect the monitors supported. The table at right shows some of the more common ID bit settings. Check the manual supplied with your display to see if ID bit termination is required by your A/V system. If you are unsure, set all switches to off.



NOTE If DDC is to be used, switches 1 and 3 must be set to on and switches 2 and 4 must be set to off.

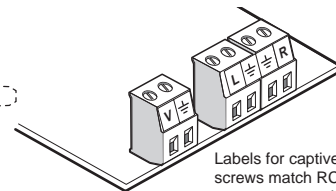
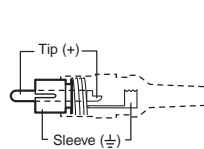
Switch	ID bit pin	Off	On
1	ID 0	HD-15 pin 11 open	HD-15 pin 11 to ground
2	ID 1	HD-15 pin 12 pass-through	HD-15 pin 12 to ground
3	ID 2	HD-15 pin 4 open	HD-15 pin 4 to ground
4	ID 3	HD-15 pin 15 pass-through	HD-15 pin 15 to ground

Display used	DIP switch			
	1	2	3	4
No ID bit required	Off	Off	Off	Off
Monochrome monitor (not XGA)	On	Off	Off	Off
Color monitor (not XGA)	Off	On	Off	Off
Color monitor (supports XGA)	Off	On	On	Off

RCA connections

RCA Connector	Signal	Captive Screw pin
Video Tip	Composite Video	V
Video Sleeve	Video Ground	GND (⊕)
Left Audio Tip	Left Audio (Unbalanced -10 dBV)	L
Left Audio Sleeve	Left Audio Ground	GND (⊕)
Right Audio Tip	Right Audio Ground	GND (⊕)
Right Audio Sleeve	Right Audio (Unbalanced -10 dBV)	R

The wiring for the three RCA plugs to the captive screw connectors is shown below. Cut all the wires to the same length. Connect them as described in steps 5-7 of "VGA Wiring" on page 1. The RCA inputs have no dip switches.



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