EC Series™ Creativity Accessories Safety and Installation Guide

Safety precautions

Warning! Before installing Martin™ EC Series™ video panels using the accessories described in this guide, read the "Safety Information" section of the EC Series Safety and Installation Guide. The Guide is supplied with each EC Series flightcase and is also available for download from the Support pages for the EC Series on www.martin.com.

Warning! Installation must be carried out by qualified professionals only. Contact your Martin™ supplier for assistance if you have any questions about how to install this product safely.

Warning! The safety and suitability of lifting equipment, installation location, anchoring method, mounting hardware, suspension structures and electrical installation is the responsibility of the installer. All local safety regulations and legal requirements must be observed when installing EC Series video panels. Check that all cables, chains, hoist, trusses and other supporting structures can bear at least 10 times the total weight (panels, clamps, cables, auxiliary equipment, etc.) that they will have to support. If installing overhead, block access under the work area.

Warning! EC Series panels must be fastened to a suitable supporting structure – and secured against falling with at least one approved secondary attachment – as directed in this guide. The Input and Output Connectors described in this guide must not be used to support the weight of an EC Series panel or any other item. An EC Series panel must be supported by either a Martin™ EC Series Header or the EC Series Panel Clamp described in this guide.

Warning! Isolate the installation from AC mains power and ensure that power cannot be reapplied during installation work.

Warning! Two-pole neutral fusing.

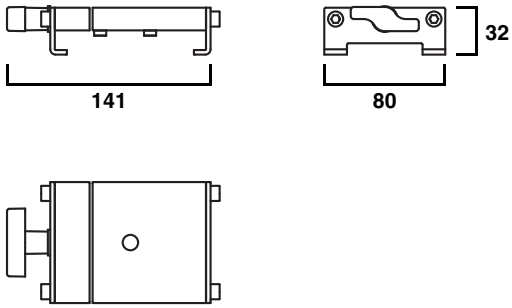
Warning! The supplied rubber caps must remain installed at all times on any unused power and data throughput sockets. Keep unused caps safely and re-install them as soon as an installation is taken down.

Warning! No more than one EC Series panel may be suspended from one EC Series Panel Clamp. A maximum of eight (8) EC Series panels in total may be connected to AC mains power in a chain using the throughput and input sockets described in this guide.

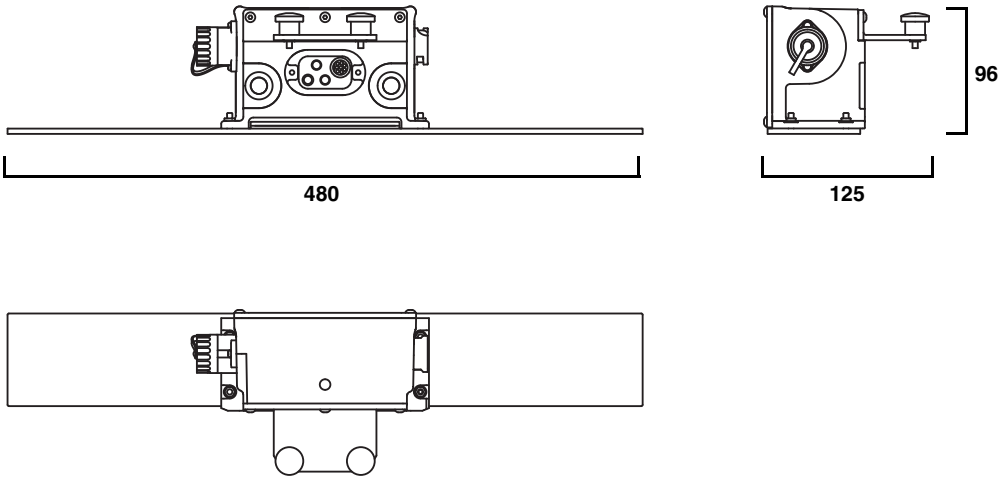
P/N 35000627, Rev. A

Dimensions

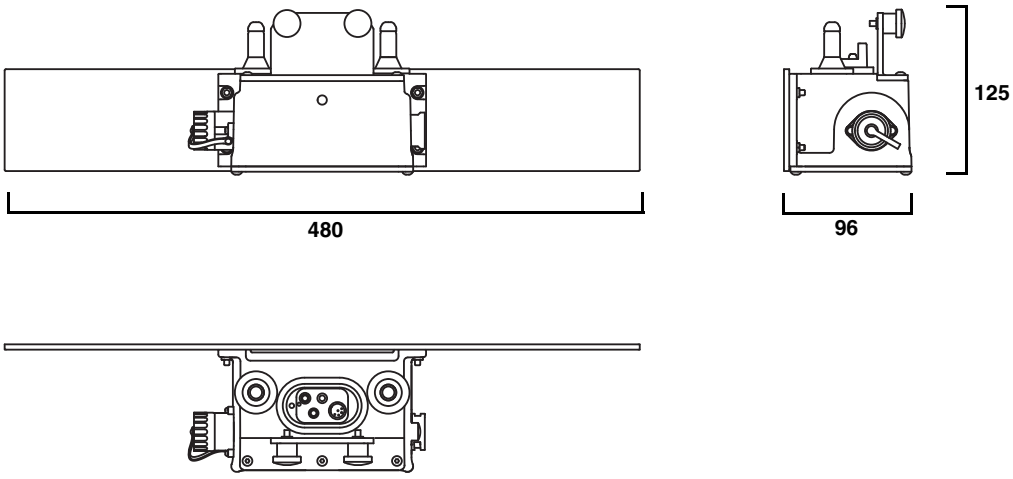
Panel Clamp



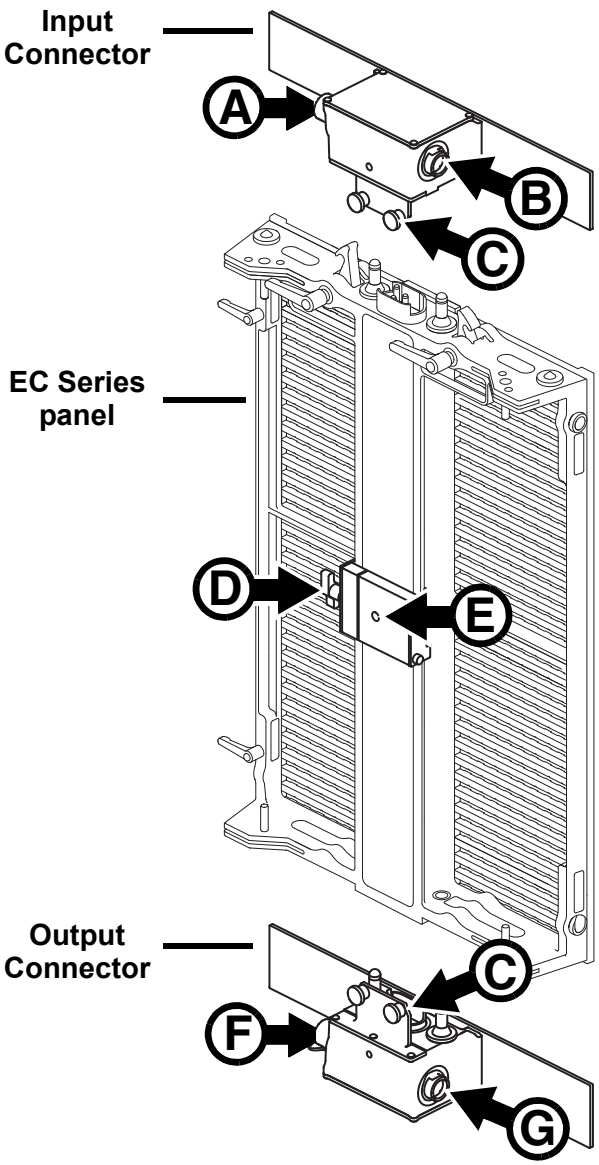
Input Connector



Output Connector



Overview



A - Power input socket
Accepts AC mains power for input to panel. Accepts an Amphenol IP67- rated power input (female) connector.

B - P3 video input socket
Accepts P3 video signal for input to panel. RJ-45 type. Accepts IP67-rated Amphenol RJF RB 6 Ethernet cable connector.

C - Connector locks
Lock Input and Output Connectors to panel.

D - Clamp fastener handle

E - Rigging clamp attachment point
For fastening a half-coupler rigging clamp (M12 thread).

F - Power throughput socket
AC mains power output for relay to other EC Series panels. Accepts an Amphenol IP67-rated power output (male) connector**.**

G - P3 video throughput socket
P3 video signal for relay to other EC Series panels. panel. RJ-45 type. Accepts IP67-rated Amphenol RJF RB 6 Ethernet cable connector**.**

Figure 1: EC Series 'Creativity Pack' overview

Introduction

The EC Series 'Creativity Pack' consists of the following accessories that must be ordered individually:

- EC Series Panel Clamp, P/N 90354340
- EC Series Input Connector, P/N 90354350
- EC Series Output Connector, P/N 90354330

The accessories allow a single EC Series panel to be installed in any orientation, offering creative possibilities for video display. EC Series Panel Clamps allow panels to be fastened to rigging clamps and mounted on trusses or other suitable structures. EC Series Input and Output Connectors allow AC mains power and P3 video data to be input to panels and relayed to other panels.

Physical installation

Warning! Follow the directions given in "Safety precautions" on page 1 of this Guide and in the EC Series Safety and Installation Manual when installing EC Series panels using the 'Creativity Pack' accessories.

One single EC Series panel can be installed in any orientation using an EC Series Panel Clamp fastened to the center of the spine and fastened to a truss with a rigging clamp.

Preparing panels

If installing on a truss, obtain one truss rigging clamp per panel clamp. The rigging clamp must be approved for the weight it will support and have an M12 threaded for fastening to the panel clamp. The rigging clamp must be half-coupler type that completely encircles a chord of the truss. See Figure 2. The Martin™ Half-Coupler Rigging Clamp, P/N 91602005, is recommended.

Figure 2: Martin™ Half-Coupler Rigging Clamp

Obtain at least one safety cable per panel. Safety cables must be approved by an official body such as TÜV as a safety attachment for the weight of all the equipment they secure.

To prepare an EC-Series panel for mounting on a truss or support, you first need to install an EC Series Panel Clamp, a rigging clamp and an EC Series Input Connector. If you will need to relay power and data to another panel, you must also install an EC Series Output Connector.

1. See Figure 3. Open the jaws of the panel clamp by loosening the fastener handle. Note the label with the arrow and the word **UP** on the clamp. Place the jaws around the panel spine midway between the top and the bottom of the panel, with the **UP** arrow pointing towards the top of the panel. The top of the panel is the end with two guide posts (arrowed). Fully tighten the fastener

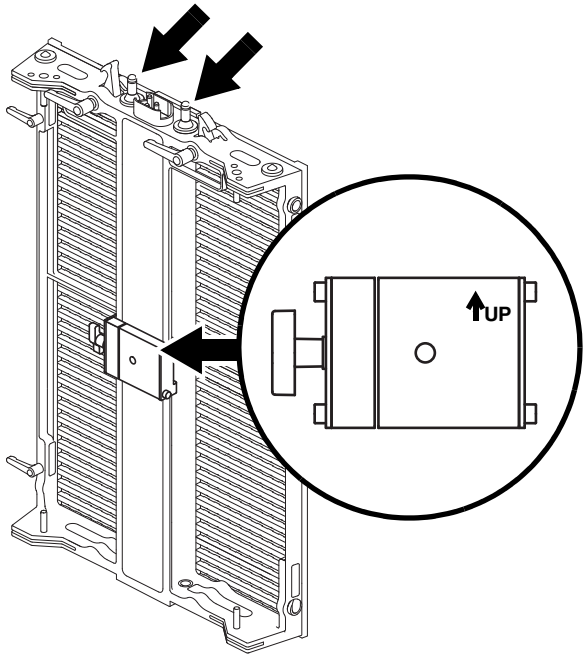


Figure 3: UP orientation for clamp

handle. Check that there is no gap between the clamp and the spine and that the clamp is fastened securely to the panel.

2. See Figure 4. Remove the rubber input connections cap from the top of the panel and store it for re-use.
3. Place the panel face down on a soft, flat surface such as a table covered by a mat.

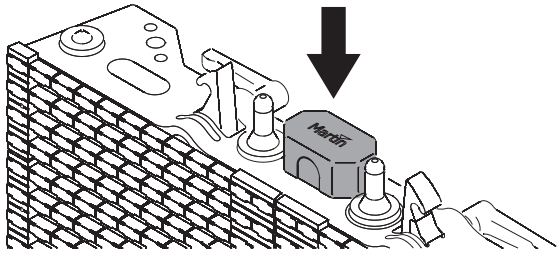


Figure 4: Input connections cap

4. See Figure 5. Turn both the locks on an EC-Series Input Connector fully counter-clockwise to the released position.
5. Press the Input Connector onto the top of the panel so that the two guide posts in the top of the panel engage in the corresponding holes in the Input Connector. Turn both Input Connector locks fully clockwise until tight. Check that both locks are correctly engaged and that the Connector is securely locked to the panel.

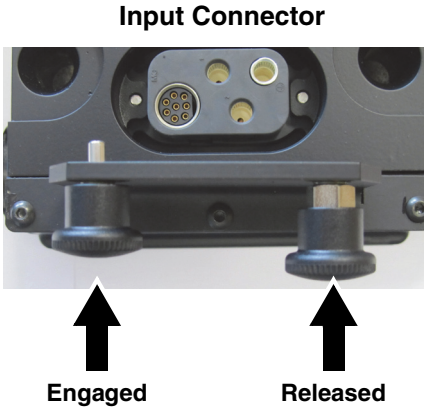


Figure 5: Input Connector locks

6. If AC mains power and the P3 video link will be continued to another panel, remove the rubber throughput connections cap from the bottom of the panel and store it for re-use.
7. See Figure 6. Turn both the locks on an EC Series Output Connector fully counter-clockwise to the released position. Press the Output Connector onto the bottom of the panel so that the two guide posts in the top of the Output Connector engage in the holes in the panel. Turn both Output Connector locks fully clockwise until tight. Check that both locks are correctly engaged and that the Connector is securely locked to the panel.

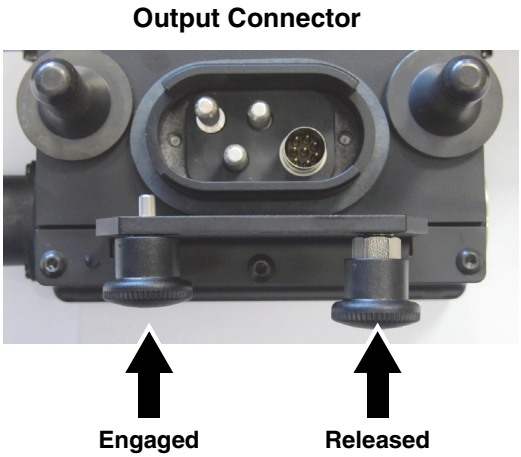


Figure 6: Output Connector locks

Installing the panel on a truss

1. See **E** in Figure 1. Bolt an approved half-coupler rigging clamp securely to the panel clamp using a grade 8.8 minimum M12 bolt. Martin™ clamps are supplied with a suitable bolt.
2. Use the rigging clamp to fasten the panel to the truss.
3. Loop an approved safety cable around the truss or other secure anchoring point and through the panel so that it is secured against falling if the rigging clamp fails.

Making connections

Warning! Follow the directions given in "Safety precautions" on page 1 of this Guide and in the EC Series Safety and Installation Manual when connecting EC Series panels using the 'Creativity Pack' accessories.

Warning! Do not connect more than eight (8) EC Series panels in total to AC mains power in one interconnected chain.

Warning! Make sure that all unused sockets on panels and on Input and Output Connectors remain sealed with their waterproof caps at all times.

Warning! Support the weight of cable runs so that no strain is placed on connections.

AC mains power connections

EC Series panels accept AC mains power at 200-240 VAC, 50/60 Hz, from one of the following three-wire systems:

- a single-phase 200-240 V system (live, neutral, ground/earth), or
- two phases of a 3-phase delta or split-phase mid-point neutral system (phase, phase, ground/earth) that give 200-240 V

Power figures are given in the EC Series Safety and Installation Guide. Allow a sensible safety margin when calculating the current headroom required on power distribution circuits for an EC Series installation.

EC Series Input and Output Connectors have Amphenol IP-67 rated sockets for power input and throughput (see Figure 1 on page 3).

To connect panels to power:

1. Check that the installation is isolated from power.
2. See Figure 1. Unscrew the waterproof cap on the power input socket **A** and connect a power input cable to it. Suitable cables are available from Martin™ (see "Power input cables" on page 7).
3. To relay power to other EC Series panels in a chain, unscrew the waterproof cap on the power throughput socket **F** and connect a power throughput cable to it. Suitable cables are available from Martin™ (see "Power throughput cables" on page 7). Connect the throughput cable to the next power input socket **A** in the chain. Do not connect more than eight (8) EC Series panels total in one chain that draws AC mains power via the first panel. Support the weight of cables so that no strain is placed on connections.

P3 video connections

EC Series Input and Output Connectors have an Ethernet socket mounted in an Amphenol IP67-rated reverse bayonet-mount housing for P3 video data input and throughput (see Figure 1 on page 3).

RJ-45 plugs installed in Amphenol RJF RB 6 housings – or in an indoor environment non-IP-rated standard RJ-45 Ethernet connectors – may be used as connectors on the P3 link. Suitable IP67-rated and non IP-rated patch cables in various lengths with suitable connector housings are available from Martin™ (see "P3 video data cables" on page 7). Separate connectors are also available for customers who need to produce custom-length cables (see "P3 video data connectors" on page 7).

To connect panels to P3 video data:

1. Check that the installation is isolated from power.
2. Connect an Ethernet patch cable from the P3 system controller's P3 signal output socket to an input socket on a 1GB unmanaged Ethernet Switch.
3. See Figure 1. Connect an Ethernet cable from an output on the Ethernet Switch to the P3 video input socket **B**. In outdoor or humid environments, an IP67-rated Amphenol RJF RB 6 housing must be installed on the RJ-45 plug.
4. To relay P3 video data to other EC Series panels in a chain, connect an Ethernet cable to the P3 video throughput socket **G** and connect this cable to the P3 video input socket **B** on the next panel in the chain.
5. Check that all unused sockets are sealed with their caps.
6. The system is now ready for power to be applied.
7. Set up the panels to display video as described in the P3 system controller's user manual.

Dismantling an installation

When tearing down an installation, reinstall caps on all sockets.

Specifications

Related Items

Power input cables

Mains Power Input Cable, EU, 5.0 m (16.4 ft.) . . . . . P/N 11521030
Mains Power Input Cable, US, 5.0 m (16.4 ft.) . . . . . P/N 11521034

Power throughput cables

Power Throughput Cable, EU, 1.5 m (4.9 ft.) . . . . . P/N 11521031
Power Throughput Cable, US, 1.5 m (4.9 ft.) . . . . . P/N 11521033
Power Throughput Cable, EU, 2.5 m (8.2 ft.) . . . . . P/N 11521044
Power Throughput Cable, US, 2.5 m (8.2 ft.) . . . . . P/N 11521043
Power Throughput Cable, EU, 5.0 m (16.4 ft.) . . . . . P/N 11521045
Power Throughput Cable, US, 5.0 m (16.4 ft.) . . . . . P/N 11521046

P3 video data cables

Ethernet patch cable, STP, with IP67-rated RJ-45 connectors, 1.5 m (4.9 ft.) . . . . . P/N 11840147
Ethernet patch cable, STP, with IP67-rated RJ-45 connectors, 2.5 m (8.2 ft.) . . . . . P/N 11840148
Ethernet patch cable, STP, with IP67-rated RJ-45 connectors, 5.0 m (16.4 ft.) . . . . . P/N 11840152
Ethernet input cable, STP, Neutrik RJ-45 to Amphenol IP67-rated RJ-45, 30 m (98.4 ft.) . . . P/N 11840145

P3 video data connectors

Amphenol Ecomate Connector Male C016 20H003 100 12 . . . . . P/N 05347205
Amphenol Ecomate Connector Female C016 20D003 100 12 . . . . . P/N 05327243
Amphenol RJF RB 6 Connector . . . . . P/N 05343521

Ordering Information

EC Series Panel Clamp . . . . . P/N 90354340
EC Series Input Connector . . . . . P/N 90354350
EC Series Output Connector . . . . . P/N 90354330

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