# PLANAR™

Connecting the Matrix Video Extender Box

The Matrix video extender box allows you to extend the distance between the Quad controller and LCD modules by an additional 100 feet. Additional extender boxes can be used in series to extend the minimum distance of 500 feet. These instructions explain how to hook up the video extender box and how to set the EQ for each LCD module. Below is a basic diagram that shows how the extender box should be hooked up.
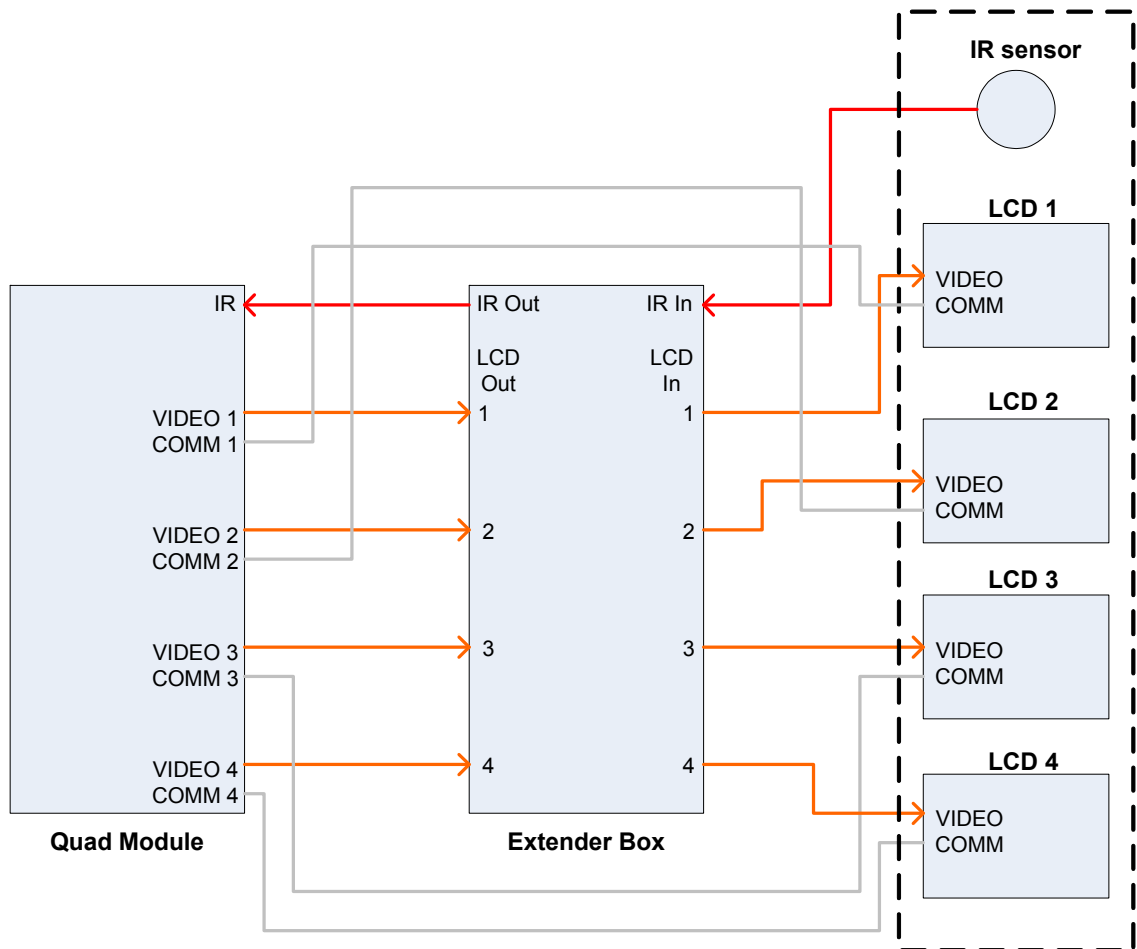

Note: The COMM cables do not run through the extender box, as it is not necessary to boost them along the way.

Setting Up Your Wall Using One Extender Box

If you have not already done so, it is recommended that you label all of your cables before running them. Use the dispenser of cable labels you received with your Matrix Video Wall.

1 Plug one end of the DC wall power adapter into the AC outlet. Plug the other end into the 12W DC power connector on the OUTPUT side of the extender box. If there is power coming into the extender box, the POWER LED on the INPUT side should be green.
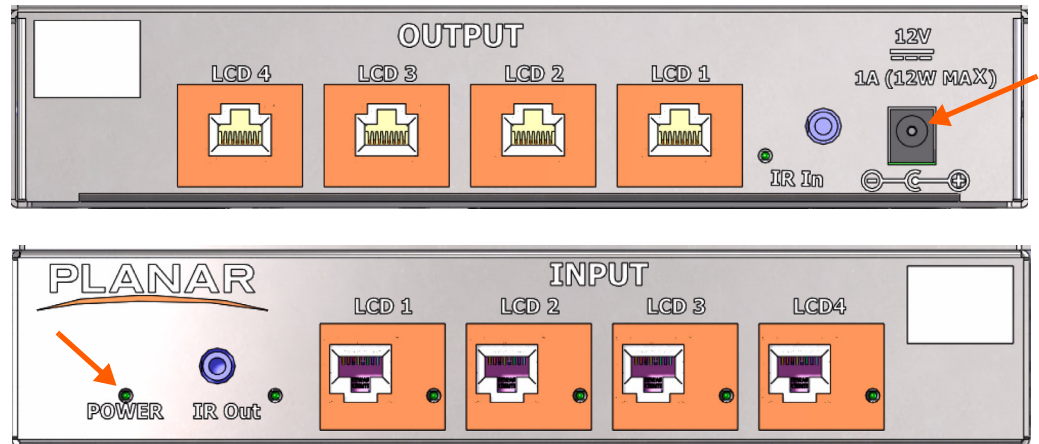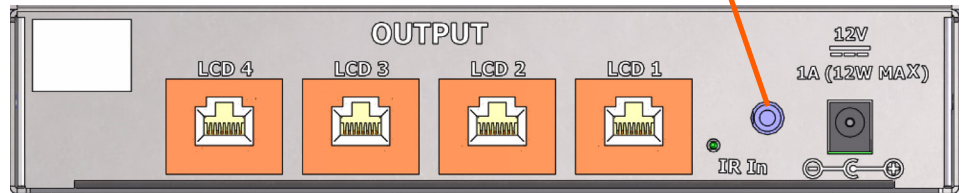

2 Plug one end of the male to male IR cable into the IR connector of the master (A) Quad controller module. Plug the other end into the IR Out connector on the INPUT side of the extender box.
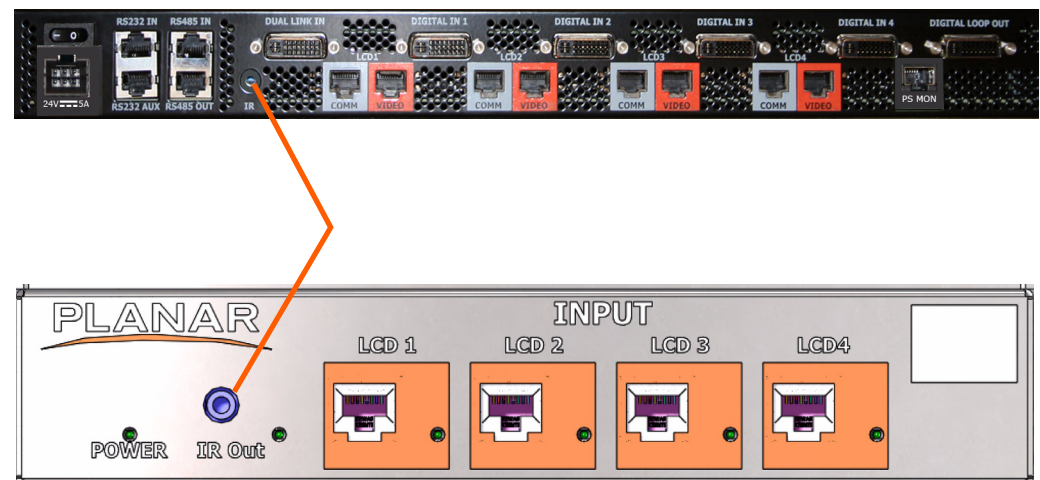
3 Plug the male side of one male to female IR cable into the IR In connector on the OUTPUT side of the extender box.

Plug this end into the IR connector of the OUTPUT side of extender box.

4 Plug the female end of the cable into the male end of the IR sensor that came with your Matrix Video Wall. If the Quad controller module is powered on, you should now see a green IR LED on both sides.

Plug this end into the male end of the IR sensor cable.
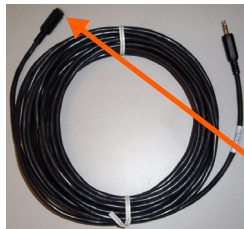
Note: For larger walls greater than four displays, the IR sensor is only hooked up to the extender box associated with Quad controller module A.

5 Plug one end of the data cable into the LCD1 VIDEO connector of the Quad controller module.
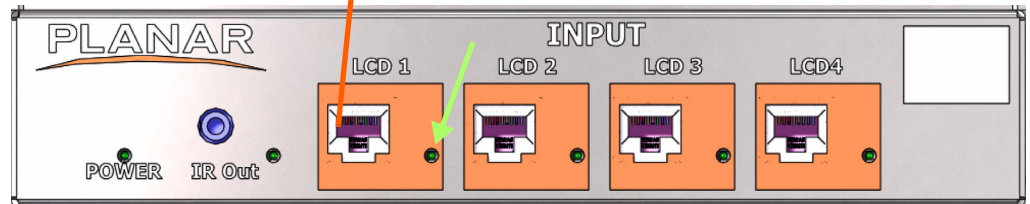
6 Plug the other end of the data cable into LCD 1 on the INPUT side of the extender box. If the Quad controller module is powered on and the extender box is on, the green LED should light.

7 Take the second data cable and plug it into LCD 1 of the OUTPUT side of the extender box.

8 Plug the other side of the data cable into the VIDEO connector of LCD 1.
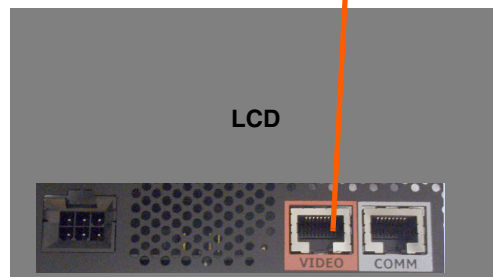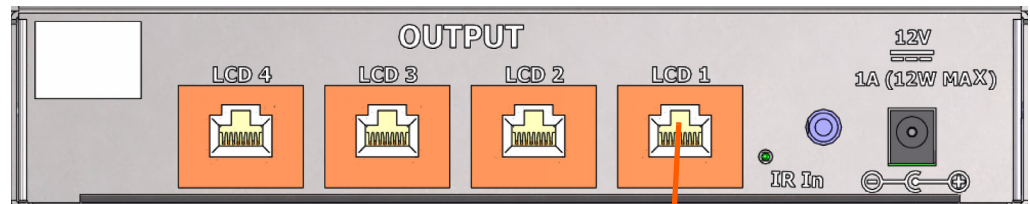
9 Depending on the cable length that is running between the extender box and the LCD, you might see vertical lines or noise on the LCD. If you do, you will need to adjust the EQ on the extender box, as well as on the LCD itself through the on-screen menus.

10 You will first want to set the EQ on the extender box. Using the address selector tool that came with your Matrix LCD video wall, manually adjust the equalization of each LCD. For most cable lengths, set it in the range of 3-5. See the table below for settings of different cable lengths.


Table 1: EQ Settings Per Cable Length

Cable Length	EQ Setting
20-30 feet	0
50 feet	3
100 feet	5

11 If you still see noise or vertical lines on the LCD, you will need to adjust the EQ on the LCD itself through the on-screen menus. Press the MISC button once on the remote to pull up the MISCELLANEOUS OPTIONS menu. In order to set the EQ on an individual LCD, you will need to move the "target" to the correct display ID of the LCD you want to adjust. For example, B1, B2, etc. Press the < or > buttons on the remote until you see a green box around the display ID.

Press one of these until you
see a green box around the
display ID of the LCD you
want to adjust.
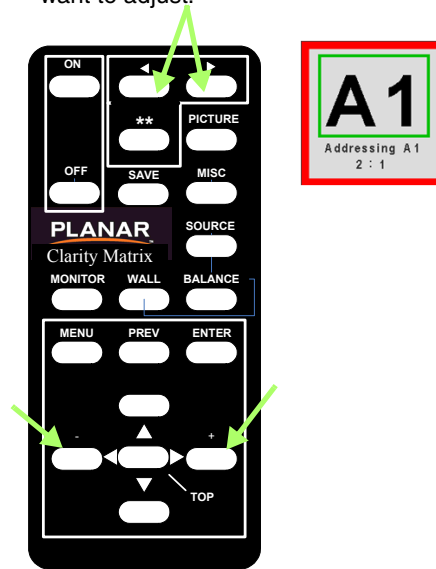
12 Using the -/+ buttons on the remote, move the CABLE EQUALIZATION line up or down until you do not see any vertical lines on the LCD. The CABLE EQUALIZATION line is shipped in the nominal position of 4, so you may only need to make minor adjustments between the range of 3-5. In most cases, 4 will be sufficient.


13 When you are finished, close the on-screen menus.

**14** Repeat steps 5-12 for each LCD in your video wall.

Setting Up Your Wall Using Multiple Extender Boxes

In some cases, if the total distance is greater than 200 feet, additional extender boxes can be hooked up in series. Each series module will extend the distance by 100 feet. Four boxes in series will provide a minimum drive distance of 500 feet. Greater distances may be achieved, but it is up to the installer to test the performance with the cabling they plan to use in the installation, since cabling selection can affect the distance. Each extender box boosts the video data enough to travel up to 100 feet per box.

We suggest that you number each extender box with a marker by drawing in the white box on the OUTPUT side of the extender box.
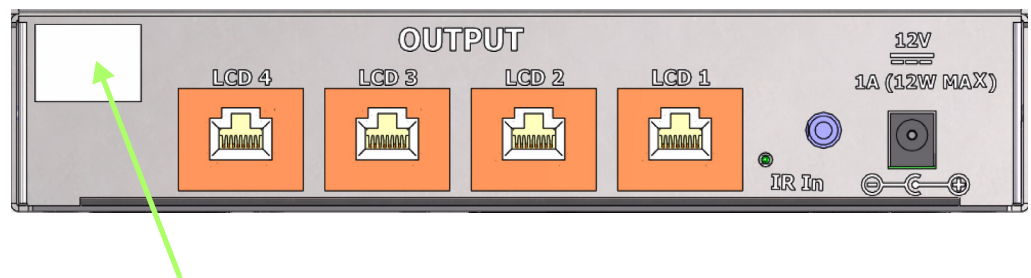
See the next page for a basic diagram that shows how multiple extender boxes should be hooked up.
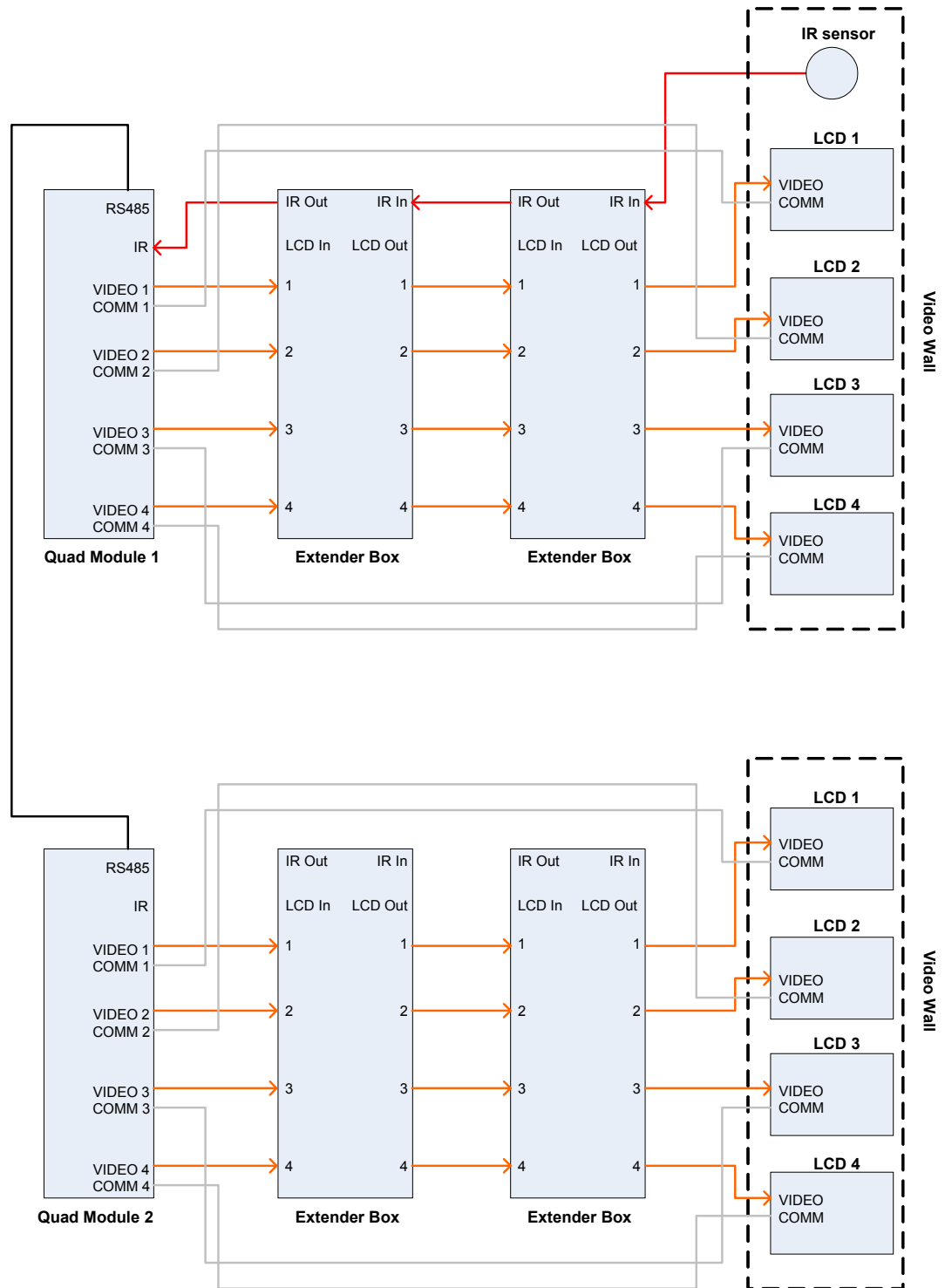
Note: The COMM cables do not run through the extender box, as it is not necessary to boost them along the way.

The equalization settings are linked to the INPUT side of the extender box. For different cable lengths, see "EQ Settings Per Cable Length" on page 5.

Declaration of Conformity

We, Planar Systems, Inc., located at
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European Representative:

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Declare, under our sole responsibility, that Planar Systems, Inc.'s product:
Name: Matrix Video Extender
Brand: Planar
Model: Matrix Video Extender

is in conformity with the essential requirements of the EMC Directive 2004/108/EC and the Low Voltage Directive 2006/95/EC.

The following standards have been applied:

EMMISSIONS
      EN 55022:2006, Class A
      EN61000-3-2:2006
      EN61000-3-3:1995+A1:2001 +A2:2005

IMMUNITY
      EN 55024:1998+A1:2001+A2:2003
       IEC 61000-4-2:2008
       IEC 61000-4-3:2006+A1:2007
       IEC 61000-4-4:2004
       IEC 61000-4-5:2005
       IEC 61000-4-6:2008
       IEC 61000-4-8:2001
       IEC 61000-4-11:2004

SAFETY
      EN60350-1:2001
      (LVD applies to External Power Supply)

Contact Information

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