

Connecting GPI Triggers And Tally Lights

Here's how to connect GPI Triggers and tally lights to your GlobeCaster system:

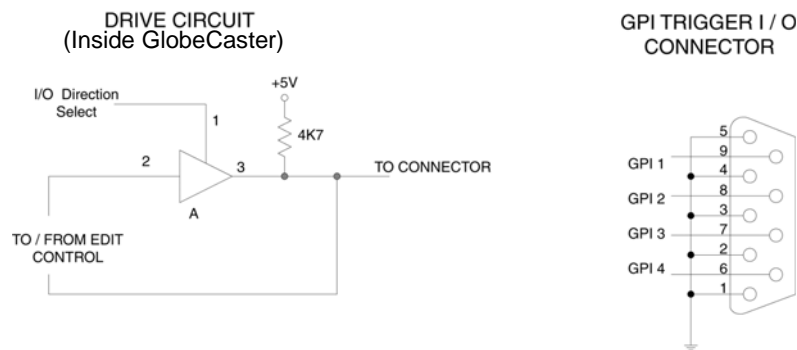
Connecting GPI Triggers

The term GPI stands for General Purpose Interface. GPI triggers have existed for some time as a way to allow one device to remotely start another device. As the name implies, GPI triggers can be used for almost anything. Common uses for GPI triggers include firing off an external digital video effects generator from a switcher, creating a remote "clicker" for a weatherperson to use during a broadcast, or working with motion control.

With the addition of the Preview card, GlobeCaster has the capability of using four different GPI triggers. The following information is provided to assist professional broadcast engineers in creating GPI triggers. We recommend that only trained engineers attempt to do this because damage to the GlobeCaster system can result.

The Preview card is found in the slot labeled 8 on the back of your GlobeCaster, just to the left of the four serial ports (although it shows up as output 9 in the software). The Preview card has a male and a female 9-pin connector. The female 9-pin is the GPI connector. This 9-pin connector supplies four bi-directional triggers for GlobeCaster. Pins 9, 8, 7, 6 are inputs/outputs 1 through 4, respectively; pins 1-5 are grounds. As inputs, they can accept TTL or CMOS levels, internal 4.7K pull-up to +5v.

As outputs, they provide TTL drive levels, 15ma source, 50ma sink, 75 ohm series resistor, 4.7K pull-up to +5v.



NOTES: Selection of INPUT / OUTPUT Direction and Output POLARITY is done via the PREDATOR User Interface

I / O Levels are LSTTL.

Figure 5.15: GPI Trigger Connector

To create a GPI cable assembly, do the following:

1. Purchase a male 9-pin plug and two dual-end BNC cables. Or, if the device you want to connect uses different connectors, use the appropriate connectors.
2. Cut the BNC cables in half and connect the center wire of each cable to a different GPI pin.
3. Twist the braid of each cable so it forms a wire, and connect each to any of the five available pins.
4. Close up the 9-pin hood and plug it into the GPI connector.

The selection of input/output direction and other settings are made in the GPI Settings panel, accessed via the GlobeCaster Switcher or GlobeCaster

Connecting Tally Lights

Editor applications. See chapter on Using Configure Panels in User's Guide for information on how to use this panel.

Tally lights are the lights on the tops of cameras in a broadcast environment. These lights are visual cues to the talent in front of the camera that the camera is “on,” going out over the air. As the Switcher cuts between cameras, the light on the previous camera goes off, and the new camera's light goes on.

GlobeCaster turns on the tally light for each video source that is active. During a fade transition, both the preview and program sources' lights are on until the fade completes. If the Key Bus is used, the light is lit on the camera used for the key. If a picture-in-picture effect is used, the tally lights of both sources are lighted. The golden rule to remember is, if the light is on, it's going out over the air.

With the addition of the Preview output card, GlobeCaster can be connected to Tally lights. The following information is provided to assist professional broadcast engineers in hooking up tally lights. If you haven't messed with this type of thing before, you probably shouldn't now. If you damage your GlobeCaster while attempting this, the warranty will not cover it and you will be sad.

The Preview card is found in the slot labeled 8 on the back of your GlobeCaster, just to the left of the serial ports (although it shows up as output 9 in the software). The Preview card has a male and a female 9-pin connector. The male 9-pin is the tally light connector. There are so many different types of connections that you might run into in your studio, that we have to leave the final design to you and your engineer. What you need to know is:

- The outputs are open collector (meaning they are the third leg of a transistor).
- The maximum current draw on the outputs is 250mA.
- Maximum voltage is 12V on earlier models of the Preview card, and 24 V on later models. Later production Preview Out cards can be identified by a diode wired in series with the resistor near the card edge connector.

128 **Chapter 5**
Connecting Video Equipment

- Pins 1, 6, 2, 7, 3, 8, 4, 9 are outputs 1 through 8, respectively. Pin 5 is the ground.

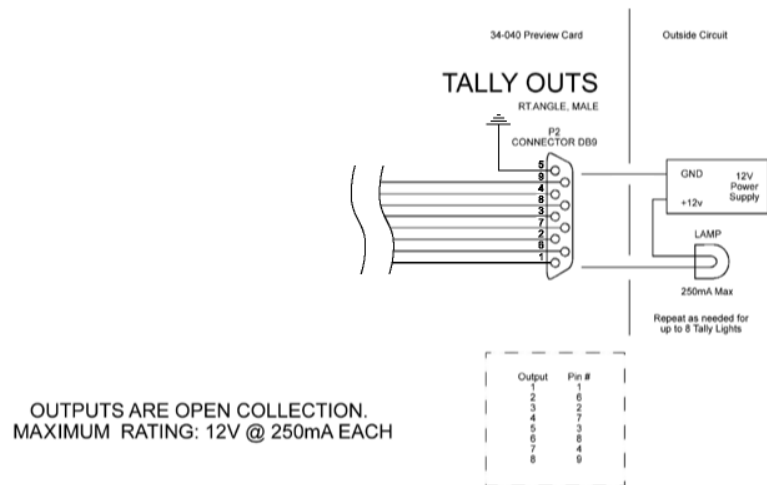


Figure 5.16: Pin Outputs for Tally Lights