



punchlight DB9 GPI Universal Switcher Interface Instructions

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GPI – UNI

“Universal GPI” Input

Setup Instructions

About Punchlight:

The PunchLight recording indicator is designed for anybody working in project, dubbing, or post production studios who needs visual confirmation of when a recording begins or ends. This simple, precise and easy to use device is perfect for musicians and sound engineers as well as film, tv and video editors. The device has its own visual signalling system as well as an ability to control any signalling systems already installed in the studio. PunchLight is easy to install in any studio environment.

PunchLight – Studio Recording Indication

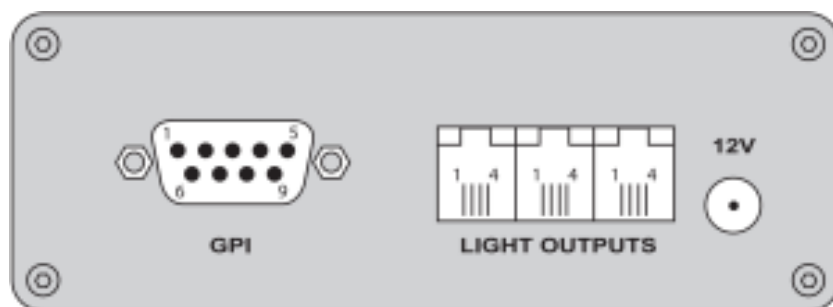
PunchLight GPI – Universal is an automatic trigger box with “Open-Standard” GPI port and three 12 V outputs which can connect to the Recording Display, Recording Lamp, Recording PlexSign or Recording Strip. The 12 V outputs can also be connected to the Relay Extender, which can switch on or off any other studio gear, such as speakers or other light systems.

“Universal GPI” Input

GPI Ports (General Purpose Input/Output) can be found on many devices, such as MIXing consoles, synchronizers etc., but aren’t subjected to any general standard. The PunchLight GPI was initially developed for AVID Sync HD (i/o) and its implementation of GPI port. Due to our customers’ requests, who wanted to utilize this device with GPI ports of other manufacturers as well, we have developed a new version of the PunchLight GPI that enables to switch on both red and yellow light via logical inputs “hi” and “low”. The logical inputs are accepted at the TTL and CSMOS levels (“low” 0V – 0.8V / “hi” 2.5V – 5.5V). In both cases, the input is supplied by “Pull-Up” or “Pull-Down” resistors and by the restricted flowing current. Input “low” can also be switched on by using a relay (see AVID Sync HD (i/o) Patch Cable) and therefore is adequately protected against impacts that relay causes. Below you will find a diagram of the connectors and function of each pin.

PunchLight GPI – Setup Instructions

Connectors Pinout



GPI (DB9) - Universal Input			
Pin	Description	Pin	Description
1	nc.	6	READY “Lo”
2	nc.	7	GND
3	REC “Hi”	8	GND
4	REC “Lo”	9	nc.
5	READY “Hi”		


Levels:
“Hi” 2.9V – 5.5V (CMOS / TTL)
“Lo” GND

Signals:
RECORD - Red colour
REC. READY - Yellow colour

Light Output (RJ)	
Pin	Description
1	“YELLOW” GND
2	GND
3	“RED” GND
4	+12V

Output:
12V / 900mA - RED Colour*
12V / 900mA - YLW Colour*

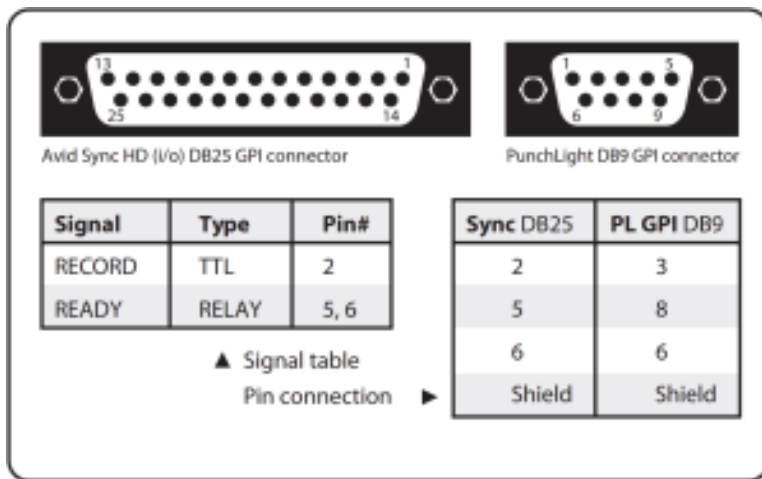
* sum of all outputs, which means:
one 900mA RED Light or
three 300mA RED Lights

Power Input

12V DC / 1A 2.1A for simultaneously using max. power consumption for both colours (2 x 1A) at the same time.

GPI

Signals “RECORD” (RED) and “RECORD READY” (YELLOW) can be activated on PunchLight GPI by inputs that can be found in the GPI connector. The appropriate colour is activated via either logic input level “Hi” or inverted level “Low”. It is important to remember, that at least one pin “GND” must be connected to the entering device. Next paragraph will clarify an example of patch cable for the AVID Sync HD (i/o) connection that comes as a standard accessory.

AVID Sync HD (i/o) – Patch Cable (standard accessory)



Example of a patch cable connection

For AVID Sync HD (i/o) device, signal “RECORD” is activated “Hi” by the TTL level and signal “RECORD READY” by using the relay. Therefore there is a “GND” pin installed at the relay input and output is connected to the “Low” input (coloured yellow). As mentioned above, only inputs “low” are protected against possible destructive relay effects during switch on. Pin 2 – i.e. TTL “RECORD” signal output is installed into pin 3, which is input “Hi” (coloured red).

Hardware Setup

1. Connect the PunchLight GPI to the GPI port on your Sync HD (i/o) using a D-Sub 25 pin / 9pin cable.
2. Connect either RECORDING Display, RECORDING Lamp etc. to the Lamp output on the PunchLight GPI
3. Connect the Power Adaptor to the PunchLight GPI
4. Plug the Power Adaptor to an outlet.

Software Setup

1. Make sure you have set up the Sync HD (i/o) interface in your ProTools application. For more information, refer to the ProTools manual.
2. The device is ready to use.

PunchLight GPI Description:



STATUS Indicates the incoming „Recording“ or „Recording ready“ signal.

PWR On/Off PunchLight GPI

R-LOCK A button for manual control of the red light. It can be used independently of the incoming „Recording“ signal. Push for on, and again for off. If this button is pushed, the automatic „Record ready“ signal is inactive.

G-LOCK A button for manual control of the cue function (green light). The light stays on while the button is held. To have the light stay on, push G-LOCK and R-LOCK simultaneously.

GPI Light Outputs. Input signal connector. three outputs for external lights. Total maximum electric current on all outputs is 900 mA (3 x 300 mA).


12V power DC 12V @ 1A

Technical Specifications:

Power supply: 12 V DC @ 1A (2.1A)
Output: 12 V DC max. 900 mA per one colour (450mA if both colours are used at the same time, otherwise a stronger (2.1A) power supply is needed – max. 1A per one colour)

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Documents / Resources

	<p>punchlight DB9 GPI Universal Switcher Interface [pdf] Instructions DB9, GPI Universal Switcher Interface, DB9 GPI Universal Switcher Interface, Universal Switcher Interface, Switcher Interface</p>
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