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Router Joystick Interface v2.1

12 way GPI interface for Blackmagic or Harris/Leitch Routers

Software V2.21



Instructions

Description

To switch up to 12 different sources to multiple engineering monitors in a PPU or truck. Commonly called Joystick override/overpress, this box provides an interface between 12 Camera RCPs to Leitch pass-through protocol as used by Harris and Black Magic Design routers. The connection to the router is via RS422.

Modes

After initial power up the unit waits for a mode selection, indicating by alternate flashing lights.

Mode 1. Momentary. The selected source is displayed for as long as you hold down the RCP joystick. When released the display is returned to the previously selected source.

Mode 2. Latched. In this mode the unit simply switches the new source to the display and leaves it there until a new source is selected.

Change Mode.

To change mode, disconnect and reconnect the power to the unit. You then have about 1 minute to press either RCP1 for momentary operation or RCP2 to select latched mode. If no button is pressed within the time limit, the unit will start in the mode it was previously used in.

Programming

Connect the USB/9pin to 3.5mm jack programming cable to the interface and computer. Run either Hyperterminal or Putty or Zterm and connect at 19200,8,N,1.

Enter programming mode by disconnecting the GPI (D25) cable and power. Re-connect the power. The unit will boot and you should see the current configuration displayed with an option to change. You need to give each GPI a router source number, destination number and group number.(1-4).

The group number is the racking position. ie if you have two operators use groups 1 for all the RCPs for operator 1 and group 2 for RCPs for operator 2.

Upto 4 operators can split across the 12 GPIs. 1 group of 12, 2 groups of 6, 3 groups of 4, 4 groups of 3 etc...

Connections

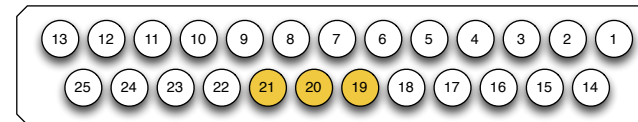
Use a straight thru 9pin to 9pin for the RS422 connection to the router.

Connect each RCP GPO to a pair of either 5v or gnd depending on your application. (see below for RCP type)

Power is a 9VDC (+ centre) supply.



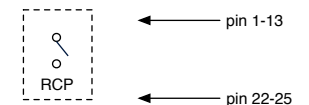
Pin	Function
1	Ground
2	RX-
3	TX+
4	Ground
5	N/C
6	Ground
7	RX+
8	TX-
9	Ground



Pin	Function	Pin	Function
1	GPI 1	14	GND
2	GPI 2	15	GND
3	GPI 3	16	GND
4	GPI 4	17	GND
5	GPI 5	18	GND
6	GPI 6	19	Pull up
7	GPI 7	20	Mode Select
8	GPI 8	21	Pull down
9	GPI 9	22	5v
10	GPI 10	23	5v
11	GPI 11	24	5v
12	GPI 12	25	5v
13	GPI 13		

Mode Select Jumper
Please ensure you install the mode select jumper in the 25 pin plug.

If your RCP is just a switch or relay you could choose a Pull Up mode. Install a small jumper between pins 19 and 20.



If your RCP is an 'Open collector' style connection you will require a Pull Down mode. Install a small jumper between pins 20 and 21.

