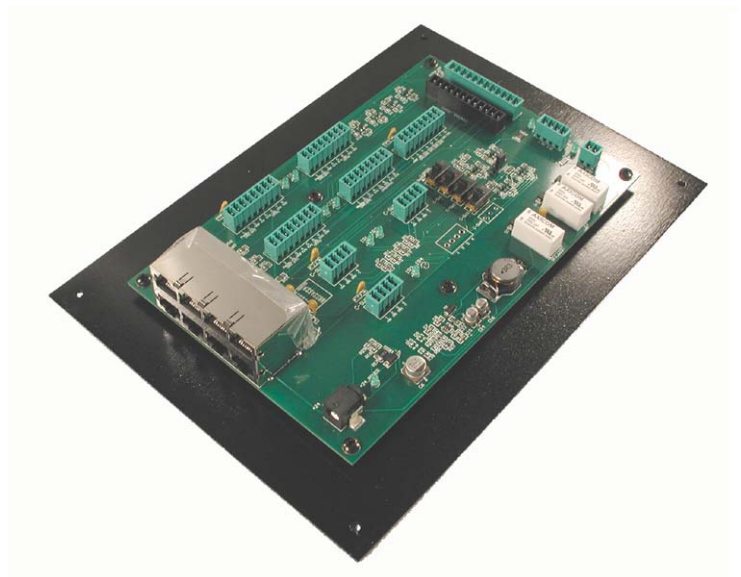


BLU- CIF Interface Board



The BLU-CIF Interface Board simplifies the wiring of all of the BLU products to the *BSS Audio London Series Digital Signal Processors*. It allows for Cat5e wiring termination, as well as, termination to 3.5mm euro-style blocks. The BLU-CIF also accommodates connections for either infrared sensors or *Emtech* MSC-C modules for combining audio in overflow areas. It is designed for mounting on the back door of a 19" rack.

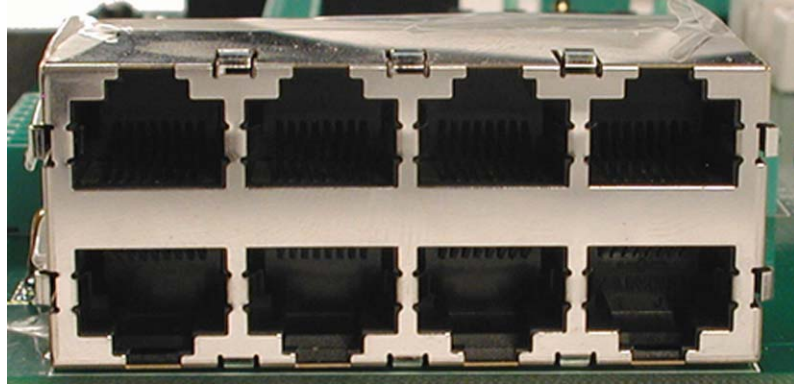
BLU-CIF Cat5e Wiring Instructions

IMPORTANT: IF you are using CAT5e wiring termination with the BLU-CIF, then the RJ-45 connectors need to be crimped to TIA/EIA 568B Standards (see below) on both ends of the cable. **You must crimp and test the wiring with an approved CAT5 568A/B tester before connecting any cable between the BLU Products and the BLU-CIF Interface Board.** Failure to crimp wiring to the correct standard could possibly lead to component damage.

EIA/TIA568B

1. White-Orange
2. Orange
3. White-Green
4. Blue
5. White-Blue
6. Green
7. White-Brown
8. Brown

On the left side of the BLU-CIF Interface Board is a 2 X 4 block of RJ-45 connectors for terminating the BLU products via Cat5e wiring. The BLU products connect in this order (left to right):



--- **CIF RJ-45 CONNECTIONS**

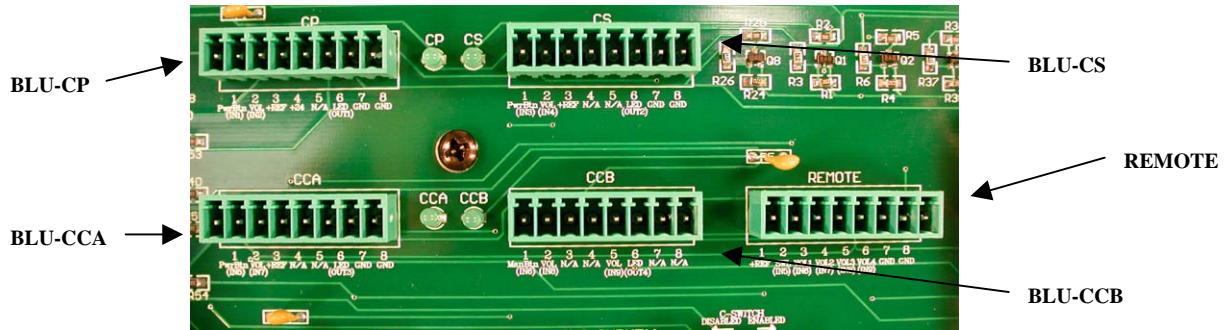
TOP ROW	BLU-CP	BLU-CCA	IR1 INPUT10	IR3 INPUT12
BTM ROW	BLU-CS	BLU-CCB	IR2 INPUT11	IR4

IMPORTANT: If you use the RJ-45 block for connecting the BLU-CP, BLU-CS and BLU-CC, then do not use any of the 3.5mm euro-style connectors for these accessories. If you are using the BLU-IR Infrared Sensors for combining audio in overflow areas, then you have a choice to use either the RJ-45 connections in this block or the 3.5mm euro-style connectors. Wiring the BLU-IR Infrared Red Sensors into the 3.5mm connectors will be covered later on in this document.

A legend for the BLU-CIF RJ-45 connections has been silkscreened on the Interface Board directly behind the block of connectors.

BLU-CIF 3.5mm Euro-block Wiring Instructions

The 3.5mm euro-block connectors have been provided for easy installation of the BSS Audio equipment into older buildings with existing analog wiring. Connectors for the BLU-CP, BLU-CS, BLU-CC and REMOTE have 8-pins, and are located behind the RJ-45 block at the top of the board.



The legends for identifying and wiring these euro-style connectors have all been silkscreened on the Interface Board at the top and bottom side of each connector. The pinouts for each connector are listed below:

BLU-CP

1. Power Button (IN1)
2. Volume (IN2)
3. +Ref
4. +24V
5. N/A
6. LED (OUT1)
7. GND
8. GND

BLU-CS

1. Power Button (IN3)
2. Volume (IN4)
3. +Ref
4. N/A
5. N/A
6. LED (OUT2)
7. GND
8. GND

BLU-CCA

1. Power Button (IN5)
2. Volume (IN7)
3. +Ref
4. N/A
5. N/A
6. LED (OUT3)
7. GND
8. GND

BLU-CCB

1. Manual Button (IN6)
2. Volume (IN8)
3. N/A
4. N/A
5. Volume (IN9)
6. LED (OUT4)
7. N/A
8. N/A

REMOTE

1. +Ref
2. SWL (IN5)
3. Volume 1 (IN6)
4. Volume 2 (IN7)
5. Volume 3 (IN8)
6. Volume 4 (IN9)
7. GND
8. GND

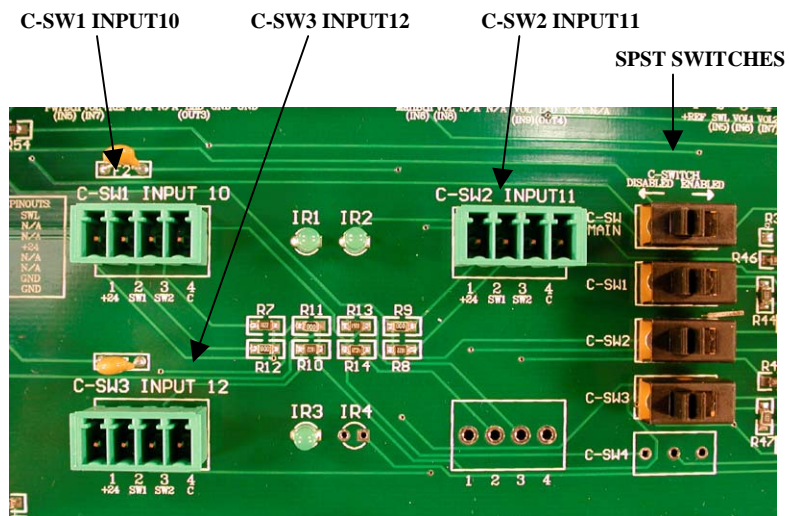
The connector labeled REMOTE is used when wiring from a panel in the cultural hall area for plugging in a remote control. The remote control can

be used for controlling the volume of the various microphone inputs in the cultural hall.

BLU-CIF / MSC-C Wiring Instructions



Some existing building already use *Emtech* MSC-C modules to combine chapel audio into the cultural hall and overflow areas. The BLU-CIF is designed to allow these existing modules to interface with the *BSS Audio DSP*. Located through the middle section of the Interface Board are three 4-pin euro-style connectors, and 4 SPST slide switches. Each connector has identification above and wiring designations silkscreened below it.



The BLU-CIF is shipped with the SPST switches in the “Disabled” position. The top switch needs to be moved to the “Enabled” position if MSC-C modules are be used in the installation, then each switch wired into one of the euro connectors will need to have its’ corresponding slide switch moved to the “Enabled” position. The pinouts on the C switch connectors are:

Note: There is a C-SW4 position on the Interface Board, but the connector and switch have not been loaded. These are for possible future use.

C-SW1 thru 3

1. +24V
2. SW1
3. SW2
4. Common

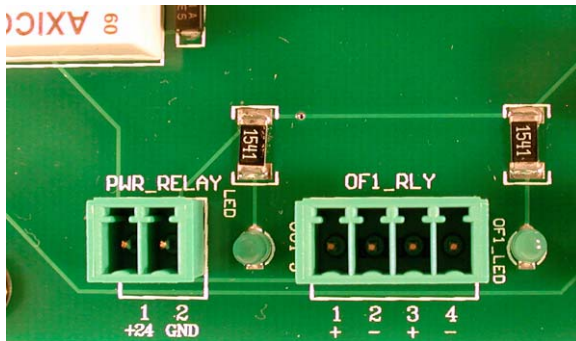
USING the C-SW INPUTS WITH BLU-IR INFRARED SENSORS

The BLU-IR Infrared Sensors can be wired to the 4-pin C-Switch euro-style connectors. **When using the euro-style connectors, do not change the default position on the SPST switches associated with each connector. Leave each of the switches in the “Disabled” position.** Wire each IR sensor to its’ corresponding 4-pin connector using this pinout:

C-SW1 thru 3

1. Red
2. Green
3. N/A
4. Black

BLU-CIF PWR RELAY & OF1 RELAY Wiring Instructions



There are two separate relay connectors on the right side of the interface board. The 2-pin PWR RELAY connection is used to power on external equipment. This connection will supply +24VDC @ 100mA on the “+24” pin when logic output 6 on the

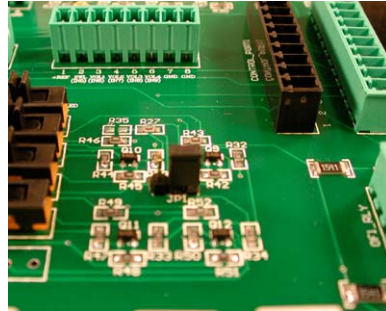
DSP is triggered. The voltage from the +24 pin is typically connected to an external power relay coil, which will then switch 120VAC on to the external equipment. The PWR RELAY output is thermofuse protected, so it will stop supplying power when the +24 pin exceeds 100mA. The circuit will reset automatically once the load is disconnected.

The 4-pin OF1 RELAY (overflow relay) connection is a 2-pole “dry contact” that is NO. These contacts will close connecting the “+” (pin 1) to the “+” (pin 3) and the “-“ (pin 2) to the “-“ (pin 4), when output port 5 on the DSP is triggered. This is typically used to switch speaker level signals,

so an overflow room can be fed directly from an amplifier without needing its' own dedicated amplifier channel.

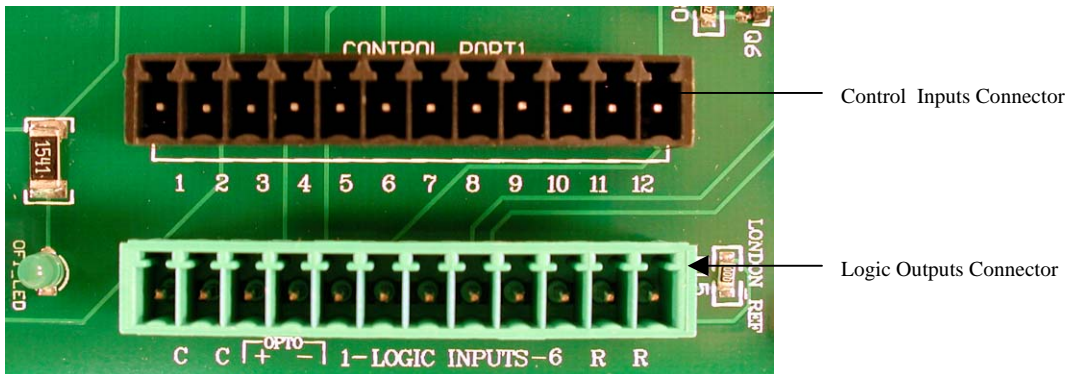
BLU-CIF : The Case of the Mysterious Jumper

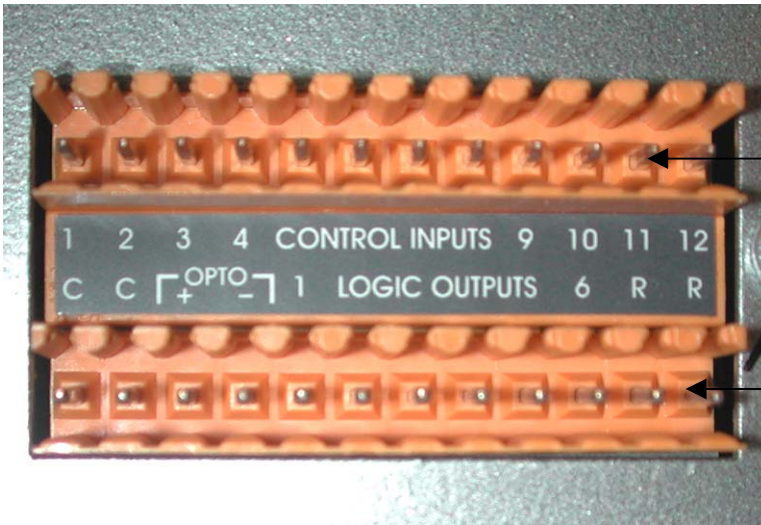
There is a jumper located on the right side of the Interface Board between the SPST switches and the OF1 Relay connector. **This jumper is for possible future use, and should not be moved out of its' default position.**



Connecting the BLU-CIF to the BSS Audio London Series DSP

The BLU-CIF ships with two pre-fabricated 12-conductor cables. Each cable has 3.5mm connectors on both ends. On one end, the 3.5mm connectors are color-coded green and black, so they match up with either the Control_Port 1 (Black) connector or Logic Inputs (Green) connector on the upper right quadrant of the Interface Board.





Control Inputs connector mates with the cable with Control_Port1 (Black) connector.

Logic Outputs connector mates with the cable with Logic Inputs (Green) connector.

The 3.5mm connectors on the opposite end of each cable are orange. They match the color of the mating connector on the back of the DSP and are labeled “top” and “bottom”, so make sure that the cables are connected correctly on the DSP side. **Another way to remember : Black on the board goes to the top connection on the DSP, and Green on the board goes to the bottom connection on the DSP.**

BLU-CIF Power

The power jack for the BLU-CIF is located on the bottom left side of the board; below the RJ-45 block. The BLU-CIF is shipped with a universal desktop power supply that plugs into the power jack, and supplies it with 24VDC @ 1.67A. The power cord on the supply plugs into a standard 120VAC outlet.

