Fontus - Screen Control
Installation Instructions

⚠️ INSTALLERS: PLEASE LEAVE THIS MANUAL WITH THE OWNER.
**Inputs / Outputs**

- **BCP - Inverted Header Side**
- **485 - Header Side**

**Power Input**
- 7v - 28v DC

**Dimensions**
- 0.86” L x 2.42” W
- (22 mm x 62 mm)

**Max. Wiring Distance**
- 18 / 2 up to 150’
- 16 / 2 up to 60’

**Features**
- No Programming needed
- Plug-n-Play
- Full 2 way 485 Control (with additional codec)
- 12v trigger for use with projectors
- Dry Contacts for use with any control systems
- IR input for use with included IR Receiver & Remote (1 Motor Control Kit)
- Phantom power - Fontus can be powered from any AC 485 screen
- Low Voltage Power Input - Fontus can receive power via any 7v - 28v DC power
- Connectors are compatible with all 485 screens

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**FONTUS - THINGS TO CONSIDER BEFORE INSTALLING**

1. Fontus needs to be connected within 1 meter of the screen.
2. Optionally the Din Rail Kit can be used for mounting.

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**FONTUS - WIRING OVERVIEW**

**FONTUS - THINGS TO CONSIDER BEFORE INSTALLING**

Mounting Fontus near your screen.

1. Fontus needs to be connected within 1 meter of the screen.
2. Optionally the Din Rail Kit can be used for mounting.
1 Motor Control Kit (In the box)

- Fontus codec (1)
- IR remote (1)
- IR receiver (1 - white)
- Five conductor plug (1 - white, 1 - black)
- Inverted five conductor plug (1 - white, 1 - black)

All codecs come with both white and black color options to match your screen.

1 Motor Keypad and Control Kit (In the box)

- Fontus codec (1)
- IR remote (1)
- IR receiver (1 - white)
- Five conductor plug (1 - white, 1 - black)
- Inverted five conductor plug (1 - white, 1 - black)
- Fontus Keypad (1)
- Keypad Dongle (1)
- Duoccoup (1)
- Two conductor plug (1 - black)

All codecs come with both white and black color options to match your screen.

Changing your Fontus from White to Black

1. Remove the 485 Connector
2. Identify and locate SI Rip cord, hidden under the Terminal Block
3. Identify and locate small cut in the Heat Shrink near the bottom right corner under the terminal block
4. Position SI Rip cord in the small cut, while holding the codec firmly slowly pull the Rip cord toward the BCP side to start tearing the white heat shrink
5. You should now be able to peel the remaining white heat shrink exposing the black underneath.
Optional Head End Low-Voltage (Power / Control Side)

1. At the head end location, terminate a 2-conductor wire to the V+ and V- positions on the inverted five conductor plug which will run from your Janus or other 24 - 28v Power Supply to the screen location.

Screen End

1. For Low-Voltage option, terminate a 2-conductor wire to the V+ and V- positions on the inverted five conductor plug to the BCP side of Fontus.

⚠ Ensure the same conductors are consistently terminated on both inverted 5 conductor plugs.

2. Connect the terminal plug coming from the screen into the header on the 485 side of Fontus.

3. Connect Dry Contact / 12v Trigger / IR to corresponding GPIO Inputs. (Refer to Control instructions section)
1a. If your screen’s motor power is low-voltage then at the Head end location, connect the Power Supply wires to the V+ and V- (Fontus).

1b. If your screen is line-voltage then no power connection is needed at the Head end (AC motor provide power for Fontus).

2. Connect the TS - Tip (+) to the Data Ground (G) on the inverted plug and connect TS - Sleeve (-) to the to the Data + (+) on the inverted plug. Refer to drawing below.

3. Applying a latched 7 - 12v DC will send the lowerlimit (DOWN) command to the screen over 485.

4. When any voltage drops below 4v DC or if no voltage is present, the upper limit (UP) command is sent to motor over 485.

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**Projector Wet Contact Closure Input**

**Fontus Wet Pinouts**

**Screen Power Supply**

**1 Wet Contact**
Latched 7 - 12v Trigger

(Red) 7 - 28v DC to Power LV Screen/Shade

(Black) From Projector or Control System 18AWG

(Sleeve 7 - 12v DC Ground)(30m Max)

(Black) From Projector or Control System 18AWG (Tip 7 - 12v DC + Positive (30m Max)

**GPIO (INPUTS)**

Power Supply Input

- 7 ~ 12 v DC
- Not Used for Wet
- Wet 7 ~ 12v DC Lower Limit Ground

- Wet 7 ~ 12v DC
- +
- -
- G
- V-+
**GPIO Dry Contact Closure Inputs**

1a. If your screen is low-voltage then at the Head end location, connect the Power Supply wires to the V+ and V- (Fontus).

1b. If your screen is line-voltage then no power connection is needed at the Head end (AC motor provides power for Fontus).

2. A momentary contact between (+) and (G) will send the upper limit (UP) command to the screen over 485.

3. A momentary contact between (-) and (G) will send the lower limit (DOWN) command to the screen over 485.

4. Momentary contacts between both (+ / -) and (G) will send the (STOP) command to the screen over 485.

**Fontus Dry Pinouts**

485 INPUT / OUTPUT side

- **DATA Ground**
- **Power Supply Input**
- **Common Ground**
- **Dry Contact (Lower Limit)**
- **Dry Contact (Upper Limit)**
- **Ground**
- 7 – 28v DC +

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**GPIO - IR Inputs**

1a. If your screen is low-voltage then at the Head end location, connect the Power Supply wires to the V+ and V- (Fontus).

1b. If your screen is line-voltage then no power connection is needed at the Head end (AC motor provide power for Fontus).

2. A short press of the (UP) button on the remote will send the upper limit (UP) command to the screen over 485.

3. A short press of the (DOWN) button on the remote will send the lower limit (DOWN) command to the screen over 485.

4. A short press of the (STOP) button on the remote will send the (STOP) command to the screen over 485.
**FONTUS - PROGRAMMING**

**Hexcodes**

Third party IR universal control systems may be used to control the screen and commands may be learned from the SI IR Remote or using these hex codes:

Note:
Fontus can only respond to these IR codes. No serial connection can be made.

![UP](0000 006c 0000 000c 0006 011b 0006 011b)

![STOP](0000 006c 0000 000c 0006 011b 0006 011b)

![DOWN](0000 006c 0000 000c 0006 011b 0006 011b)

**FONTUS - KEYPAD APPLICATION**

**Fontus Keypad***

1. Connect Fontus Keypad with UTP cable (upto 60') to included RJ45 to Terminal Block Dongle.
2. Connect RJ45 to Terminal Block Dongle to BCP side of Fontus.

![Diagram](Utilizing RJ-45 TIA-568B termination standard)

<table>
<thead>
<tr>
<th>Pin#</th>
<th>Color</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orange White</td>
<td>Screen to upper limit</td>
</tr>
<tr>
<td>2</td>
<td>Orange</td>
<td>Stop Screen</td>
</tr>
<tr>
<td>3</td>
<td>Green White</td>
<td>Screen to lower limit</td>
</tr>
<tr>
<td>4</td>
<td>Blue</td>
<td>12v (+)</td>
</tr>
<tr>
<td>5</td>
<td>Blue White</td>
<td>NA</td>
</tr>
<tr>
<td>6</td>
<td>Green</td>
<td>Screen to lower limit</td>
</tr>
<tr>
<td>7</td>
<td>Brown White</td>
<td>Screen to upper limit</td>
</tr>
<tr>
<td>8</td>
<td>Brown</td>
<td>Ground</td>
</tr>
</tbody>
</table>

*Keypad may be sold separately.

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Fontus Keypad*

1. Connect Fontus Keypad with UTP cable (upto 60') to included RJ45 to Terminal Block Dongle.
2. Connect RJ45 to Terminal Block Dongle to BCP side of Fontus.

*Keypad may be sold seperately.