SCT-1065
CAMERA CONTROL CODE TRANSLATOR
BOSCH BIPHASE to COHU RS-422 Ver. 1.0
PRODUCT DESCRIPTION

The SCT-1065 is an Bosch biphase to Cohu code translator designed to permit control of Cohu CCUs from Bosch controllers. It receives Bosch biphase code and transmits the appropriate commands in Cohu RS-422 format at 9600 baud. There are four independent Cohu outputs.

The maximum Cohu receiver address is 223. The code translator can be programmed via internal switches to offset the biphase addresses to one of eight groups. This allows the use of higher biphase addresses.

The code translator is contained in a standard 19" electronic housing (one rack unit high). Input and output connections are made with removable screw terminal connectors. Front panel LEDs indicate status of power, receive, and transmit.

SPECIFICATIONS

- **SIZE:** 19"W x 1.75H x 5.45D
- **WEIGHT:** 1.5 lbs.
- **POWER:** 9Volt to 18Volt AC or DC at .75 Watts
- **INDICATORS:** Front panel LEDs: Power, Rx, & Tx
- **BIPHASE INPUT:** (1) 3-pin mating screw terminal connector
- **COHU OUTPUTS:** (4) 3-pin mating screw terminal connectors

To install the case on the rack mount frame, remove the front panel and the plastic bezel. The rack mount frame takes the place of the bezel as shown below.
SETTING THE SWITCHES

To set the configuration switches, remove the back panel, which is secured by two screws. Then slide the cover back to expose the switches. The switches can be changed while the code translator is powered up and the new settings will take effect immediately.

**ADDRESS GROUP SELECTION**

<table>
<thead>
<tr>
<th>Group</th>
<th>SW1-1</th>
<th>SW1-2</th>
<th>SW1-3</th>
<th>Bosch Address</th>
<th>Cohu Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>0001 ~ 0223</td>
<td>001 ~ 223</td>
</tr>
<tr>
<td>2</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>0224 ~ 0446</td>
<td>001 ~ 223</td>
</tr>
<tr>
<td>3</td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>0447 ~ 0669</td>
<td>001 ~ 223</td>
</tr>
<tr>
<td>4</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>0670 ~ 0892</td>
<td>001 ~ 223</td>
</tr>
<tr>
<td>5</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>0893 ~ 1115</td>
<td>001 ~ 223</td>
</tr>
<tr>
<td>6</td>
<td>ON</td>
<td>OFF</td>
<td>ON</td>
<td>1116 ~ 1338</td>
<td>001 ~ 223</td>
</tr>
<tr>
<td>7</td>
<td>OFF</td>
<td>ON</td>
<td>ON</td>
<td>1339 ~ 1561</td>
<td>001 ~ 223</td>
</tr>
<tr>
<td>8</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>1562 ~ 1784</td>
<td>001 ~ 223</td>
</tr>
</tbody>
</table>

**SW3-1**

COHU PROTOCOL
ON: 3830 Code
OFF: MPC Code

**SW3-4**

STATUS POLL
ON: Enabled
OFF: Disabled
The code translator works in simplex mode without using the receiver response, so only one pair of data wires is required. The response lines can be connected to other equipment for processing status and alarm data.

The Rx indicator will flash while biphase code is being received. Since biphase code is repeating, it will flash continuously while a camera is being moved.

If there is no Rx indication, check that the input is indeed biphase code and that the input wires are not reversed.

If there is Rx but no Tx, possible causes are:
  - The incoming Bosch biphase code is not camera control code.
  - The command is addressed to a camera that is not in the configured address group.

If the Rx and Tx LEDs indicate normal operation but there is no camera movement, possible causes are:
  - The output wires are not connected properly.
  - The data packet address and CCU switch settings do not match.
Bosch Pan, Tilt, Zoom, Focus, and Iris commands are converted to the equivalent Cohu commands. Additional commands will be converted according to the following table.

<table>
<thead>
<tr>
<th>Biphase Command</th>
<th>Cohu Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shot 1 ~ 63</td>
<td>Store Preset 0 ~ 62</td>
</tr>
<tr>
<td>Set 1 ~ 63</td>
<td>Recall Preset 0 ~ 62</td>
</tr>
<tr>
<td>Shot 67</td>
<td>Status Query</td>
</tr>
<tr>
<td></td>
<td>(CCU responds with toggle bit status and alarm bit status.)</td>
</tr>
</tbody>
</table>

**MPC Protocol (Switch 3-1 Off)**

- Shot 70: Toggle Camera Power Relay
- Shot 71: Toggle Aux 1 Relay
- Shot 72: Toggle Aux 2 Relay
- Shot 73: Toggle Aux 3 Relay
- Shot 74: Toggle Auto/Manual Iris
- Shot 75: Toggle Lens Speed
- Shot 76: Increase Blue
- Shot 77: Increase Red
- Shot 78: Color Balance Stop

**3830 Protocol (Switch 3-1 is ON)**

- Shot 80: WB Auto
- Shot 81: WB Set
- Shot 82: WB Lock
- Shot 83: WB Indoor
- Shot 84: WB Outdoor
- Shot 85: WB Fluorescent
- Shot 86: Iris Auto
- Shot 87: Iris Manual
- Shot 88: Focus Auto
- Shot 89: Focus Manual
- Shot 90: BLC Off
- Shot 91: BLC On
- Shot 92: Digital Zoom Off
- Shot 93: Digital Zoom 2X
- Shot 94: Digital Zoom 4X
- Shot 95: Digital Zoom 8X