

*EAGLE*<sup>TM</sup> PT-CSI  
Pan Tilt Contact to Serial Interface  
Installation and Operations Manual  
Revision 2.0  
July, 2000

Distributed by Hitachi Denshi America Ltd.  
150 Crossways Park Drive  
Woodbury, NY 11797  
(516) 921-7200



Designed and Manufactured by  
Display Devices Inc.  
5880 N Sheridan Blvd.  
Arvada, CO, USA 80003-6922  
(303) 412-0399  
[www.eaglepantilt.com](http://www.eaglepantilt.com)

## ***Table of Contents***

<b>1. PRECAUTIONARY STATEMENT</b>	<b>3</b>
<b>2. WARRANTY</b>	<b>3</b>
<b>3. INTERFACE BOX USAGE</b>	<b>3</b>
<b>4. POWER REQUIREMENTS / PIN CONFIGURATION</b>	<b>5</b>
<b>5. TROUBLESHOOTING TIPS</b>	<b>6</b>

The PT-CSI interface accepts from one to sixteen contact closures, and produces a pan-tilt serial network command to go to that respective preset. The interface box also has an looping output contact which closes when any of the input contacts are closed. The preset command can be addressed to one specific pan tilt head, or to trigger all heads on the pan-tilt network.

## **1. PRECAUTIONARY STATEMENT**

**1.1 Improper settings and connections may cause damage to the PT-100 pan tilt, the camera, and the lens being used. Please read all of the following documentation before attempting the installation and configuration of these systems. If any of the instructions are unclear to you, call your servicing dealer or Hitachi before proceeding for clarification. Failure to correctly configure and install these systems may cause damage to the equipment, and will void the warranties. Please make sure before connecting or disconnecting any cables that the power supplies are turned OFF.**

## **2. WARRANTY**

2.1 Hitachi Denshi America warrants to the original customer that each unit shall be free from malfunction due to defective workmanship or component failure for a period of ONE YEAR from the original date of delivery to the customer. For service under the warranty period, the unit must be returned to Hitachi Denshi America Ltd., 150 Crossways Park Drive, Woodbury, NY 11797. This warranty does not apply to finish or appearance items, to malfunction due to abuse or operation in violation of published operating specifications or to failures caused by improper connections, modifications, alterations, or other unauthorized repairs.

## **3. INTERFACE BOX USAGE**

3.1 See section 4.2 for a diagram of pin configurations for cable building.

3.2 The front panel has two LED's for status of the unit. The red LED is on when power is applied, and the green LED is on when any of the input contacts are closed.

3.3 The rear of the unit has an on/off switch and input for +12 volts DC. Plug the included wall adapter in this socket. Don't use any other adapter for power as it may damage or destroy the PT-CSI!!

3.4 The DB9 connector is used for both the RS-485 network and contact output. The pinout for the RS-485 is the same as that of the PT-C, allowing you to set the presets, remove the PT-C, then hook up the PT-CSI. The contact closure output is on pins not used by the RS-485 network.

3.5 There are 16 pair of inputs for 16 contact inputs. Under each numbered input are two consecutive inputs for one contact. The connections are Phoenix® type plugs for easy installation.

3.6 Remove the top cover (four screws) to change the address the interface box is sending out. On the PCB there is one set of four dip switches. To address a certain camera, set the switches according to the following chart:

ADDRESS	SWITCH 1	SWITCH 2	SWITCH 3	SWITCH 4
ALL	ON	ON	ON	ON
1	OFF	ON	ON	ON
2	ON	OFF	ON	ON
3	OFF	OFF	ON	ON
4	ON	ON	OFF	ON
5	OFF	ON	OFF	ON
6	ON	OFF	OFF	ON
7	OFF	OFF	OFF	ON
8	ON	ON	ON	OFF
9	OFF	ON	ON	OFF
10	ON	OFF	ON	OFF
11	OFF	OFF	ON	OFF
12	ON	ON	OFF	OFF
13	OFF	ON	OFF	OFF
14	ON	OFF	OFF	OFF
15	OFF	OFF	OFF	OFF

## 4. POWER REQUIREMENTS / PIN CONFIGURATION

Rear view of PT-CSI showing connectors.



4.2 Here are tables of pin configurations for the two connectors on the controller; note that the first pin of each pair is connected to a common ground bus; you may run a single ground line for your system if all switches are commoned together.

Phoenix Connections:	DB-9 male (pin) connector to pan tilt head
Under #1: Pin 1, Pin 2: Contact input #1	PIN 1
Under #2: Pin 3, Pin 4: Contact input #2	PIN 2 RS-485+
"	PIN 3 RS-485-
"	PIN 4
"	PIN 5 RS-485 GROUND
"	PIN 6
"	PIN 7
Under #15: Pin 29, Pin 30: Contact input #15	PIN 8 Output Contact
Under #16: Pin 31, Pin 32: Contact input #16	PIN 9 Output Contact

Power for the controller is 12VDC, supplied by the included wall transformer with attached connector

## 5. TROUBLESHOOTING TIPS

### 5.1 If your observed problem is:

#### 5.1.1 Pan tilt head only pans or tilts in one direction upon power up

SOLUTION: Travel limits are not set. Clear any preset limits by entering FUNCTION and 10. Reset travel limits for left, right, up, and down. Once these are chosen they are set in the non-volatile memory of the head, so that if system power is lost and restored, the limits will still be present. If this does not fix the problem please call for tech support.

#### 5.1.2 Head turns more than 360° in pan or tilt.

SOLUTION: Discontinue usage immediately; position feedback potentiometer is slipping or has failed. Wiring harness can be damaged or destroyed. Call for tech support.

#### 5.1.3 Lens control is sluggish or non-responsive

SOLUTION: Make sure lens is in correct operating mode. See section in PT-C manual, FUNCTION 12—Setting lens type. It could be that a user has changed lens types from a CCTV lens to a teleconferencing lens or vice versa.

or

SOLUTION: Make sure that the lens is in SPEED mode and not in POSITION mode if manual operation is desired. Refer to section 3.4.8 in PT-C manual, FUNCTIONS 1 and 2.

or

SOLUTION: Make sure that lens cables are plugged in securely to the camera and pan tilt head.