



A WORLD OF A/V SOLUTIONS



SPECIALIZED PRODUCTS

**CTL208CM 8-BUTTON CONTROL PANEL MODULE WITH SERIAL CONTROL OUTPUT**



**CTL208CM**

**OPERATION MANUAL**



## Installation and Safety Instructions

**For Models without a Power Switch:**

The socket outlet shall be installed near the equipment and shall be accessible.

**For all Models:**

No serviceable parts inside the unit. Refer service to a qualified technician.

**For Models with Internal or External Fuses:**

For continued protection against fire hazard, replace only with same type and rating of fuse.



## Instructions d'installation et de sécurité

**Pour les modèles sans interrupteur de courant:**

La prise de courant d'alimentation sera installé près de l'équipement et sera accessible.

**Pour tout les modèles:**

Pas de composants à entretenir à l'intérieur. Confiez toute réparation à un technicien qualifié.

**Pour les modèles équipés de fusibles internes ou externes:**

Afin d'éviter tout danger d'incendie, ne remplacer qu'avec le même type et la même valeur de fusible.



## Installations- und Sicherheitshinweise

**Für Geräte ohne Netzschalter:**

Die Netzsteckdose soll in der Nähe des Gerätes installiert und frei zugänglich sein.

**Für alle Geräte:**

Keine Wartung innerhalb des Gerätes notwendig. Reparaturen nur durch einen Fachmann!

**Für Geräte mit interner oder externer Sicherung:**

Für dauernden Schutz gegen Feuergefahr darf die Sicherung nur gegen eine andere gleichen Typs und gleicher Nennleistung ausgetauscht werden.



## Instalacion E Instrucciones de Seguridad

**Modelos Sin Interruptor:**

La conexión debe ser instalada cerca del equipo y debe ser accesible.

**Para Todos Los Modelos:**

Dentro de la unidad, no hay partes para reparar. Llame un tecnico calificado.

**Modelos con Fusibles Internos o Externos:**

Para prevenir un incendio, reemplace solo con el mismo tipo de fusible.

### CE COMPLIANCE

All products exported to Europe by Inline, Inc. after January 1, 1997 have been tested and found to comply with EU Council Directive 89/336/EEC. These devices conform to the following standards:

EN50081-1 (1991), EN55022 (1987)  
EN50082-1 (1992 and 1994), EN60950-92

**Shielded interconnect cables must be employed with this equipment to ensure compliance with the pertinent Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) standards governing this device.**



### FCC COMPLIANCE

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide against harmful interference when equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

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## Product Overview

### Description

The CTL208 is an 8-button control panel with serial output. The unit transmits serial commands to any devices that accept serial command strings, in either ASCII or HEX format, when buttons are pressed. Each button can store one or two commands.

### Product Features

- 8 soft touch buttons with indicator LEDs
- Each button stores two command strings: A Primary Code and a Secondary Code
- Supports RS-232 / RS-422 / RS-485 protocols
- Buttons can be assigned to groups with mutually exclusive operation (when one button is selected others are deselected)
- Buttons can be set for automatic shutoff by using the Timeout serial command, which sets a timeout value for an assigned button operating in the Toggle Mode
- Four operating modes per button: Single, Toggle, Press/Release, and Continuous
- Program unit functions using ICS100 Inline Control Software (included)
- Quad size A/V connector module installs in CPM series modular A/V connector plates or CIA series installation interfaces that accept a quad size module
- Available in black finish (CPM208CM-1) or white finish (CPM208CM-2)

## Installation

Below are instructions for installing the CTL208 Control Module. An application diagram showing typical connections is on page 6.

- Note:** Prior to initiating the installation procedure, ensure that there is no power supply cord connected to the unit
1. Install the CTL208 Control Module into a CPM series modular A/V connector plate or CIA series installation interface that accepts a quad size module.
  2. Connect the computer serial port to the CTL208CM RS232 / RS-422 / RS-485 serial port. Follow the wiring diagram on page 8.
  3. Set the DIP switches as required for your application. For more information on the DIP switch actions, see the **DIP Switch Settings** section on page 9. The default RS-232 configuration is all switches OFF.
  4. Connect power to the CTL208 Control Module using the AC power adapter (included). Check the polarity of the power supply cable for correct wiring.
  5. Program (Setup) the CTL208 for your application (see the default serial port settings on page 15 [**DFLT0**]). Before you can use the CTL208, you must program any of the eight push buttons on the CTL208 using the ICS100 Inline Control Software, or a terminal emulator program.
  6. When you have completed programming the unit, remove the programming serial cable from the CTL208CM. Connect a serial cable between the CTL208CM and the serial port(s) of the devices that will be controlled by the CTL208CM (see wiring diagram on page 8).

## Button Operation

### Button Modes

Button Mode	Button Function
0 Single Mode (Default)	Each time the button is pressed the unit sends the primary command code string for that button and the LED flashes.
1 Toggle Mode	<b>At first button push</b> , the unit sends the primary command code string for that button and the LED lights. <b>At second button push</b> , the unit sends the secondary command code string for that button and the LED will turn off.
2 Press/Release Mode	<b>When the button is pressed</b> , the unit sends the Primary Code string for that button and the LD lights. <b>When the button is released</b> , the unit sends the Secondary Code (if programmed) and the LED turns off.
3 Continuous Mode	The first code repeatedly sends (as long as you press the button), and the associated LED lights. When you release the button, the code ceases to send (at the completion of the code string), and the associated LED turns off.

### Button Groups

If buttons (only in the Toggle Mode) have been assigned to groups, each button within the assigned group will operate mutually exclusive (when one button is selected, others are deselected). This enables only one button to operate at a time.

For example, suppose buttons 1, 3, 4, and 7 are assigned to Group 1 and you push Button 1.

- The unit will send the primary command code string for Button #1.
- Button 1's LED will light.

Suppose you then push Button 7.

- The unit will send the primary command code string for Button 7.
- Button 7's LED will light.
- Button 1's LED will turn off without sending a secondary command code string.

## Timeout

If the Timeout feature is programmed for a button that is used to turn a piece of equipment on and off, the unit will send out a secondary command code string for that button (a timer function) that will automatically turn off the device in a preset number of minutes (0 to 255).

For example, suppose Button 2 is used to turn a projector on and off and has been programmed to timeout (turn off the projector) after 30 minutes.

At the *first* button push:

- The unit will send the primary command code string for that button.
- The LED will light.
- The timer will start running.
- The projector will turn on.

At the *second* button push *before* the timeout period (30 minutes):

- The unit will send the secondary command code string for Button 2.
- The LED will turn off.
- The timer will stop running.
- The projector will turn off.

If Button 2 is *not* pushed *before* the timeout period (30 minutes):

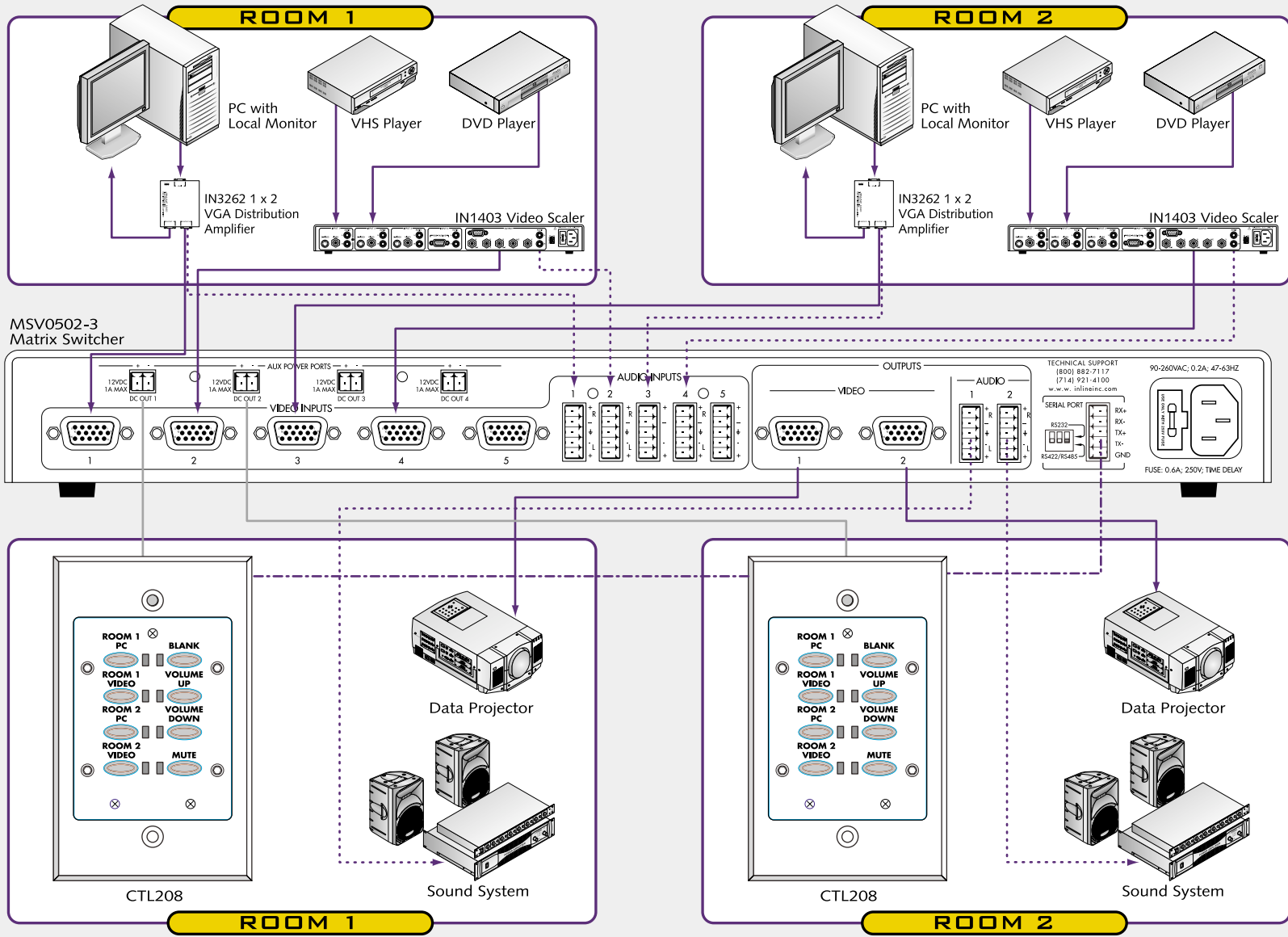
- The unit will send the secondary command code string for Button 2.
- The LED will turn off after 30 minutes have elapsed.
- The projector will turn off after 30 minutes have elapsed.

Every time you push Button 2, the timer will reinitialize to the timeout value (30 minutes) and start running again.

**Note:** The timeout feature functions like a clock running independently of the user pushing buttons. Thus, button pushes may occur 59 seconds or 1 second before the minute hand counts down the button timeout value. As a result, the timer may occasionally timeout one minute earlier than the actual timeout value entered. Since the timeout value is typically set between 10 minutes and several hours, so this is of no consequence.

# CTL208-CM CONTROL MODULE

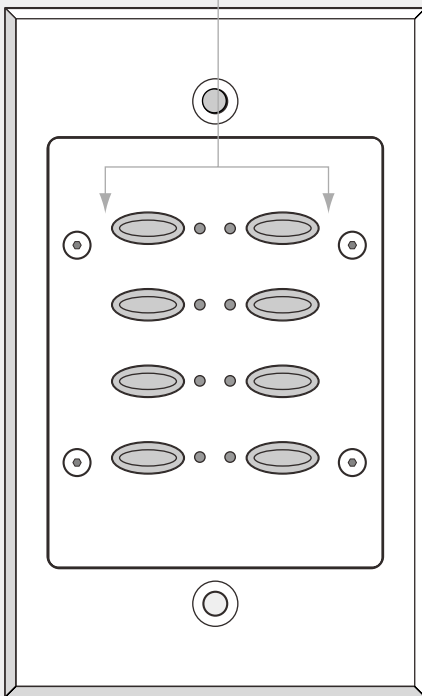
# APPLICATION DIAGRAM



CTL208-CM **CONTROL MODULE**

CONNECTORS & CONTROLS

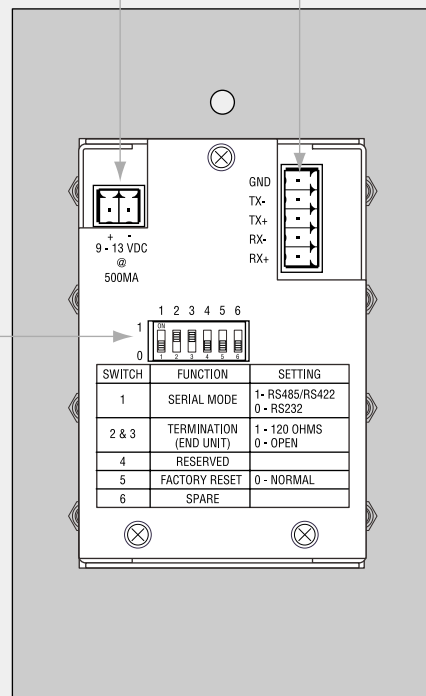
Front Panel Buttons and Indicators



Front View  
Rear View

RS232 / 422 / 485  
Serial Port

DC Power Connector



Configuration Switches

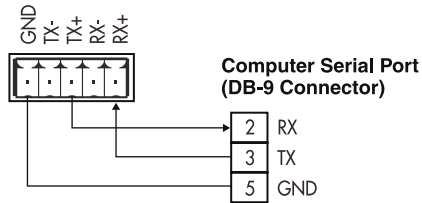
## Setup

### Serial Port Pin-Outs

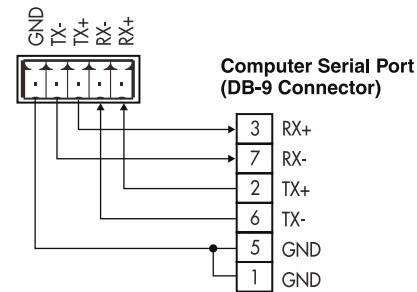
The CTL208 utilizes a 5-pin captive screw terminal block. The pin configurations are as follows:

### RS-232/RS-422/RS-485 Connections

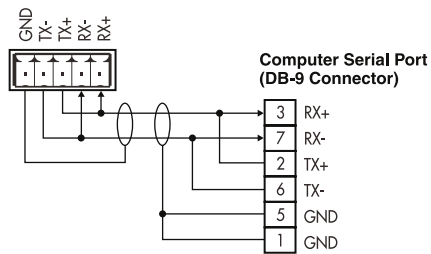
#### RS-232 Connection Diagram:



#### Full Duplex RS-422/485 Connection Diagram:



#### Half Duplex RS-485 Connection Diagram:



## DIP Switch Settings

### Serial Port

Use the DIP switch bank on the bottom of the CTL208 Control Module to configure the serial ports to operate as an RS-232, or RS-422 / RS-485 physical interface. DIP switch settings change according to the standard used. The DIP switch can also terminate RS-422 / RS-485 serial lines. Configure the DIP switch settings according to your requirement from the table below.

### Reset to Factory Default

A factory reset (DFLT1) can be forced by setting switch #5 to the ON (1) position and performing a power up sequence. ***This erases all stored parameters.*** The factory default and specialized DIP switch settings are listed below:

### DIP Switch Functions

Switch #	Function	ON (1)	OFF (0) (Default)
1	Serial Mode	RS-422 / RS-485	RS-232
2	Termination (End Unit)	Terminate RCV 120 Ohms	No Terminate RCV
3	Termination (End Unit)	Terminate XMT 120 Ohms	No Terminate XMT
4	Reserved for future use	Reserved for future use	Reserved for future use
5	Factory Reset	Factory Reset	Normal Mode
6	Spare - not used	Spare - not used	Spare - not used

**Note:** Termination resistors should only be turned on when operating in RS-422 / RS-485 mode and then only for the first and last units on a long serial line. The default switch settings are all OFF. In half-duplex mode, only turn on one of the termination resistors as they are connected together by the cable.

## Serial Commands

The CTL208 is programmed to send out command codes unique to each front panel button. Each of the eight buttons can be programmed with two separate command strings. Each button can be programmed to operate in one of four different modes: *Single*, *Toggle*, *Press/Release*, or *Continuous*.

A host computer user programs the CTL208 via its serial port using the ICS100 Inline Control Software. Programming can be done on a one-to-one basis or with multiple units one at a time, via a unique address assignment.

### Addressing the Unit

Address packets are used to route setup information to a particular unit on a network and enable command responses. Before sending commands to a unit, the unit must first be addressed. Once addressed, an unlimited number of commands can be sent to the CTL208.

The Address packet [CC##] has two fields. The first field consists of two ASCII characters, CC. The second field consists of two ASCII numbers that define the community address (Default = 97).

***When finished sending commands to the CTL208, always terminate the session by sending another community address other than that established for the CTL208.***

The CTL208 will also take commands with a broadcast address of [CC00], but no responses will be sent. Broadcast is for multiple units on one serial line running in half duplex mode.

### Serial Commands

The following is a list of the commands for the CTL208. All commands have delimiters: beginning [ and ending ] brackets. Commands are of a fixed format. Thus, there are no spaces between fields.

To maintain consistency with existing Inline equipment command protocol, we have inserted characters in some of the commands, which have no effect for the CTL208. In particular, where you see a lower case p (Serial Port#) you must insert one ASCII character/number of your choice (a lower case "p" is suggested). These character locations are skipped over by the CTL208, but are used as placeholders in the command string.

COMMAND	DESCRIPTION
[ADDRAddr#]	Changes address of CTL208. The default address for initialization is 97.
[ADDR@]	Restores factory default address for the unit. The factory default address is 97.

COMMAND	DESCRIPTION																																				
[CCxx]	<p>Connects controller/host computer to the addressed unit. 00 is a broadcast address thus all connected devices will perform commands but no responses will be sent. This command is to be used in conjunction with the [ADDRxx] command string. This command string is case sensitive.</p> <ul style="list-style-type: none"> <li>• xx = 01 - 97</li> </ul>																																				
[PCLpCh#Pcode]	<p>Stores ASCII command codes (Pcode, 127 characters max.) issued when an associated button is pushed.</p> <table border="1" data-bbox="675 541 1382 1136"> <thead> <tr> <th>Ch#</th> <th>Primary Code</th> <th>Ch#</th> <th>Secondary Code</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Primary Code Button 1</td> <td>11</td> <td>Secondary Code Button 1</td> </tr> <tr> <td>2</td> <td>Primary Code Button 2</td> <td>12</td> <td>Secondary Code Button 2</td> </tr> <tr> <td>3</td> <td>Primary Code Button 3</td> <td>13</td> <td>Secondary Code Button 3</td> </tr> <tr> <td>4</td> <td>Primary Code Button 4</td> <td>14</td> <td>Secondary Code Button 4</td> </tr> <tr> <td>5</td> <td>Primary Code Button 5</td> <td>15</td> <td>Secondary Code Button 5</td> </tr> <tr> <td>6</td> <td>Primary Code Button 6</td> <td>16</td> <td>Secondary Code Button 6</td> </tr> <tr> <td>7</td> <td>Primary Code Button 7</td> <td>17</td> <td>Secondary Code Button 7</td> </tr> <tr> <td>8</td> <td>Primary Code Button 8</td> <td>18</td> <td>Secondary Code Button 8</td> </tr> </tbody> </table> <p>If a bracket is needed in the ASCII command code string, place a single quote ‘ for a left bracket [ and a double quote” for a right bracket ]. The CTL208 replaces the quotes with the appropriate bracket in the command string.</p>	Ch#	Primary Code	Ch#	Secondary Code	1	Primary Code Button 1	11	Secondary Code Button 1	2	Primary Code Button 2	12	Secondary Code Button 2	3	Primary Code Button 3	13	Secondary Code Button 3	4	Primary Code Button 4	14	Secondary Code Button 4	5	Primary Code Button 5	15	Secondary Code Button 5	6	Primary Code Button 6	16	Secondary Code Button 6	7	Primary Code Button 7	17	Secondary Code Button 7	8	Primary Code Button 8	18	Secondary Code Button 8
Ch#	Primary Code	Ch#	Secondary Code																																		
1	Primary Code Button 1	11	Secondary Code Button 1																																		
2	Primary Code Button 2	12	Secondary Code Button 2																																		
3	Primary Code Button 3	13	Secondary Code Button 3																																		
4	Primary Code Button 4	14	Secondary Code Button 4																																		
5	Primary Code Button 5	15	Secondary Code Button 5																																		
6	Primary Code Button 6	16	Secondary Code Button 6																																		
7	Primary Code Button 7	17	Secondary Code Button 7																																		
8	Primary Code Button 8	18	Secondary Code Button 8																																		
[PCHpCh#Pcode]	<p>Same as the PCLpCh#Pcode command above, except an ASCII to HEX conversion of the Pcode takes place. Thus if an ASCII 0F character is received in the Pcode string it will be converted to the Hex 0F value before storage to memory. When a button is pushed, the Hex string sends instead of the original ASCII format. Entries must be in pairs (even quantity of numbers 0-9) and letters in capitals A-F.</p> <p>Note: The insert bracket feature does not operate in HEX command strings.</p>																																				
[PCLpCh#@]	<p>Clears a stored code, either ASCII or HEX format, from the system memory. When a code is cleared, no associated command string will be sent when the associated button is pushed.</p> <p>[PCLp02@] clears the first button code associated with button #2.</p>																																				

COMMAND	DESCRIPTION										
<b>[PCLpCh#?]</b>	<p>Returns an ASCII stored button code to the host computer.</p> <p>The response is of the format [R0 97 PCLp? Pcode].</p> <p>Note: This command will also return the stored HEX button code to the host computer.</p>										
<b>[PCHpCh#?]</b>	<p>Displays the associated stored HEX button code. This command is the same as the PCLpCh#? command above.</p> <p>The response is of the format [R0 97 PCHp? Pcode]</p> <p>Note: This command will also return the stored ASCII button code to the host computer.</p>										
<b>[SWMCh#Mode#]</b>	<p>Establishes an operating mode for each button. See page 6.</p> <table border="1" data-bbox="800 783 1261 989"> <thead> <tr> <th data-bbox="800 783 951 819">Mode#</th> <th data-bbox="951 783 1261 819">Mode Name</th> </tr> </thead> <tbody> <tr> <td data-bbox="800 819 951 863">0</td> <td data-bbox="951 819 1261 863">Single Mode (Default)</td> </tr> <tr> <td data-bbox="800 863 951 907">1</td> <td data-bbox="951 863 1261 907">Toggle Mode</td> </tr> <tr> <td data-bbox="800 907 951 951">2</td> <td data-bbox="951 907 1261 951">Press/Release Mode</td> </tr> <tr> <td data-bbox="800 951 951 989">3</td> <td data-bbox="951 951 1261 989">Continuous Mode</td> </tr> </tbody> </table>	Mode#	Mode Name	0	Single Mode (Default)	1	Toggle Mode	2	Press/Release Mode	3	Continuous Mode
Mode#	Mode Name										
0	Single Mode (Default)										
1	Toggle Mode										
2	Press/Release Mode										
3	Continuous Mode										
<b>[SWM?]</b>	<p>Returns the current mode of each button.</p> <p>The Response is of the format - [R0 97 SWM? #####]</p> <p>In the # field the first number represents button #1 while the eighth number represents button #8.</p>										

COMMAND	DESCRIPTION
<b>[SWGGroup#Channels#]</b>	<p>Establishes a grouping of buttons pre-programmed to operate in toggle mode. This establishes mutual exclusivity between buttons in the group. Thus if any button is pushed (Turned On) it will extinguish a previously turned on button in the assigned group. Only one button can be turned on at a time.</p> <p>Note: This command is good only for buttons previously assigned to the toggle mode. Only Toggle mode will work because all other button modes turn off automatically when the buttons are released. In addition, in this mode of operation, only the first command string is sent, unless the same button is pressed more then once in succession.</p> <p>Groups cannot be assigned to buttons operating in the Timeout mode.</p> <p>For example, to establish a group of mutually exclusive buttons that includes buttons 1, 3, 4, 7, and 8 and assign them to Group #1, issue the command: [SWG110110011]. A 0 represents the button is not assigned, while a 1 represents the button is assigned to the specified group.</p> <p>To establish a second group of mutually exclusive numbers, use the SWG2 command.</p>
<b>[SWGGroup#?]</b>	<p>Returns the buttons assigned to the specified group.</p> <p>The Response is of the format - [R0 97 SWGGroup#? #####]</p> <p>In the # field the first number represents button #1 while the eighth number represents button #8. A 0 represents the button is not assigned, while a 1 represents the button is assigned to the specified group.</p>

COMMAND	DESCRIPTION																																		
<b>[CPpRate#Par#sXon#Dup#]</b>	<p>Sets up the serial port baud rates, parity, software flow control, and duplex mode. Stop bits are always set to one bit, thus any single character/number can be placed between the Par# and the Xon# fields, where “s” is shown in the command above. <b>Rate#</b> is the baud rate, an ASCII number as defined below.</p> <table border="1" data-bbox="841 472 1219 722"> <thead> <tr> <th>Rate#</th> <th>Baud Rate</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1200</td> </tr> <tr> <td>1</td> <td>2400</td> </tr> <tr> <td>2</td> <td>4800</td> </tr> <tr> <td>3</td> <td>9600 (Default)</td> </tr> <tr> <td>4</td> <td>19,200</td> </tr> <tr> <td>5</td> <td>38,400</td> </tr> </tbody> </table> <p><b>Par#</b> is the Parity mode, an ASCII number, as defined below.</p> <table border="1" data-bbox="831 858 1227 1003"> <thead> <tr> <th>Par#</th> <th>Parity Mode</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>No Parity (Default)</td> </tr> <tr> <td>1</td> <td>Odd Parity</td> </tr> <tr> <td>2</td> <td>Even Parity</td> </tr> </tbody> </table> <p>One character “s” is inserted between the Par# and the Xon# strictly as a place holder in the command string.</p> <p><b>Xon#</b> is the software flow control mode, an ASCII number, as defined below.</p> <table border="1" data-bbox="800 1245 1258 1421"> <thead> <tr> <th>Xon#</th> <th>Flow Control Mode</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Disable Software Flow (Default)</td> </tr> <tr> <td>1</td> <td>Enable Software Flow Control</td> </tr> </tbody> </table> <p><b>Dup#</b> sets the duplex mode, an ASCII number, as defined below.</p> <table border="1" data-bbox="812 1558 1247 1667"> <thead> <tr> <th>Dup#</th> <th>Duplex Mode</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Full Duplex</td> </tr> <tr> <td>1</td> <td>Half Duplex (Default)</td> </tr> </tbody> </table>	Rate#	Baud Rate	0	1200	1	2400	2	4800	3	9600 (Default)	4	19,200	5	38,400	Par#	Parity Mode	0	No Parity (Default)	1	Odd Parity	2	Even Parity	Xon#	Flow Control Mode	0	Disable Software Flow (Default)	1	Enable Software Flow Control	Dup#	Duplex Mode	0	Full Duplex	1	Half Duplex (Default)
Rate#	Baud Rate																																		
0	1200																																		
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Par#	Parity Mode																																		
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Xon#	Flow Control Mode																																		
0	Disable Software Flow (Default)																																		
1	Enable Software Flow Control																																		
Dup#	Duplex Mode																																		
0	Full Duplex																																		
1	Half Duplex (Default)																																		
<b>[CPp@]</b>	Resets the serial port to its default parameters as shown in the CP command. This command consists of four ASCII characters CPp@.																																		
<b>[CPp?]</b>	Returns the serial port parameters to the Host computer.  The response is [R0 97 CPp? Rate#Par#Xon#Dup#]																																		

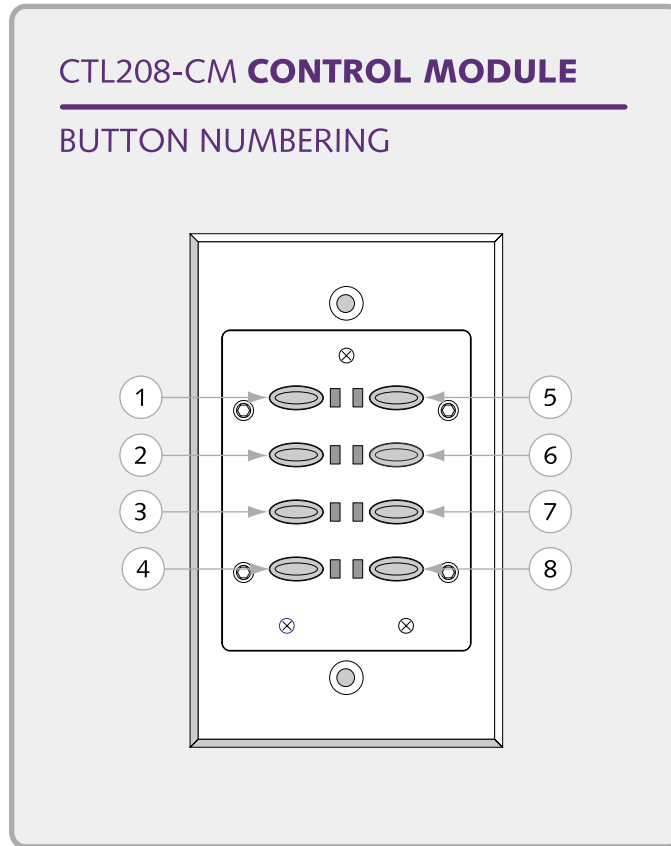
COMMAND	DESCRIPTION						
<b>[FPMode#]</b>	Enables/Disables front panel buttons. <table border="1" data-bbox="748 296 1312 407"> <thead> <tr> <th>Mode#</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Disable front panel.</td> </tr> <tr> <td>1</td> <td>Enable front panel (Default).</td> </tr> </tbody> </table>	Mode#	Function	0	Disable front panel.	1	Enable front panel (Default).
Mode#	Function						
0	Disable front panel.						
1	Enable front panel (Default).						
<b>[FP]</b>	This command Toggles the front panel operating mode. The command consists of two ASCII characters FP.						
<b>[FP?]</b>	Returns the state of the front panel to operating mode.  The response is of the format [R0 97 FP? Mode#] where Mode# is 0 = disabled, 1 = enabled.						
<b>[DFLTMode#]</b>	Resets and/or re-initializes the CTL208. The first field is the four ASCII characters DFLT. The last field is an ASCII number as defined below. <table border="1" data-bbox="703 751 1356 932"> <thead> <tr> <th>Mode#</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Reset controller without re-initializing button parameters.</td> </tr> <tr> <td>1</td> <td>Reset controller and initialize button parameters (factory reset).</td> </tr> </tbody> </table> <p>Mode 0 will reset the serial port, community address, &amp; front panel to the following"</p> <ul style="list-style-type: none"> <li>• Baud Rate = 9600</li> <li>• Parity = None</li> <li>• Software flow control = None</li> <li>• Duplex = Half</li> <li>• Community Address = 97</li> <li>• Front Panel Enable = 1 (Enabled)</li> </ul> <p>Mode 1 will perform all of Mode 0 as well as clear all switch button codes, set all buttons to single mode, clear any group assignments and set all button Timeouts to 0.</p>	Mode#	Function	0	Reset controller without re-initializing button parameters.	1	Reset controller and initialize button parameters (factory reset).
Mode#	Function						
0	Reset controller without re-initializing button parameters.						
1	Reset controller and initialize button parameters (factory reset).						

COMMAND	DESCRIPTION
<b>[TOUTCh#Time#]</b>	<p>Sets a Timeout value for an assigned button operating in the Toggle Mode.</p> <p>The first field is the four ASCII characters TOUT. The second field Ch# is the button number for which the timeout is to be set, this field is made up of two ASCII numbers 01 thru 08. The last field Time# is an ASCII number representing the number of minutes for the timeout, this field is made up of from 1 to 3 ASCII numbers 0 to 255. If 0 is entered the timeout feature is turned off (Default).</p> <p>Note: A button to be placed in Timeout Mode must be also placed in Toggle Mode and must <i>not</i> be assigned to a group!</p>
<b>[TOUTCh#?]</b>	<p>Returns the Timeout value for the specified button.</p> <p>The response is of the format [R0 97 TOUTCh#? Time#] where Ch# is the associated button number, and Time# is the set Timeout Value in minutes.</p>

COMMAND	DESCRIPTION
[ARC]	<p>Responds with the Architectural Information stored in the CTL208.</p> <p><b>Model</b> – This is a 4 Byte ASCII field defining the model type. A table of Inline products and associated type codes will be created.</p> <p><b>Model S/N</b> – This is a 9 Byte ASCII field indicating the product Serial number.</p> <p><b>Model Rev</b> – This is a 1 Byte ASCII field with the product Revision level.</p> <p><b>FW Num</b> – This is a 6 Byte ASCII field with the firmware number. If there is no associated firmware the number field will be filled with 0's.</p> <p><b>FW Rev</b> – This is a 2 Byte ASCII field with the firmware revision level. If there is no associated firmware the revision field will be filled with 0's.</p> <p><b>Baud #</b> – This is an N Byte ASCII field, which indicates all communications baud rates for the unit. A comma separates each baud rate in the field. i.e., 1200,2400,4800,9600,19200,38400</p> <p><b>Future</b> – This is a 2 Byte field reserved for future use. Presently this field is filled with 0's.</p> <p>The total response format is [R0 97 ARC Architecture Information]</p>

## Button Numbering

The drawing below shows the button location for the button number (**Ch#**) field when entering button serial command codes.

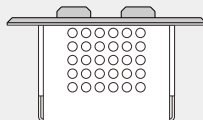
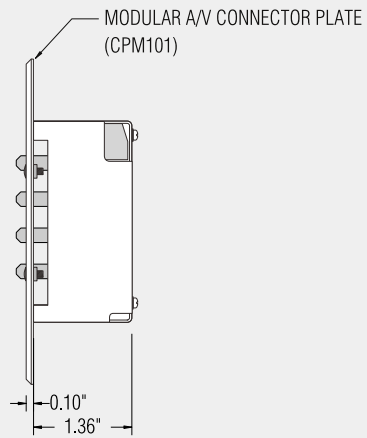
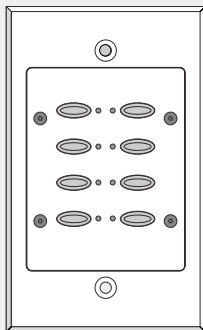
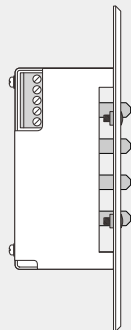
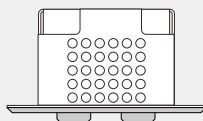
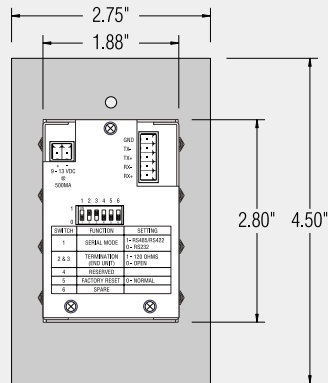


## Specifications

<b>CTL208</b>	
<b>General</b>	
Serial Port	RS-232 / RS-422 / RS-485 at 1200, 2400, 4800, 9600, 19200, or 38400 Baud, No Parity, 8 Data Bits, 1 Stop Bit. 5-Pin Captive Screw Terminal
Power:	9 to 13 VDC @ 1/2 Amp Max. 2-Pin Captive Screw Terminal
Power Consumption:	6.5 W Max.
Size:	1.88" W x 1.36" D x 2.80" H (Excluding Mounting Flanges)
Weight:	4 oz. (1/4 lb.)
<b>Regulatory Compliance</b>	
Safety:	UL 1950, 3 <sup>rd</sup> Ed.; CE: EN60950-92; CAN/CSA-22.2 No. 950 3 <sup>rd</sup> Ed.
EMI:	FCC class A; CE: EN50081-1, EN55022, EN50082-1

**CTL208-CM CONTROL MODULE**

**PRODUCT DIMENSIONS**



## Warranty

- INLINE warrants the equipment it manufactures to be free from defects in materials and workmanship.
- If equipment fails because of such defects and INLINE is notified within three (3) years from the date of shipment, INLINE will, at its option, repair or replace the equipment at its plant, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications.
- Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of re-shipment to the Buyer.
- This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

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