

## **Cabaret Screen Controller IMC100-T**

The Intelligent Motor Control IMC-T is a state of the art AC motor control for projection screens and draperies. Its small size allows easy mounting in electrical junction boxes and tight locations. It is the standard motor controller for the Stewart Cabaret electric screen. It contains a built in microprocessor to allow individual addressability as well as more sophisticated triggering and sequencing of any number of additionally linked IMC controllers from switches, screen trigger inputs, home automation systems or Internet Protocol (IP). The IMC controller can also be controlled via infrared and RF. Theoretically the IMC controller can be controlled by virtually anything the industry has to offer. The following information pertains to the IMC control and its functionality with the Cabaret electric screen.

### **1. Contact Closure Switching**

For your convenience, the factory has installed a short 4-conductor control lead to the IMC control board. This gray colored 22 gauge control wire serves as an interconnect to “latched” switches or relays. It can be extended up to 150 feet with similar hook up wire. It can be removed and replaced with any similar communication cable. Third party control systems such as Crestron or AMX can easily connect to this cable using only two relays to control the Cabaret screen. When the “white” lead is latched with the “black” lead, the screen will deploy to its full down or open position. At that time the internal shut off micro switch in the screen’s motor will open and the screen motor will stop. Conversely a latched connection of the “white” and “red” lead will retract the screen at which time the motor’s internal shut off micro switch will open and the motor will stop. Stewart Filmscreen has supplied a standard SPDT wall switch to perform this control function. When using the “latched” control feature of the IMC controller, please note that you can not “stop” the motor while the screen is in motion. This control operates the screen to its full retracted or deployed position only.

### **2. Dedicated 5 Button Wall Keypad for IMC (BSKP-5 optionally available)**

The IMC controller can also be switched via a dedicated 5-button wall keypad. This keypad will come standard if IR control has been specified as the IR eye sensor is contained within the keypad. The 5-button keypad will then connect to the RJ-25 active port (Port 0) located on the IMC board. The keypad uses digital signaling to transmit IR and screen commands to the IMC control board. The use of this switch also features a “stop” command. In this fashion, one could stop the screen while it is in motion. The hookup cable required for the dedicated keypad is a standard telecommunication 6-conductor type in which only 4 of the conductors are used for connectivity at the keypad’s terminal.

### **3. IR (infrared) Control**

Use the supplied hand held IR transmitter to control the screen. Aim the transmitter in the general direction of the keypad so that the IR signal can be seen by the eye sensor. You can use this transmitter to “learn” the IR code to other universal IR controllers. IR control of the screen will duplicate the functionality of the 5-button intelligent keypad. You will have control of the screen down, screen up and stop. An optional IR eye sensor can be plugged directly into the IMC control board in lieu of the using the wall keypad’s sensor. Do not use other manufacturer’s IR eye sensors as they are not compatible.

### **4. STI (screen trigger interface) Control**

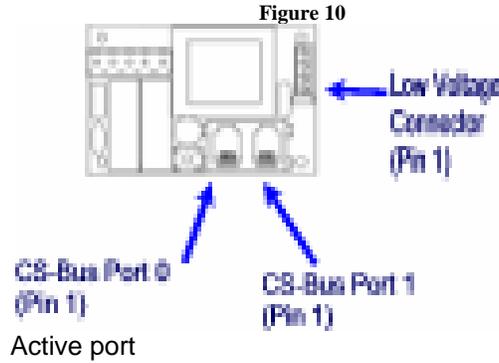
You can also operate your Cabaret screen from a 1 to 30 volt dc trigger source. Most projectors today contain a 12 VDC trigger output that can be connected directly to the IMC control. Simply connect the positive trigger output lead to the “green” connection wire. Connect the negative to the “white” lead. The trigger input and LV switch will function simultaneously. In this fashion, both the trigger and the latched switching input will operate the screen in a “selective switching” mode. Should one wish to retract the screen while the projector’s trigger is activated a press of the “up” button on the keypad will retract the screen. You can also lower the screen without activating the screen trigger by pressing the “down” button on the keypad.

### **5. RF (radio frequency) Control**

An optionally available RF module will plug directly into the RJ control port on the IMC control board. The Cabaret will then be controlled via small hand held RF transmitter. The transmitter contains a small electronic battery that will require future replacement. RF control can be used in conjunction with LV switch terminals to allow selective switching.

**IMC Cabaret Technical Information - Low Voltage Wiring**

The Cabaret IMC controller has both low-voltage connections as well as CS-Bus connections. Refer to following diagram for location of Pin 1 on all connectors.



Low-Voltage Switch and Voltage Trigger Interface (STI)  
Connections for Cabaret

Low Voltage Connector (on IMC-100T Controller) (see <a href="#">Figure 10</a> )	SPST Latched relay switch (UP)	SPST Latched relay switch (Down)	5V to 12V Screen Trigger Interface
Pin 1 (left) Ground	Pin 1 (Ground)	Pin 1 (Ground)	Ground
Pin 2 direction 1 input	Pin 2 (UP)		
Pin 3 direction 2 input		Pin 3 (DOWN)	
Pin 4 Screen Trigger Input			+3 - 15VDC 10ma (min)

Use a SPDT “latched” wall switch (supplied) for control activation of both directions of the Cabaret

The optional 5-button intelligent wall keypad (BSKP-5) plugs directly into the active port (Port 0). Please keep in mind that this switch is a “dedicated” digital control therefore other manufacturer’s switches can not plugged into the IMC control Port.

**Warning!** Do not plug any other types of switches into the control ports as damage to the unit’s microprocessor and resulting control failure may occur. The control port only receives RS-485 & IP interfaces. Improper use of the control ports will void the product warranty.

An optionally available IR eye sensor can be plugged into Port 0 if required (not Port 1). Please contact your dealer if you need to acquire the optional Cabaret IR eye sensor.

An optionally available RF module can be plugged into Port 0 if desired (not Port 1). Please contact your dealer if you need to acquire the optional Cabaret RF Module with hand held transmitter.

## **IMC Cabaret Controller Specifications**

<b>Motor Control</b>	Control of a single 1/3 hp. 2.1 amp bidirectional AC motor with surge suppression
<b>Voltage Power Requirement</b>	120 VAC 50/60 Hz. 240 VAC 50/60 Hz. Export version
<b>Relay Capacity</b>	Up to 5 amps current draw with on board fuse protection
<b>External LV Control</b>	Low voltage connection interfaces with dry contact relays and keypads or third party SPDT switches
<b>Screen Trigger Interface</b>	1 – 30 VDC, 10 ma 12 VDC is typical
<b>Addressability</b>	Multiple IMC controls can be linked together on the CS-Bus with individual addresses
<b>IR Control</b>	Yes – connect to RJ-25 control Port 0
<b>RF Control (optional)</b>	Yes – connect optional RF module to RJ-25 control Port 0
<b>IP Control (optional)</b>	e-Node controller plugs into either RJ-25 control port
<b>Control board size</b>	1.75” w. x 2.72” h. x 1” d.
<b>Weight</b>	4 oz.
<b>Safety</b>	ETL Listed & conforms to UL STD 325 – IMC 100T 120 VAC version
<b>Emissions</b>	FCC Class B
<b>Manufacturing</b>	Made in the USA

Specifications subject to change as required and without notice