

### General

The next generation plug-in controller and remote interface module, Series C700 offers a host of new features and is compatible with all new Universal Switching Corporation switching systems. Universal Switching products utilize a distributed multi-processor design where each module installed in the system has an embedded processor to handle all function and status reporting required. This includes major functions of the mainframe it's installed into such as the front panel display and keypad functions.

One unique feature of the Series C700 controller card is the fact that the firmware can be updated while in the field. This is achieved by the supplied firmware to upload new firmware to the serial service port. This port is a Mini-DIN connector located on the face of the controller card.

Also included with the C700 controllers is the high-speed US-LINK remote control link. This link interconnects various products offered by Universal Switching Corporation to provide individual control of the system via remotely located control panels.

### Applications

- System controller
- Remote control interface
- Standard remote panel control interface (US-LINK)
- GPIB interface functions
- Standard serial interface operation

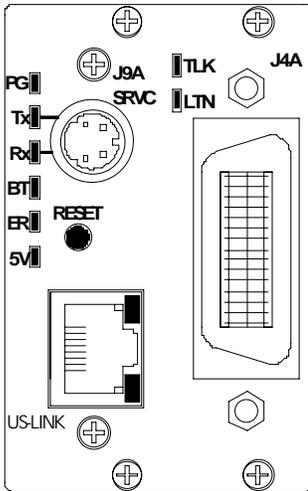
### Model Number Assignment

Model	Definition
C700-488	Controller with GPIB port
C700-S3	Controller with RS-232C/422A/485
C700-ENET **	Controller with GPIB port and E-NET adapter module (10-BaseT)

\*\* Adapter unit not shown.

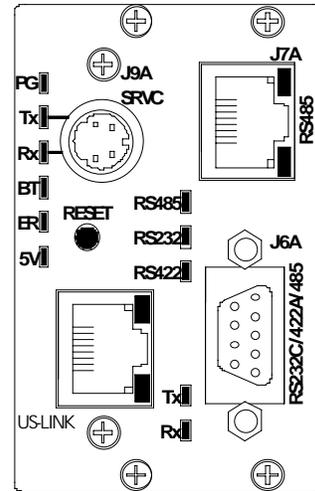
### C700-488

GPIB



### C700-S3

RS-232C / 422A / 485



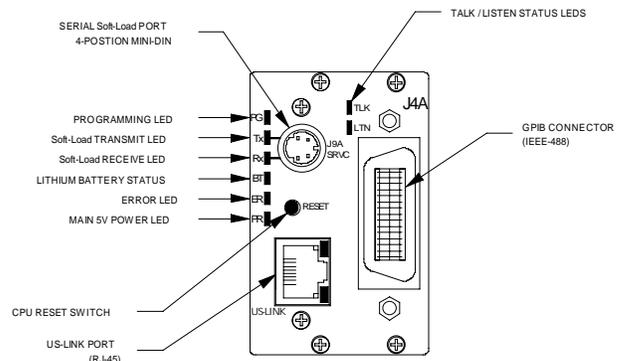
### General Specifications

Processor type	. . . . . 33MHz 8051 derivative	Remote control link	. . . . . US-LINK (RJ-45)
Internal control type	. . . . . G2 compatible ("C" type)	BITE	. . . . . Included
Memory	. . . . . Lithium-backed RAM	Weight	. . . . . .8oz
Memory retention	. . . . . >10 years	Operating temp	. . . . . 0 to +70C
FLASH program area	. . . . . Field upgradable	Non-operating temp	. . . . . -20 to +85C
Status LED's	. . . . . Included	Humidity	. . . . . 0 to 95% (NC @ +25C)
Battery monitor	. . . . . Included	MTBF	. . . . . >225,000 hours
DC power	. . . . . +5V, 750mA		(per MIL-HDBK-217F, N1 ground benign @ +25C)
Soft-Load port (J9A)	. . . . . Mini-DIN 4 position		

## Model C700-488

The GPIB version of the Series C700 controllers offers a high performance GPIB (IEEE-488.2) port. This type of parallel control port is very popular in ATE applications (automated test equipment). It is high speed and provides data handshaking. The C700-488 is designed as an IEEE-488.2 compatible device.

Pin	GPIB Assignment	Pin	GPIB Assignment
1	ID 1	13	ID 5
2	ID 2	14	ID 6
3	ID 3	15	ID 7
4	ID 4	16	ID 8
5	EOI	17	REN
6	DAV	18	GND (6)
7	NRFD	19	GND (7)
8	NDAC	20	GND (8)
9	IFC	21	GND (9)
10	SRQ	22	GND (10)
11	ATN	23	GND (11)
12	SHIELD	24	LOGIC GROUND



## Model C700-S3

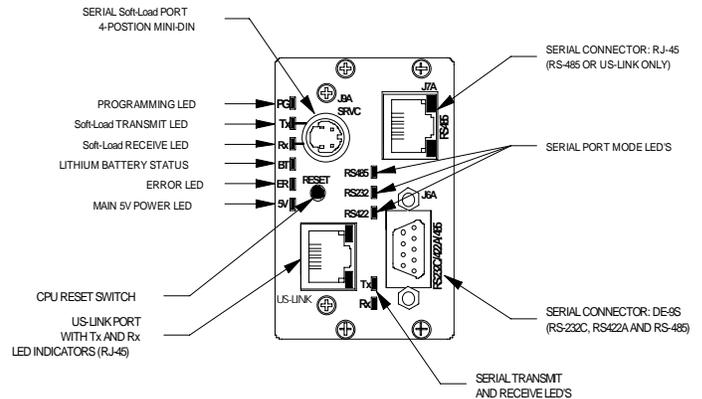
The C700-S3 can be configured for either an RS-232C, RS-422A or an RS-485 multi-drop hardware configuration. The RS-232C mode will connect to a normal serial port from most PC compatible computers.

The RS-422A configuration is less popular, however it will communicate at faster speeds and longer distances than the RS-232C configuration. The RS-422A mode is differential and is terminated in 100 ohms across the data and handshaking pairs.

The RS-485 configuration is used with multiple serial units in a multi-drop control scenario. Each unit is assigned a binary address via DIP switch settings on the plug-in. This is a high-speed and long distance control configuration.

Selection of the control mode is done via jumpers on the controller. Simply un-plug the card and change the location of the jumpers per the instruction sheet.

Pin	RS-232C Mode	RS-422A Mode	RS-485 Mode
1	Not Used	Transmit Data: out (-)	Data: (-)
2	Transmit Data: out	Transmit Data: out (+)	Data: (+)
3	Receive Data: in	Receive Data: in (+)	Not Used
4	Not Used	Receive Data: in (-)	Not Used
5	Ground	Ground	Ground
6	Not Used	Clear To Send (-)	Not Used
7	Clear To Send	Clear To Send (+)	Not Used
8	Ready To Send	Ready To Send (+)	Not Used
9	Not Used	Ready To Send (-)	Not Used



### The J9A Serial Service Port

The Series C700 contains a serial service port for downloading new firmware drivers to the FLASH program area of the CPU. The connector is a standard four position Mini-DIN circular identified as J9A. Upgraded firmware enhancements can easily be added to the system by downloading the new

version via this port. A cable is provided with most upgrade kits and connects to your PC computer or other serial control device. The port is fixed at 9600 baud, 8 bits, no parity, 1 start bit and 1 stop bit.

Pin	RS-232C Service Port
1	Transmit Data (output)
2	Receive Data (input)
3	Program Output (connects to pin 4 to program)
4	Program Input (connects to pin 4 or to RTS)
Case	Ground (shell of DIN connector)