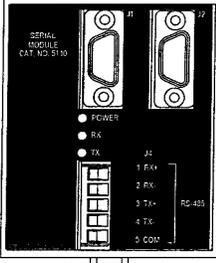
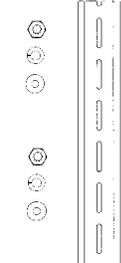


# Installation Manual

# ASCO® Catalog 5110 Accessory 72A Serial Module for 4000 Series, 7000 Series, & Series 300 ATs

## Contents of Accessory 72A Kit 755257

Serial Module	DIN Rail & Hardware	10-inch Serial Cable
629750	754607	629798-001
		

### Accessory 72A Kit 755257-001

Includes the above three items plus a 4-foot serial cable ( 629798-002 ) for a Power Manager.

For G-design 7ATB, 7ACTB, and 7ADTB Automatic Transfer & Bypass-Isolation Switches a 9-foot serial cable ( 629798-004 ) must be ordered separately.



Refer to the wiring diagrams and drawings provided with the automatic transfer switch (ATS).

The ASCO Catalog 5110 Serial Module (optional Accessory 72A) is required with 4000 Series, 7000 Series, or Series 300 Automatic Transfer Switches (ATs) for serial communications. With this option installed, the ATs Controller can respond to requests (from ASCO devices) to send the status of standard features and optional accessories. In addition, the controller can receive remote commands to control the operation of the ATs.

This manual explains how to install the Serial Module on 4000 Series, 7000 Series, and Series 300 ATs only.

### DANGER

**DANGER** is used in this manual to warn of high voltages capable of causing shock, burns, or death.

### WARNING

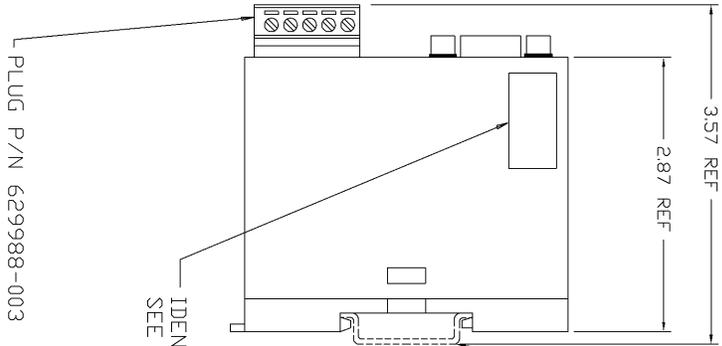
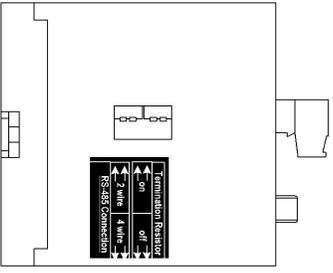
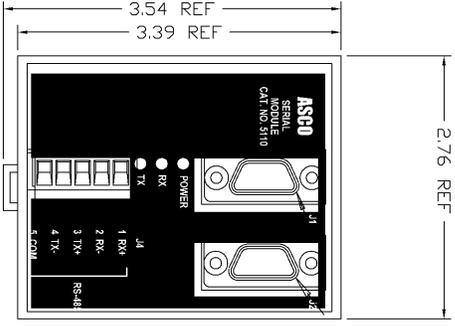
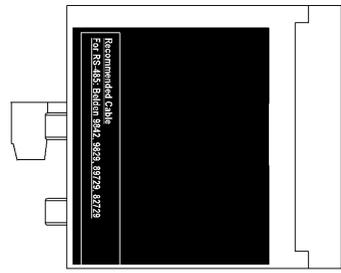
**WARNING** is used in this manual to warn of possible personal injury.

### CAUTION

**CAUTION** is used in this manual to warn of possible equipment damage.

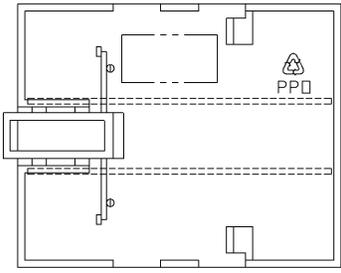
An experienced licensed electrician should install the Serial Module.

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IDENTIFICATION MARKING  
SEE 746452

MOUNTING RAIL  
[35mm DIN Rail]



PROJECT NAME:		INSTALLATION		THIRD ANGLE PROJECTION	
OUTLINE SERIAL MODULE		CAT. NO. 5110 (ACCESSORY 72A)		ASSEMB. REF. NO.	
BY	DATE	MANUFACTURER'S PART NO.	REV.	DATE	DESCRIPTION
SRC	11/05	ASCO	001		
CHECKED		PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.			
DATE	11/05	ASCO Power Technologies, L.P. FLORIAN PARK, NEW JERSEY 07932 U.S.A.			
APPROVAL	AS				
CHANGE LETTER	EN NO.	BR	APP	DATE	
A	206873	SRC	AS	12/05	
	Updated Logo's	206489	SRC	AS	11/05
	NEW ISSUE				
SCALE NONE		COMPUTER GENERATED DRAWING		FILE .01	
SIZE Dwg. No.		ACAD		CS1786556	
CHANGE LETTER A		EN NO. 206873		SHEET 1 OF 1	

# SERIAL MODULE INSTALLATION

With Accessory 72A Serial Module Catalog 5110 added to 4000 Series, 7000 Series, and Series 300 Automatic Transfer Switches (ATSS), real-time data can be accessed through the serial interface. Refer to the installation drawings provided and follow the steps below to install the Serial Module.

**⚠ DANGER**

**De-energize the Normal and Emergency sources before opening the enclosure. Place the engine generator starting control in the OFF position. Make sure the generator is not operating.**

## Mounting

The Serial Module mounts on a DIN rail directly under the ATS controller. See Figures 1 and 2.

1. De-energize both Normal and Emergency sources that feed the ATS. Then open the enclosure door and check with a non-contact AC voltage detector.
2. Mount the DIN rail (supplied in the kit) onto two studs (on the door) below the controller.
3. Install the Serial Module onto the DIN rail by hooking the top of the module on the top of the DIN rail and rocking it downward until it snaps in place. If you need to remove the Serial Module, pull the release tab underneath.

## Connections

A short serial cable connects the Serial Communication Module to the Controller. If a Power Manager is present, a long serial cable connects the Serial Communication Module to the Power Manager. Refer to wiring diagram provided. Wiring must be performed by an experienced licensed electrician in accordance with the National Electrical Code and all local codes.

1. Install the 10-inch serial cable (from the kit) between the ATS controller receptacle (J7 on 4000 & 7000 Series, J4 on Series 300) and the Serial Module receptacle J1.
2. If a Power Manager is present, connect the 4-foot serial cable between Power Manager receptacle J5 and the Serial Module receptacle J2\* (see Figure 2).

\* A 9-foot serial cable (629798-004) is required for G7ATB, G7ACTB, G7ADTB.

3. Prepare and connect the specified communication cable (Table A) to the Serial Module J4 terminal plug as listed in Table B and shown in Figure 3.
4. When daisy chaining multiple ATSS, the ATS the **farthest distance** from the controlling device must have a termination resistor. The Serial Module has a built-in termination resistor that can be connected by moving two DIP switches to ON (see Figure 4).

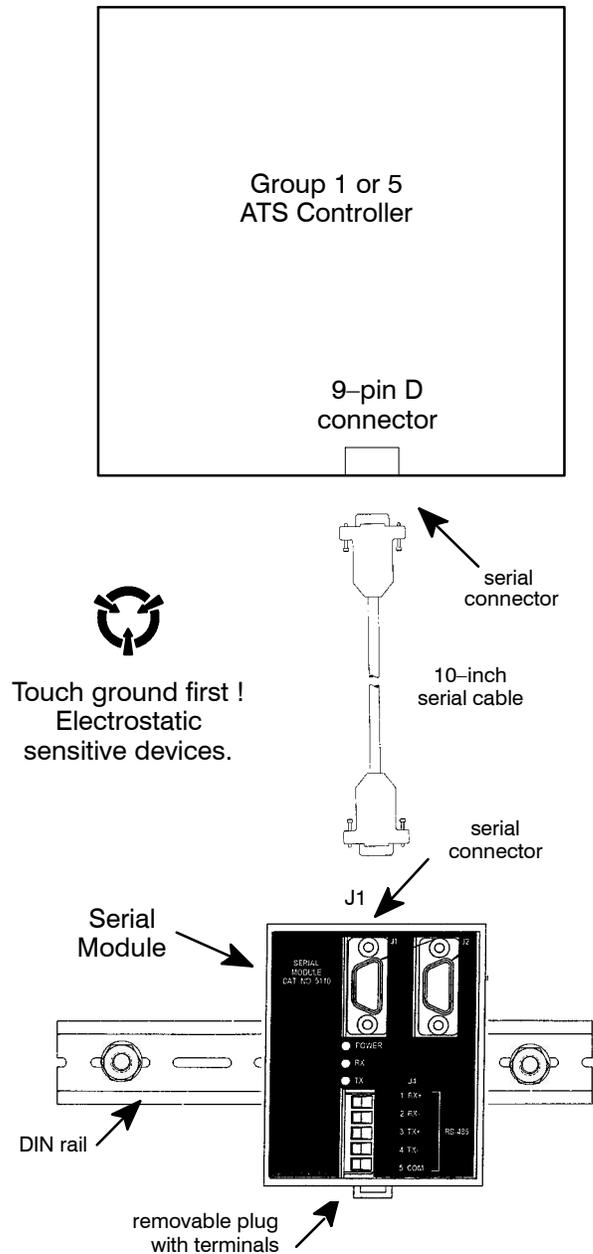


Figure 1. Serial Module mounted on DIN rail.

Table A. Acceptable Communication Cable.

Standard 80 degree C Cable	Plenum Rated Cable
Belden 9842 or 9829	Belden 89729 or 82729
Alpha 6202C or 6222C	Alpha 58902

Table B. Serial communication connections.

Serial Module J4 terminals	Function	Description
5	COM	shield
3	TX+	twisted pair
4	TX-	
1	RX+	twisted pair
2	RX-	

## SERIAL MODULE INSTALLATION *(continued)*

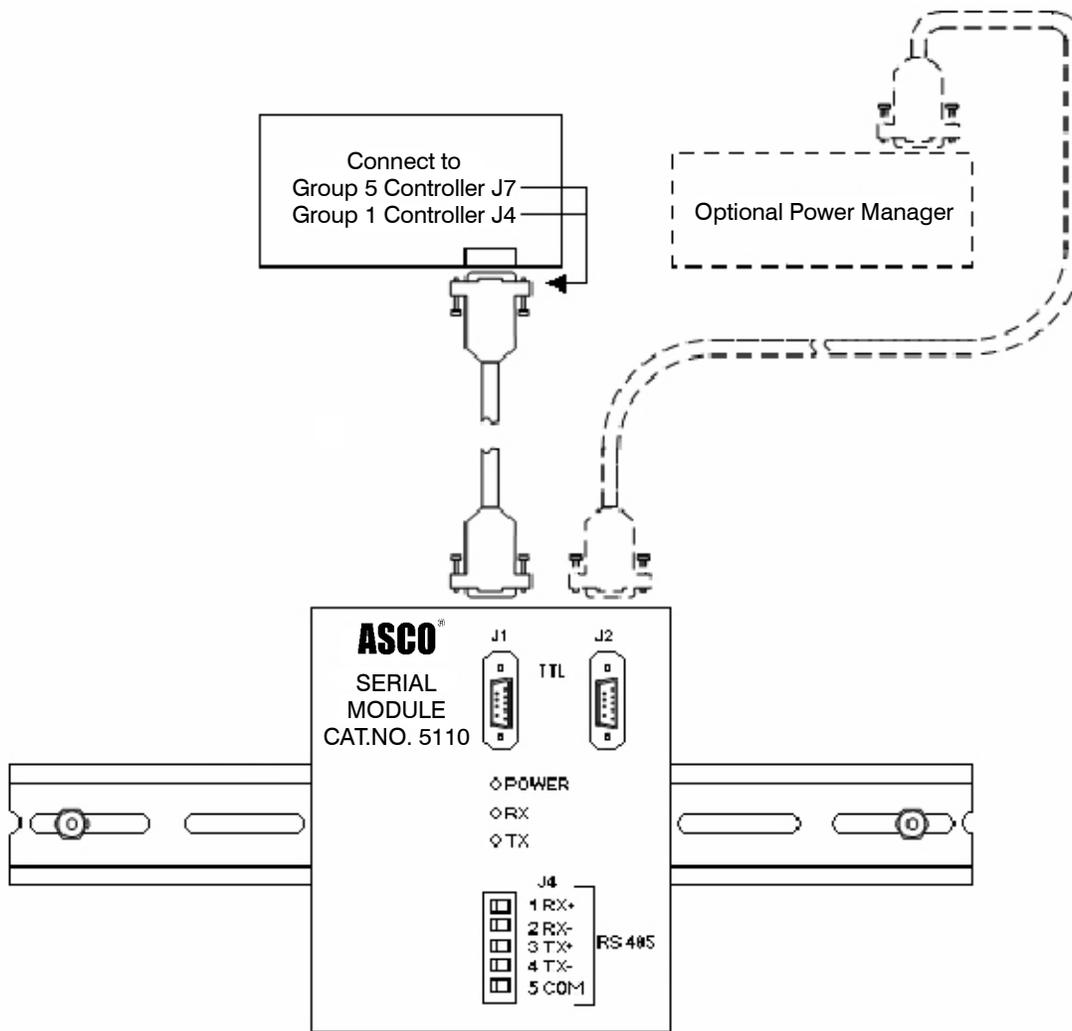


Figure 2. Serial Module connections to ATS Controller and Power Manager..

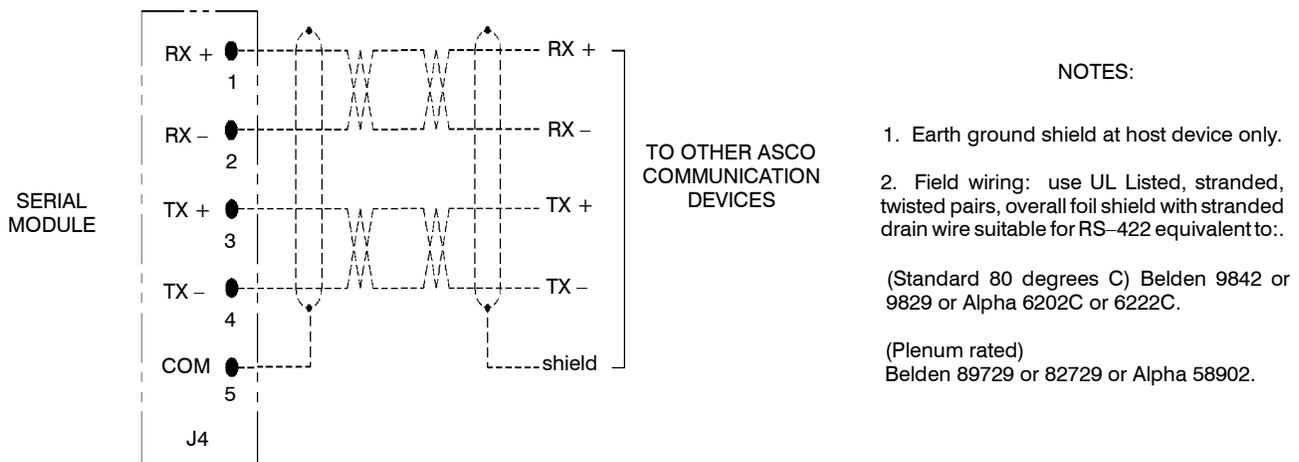


Figure 3. Serial communication connections to the Serial Module.

## SERIAL MODULE INSTALLATION (continued)

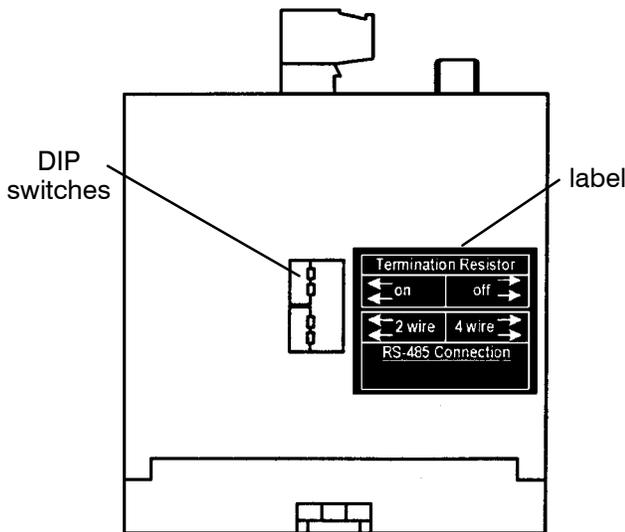


Figure 4. Termination resistor DIP switches on bottom of Serial Module. Must be ON for ATS farthest away from the host device.

### Setting the ATS Address

Set the communication address in the ATS controller. Follow either the 4000 & 7000 Series procedure or the Series 300 procedure below. Use Table D to record the address and other ATS information.

#### 4000 & 7000 Series ATSS

1. Refer to Group 5 Controller *User's Guide* 381333-126 pages 2-8 and 2-9 for how to set a unique address for this Automatic Transfer Switch.
2. If *ASCObus II* protocol is used (such as used with VPi computer software) and a Power Manager is included with the ATS, the Power Manager must be programmed with the same address as that selected for the ATS Group 5 Controller connected to the Serial Module.

However, if *Modbus* protocol is used and a Power Manager is included with the ATS, the PM must be programmed with a different and unique address (not the same as the address of the Controller).

For setting the address in Power Manager Xp refer to *Operator's Manual* 381333-199.

#### Series 300 ATSS

1. Remove the cover from the controller by releasing the latch on right side with your thumb. See Figure 5.
2. Locate DIP switch S3 (left center) and set a unique address for this ATS. Use a ball-point pen (or similar pointed tool) to slide the switch actuators left or right so that they match the illustration next to the setting (left=off, right=on). Recheck the setting. See Figures 6 & 7, and refer to Table C on the next page.

3. Reinstall the cover on the controller by hooking it on the left side and latching the right side.
4. The Series 300 ATS Group 1 Controller uses *ASCObus II* protocol. Therefore, if a Power Manager is included with the ATS, the PM must be programmed with the same address as that selected for the ATS Group 1 Controller connected to the Serial Module. Refer to *Operator's Manual* 381333-199.

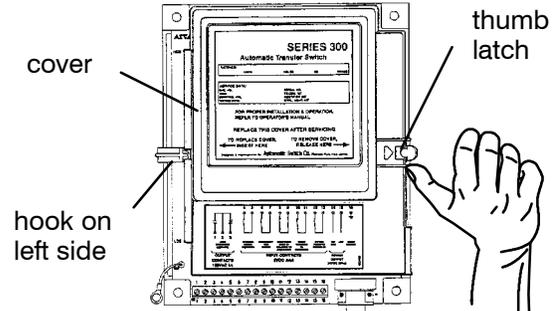


Figure 5. Group 1 Controller cover latch.

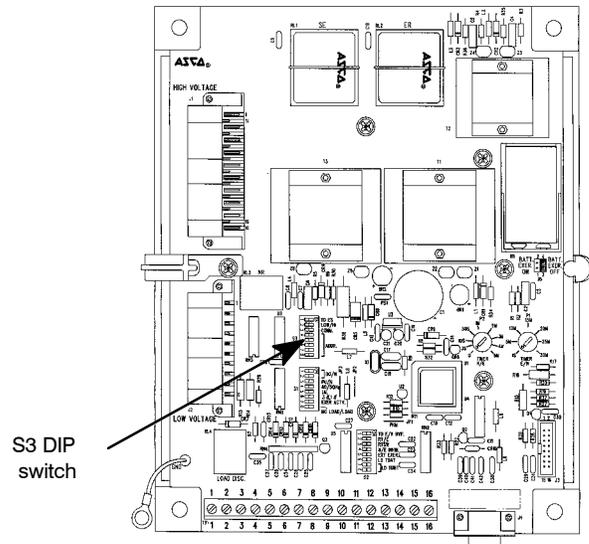


Figure 6. Location of S3 DIP switch in Group 1 Controller (Series 300 ATSS).

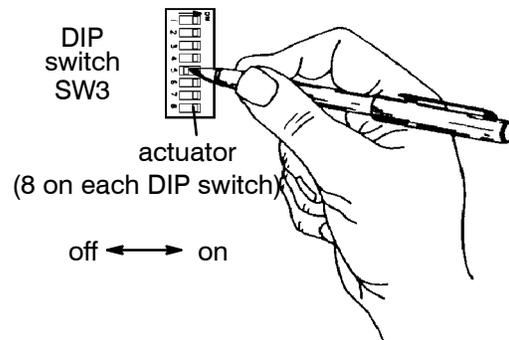
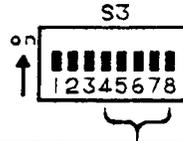


Figure 7. Setting DIP switch actuators.

# SERIAL MODULE INSTALLATION *(continued)*

Table C. ATS Address (on ATS Controller – Group 1 only) Series 300 ATSs



Address setting	S3 DIP Switch	Actuator Positions				
		4	5	6	7	8
Address 31		off	off	off	off	off
Address 30		off	off	off	off	on
Address 29		off	off	off	on	off
Address 28		off	off	off	on	on
Address 27		off	off	on	off	off
Address 26		off	off	on	off	on
Address 25		off	off	on	on	off
Address 24		off	off	on	on	on
Address 23		off	on	off	off	off
Address 22		off	on	off	off	on
Address 21		off	on	off	on	off
Address 20		off	on	off	on	on
Address 19		off	on	on	off	off
Address 18		off	on	on	off	on
Address 17		off	on	on	on	off
Address 16		off	on	on	on	on

Address setting	S3 DIP Switch	Actuator Positions				
		4	5	6	7	8
Address 15		on	off	off	off	off
Address 14		on	off	off	off	on
Address 13		on	off	off	on	off
Address 12		on	off	off	on	on
Address 11		on	off	on	off	off
Address 10		on	off	on	off	on
Address 09		on	off	on	on	off
Address 08		on	off	on	on	on
Address 07		on	on	off	off	off
Address 06		on	on	off	off	on
Address 05		on	on	off	on	off
Address 04		on	on	off	on	on
Address 03		on	on	on	off	off
Address 02		on	on	on	off	on
Address 01		on	on	on	on	off
Address 00		on	on	on	on	on

Note: Address 00 is reserved.

## SERIAL MODULE INSTALLATION *(continued)*

Fill in the table below with the ATS Catalog and Serial Numbers and location next to the Address Number selected.

Table D. Address Selection for each Automatic Transfer Switch with a Serial Module.

<b>Address Number</b>	<b>Catalog Number</b>	<b>Serial Number</b>	<b>Switch Location</b>
01			
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

## SERIAL MODULE INSTALLATION *(continued)*

Fill in the table below with the ATS Catalog and Serial Numbers and location next to the Address Number selected.

Table D. Address Selection for each Automatic Transfer Switch with a Serial Module (continued).

<b>Address Number</b>	<b>Catalog Number</b>	<b>Serial Number</b>	<b>Switch Location</b>
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			

After all settings are made, close the enclosure door and reenergize the Normal and Emergency power sources to the Automatic Transfer Switch.