4 PORT RS485 NETWORK HUB
INSTRUCTIONS
(CA-A370)

SIMPLIFIES INSTALLATION
DECREASES WIRING AND INSTALLATION COST
PROVIDES HIGHER NETWORK ISOLATION FROM NOISE
ALLOWS YOU TO WIRE AN RS-485 NETWORK IN A STAR CONFIGURATION

The CA-A370 Network Hub allows you to wire an RS-485 network in a star configuration along a new or existing RS-485 network without affecting the performance of the main network or devices connected to it. The CA-A370 has 4 "slave" ports that are completely independent of one another. Using the CA-A370 provides higher network isolation from noise thus greatly increasing communications reliability. The CA-A370 simplifies installation, and makes running an RS-485 network more cost-effective by reducing wiring and installation time.

CA-A370 in "Daisy Chain"
Up to eight CA-A370's can be connected in "daisy chain" fashion. The "slave" port of one CA-A370 simply becomes the "master input" of the next one. The distance between each CA-A370 should not exceed 3000 feet (1.2km). Please follow the installation instructions to ensure that the correct EOL terminations are selected.

Master Input
The "master input" port can be connected anywhere along the "daisy chain" of an existing or new RS-485 network. In a typical system, the "master input" is connected to the RS-485 network in the same manner as a CT-V900 controller. Data received from the controllers connected to any of the 4 "slave" ports of the CA-A370 is transmitted via the "master input" port to the access control PC. Please follow the installation instructions to ensure that the correct EOL terminations are selected. The distance between the access control PC and the "master input" of the first CA-A370 should not exceed 3000 feet (1.2km).

"Slave" ports 1-4
"Slave" ports allow you to branch off the main RS-485 network to reduce wiring and installation time. Up to 32 devices can be connected in a "daisy chain" to each "slave" port. The first controller connected to a "slave" port is wired in the same manner as the CT-V900 controller. As demonstrated in the figure below, the correct termination must be selected for each "slave" port. The distance of each "slave" network should not exceed 3000 feet (1.2km). Please follow the installation instructions to ensure that the correct EOL terminations are selected.

Power requirements
Power is applied to the unit through the 12V and GND Inputs.

LED Indicators
The CA-A370 has 6 on-board status indicators to show power, network activity and port activity.

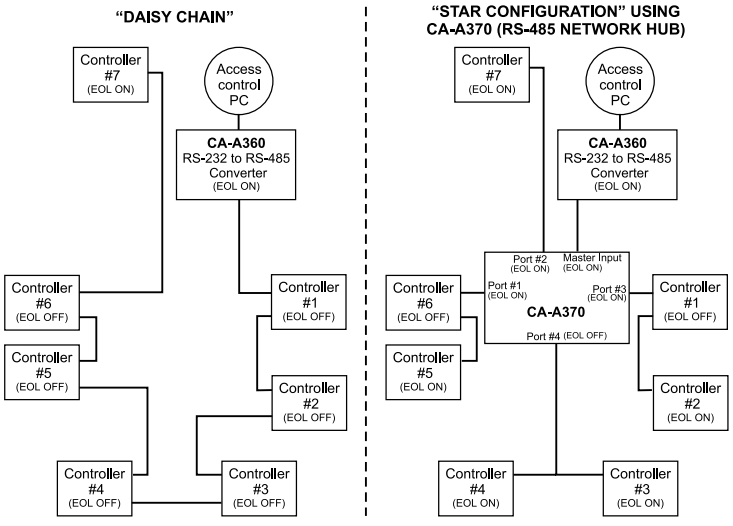
Power
The ORANGE power LED indicates that the board is being supplied with power and should be continuously illuminated.

Activity
The RED activity LED indicates that the HUB is active in either broadcasting network messages to the "slave" ports or is receiving data from the "slave" ports.

Traffic 1-4
The 4 GREEN traffic LEDs indicate that a device on the corresponding "slave" port is broadcasting information to the "master input" port. This will also be indicated by the master activity LED illuminating in unison.

Fault 1-4
The 4 RED fault LEDs indicate that a fault condition has occurred and needs to be checked on the corresponding “slave” port.

COMPARISON BLOCK DIAGRAM (BASIC OPERATION)



SPECIFICATIONS

Power Supply	Typical: 13.8Vdc Min: 10.0Vdc Max: 14.75Vdc
Current Consumption	Typical: 191mA @ 13.8Vdc Min: 184mA @ 13.8Vdc Max: 235mA @ 13.8Vdc
Operating Temp.	-10C (14F) to +55C (131F)
Humidity (non-condensing)	0-95%
PCB Dimensions	12.3mm x 13.6mm x 21.7mm
Operating Speed	128KB all ports
Maximum Devices	32 per slave port
Termination	120 Ohm Balanced
LED Indicators	1 Orange Power 1 Red "Master" port activity 4 Green "Slave" port activity 4 Red “Channel Fault”
Recommended Cable	Beldon Cat 5 BD 40000 Rabbit

POSITION Technology

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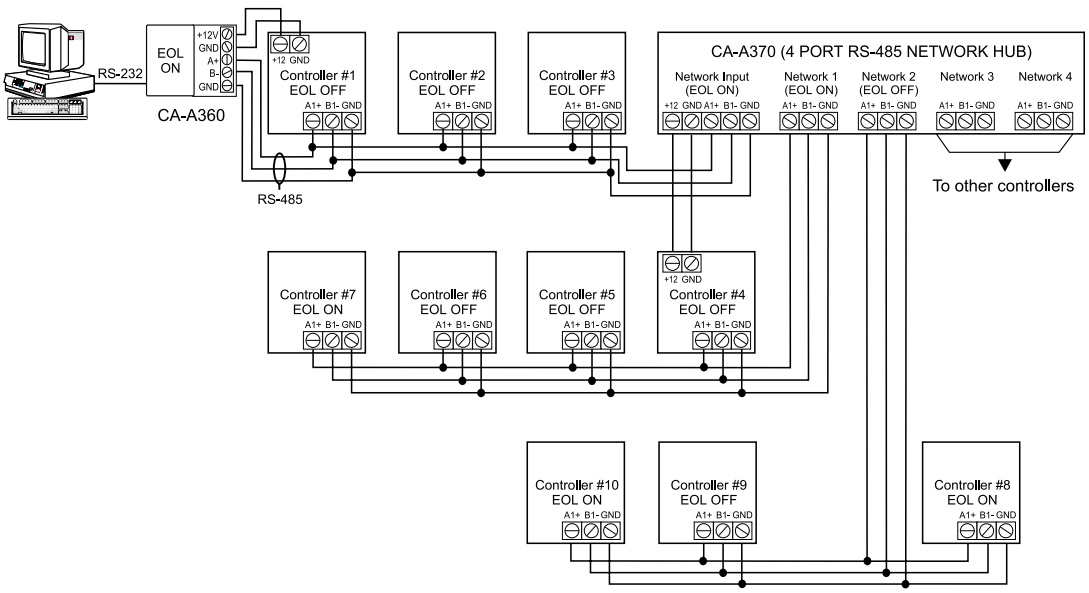
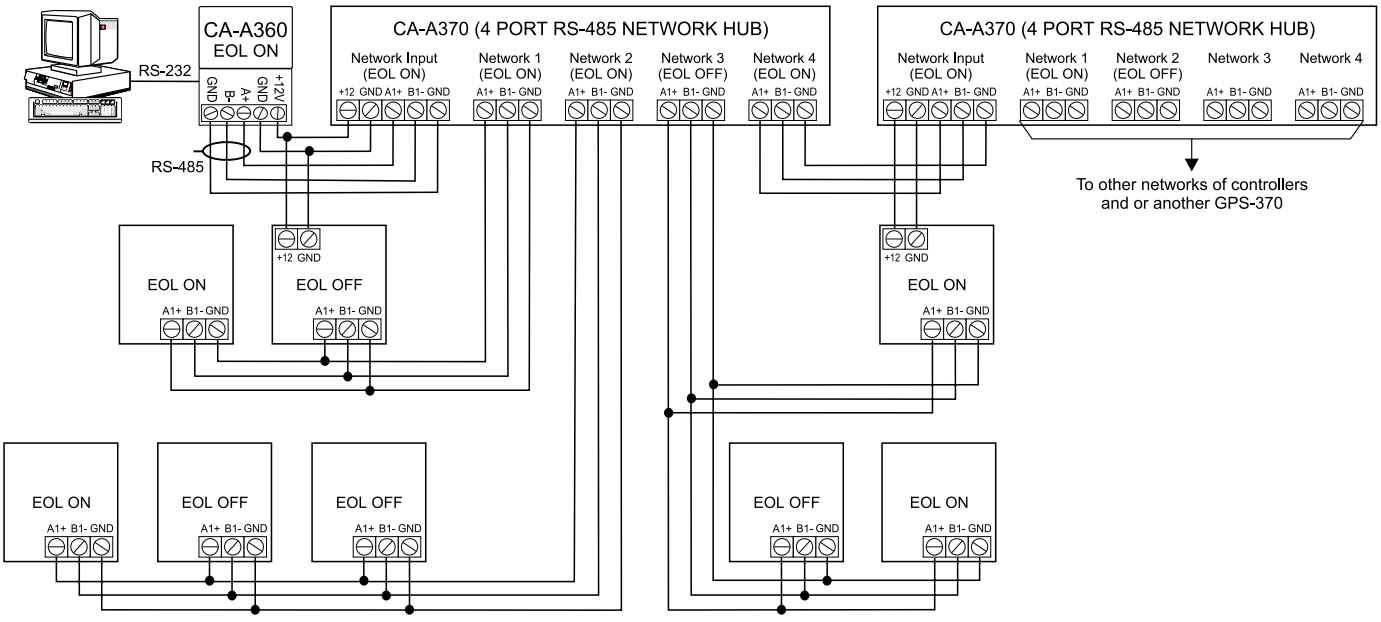
STAR CONFIGURATION WIRING DIAGRAM



Note: The distance between the first and last device in each network should not exceed 3000 feet (1.2km).

USING CA-A370 IN A "DAISY CHAIN"



Note: The distance between the first and last device in each network should not exceed 3000 feet (1.2km).