

Automation Service News

The Newsletter of Delta Automation Inc.

Tech Tip!

**Common Mistakes
When installing
Remote I/O Networks**

**Items of Concern
when
Updating 484 Systems**

**Important Issues to
Consider During
484 Upgrades or PIP's**

**Modicon
Trivia Question**

**Correctly Identify
This Part and
Win a Dinner Certificate**

Important Info!

**Information on Corrosion
involving Remote I/O Connectors**

Delta Automation Contact Info

**Contact names, numbers and E-mail
addresses**

Tech Tip!

Common Mistakes when installing Remote I/O Networks

The vast majority of Remote I/O system problems uncovered during the many years of Field Service work performed by Delta Automation Inc's Field Service Engineers both in working for the manufacturer and for Delta Automation Inc, have been in the installation phase of the system.

Many, if not most, of these issues are very small in their individual contribution to an unsatisfactorily performing system. However; many of these seemingly unimportant issues (such as wire placement and proximity to other wiring) added together, along with the added burden of a large cabling system or many drops, will indeed cause poor system performance if not a complete system collapse and failure.

One of the most important decisions about a remote I/O system is the choice of a properly specified cable. One of the cabling choices is to select the size of the cable. An improperly sized cable may contribute to excessive signal losses, not to mention the physical attributes of installation. On a Modicon remote I/O system, a general rule for the trunk cabling size is, less than 1000 feet may utilize quad-shield RG-6, between 1000 and 5000 feet should utilize quad-shield RG-11, any system greater than 5000 feet should incorporate the use of fiber optic cable and modems. All standard drop cables should be RG-6.

The connectors should all be of the "F" type, and should be designed specifically to fit the specified coax cable used. Without question, these connectors must be installed utilizing the manufacturers specified tools for stripping and crimping.

The Taps used must be of the latest electrical revision available (there have been several revisions for cosmetic reasons).

Only splitters used in "combining" HSBY system CPU's should be installed. Splitters used to "split" the trunk should be avoided or must have balanced segments or "legs".

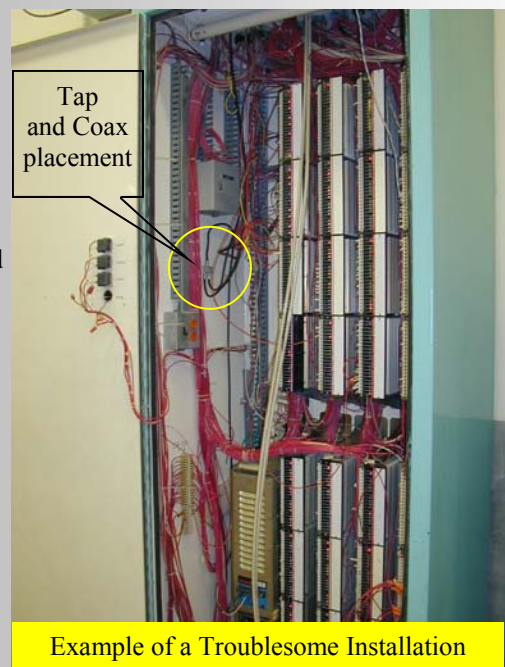
All devices, including: Taps, Splitter, or Optical Modems, must be separated by at least 10 feet of trunk cable.

All of these items, plus many, many more are examined, corrected, or repaired to bring the system in question into specification when Delta Automation Inc. is requested to repair/troubleshoot or **Certify**

a system. This service is unique to Delta Automation Inc. It includes a written report detailing the work performed to correct any problems but also

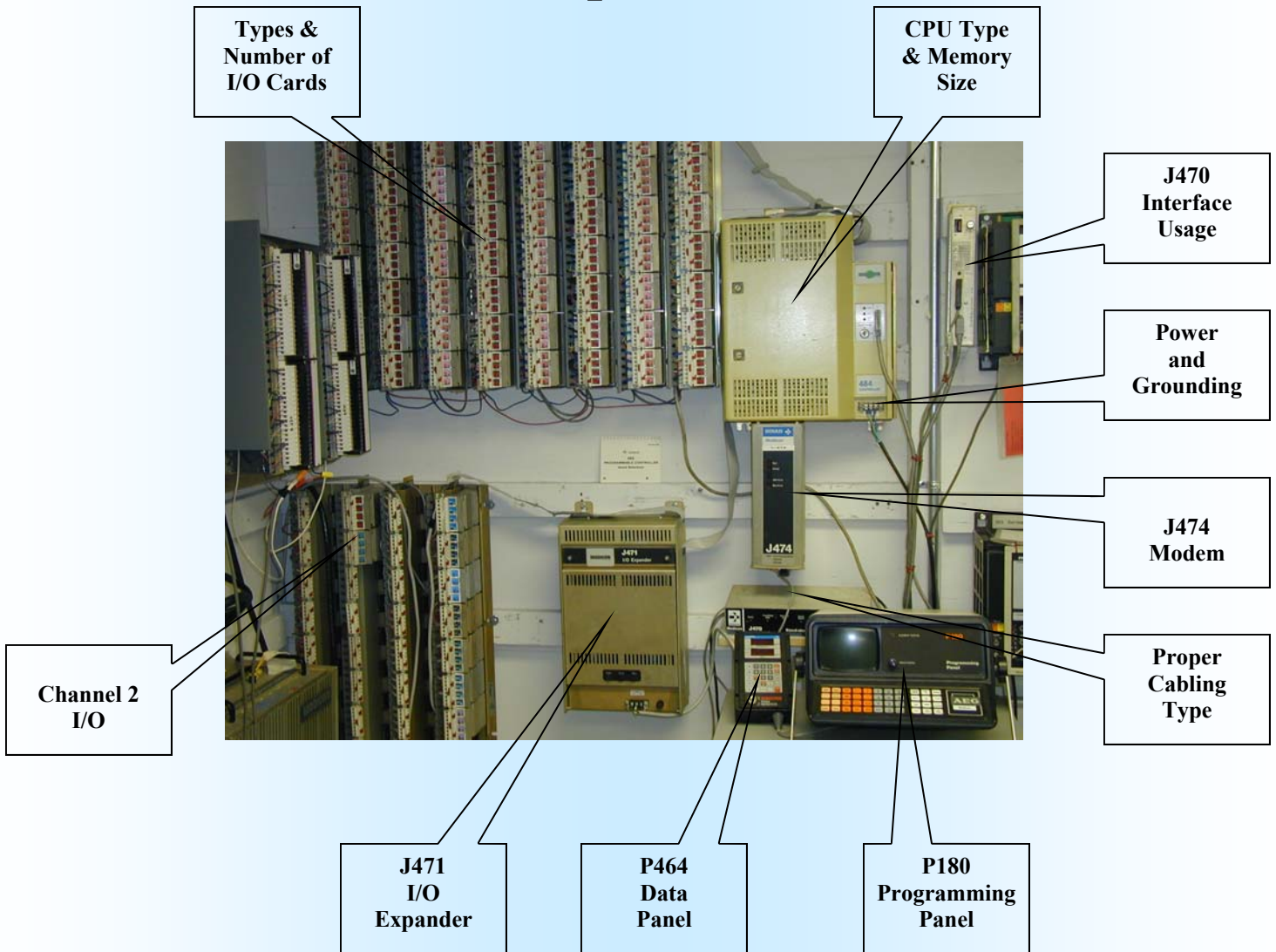
provides the systems specifications as measured once repaired for reference or to aid in system upgrades or changes.

If you would like more information on this or any other remote I/O problem, symptom or design issue, please contact Delta Automation, Inc. Feel free to ask any of our completely satisfied *system certification* customers if the procedure is a worthwhile investment.



Items of Concern when Updating 484 Systems

Typical 484 System Components



These items and others may influence what hardware options are selected for each application.
Please consider Delta Automation, Inc. when providing an upgrade solution.

Modicon Trivia Question

If you are the very first individual to correctly identify the Modicon part shown in the accompanying photo, you will receive a gift certificate for dinner at an Applebee's Restaurant. Send us an E-mail stating what this part was originally designed to do. Be as *specific* as possible as to system, and function. The first, most correct answer will win. The winner will be notified via E-mail and will be announced in our next newsletter.

The diskette is shown for size reference.



E-MAIL: PLC@DELTAAUTOMATION.COM

Remote I/O Service Kits

In our past newsletters, Delta Automation Inc. announced production of a special kit containing all of the necessary tools and parts for installation of the new style remote I/O connectors. The kits were sold out immediately! We are happy to announce that they are back in stock. There are three kits from which to choose. The most useful and economical, is the combination kit, **DA-RIOC-KIT**.

The RG-6 Kit, Part number **DA-RIO6-KIT**, priced at \$ 275.00 each.

The RG-11 Kit, part number, **DA-RIO1-KIT**, priced at \$ 361.00 each.

The combination RG-6/RG-11 Kit, Part number, **DA-RIOC-KIT**, priced at \$ 518.00 each.



These kits have proven to be invaluable to anyone that must service and maintain remote I/O systems.

Include this kit with all of your new orders, projects, or upgrades involving Remote I/O !

Important Info

Corrosion and Remote I/O Connectors

A major problem with some installations of remote I/O due to the industrial environment is galvanic corrosion developing on the connector. When two different type metals, such as aluminum and copper, which are used on remote I/O network connections are installed, one becomes the anode in a galvanic environment and the other the cathode. This happens in the present of an electrolyte (like moisture) that causes a difference in electrical potential. Tin plated connectors are used for three basic reasons: Improve appearance, lower contact resistance, and eliminate galvanic corrosion. Tin plating prevents copper from discoloration.

(Source from Connector Specifier Dec 2003 issue)

Delta Automation Contact Info

804-236-2800

Toll free 1-888-PC-DELTA
(888-723-3582)

fax 804-236-2900

Bob Culley	President	bobculley@deltaautomation.com
Margarete Culley	Vice President	mculley@deltaautomation.com
Roy Caudle	Service	roycaudle@deltaautomation.com
Bernie Wieland	Sales	berniewieland@deltaautomation.com
Clark Jones	Sales	clarkjones@deltaautomation.com
Vann Barden	Outside Sales	vannbarden@deltaautomation.com
Mike Martinelli	Repair	marti@deltaautomation.com
Theresa Umbel	Accounting	plc@deltaautomation.com

For after hours

Emergency Service or Parts

Call our main number 888-723-3582

Extension 55

Leave a message and someone will respond within fifteen minutes to answer your call.

www.deltaautomation.com

2704 Charles City Road Richmond, VA. 23231