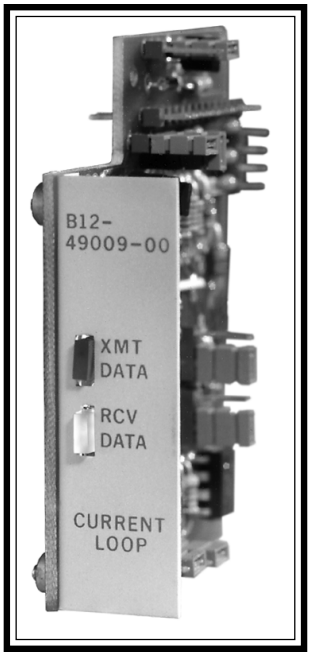
49009
CURRENT LOOP INTERFACE SUBASSEMBLY



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About this Practice:

This practice has been reissued to:

- Meet ISO 9001 requirements.

Reissued Practices: Updated and new content can be identified by a banner in the right margin.

UPDATED

Issue date: March 1998

CAUTION

- Install or remove modules from the shelf only when the power is off. If you install a module in the shelf with the power on, the internal circuitry may suffer damage and the product warranty will be void.
- Remove and install circuit boards only in a static-safe environment (use antistatic wrist straps, smocks, footwear, etc.).
- Keep circuit boards in their antistatic bags when they are not in use.
- Do not ship or store circuit boards near strong electrostatic, electromagnetic, magnetic, or radioactive fields.
- For more complete information on electrostatic discharge safety precautions, refer to Bellcore™ Technical Reference # TR-NWT-000870.

ORDERING INFORMATION

NOTE: This section lists the different options available for this product. To order any of the available options, contact Dantel Inside Sales through our toll-free number, **1-800-432-6835.**

OPTION NUMBER	FEATURES
B12-49009-00	RS-232 Current Loop Interface Subassembly

GENERAL DESCRIPTION

The 49009 Current Loop Interface Subassembly provides a bi-polar current loop or EIA Standard RS-232 data communications interface for use with the 460 Alarm and Control System.

CIRCUIT DESCRIPTION

The 49009-00 Current Loop Interface Subassembly functional schematic is shown in Fig. 1.

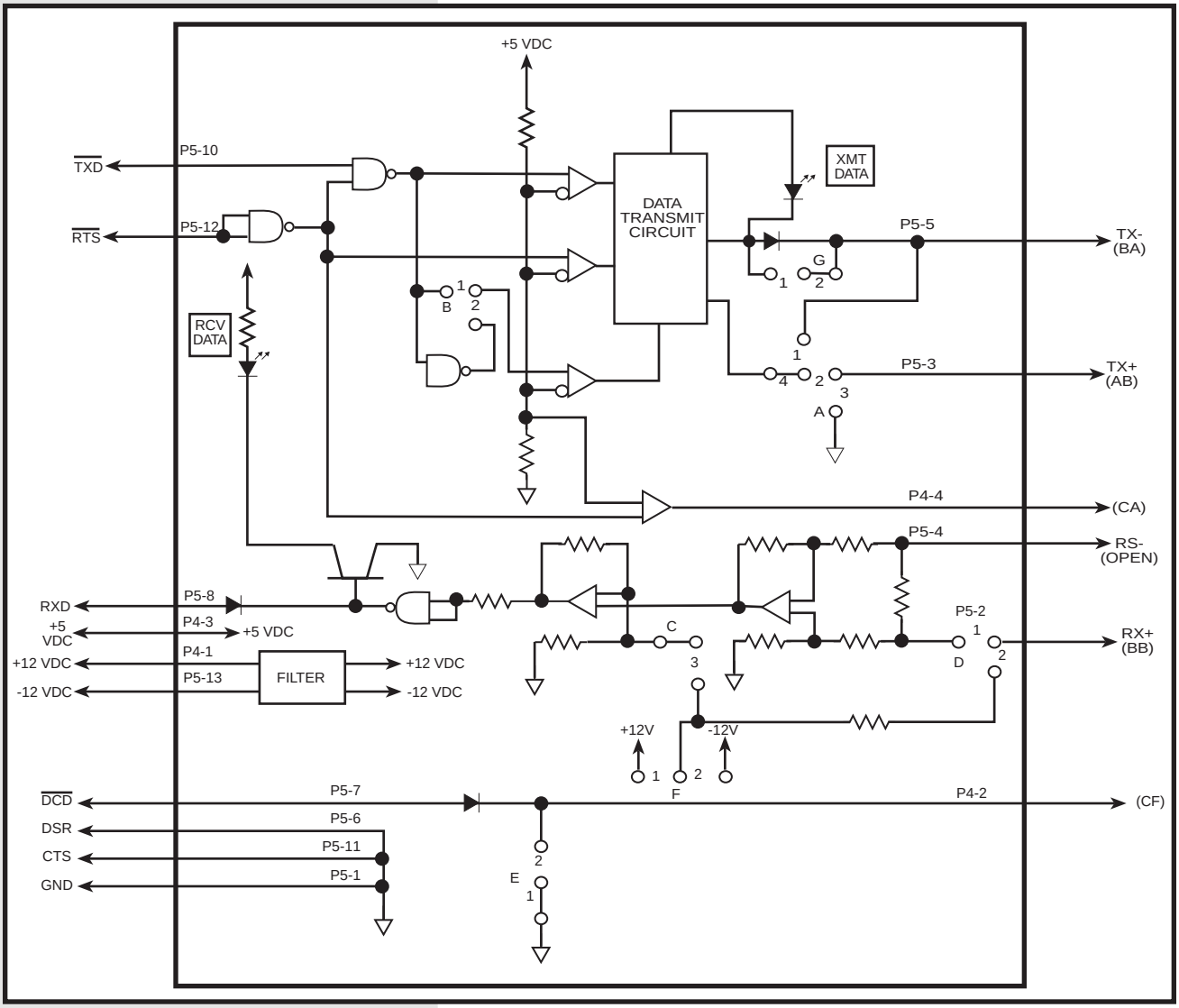
The input (RCV) to the subassembly appears at pins 2 and 4 on connector P5. The RCV circuit uses a series of inverters which activate when data comes in. The Data Carrier Detector (DCD) is also activated through this circuitry. Depending upon strapping, the RCV accepts bi-polar or EIA Standard RS-232 type data signals and provides the result to the host module at the RCV (pin 8) and DCD (pin 7) leads.

A front panel LED (RCV DATA) indicates data activity at the RCV output.

The output (XMT) from the subassembly is picked off at pins 3 and 5 on connector P5. A gated pulse, created through a series of integrated circuits, feeds a network that produces bi-polar (±7 volts at 10 mA) or EIA Standard RS-232 (± 12 volts at 20 mA) signals. These outputs are dependent upon the subassembly strap options selected. The host module connects to this section of the circuit at the TXD (pin 10) and RTS (pin 12) leads.

A front panel LED (XMT DATA) indicates data activity at the XMT output (pin P5-5).

FIG. 1 - FUNCTIONAL SCHEMATIC, 49009



INSTALLATION

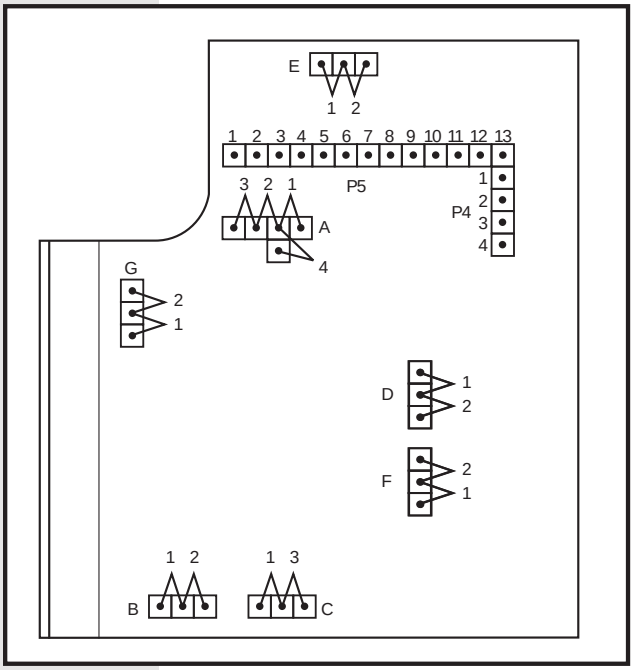
Refer to Table A and Fig. 2 and place the mini-jumpers in the correct location for your application.

TABLE A - STRAP OPTIONS, 49009

OPTION	BI-POLAR	RS-232
A	2	3 and 4
B	2	2
C	1	3
D	1	2
E	2	*
F	1 or 2	1 or 2
G	1	2 (for paralleling)

** **NOTE**: Strap 1 when using CF control and strap 2 when using other control.*

FIG. 2 - STRAP LOCATIONS, 49009



INSTALLATION

If it is necessary to install the subassembly on a host module, refer to the documentation on the host module for the location of the subassembly.

To install the subassembly, follow these steps:

1. If there is a hole plug in the front panel of the host module, remove the plug.
2. Remove the three screws from the subassembly standoffs.
3. Place the subassembly on the board.
   - Insert P4 into J4 and P5 into J5.
   - Make sure each connector pin goes straight into its socket.
   - Make sure the subassembly fits closely on the standoffs.
   - The panel should be straight in the opening.
4. Replace the three screws in the standoffs.

OPERATION

There are no specific operating instructions for the 49009 Current Loop Interface Subassembly. The subassembly starts operation when power is applied to the host module.

The front panel of the 49009 has two LEDs. The upper LED (red) is labeled XMT and indicates that the unit is transmitting data. The lower LED (green) is labeled RCV and indicates that the unit is receiving data.

TECHNICAL SPECIFICATIONS

DESCRIPTION	VALUE
Input Voltage	+5 VDC and ±12 VDC from host module
Input Current (add to input current of host module) @ -24 VDC @ -48 VDC	 5 mA (nominal operating) 3 mA (nominal operating)
Heat Dissipation (add to heat dissipation of host module) @ -24 VDC @ -48 VDC	 0.41 Btu/Hr 0.49 Btu/Hr
Operating Temperature Range	0° to 55° C.
Physical Dimensions	2.6" x 2.8" x 0.8"
Weight	1.2 ounces

WARRANTY

LIMITED WARRANTY

The Seller warrants that the standard hardware products sold will be free from defects in material and workmanship and perform to the Seller's applicable published specifications for a period of 18 months for hardware, and 3 months for software, from the date of the original invoice. The liability of the Seller hereunder shall be limited to replacing or repairing, at its option, any defective products which are returned F.O.B. to the Seller's plant, (or, at the Seller's option, refunding the purchase price of such products). In no case are products to be returned without first obtaining permission and a customer return authorization number from the Seller. In no event shall the Seller be liable for any consequential or incidental damages.

Equipment or parts which have been subject to abuse, misuse, accident, alteration, neglect, unauthorized repair or installation are not covered by warranty. The Seller shall make the final determination as to the existence and cause of any alleged defect. No warranty is made with respect to custom equipment or products produced to the Buyer's specifications except as specifically stated in writing by the Seller in the contract for such custom equipment.

This warranty is the only warranty made by the Seller with respect to the goods delivered hereunder, and may be modified or amended only by a written instrument signed by a duly authorized officer of the Seller and accepted by the Buyer.

Warranty and remedies on products not manufactured by the Seller are in accordance with warranty of the respective manufacturer. THE SELLER MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED; AND ALL IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEEDS THE AFORESAID OBLIGATIONS IS HEREBY DISCLAIMED BY THE SELLER.

IN CASE OF DIFFICULTY

If you experience difficulty with this equipment, check the following, as appropriate:

1. **Switch settings**
2. **Signal levels**
3. **Software configuration**
4. **Connections between Dantel's equipment and your equipment.**

If there is still a problem, substitute equipment that is known to be good. For additional assistance, call Dantel's Technical Field Service Department weekdays, 6 A.M. to 5 P.M. pacific time:

1-800-4DANTEL (1-800-432-6835).

If a thorough checkout shows a piece of equipment has malfunctioned, you may return it to the factory. For repairs and emergency replacements, obtain a Return Material Authorization (RMA) number from the Customer Service Representative at **1-800-4DANTEL** (1-800-432-6835).

To ensure expedient processing of your order, provide a purchase order number and shipping and billing information when requesting an RMA number. Also, when the units are returned to Dantel, include a description of the failure symptoms for each unit returned. Send defective equipment to:

Dantel, Inc. • 2991 North Argyle Avenue • Fresno, California 93727-1388

Dantel

P.O. Box 55013 • Fresno, CA 93747-5013 Phone (209) 292-1111 Fax (209) 292-9355 http://www.dantel.com