

46022-20

MULTIPLE ALARM COMBINER (MAC)



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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.

Issue date: March 1998

UPDATED

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
B11-46022-20	Multiple Alarm Combiner

GENERAL DESCRIPTION

The 46022-20 Multiple Alarm Combiner (MAC) interfaces data signals between the remote components of Dantel's 460 Alarm and Control System (ACS) and the data port of the 46020 Multiple Alarm Processor (MAP). It may be located with the MAP or at the remote.

The 46022-20 MAC serves as a mounting for the 49008, 49013, or 49029 communications subassembly. The data communications modems and current loops mounted on the MAC accomplish the interfacing.

The MAC is a plug-in printed circuit module that fits into any Dantel 400-type or similar equipment housing. It operates on -21 to -56 VDC input power.

CIRCUIT DESCRIPTION

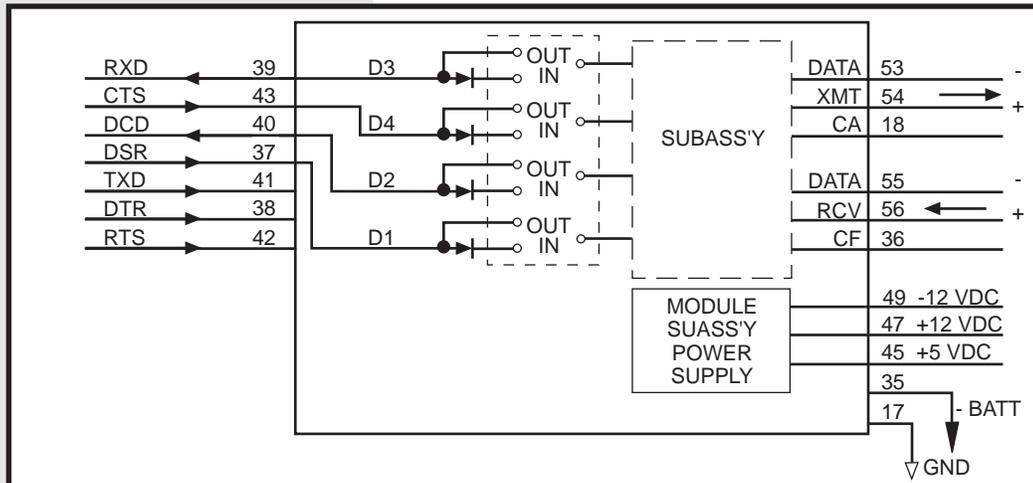
The circuit consists of signal isolation diodes and a power supply. The power supply uses -21 to -56 VDC input power to provide ± 12 VDC and +5 VDC to the subassembly. It also supplies the following to the edge connector for off-board use:

- ◆ +12 VDC (pin 47)
- ◆ -12 VDC (pin 49)
- ◆ +5 VDC (pin 45)

Refer to Fig. 1 for an illustration of the functional schematic.

CIRCUIT DESCRIPTION

FIG. 1 -FUNCTIONAL SCHEMATIC, 46022-20 MULTIPLE ALARM COMBINER



INSTALLATION

Before mounting the module in the equipment housing, note the following information about strapping and subassemblies:

STRAPPING

The 46022-20 MAC has strapping points to place the signal isolation diodes IN or OUT of the circuit (refer to Figs. 1 and 2). They are normally strapped IN.

If you need to replace a module in the field, strap the replacement unit to match the one you're replacing or contact Dantel's Customer Support Services Department. Set all subassembly straps or switches in accordance with the practice for that subassembly.

MOUNTING A SUBASSEMBLY

1. To install a subassembly, follow these steps:

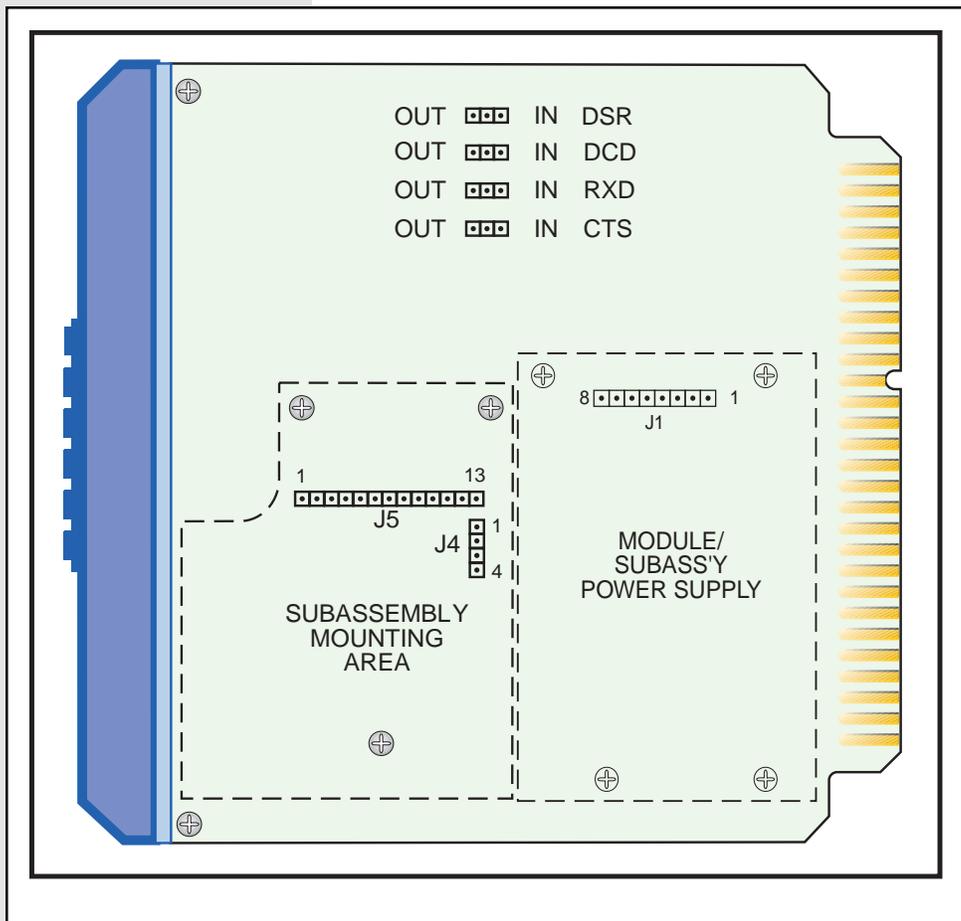
- ◆ If there is a hole plug in the front panel of the module, remove the plug.
- ◆ Remove the three screws from the subassembly standoffs and remove any existing subassembly (see Fig. 2).
- ◆ Place the subassembly on the board.
 - Insert P4 into J4 and P5 into J5.

CONTINUED . . .

INSTALLATION

- Make sure each connector pin goes straight into its socket.
- Make sure the subassembly fits closely on the standoffs.
- Make sure the panel is straight in the opening.
- ◆ Replace the three screws in the standoffs.
- ◆ Refer to the subassembly practice for strapping information.
- ◆ Attach the barcode label for the subassembly to the module handle.

FIG. 2 - STRAP LOCATIONS, 46022-20 MULTIPLE ALARM COMBINER



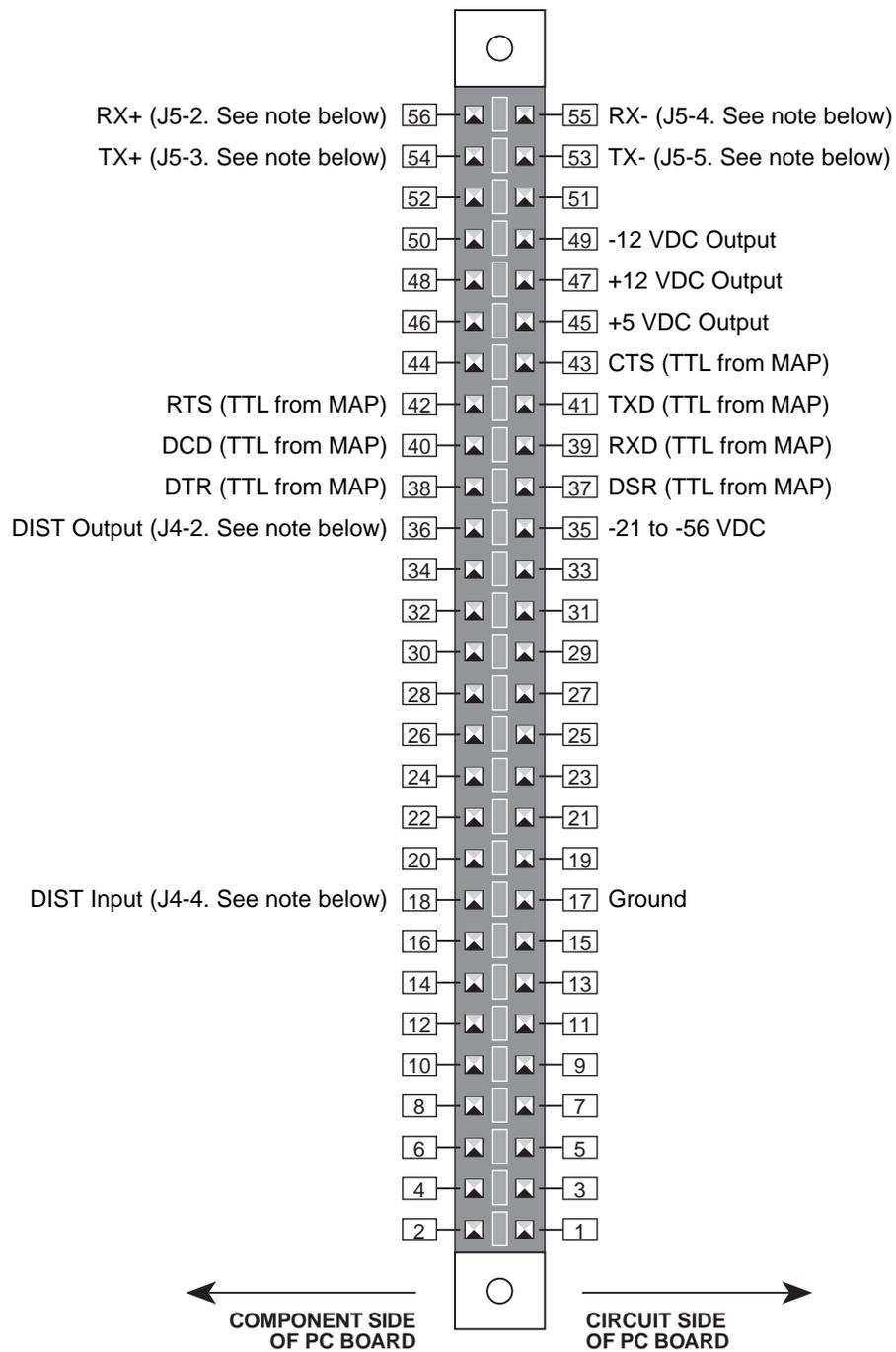
MOUNTING THE MODULE

The 56-pin edge connector is normally prewired at the factory. If you are going to wire the connector, refer to Fig. 3 for module connector pin wiring assignments. Wire the connector in the shelf or housing as required.

Slide the module into the equipment housing.

INSTALLATION

FIG. 3 - PIN DESIGNATIONS, 46022-20 MULTIPLE ALARM COMBINER



NOTE: The designations shown are for a MAC-20 equipped with a 49013 202 Tone Modem. If using another subassembly, refer to the practice specific to that subassembly.

TECHNICAL SPECIFICATIONS

DESCRIPTION	VALUE
Input Voltage	-21 to -56 VDC
Input Current *	
@ -21 VDC	35 mA
@ -24 VDC	34 mA
@ -48 VDC	35 mA
@ -56 VDC	36 mA
Heat Dissipation *	
@ -21 VDC	2.6 Btu/Hr
@ -24 VDC	2.8 Btu/Hr
@ -48 VDC	5.8 Btu/Hr
@ -56 VDC	6.9 Btu/Hr
Output Voltage	+5 VDC @ 200 mA (pin 45) +12 VDC @ 20 mA (pin 47) -12 VDC @ 20 mA (pin 49)
Weight (without subassembly)	6.5 ounces
Physical Dimensions	1.4" x 6.0" x 5.6"
Operating Temperature Range	0° to 55° C.
<i>* NOTE: Input Current and heat dissipation may vary with output voltage load at pins 45, 47, and 49.</i>	

NOTES

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

