428 Jack Panel Module

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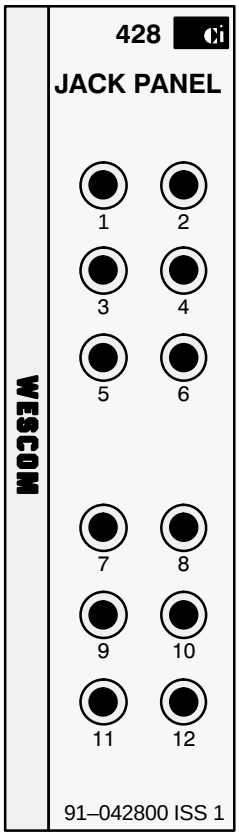

Figure 1. 428 Jack Panel Module, Front View

1. GENERAL

1.1 Document Purpose

This document provides circuit description, installation, and basic testing information for the Wescom® 428 Jack Panel Module, shown in Figure 1.

1.2 Document Status

This document is reissued to provide a general editorial update.

1.3 Equipment Function

The 428 is a plug-in, printed-circuit module designed to mount in one position of a 400-Type Mounting Assembly, and is used to monitor signal levels within a communications system. The 428 module provides 12 front-panel mounted test jacks.

2. INSPECTION

Inspect the equipment thoroughly upon delivery. If the equipment has been damaged in transit, immediately report the extent of damage to the transportation company.

Wescom equipment is identified by a model and issue number imprinted on the front panel or located elsewhere on the equipment. Each time a major engineering design change is made on the equipment, the issue number is advanced by one number on any subsequent models that are manufactured. Therefore, be sure to include both the model number and its issue number when making inquiries about the equipment.

Each module is shipped in static-protective packaging to prevent electrostatic charges from damaging static-sensitive devices. Use approved static-preventive measures, such as static-conductive wrist straps and a static-dissipative mat, when handling modules outside of their protective packaging. A module intended for future use should be tested as soon as possible and returned to its original protective packaging for storage.

CAUTION

Do not ship or store modules near strong electrostatic, electromagnetic, or magnetic fields. Also, make sure to use the original static-protective packaging for shipping or storage.

3. CIRCUIT DESCRIPTION

Refer to Figure 2, the 428 schematic diagram, as needed during the following description.

The 428 module makes electrical connection to the system through one of the 56-pin, wire-wrap connectors provided as part of the mounting assembly. The 428 module provides twelve identically-designed front panel mounted test jacks whose terminals are trace-connected to separate pins on the 56-pin module connector. When a patch cord plug is inserted into Jack 1, for example, electrical connection is made at the make-contact points for Pins 47 (tip) and 45 (ring). At the same time, the electrical connection, to Pins 48 (tip) and 46 (ring), is broken by the break contacts. When the plug is removed, connection is made by the jack from Pin 47 to Pin 48, and from Pin 45 to Pin 46. Refer to Figure 2 for the pin numbers of the remaining jacks.

4. MOUNTING

The 428 module is designed to mount in one module position of a Type 400 Mounting Assembly. Type 400 Mounting Assemblies are available in capacities from 1 to 13 modules and allow for either KTU apparatus-case or relay-rack mounting. Type 400 Mounting Assemblies may be factory-wired and equipped with a combination of modules from the Wescom product line.

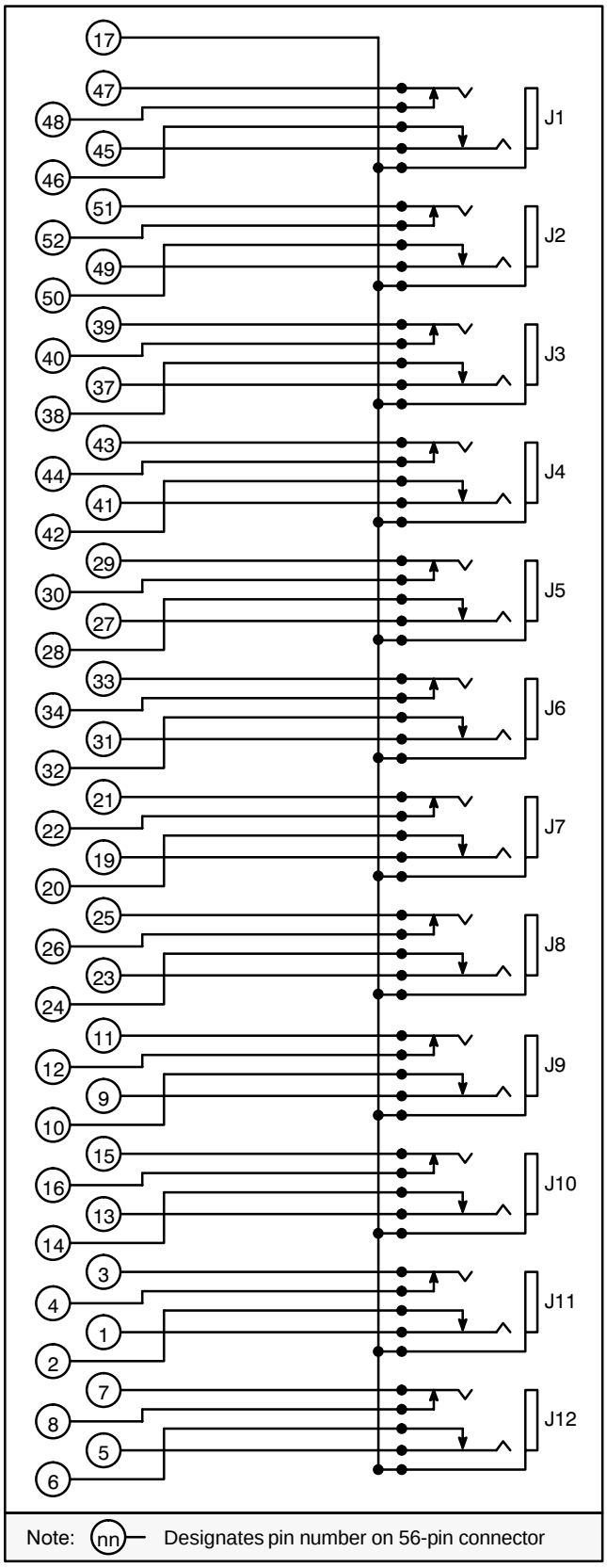

Figure 2. 428 Schematic Diagram

5. INSTALLER CONNECTIONS

When the 428 module is installed in a type 400 mounting assembly, it makes electrical connection to the associated equipment through a 56-pin, wire-wrap card connector provided as part of the mounting assembly; all installer connections are made to this connector. Make the connections in accordance with Figure 2.

All jacks are of the opening type and accept the W.E. Co. type 310 plug. Each jack may be wired to break the tip and ring connections between the associated line and drop circuits when the plug is inserted. Test circuit tip and ring connections are then made through the plug to either the line or drop circuit, as determined by installer connection.

6. TESTING

If trouble is encountered with the operation of the 428 module, check that all installer connections have been properly made and that the unit is making good connection with the mounting assembly card connector.

7. TECHNICAL ASSISTANCE

7.1 Technical Assistance — U.S.

If technical assistance is required, contact Charles Industries' Technical Services Center at:

847–806–8500
847–806–8556 (FAX)
800–607–8500
techserv@charlesindustries.com (e-mail)

7.2 Technical Assistance — Canada

Canadian customers contact:

905–821–7673 (Main Office)
905–821–3280 (FAX)

8. WARRANTY & CUSTOMER SERVICE

8.1 Warranty

Charles Industries, Ltd. offers an industry-leading, 5-year warranty on products manufactured by Charles Industries. Contact your local Sales Representative at the address or telephone numbers below for warranty details. The warranty provisions are subject to change without notice. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract.

Charles Industries, Ltd.
5600 Apollo Drive
Rolling Meadows, Illinois 60008–4049

Telephone: 847–806–6300 (Main Office)
847–806–6231 (FAX)

8.2 Field Repairs (In-Warranty Units)

Field repairs involving the replacement of components within a unit are not recommended and may void the warranty and compatibility with any applicable regulatory or agency requirements. If a unit needs repair, contact Charles Industries, Ltd. for replacement or repair instructions, or follow the *Repair Service Procedure* below.

8.3 Advanced Replacement Service (In-Warranty Units)

Charles Industries, Ltd. offers an "advanced replacement" service if a replacement unit is required as soon as possible. With this service, the unit will be shipped in the fastest manner consistent with the urgency of the situation. In most cases, there are no charges for in-warranty repairs, except for the transportation charges of the unit and for a testing and handling charge for units returned with no trouble found. Upon receipt of the advanced re-

placement unit, return the out-of-service unit in the carton in which the replacement was shipped, using the pre-addressed shipping label provided. Call your customer service representative at the telephone number above for more details.

8.4 Standard Repair and Replacement Service (Both In-Warranty and Out-Of-Warranty Units)

Charles Industries, Ltd. offers a standard repair or exchange service for units either in- or out-of-warranty. With this service, units may be shipped to Charles Industries for either repair and quality testing or exchanged for a replacement unit, as determined by Charles Industries. Follow the *Repair Service Procedure* below to return units and to secure a repair or replacement. A handling charge applies for equipment returned with no trouble found. To obtain more details of this service and a schedule of prices, contact the CI Service Center at 217–932–5288 (FAX 217–932–2943).

Repair Service Procedure

1. Prepare, complete, and enclose a purchase order in the box with the equipment to be returned.

2. Include the following information:

   – Company name and address
   – Contact name and phone number
   – Inventory of equipment being shipped
   – Particulars as to the nature of the failure
   – Return shipping address

3. Ship the equipment, purchase order, and above-listed information, transportation prepaid, to the service center address shown below.

   CI Service Center
   Route 40 East
   Casey, IL 62420–2054

4. Most repaired or replaced units will be returned within 30 or 45 days, depending on the product type and availability of repair parts. Repaired units are warranted for either 90 days from the date of repair or for the remaining unexpired portion of the original warranty, whichever is longer.

9. SPECIFICATIONS

9.1 Electrical

The electrical specifications of the 428 module are described below.

(a) TEST JACKS: Twelve opening-type test jacks, equivalent to switchcraft type 11J–1078.

(b) MATING PLUG: W.E. Co. type 310, Switchcraft type 482 or equivalent.

9.2 Physical

See Table 1 for the physical characteristics of the 428 Jack Panel Module.

Table 1. Physical Specifications

Feature	U.S.	Metric
Height	5.6 inches	14.2 cm
Width	1.5 inches	3.8 cm
Depth	6.0 inches	15.2 cm
Weight	0.60 lbs.	272.4 g
Mounting	One mounting position of 400-type shelf.	
Temperature	32–122° F	0 – 50°C
Humidity (no condensation)	0–95% at 122° F (50° C)