

RJ48C-28I2 and RJ48C-28BAI2 Jack Interface Panels

CONTENTS	PAGE #
1. GENERAL	1
2. INSTALLATION	1
3. TESTING	2
4. CUSTOMER & TECHNICAL SERVICES	2
5. WARRANTY & REPAIRS	4
6. SPECIFICATIONS	4

1. GENERAL

1.1 Document Purpose

This document describes the Westell RJ48C (Issue 2) Series of Jack Interface Panels. An RJ48C jack panel is shown in Figure 1. See Table 3 for specific model numbers and descriptions.

1.2 Document Status

Revision C of this practice updates Paragraphs 1.3, 2.2.1, Figure 3, deletes the previous Figure 4, Table 2, and Table 5, and adds the current Table 2 and Figure 4 through Figure 6. Revision B of this practice updated all text and drawings which describe or show the mounting ears (additional holes added). Revision A replaced 030-101336 for the models shown in Table 3 and updated the company contact information. Practice 030-101336 replaced practice 057-017701. Whenever this practice is updated, the reason will be stated in this paragraph.

1.3 Product Purpose and Description

The RJ48C-28I2 and RJ48C-28BAI2 28-position T1 jack panels provide easy Customer Interface (CI) connections for operation in 1.544Mbps High-capacity Digital Services (Hi-Cap) applications. Provided at the front of the jack panel are 28 RJ48C jacks for customer connections. At the rear are two, 64-pin, male, Amphenol connectors for Customer or Network connections. Two, 64-pin, female, Amphenol-type cables are needed (provided with the RJ48C-28I2 model only) to interface the panel with the nearby shelf assembly. See Table 3 for ordering information for the panels and various cables.

1.4 Mounting Location

The jack panel may be mounted in a 19" or 23" relay rack or on a wall. The panel occupies 2 Rack Units (RUs) or 3.5" of vertical space and is mounted above or below a 31MA228 or DSA-2280I3 shelf assembly. It also may be mounted facing the circuit-card side or the wire-side of the shelf assembly.

1.5 Product Features

The jack panel offers the following features.

- Mounts in a 19" or 23" relay rack (2 RUs) or on a wall
- Detachable and reversible mounting ears allow wall or rack mounting, and either flush or projected rack orientations
- Two, 64-pin, male connectors at the rear of the panel allow Customer Interface (CI) or Network Interface (NI) connections to the nearby shelf assembly

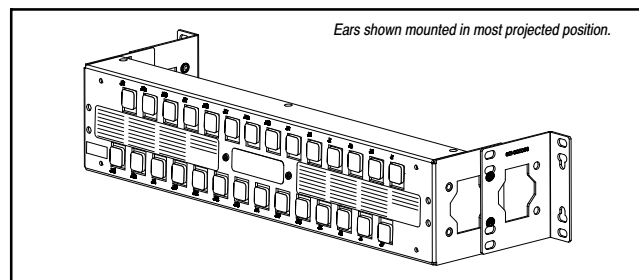


Figure 1. Isometric View of RJ48C Jack Panel Interface

- 28 RJ48C jacks at front panel
- Two, 64-pin, female, 3' amphenol cables (RJ48C-28I2 only)
- Holes, tie-downs, and cable ties for cable management
- Ground lug (inside of side wall)
- UL 1863 compliant

2. INSTALLATION

Installation consists of inspecting the equipment for damages, following proper safety precautions, attaching the mounting ears in the correct position for the desired mounting type, mounting the jack panel in a rack or on a wall, and connecting cables per company practice.

- INSPECTION NOTE -

Visually inspect the unit for damage prior to installation. If the equipment was damaged in transit, immediately report the damage to the transportation company and to Westell (see Part 6).

- PRECAUTIONARY STATEMENT -

Never install telephone wiring during a lightning storm.
Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
Use caution when installing or modifying telephone lines.

2.1 Jack Panel Installation

There are two mounting types; one is rack mounting and the other is wall mounting. See Table 1 for a step-by-step installation procedure and refer to Figure 3 if needed.

2.1.1 Rack Mounting

The jack panel can be mounted in both 19" and 23" relay racks. The panel ships with the ears attached in the 23" rack mount position. The mounting ears may be detached from the panel, reversed, and re-attached for 19" rack mounting.

2.1.2 Wall Mounting

The jack panel may be mounted on a wall. It is recommended that local company practices be followed for wall mounting and that 1/2-inch or 3/4-inch plywood be mounted to the wall prior to installing the panel. For best cable access and hand mobility, attach the 64-pin cables and secure cable ties prior to mounting

to the wall. The mounting ears may be detached (panel is shipped with ears in the 23" rack mount position, as shown in Figure 3), re-positioned, and re-attached for wall mounting applications.

Step	Mounting Task/Description
1.	Unpack/inspect. Unpack the unit and determine if it has been damaged. See <i>return</i> instructions in Paragraph 5.2.
2.	Get tools. Gather all mounting hardware and tools.
3.	Determine mounting type and ear position. The panel is shipped with the ears attached for projected mounting in a 23" relay rack (see Figure 3). If flush mounting in a 23" rack is desired, or if either 19" rack or wall mounting is desired, remove, re-adjust, and re-attach the ears in the desired position, as explained below.
4.	<p>Attach ears per correct mounting type. First detach the ears by removing the two screws that secure each ear.</p> <p>For projected 23" rack mounting, do not remove the ears.</p> <p>For a flush 23" rack mounting, move the ears further forward on the side of the panel. Align the holes in the ear's short flange with the front-most set of holes on the side of the panel, insert and thread the screws through the aligned holes, then tighten the screws.</p> <p>For 19" rack mounting, flip the removed ears so that the long flange of the L-shaped ear is against or abuts the side of the panel. If flush mounting within the rack is desired, align the front-most holes in the ear's long flange with the front-most set of holes in the side of the panel. If a projected mounting position in the rack is desired, align the holes in the ear's long flange with the rear-most set of holes in the side of the panel. When the holes are aligned, insert and thread the screws through the aligned holes. Tighten the screws.</p> <p>For wall mounting, any ear position (or hole set) may be selected, per company practice and application and for the best cable access. Align the selected ear holes with the selected holes in the side of the panel, then thread and tighten the screws.</p>
5.	Ground panel. Use ground lug on inside wall to ground the panel.
6.	For wall mounting only, attach 64-pin cables then mount to wall. Remove the 64-pin connector covers at the back of the panel. Install the 64-pin cables at the back of the panel. Route cables through the large cable access hole in the side of the panel, if needed. Secure cables with cable ties. Last, mount panel to wall per local practice.
7.	For rack-mounting, mount to rack then attach 64-pin cables. Mount the panel to the desired 2RU rack position. Remove the 64-pin connector covers at the back of the panel. Install the 64-pin cables at the back of the panel. Route cables through the large cable access hole in the side of the panel if needed. Secure cables with cable ties.
8.	Install RJ48C cables. Install all required RJ48C cables at the front of the panel, per company practice, and label all connections.

Table 1. Step-by-Step Installation

2.2 Installer Connections

2.2.1 Signal Connections

Connections are made at the front of the panel to the RJ48C jacks, and at the rear of the panel at 64-pin connectors. See

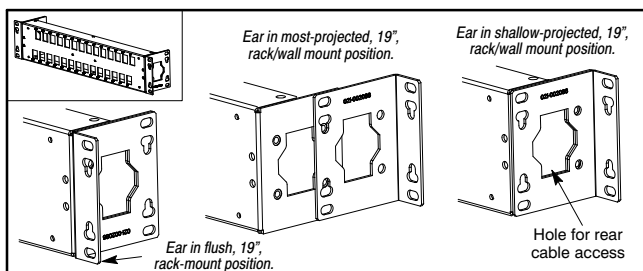


Figure 2. 19" Rack-Mount Ear Positions on Panel

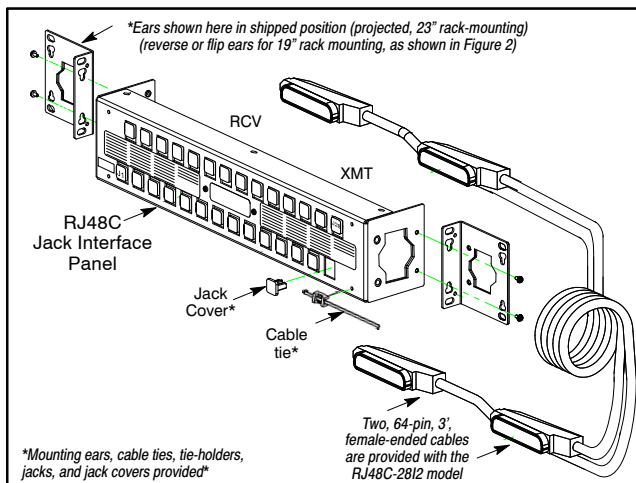


Figure 3. Exploded View of RJ48C Jack Interface Panel

Table 2 for the jack panel's jack and connector pin-outs. The RJ48C Jacks on the front of the Jack panel provide the customer interface. The 64 pin connectors on the rear of the panel provide the interface to the network. The 64 pin connector labeled XMT is signal from the network to the customer equipment (A-Z). The 64 pin connector labeled RCV is signal from the customer equipment to the network (Z-A).

2.2.2 Power and Ground Connections

No power connections are required. A chassis ground is provided via metal to metal contact.

3. TESTING & TROUBLESHOOTING

3.1 Testing

Initial testing consists of performing the procedures indicated for the plug-ins installed in the shelf assembly. If trouble is encountered, verify all installer connections to the assembly, that no fuse is blown, and that modules are properly inserted.

This equipment should not be field repaired. If the equipment is suspected of being faulty, replace it with another unit and re-test. If the replacement appears to operate correctly, the original may be faulty and may be returned to Westell for repair or replacement (see Paragraph 5.2).

3.2 Troubleshooting

If trouble is encountered, verify all connections to the panel and to the assembly. If trouble persists, replace the suspect unit and repeat procedures outlined. These procedures are not designed to effect repairs or modifications. Any tests beyond those outlined herein, or repairs made beyond replacing a faulty unit, are not recommended and may void the warranty.

4. CUSTOMER & TECHNICAL SERVICES

If technical or customer assistance is required, contact Westell by calling or using one of the following options:

Voice: (800) 377-8766
email: global_support@westell.com

For additional information about Westell, visit the Westell World Wide Website at <http://www.westell.com>.

RJ48C Jack	RJ48C Pin #	64-Pin Connectors		RJ48C Jack & Pin #	RJ48C Pin #	64-Pin Connector	
		RCV	XMT			RCV	XMT
J1	Pin 5 T	Pin 33		J15	Pin 5 T	Pin 47	
	Pin 4 R	Pin 1			Pin 4 R	Pin 15	
	Pin 1 R1		Pin 33		Pin 1 R1		Pin 47
	Pin 2 T1		Pin 1		Pin 2 T1		Pin 15
J2	Pin 5 T	Pin 34		J16	Pin 5 T	Pin 48	
	Pin 4 R	Pin 2			Pin 4 R	Pin 16	
	Pin 1 R1		Pin 34		Pin 1 R1		Pin 48
	Pin 2 T1		Pin 2		Pin 2 T1		Pin 16
J3	Pin 5 T	Pin 35		J17	Pin 5 T	Pin 49	
	Pin 4 R	Pin 3			Pin 4 R	Pin 17	
	Pin 1 R1		Pin 35		Pin 1 R1		Pin 49
	Pin 2 T1		Pin 3		Pin 2 T1		Pin 17
J4	Pin 5 T	Pin 36		J18	Pin 5 T	Pin 50	
	Pin 4 R	Pin 4			Pin 4 R	Pin 18	
	Pin 1 R1		Pin 36		Pin 1 R1		Pin 50
	Pin 2 T1		Pin 4		Pin 2 T1		Pin 18
J5	Pin 5 T	Pin 37		J19	Pin 5 T	Pin 51	
	Pin 4 R	Pin 5			Pin 4 R	Pin 19	
	Pin 1 R1		Pin 37		Pin 1 R1		Pin 51
	Pin 2 T1		Pin 5		Pin 2 T1		Pin 19
J6	Pin 5 T	Pin 38		J20	Pin 5 T	Pin 52	
	Pin 4 R	Pin 6			Pin 4 R	Pin 20	
	Pin 1 R1		Pin 38		Pin 1 R1		Pin 52
	Pin 2 T1		Pin 6		Pin 2 T1		Pin 20
J7	Pin 5 T	Pin 39		J21	Pin 5 T	Pin 53	
	Pin 4 R	Pin 7			Pin 4 R	Pin 21	
	Pin 1 R1		Pin 39		Pin 1 R1		Pin 53
	Pin 2 T1		Pin 7		Pin 2 T1		Pin 21
J8	Pin 5 T	Pin 40		J22	Pin 5 T	Pin 54	
	Pin 4 R	Pin 8			Pin 4 R	Pin 22	
	Pin 1 R1		Pin 40		Pin 1 R1		Pin 54
	Pin 2 T1		Pin 8		Pin 2 T1		Pin 22
J9	Pin 5 T	Pin 41		J23	Pin 5 T	Pin 55	
	Pin 4 R	Pin 9			Pin 4 R	Pin 23	
	Pin 1 R1		Pin 41		Pin 1 R1		Pin 55
	Pin 2 T1		Pin 9		Pin 2 T1		Pin 23
J10	Pin 5 T	Pin 42		J24	Pin 5 T	Pin 56	
	Pin 4 R	Pin 10			Pin 4 R	Pin 24	
	Pin 1 R1		Pin 42		Pin 1 R1		Pin 56
	Pin 2 T1		Pin 10		Pin 2 T1		Pin 24
J11	Pin 5 T	Pin 43		J25	Pin 5 T	Pin 57	
	Pin 4 R	Pin 11			Pin 4 R	Pin 25	
	Pin 1 R1		Pin 43		Pin 1 R1		Pin 57
	Pin 2 T1		Pin 11		Pin 2 T1		Pin 25
J12	Pin 5 T	Pin 44		J26	Pin 5 T	Pin 58	
	Pin 4 R	Pin 12			Pin 4 R	Pin 26	
	Pin 1 R1		Pin 44		Pin 1 R1		Pin 58
	Pin 2 T1		Pin 12		Pin 2 T1		Pin 26
J13	Pin 5 T	Pin 45		J27	Pin 5 T	Pin 59	
	Pin 4 R	Pin 13			Pin 4 R	Pin 27	
	Pin 1 R1		Pin 45		Pin 1 R1		Pin 59
	Pin 2 T1		Pin 13		Pin 2 T1		Pin 27
J14	Pin 5 T	Pin 46		J28	Pin 5 T	Pin 60	
	Pin 4 R	Pin 14			Pin 4 R	Pin 28	
	Pin 1 R1		Pin 46		Pin 1 R1		Pin 60
	Pin 2 T1		Pin 14		Pin 2 T1		Pin 28

Table 2. Jack Panel Connector and Jack Pin-outs

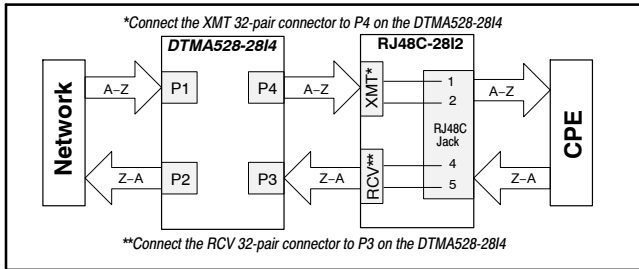


Figure 4. Application 1: Using Panel with a DTMA528

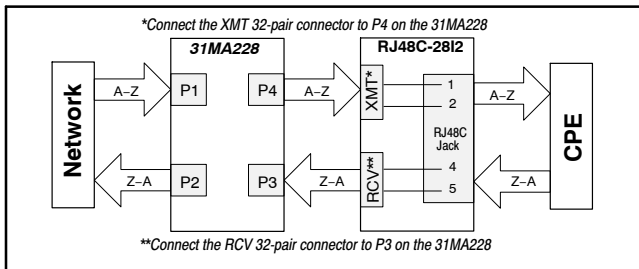


Figure 5. Application 2: Using Panel with a 31MA228

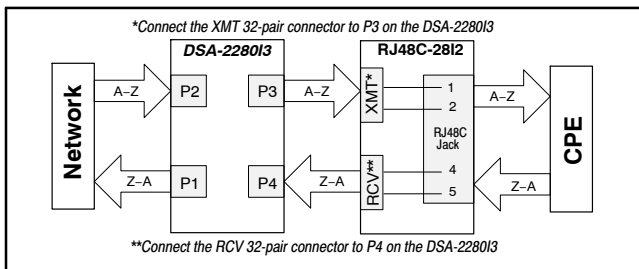


Figure 6. Application 3: Using Panel with a DSA-228013

- APPLICATION NOTE -

Figure 4 through Figure 6 illustrate an application of the jack panel with three different Westell mountings. The A-Z arrows indicate the signal path from the network to the customer equipment. The Z-A arrows indicate the signal path from the customer equipment to the network.

5. WARRANTY & REPAIRS

5.1 Warranty

Westell warrants this product to be free of defects at the time of shipment. Westell also warrants this product to be fully functional for the time period specified by the terms and conditions governing the sale of the product. Any attempt to repair or modify the equipment by anyone other than an authorized Westell representative will void the warranty.

5.2 Repair and Return

Westell will repair or replace any defective Westell equipment without cost during the warranty period if the unit is defective for any reason other than abuse, improper use, or improper

installation. To return defective equipment, request a Return Material Authorization (RMA) number from Westell by using one of the contact options below. After obtaining an RMA number, return the defective unit (freight prepaid) and a brief problem description, to the address we will provide to you when you contact us.

Voice: (630) 375-4457
email: rgmdept@westell.com

Replacements will be shipped in the fastest manner consistent with the urgency of the situation. Westell will continue to repair or replace faulty equipment beyond the warranty period for a nominal charge. Contact Westell for details.

6. SPECIFICATIONS

6.1 Regulatory/Agency Specifications

The jack panel is designed to meet the following regulatory, safety, or environmental specifications or requirements:

- UL 1863

6.2 Ordering Specifications

To order units, call the telephone number shown in Part 4 and please specify a specific model number shown in Table 3.

Model #	Description
RJ48C-28BA12 CLEI* Code: NDMMHAFARA	19" or 23", Rack/Wall Mount, 28-position, RJ48C Jack Interface Panel, with ears
RJ48C-2812 CLEI* Code: NDMMHEDARA	Same as above panel, but also with two, 3-foot, 64-pin, female, amphenol, 023-800315 cables
Options	
023-800315	3 foot, 64-pin, female to female cable
A90-9727010	10 foot, 64-pin, female to female cable
A90-9727020	20 foot, 64-pin, female to female cable
A90-9727050	50 foot, 64-pin, female to female cable

*CLEI is a trademark of Telcordia Technologies.

Table 3. Ordering and Option Information

6.3 Physical Specifications

The physical specifications are shown in Table 4.

Physical Feature	U.S.	Metric
Height	3.5 in.	8.9 cm
Width (without ears)	17 in.	43.2 cm
Width (between rack hole centers)	18.3 in.	46.5 cm
Depth (w/o ears)	2.75 in.	7 cm
Weight (RJ48 jack panel)	2 lbs (approx.)	0.9 kg
Operating Temperature	32° to 122°F	0° to 50°C
Connector type, rear	AMP 554759-1 64-pin male	
Connector type, front	RJ48C	

Table 4. Physical Specifications