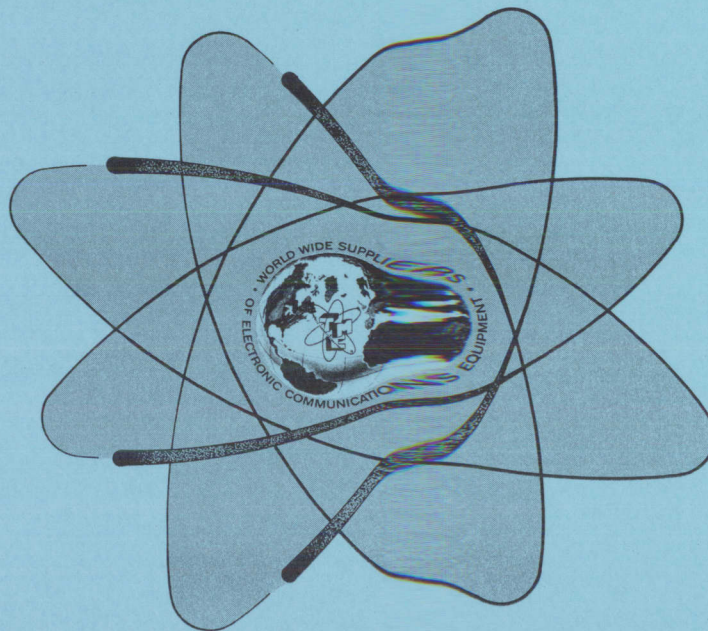


TECHNICAL **M**ANUAL
for

RF PATCH **P**ANELS
AND
CONNECTOR **P**RODUCTS



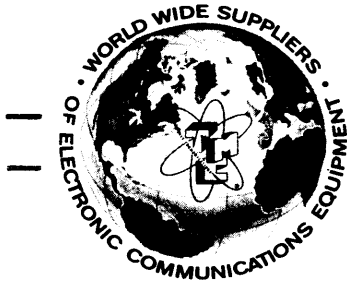
THE TECHNICAL MATER **M**ATERIAL CORPORATION
MAMARONECK, N.Y. OTTAWA, ONTARIO

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THE TECHNICAL MATER **M**ATERIAL CORPORATION

Printed in U.S.A.

NOTICE

THE CONTENTS AND INFORMATION CONTAINED
IN THIS INSTRUCTION MANUAL IS PROPRIETARY
TO THE TECHNICAL MATERIEL CORPORATION
TO BE USED AS A GUIDE TO THE OPERATION
AND MAINTENANCE OF THE EQUIPMENT FOR
WHICH THE MANUAL IS ISSUED AND MAY NOT
BE DUPLICATED EITHER IN WHOLE OR IN
PART BY ANY MEANS WHATSOEVER WITHOUT
THE WRITTEN CONSENT OF THE TECHNICAL
MATERIEL CORPORATION.



THE TECHNICAL MATERIEL CORPORATION

C O M M U N I C A T I O N S E N G I N E E R S

700 FENIMORE ROAD

MAMARONECK, N. Y.

W a r r a n t y

The Technical Materiel Corporation, hereinafter referred to as TMC, warrants the equipment (except electron tubes,*fuses, lamps, batteries and articles made of glass or other fragile or other expendable materials) purchased hereunder to be free from defect in materials and workmanship under normal use and service, when used for the purposes for which the same is designed, for a period of one year from the date of delivery F.O.B. factory. TMC further warrants that the equipment will perform in a manner equal to or better than published technical specifications as amended by any additions or corrections thereto accompanying the formal equipment offer.

TMC will replace or repair any such defective items, F.O.B. factory, which may fail within the stated warranty period, PROVIDED:

1. That any claim of defect under this warranty is made within sixty (60) days after discovery thereof and that inspection by TMC, if required, indicates the validity of such claim to TMC's satisfaction.
2. That the defect is not the result of damage incurred in shipment from or to the factory.
3. That the equipment has not been altered in any way either as to design or use whether by replacement parts not supplied or approved by TMC, or otherwise.
4. That any equipment or accessories furnished but not manufactured by TMC, or not of TMC design shall be subject only to such adjustments as TMC may obtain from the supplier thereof.

Electron tubes*furnished by TMC, but manufactured by others, bear only the warranty given by such other manufacturers. Electron tube warranty claims should be made directly to the manufacturer of such tubes.

TMC's obligation under this warranty is limited to the repair or replacement of defective parts with the exceptions noted above.

At TMC's option any defective part or equipment which fails within the warranty period shall be returned to TMC's factory for inspection, properly packed with shipping charges prepaid. No parts or equipment shall be returned to TMC, unless a return authorization is issued by TMC.

No warranties, express or implied, other than those specifically set forth herein shall be applicable to any equipment manufactured or furnished by TMC and the foregoing warranty shall constitute the Buyers sole right and remedy. In no event does TMC assume any liability for consequential damages, or for loss, damage or expense directly or indirectly arising from the use of TMC Products, or any inability to use them either separately or in combination with other equipment or materials or from any other cause.

*Electron tubes also include semi-conductor devices.

PROCEDURE FOR RETURN OF MATERIAL OR EQUIPMENT

Should it be necessary to return equipment or material for repair or replacement, whether within warranty or otherwise, a return authorization must be obtained from TMC prior to shipment. The request for return authorization should include the following information:

1. Model Number of Equipment.
2. Serial Number of Equipment.
3. TMC Part Number.
4. Nature of defect or cause of failure.
5. The contract or purchase order under which equipment was delivered.

PROCEDURE FOR ORDERING REPLACEMENT PARTS

When ordering replacement parts, the following information must be included in the order as applicable:

1. Quantity Required.
2. TMC Part Number.
3. Equipment in which used by TMC or Military Model Number.
4. Brief Description of the Item.
5. The *Crystal Frequency* if the order includes crystals.

PROCEDURE IN THE EVENT OF DAMAGE INCURRED IN SHIPMENT

TMC's Warranty specifically excludes damage incurred in shipment to or from the factory. In the event equipment is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved and not with TMC.

All correspondence pertaining to Warranty Claims, return, repair, or replacement and all material or equipment returned for repair or replacement, within Warranty or otherwise, should be addressed as follows:

THE TECHNICAL MATERIEL CORPORATION
Engineering Services Department
700 Fenimore Road
Mamaroneck, New York

Addendum No. 1 to
Technical Manual
RF Patch Panels and
Connector Products

The following parts should be added to the parts list for the QDP
Quick Disconnect RF Patching Panels. (page 5)

Replacement Parts		
Model	TMC Part Number	Description
QDP-FX5875C2S2	TCA-FX5875/QDL	Connector, Receptacle
QDP-FX5875C2S4	TCA-FX5875/QDL	Connector, Receptacle

RF PATCH PANELS & CONNECTOR
PRODUCTS

CHANGE NO. 1



INSTRUCTION BOOK CHANGE NOTICE

Date 1/10/66

Manual affected: RF Patch Panels and Connector Products IN -7000
(Issue Date: Aug. 15, 1965)

1. RF PATCH PANELS, JPP

Change last sentence of descriptive text to read: "A complete line of RF patching cables is available."

2. BRIDGING PATCH PANELS, BJP

a. Delete last sentence of second paragraph.

b. In "Technical Specifications," delete note pertaining to replacement components.

3. RF SWITCHING PATCH PANELS, SPP

In "Technical Specifications," delete note pertaining to replacement parts.

SHOULD ADDITIONAL COPIES OF THIS CHANGE NOTICE BE REQUIRED, PLEASE CONTACT:

THE TECHNICAL MATERIEL CORP., 700 Fenimore Road, Mamaroneck, New York

Attn.: Director of Eng. Services.

QUICK DISCONNECT RF PATCHING PANELS



QDP

The TMC Series QDP RF Patching Panels utilize the unique Quick Disconnect type coaxial connectors. The series consists of three types, the QDL, Quick Disconnect Large, replacing the LC series (thread type), the QDS, Quick Disconnect Small, replacing type UHF, N or C and the new QDM, Quick Disconnect Miniature, replacing type BNC. The QDL connectors are for use with the 10,000 volt rated cables such as RG 211, 217, 218 as well as RG-17, 18, 34, 35 and 164/U. The QDS series is rated at 4,000 volts, and is used with cable types RG 213, 214, 215, 216 as well as RG-8, 10, 11, 12. The compact QDM series has a rating of 500 volts and can be used with cables such as RG-58/U, RG-59/U, RG-223/U, etc.

The Patch Panel Models QDP are available to adapt between series, such as QDL to N, QDS to UHF, QDM to BNC, etc., wherever a termination and/or adaptation is required. It should also be noted that cable terminations to Quick Disconnect connectors form an important part of the series, such as Helix to type QDL (EIA Flange to QDL), for use in rigid transmission systems, or Styroflex to UHF, etc. Direct termination of subterranean cables are

accomplished in this manner, without use of additional connector plugs.

Panels may also include DPST switch assemblies for safety interlocking purposes. Panels so equipped are limited to four (4) connectors. Variations include interlocking and DC path connections with indicator lamps.

Straight adapter panels are supplied with as many as 16 miniature QDM connectors on a 1¾" panel height (Military "A" Panel) increasing patching density area an additional 70% over existing panels. A maximum of 11 small (QDS) connectors can be mounted on 1¾" panel height. Type QDL (Large) fittings are mounted four to a panel, 5¼" "C" panel with or without safety interlock switches.

Patching Cables to mate the TMC series QDP Panels are available in all sizes and cable types. See pages headed "CA" for mating assemblies. All cable assemblies are made of MIL-C-17 specification cable, and utilize TMC "RTG" coaxial connector construction.

For permanent or semi-permanent installations requiring thread or bayonet type fittings, see Models JPP for Jack Patching Panels and Models SPP for Switch Patch Panels.

SPECIFIC ORDERING INFORMATION FOR QDP, SPP AND JPP

CONNECTOR CODE

1	QDS	4	BNC	6	N	8	HN
2	QDL	5	C	7	UHF	9	LC
3	QDM					10	LT

PANEL HEIGHT

A	1¾	E	8¾	H	14	L	19¼
B	3½	F	10½	J	15¾	M	21
C	5¼	G	12¼	K	17½	P	22¾
D	7						

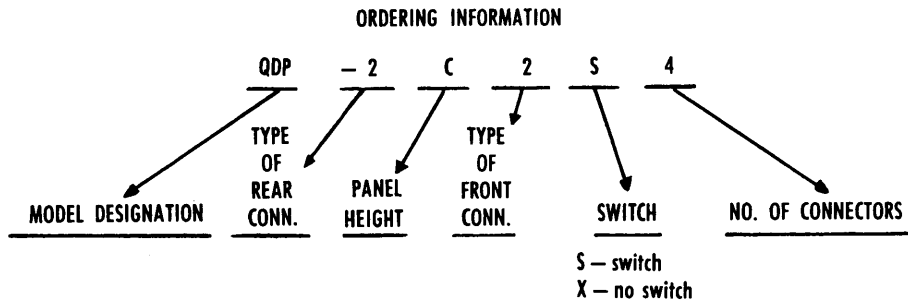
REAR CABLE CONNECTIONS

CABLE	ST 7 1625	
	IMPEDANCE	CABLE DIA.
ST (SYROFLEX)	5 (50 ohms)	500 (½")
SL (SPIRAFIL)	7 (70 ohms)	750 (¾")
SF (SPIROFOAM)		875 (⅞")
SR (SPIROLINE)		1125 (1⅛")
FX (FOAMFLEX)		1625 (1⅝")
HX (HELIAX)		3125 (3⅞")
RG8 (RG-8/U)		
RG10 (RG-10/U)		
RG11 (RG-11/U)		
RG12 (RG-12/U)		
RG17 (RG-17/U)		
RG35 (RG-35/U)		
RG164 (RG-164/U)		
RG216 (RG-216/U)		
EIA (EIA FLANGE)		



QUICK DISCONNECT RF PATCHING PANELS

QDP



QDP (SEE PAGE 1 FOR ORDERING CODE)



QDP-7A1X11

TYPE UHF TO QDS
11 CONNECTORS

PANEL HEIGHT
3½"



QDP-4A3X16

TYPE BNC TO QDM
16 CONNECTORS

PANEL HEIGHT
1¾"



QDP-9C2S4



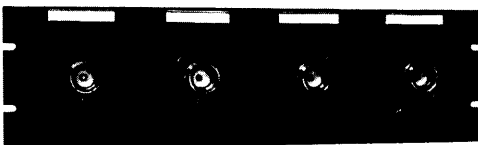
QDP-4B3X32

TYPE LC TO QDL
4 CONNECTORS
WITH INTERLOCK SWITCHES

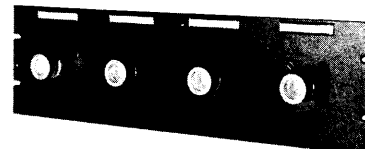
PANEL HEIGHT
5¼"

TYPE BNC TO QDM
32 CONNECTORS

PANEL HEIGHT
3½"



QDP-PA-103



QDP-RG164C2X4

2 TYPE QDL TO QDL
2 TYPE ¼ EIA TO QDL
WITH 2 INTERLOCK SWITCHES
AND ELEC. RECEPTACLE CONN.

PANEL HEIGHT
7"

TYPE RG-164 CABLE TO QDL
4 CONNECTORS

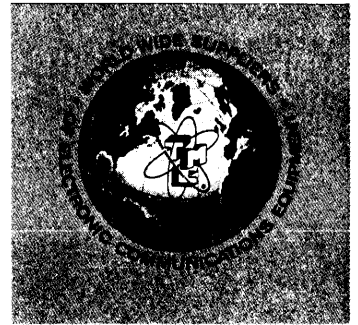
PANEL HEIGHT
5¼"

CONNECTOR PRODUCTS DIVISION OF

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MAMARONECK, NEW YORK, 10544

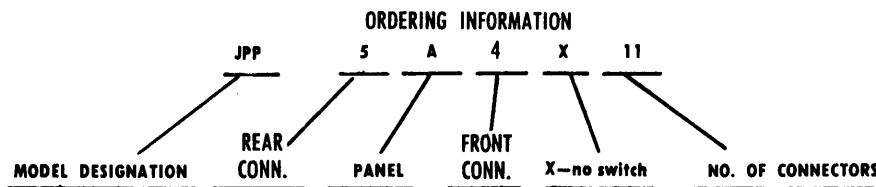
RF JACK PATCH PANELS



JPP

The TMC Models JPP RF Patching Panels are standard 19" rack mountable units equipped with various RF receptacles and/or adapters to suit operational needs. This series is used in permanent or semi-permanent installations where Quick Disconnect features are not required. The panels may include as many as 16 BNC, 11 C, N or UHF or 4 LC or

LT connectors. The TMC Models TCA Connector Adapters for cables as large as RG-85/U are available (See TCA Section). All panels have identification strips and TMC "RTG" connector construction is used throughout. A complete line of RF Patching Cables is available (See Patching Cable Section on Page 13).



JPP (SEE PAGE 1 FOR ORDERING CODE)



TMC MODEL JPP-7A7X11

TYPE UHF TO UHF
11 CONNECTORS

PANEL HEIGHT
1 3/4"



JPP-4A4X16

TYPE BNC TO BNC
16 CONNECTORS

PANEL HEIGHT
1 3/4"



JPP-HX5500B8X8

TYPE HN TO 1/2" FOAM HELIAX
8 CONNECTORS

PANEL HEIGHT
3 1/2"



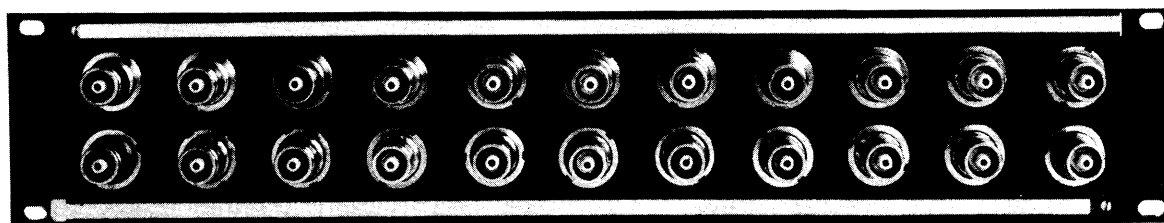
BRIDGING JACK PANELS

BJP

BJP Bridging Jack Panels serve as convenient junctions where multiple RF connectors are required. These panels are available in many models to adapt small or medium RF connectors in up to 4 parallel combinations. Types UHF, BNC, C, N, QDS and QDM connectors are accommodated in this series.

The units are tightly sealed against dust and moisture and are available in a family of configurations.

Other panel configurations can be fabricated to customer specifications and we welcome your inquiries. Patching cables made to customer requirements are available. See page 13 of this Catalogue.



TMC MODEL BJP-2

TECHNICAL SPECIFICATIONS

BJP-1 Triple UHF to QDS
11 Junction Boxes
Panel Height 5¼"

BJP-4 Quad UHF to QDS
11 Junction Boxes
Panel Height 7"

BJP-40416 Dual QDM to dual BNC
32 connectors front and rear
16 JB assemblies
Panel Height 3½"

BJP-2 Dual UHF to QDS
11 Junction Boxes
Panel Height 3½"

BJP-7 Triple BNC to QDS
11 Junction Boxes
Panel Height 5¼"

BJP-3 Dual BNC to QDS
11 Junction Boxes
Panel Height 3½"

BJP-8 Quad BNC to QDS
11 Junction Boxes
Panel Height 7"

NOTE:
FOR REPLACEMENT
COMPONENTS
SEE PAGE 14

CONNECTOR PRODUCTS DIVISION OF

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RF SWITCHING PATCH PANELS



SPP

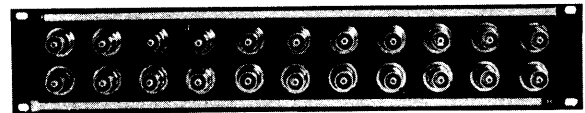
The TMC Series SPP RF Switching Patch Panels are "normal thru" type and are provided in standard series, such as type N, C, UHF, etc. to type QDS and QDM Quick Disconnect Series. These connectors utilize a special patented switch jack assembly which permits completely coaxial RF Switching without frictional sliding contacts. The switch mechanism is completely sealed, and the assemblies use

TMC "RTG"* construction throughout. These units have exceeded shock and vibration test of MIL-S-901 and MIL-STD-167. The VSWR via normal or "switched" path does not exceed 1.02/1 over the frequency range of 2 to 32 mcs. Isolation from jack to jack with "normals" terminated is 55 db at 8 mcs., 42 db at 30 mcs. Mating cable assembly CA-480** series are recommended for use with this series.



TMC MODEL SPP-1

Model SPP-1 has been nomenclatured SA-598/U and contains 11 "normal thru" switch assemblies providing single front panel QDS to dual rear UHF.



TMC MODEL SPP-3

Model SPP-3, nomenclatured SB-932/U, is a dual QDS to dual UHF Panel Assembly providing "normal thru" operation of 11 circuits and permitting patching to either side independently as illustrated on page 4.

*Rhodium-Teflon-Gold

**see CABLE ASSEMBLY SECTION (CA) for details

TECHNICAL SPECIFICATIONS

SPP-1 Single QDS to dual UHF
(SA-598/U) (11 switches)
11 connectors front
22 connectors rear
Panel height 1 3/4"

SPP-2 Single QDS to dual BNC
(11 switches)
11 connectors front
22 connectors rear
Panel height 1 3/4"

SPP-3 Dual QDS to dual UHF
(SB-932/U) (11 switches)
22 connectors front
22 connectors rear
Panel height 3 1/2"

SPP-4 Dual QDS to dual BNC
(11 switches)
22 connectors front
22 connectors rear
Panel height 3 1/2"

SPP-5 Dual QDS to dual N
(11 switches)
22 connectors front
22 connectors rear
Panel height 3 1/2"

SPP-14 11 single QDS to dual C
11 connectors front
22 connectors rear
Panel height 1 3/4"

SPP-15 11 dual QDS to dual C
22 connectors front
22 connectors rear
Panel height 3 1/2"

NOTE:
FOR REPLACEMENT
COMPONENTS
SEE PAGE 14



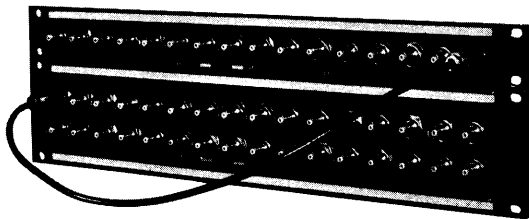
RF SWITCHING PATCH PANELS

SPP

TMC, continuing to pioneer in applications engineering, has expanded its SPP series of RF Switching Patch Panels to include the new QDM Quick Disconnect Miniature Coaxial connectors. Their use on a Standard "A" (1¾") panel increases the density of RF patching by nearly 70%.

Model SPP-30416, for example, includes 16 single to 16 dual contacts in panel space formerly occupied by 11 assemblies in the SPP-2 Switching Patch Panel. Model SPP-40416, on a "B" (3½") panel, permits 16 dual to 16 dual assemblies where again only 11 maximum could be used.

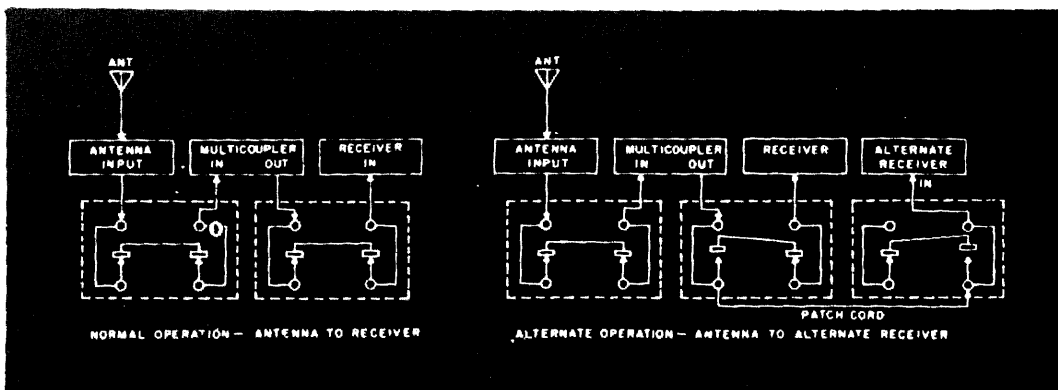
Series SPP RF Switching Patch Panels are available in either single or dual switch assemblies with type "BNC to BNC" or type "C to C" connectors. This is another variation of the versatile SPP Switching Panels available to meet your exacting requirements.



SPP-52511

DUAL C TO DUAL C
(11 SWITCHES)
22 CONNECTORS FRONT
22 CONNECTORS REAR

PANEL HEIGHT
3½"



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CONNECTOR PRODUCTS DIVISION OF
MAMARONECK, NEW YORK, 10544

PATCHING CABLES



CA

TMC PART NO.	RG-/U CABLE	CABLE OHMS	CONNECTORS EACH END	REMARKS
CA-480- 5	RG-58/U	50	BNC	
CA-480- 6	RG-59/U	70	BNC	
CA-480-17	RG-8/U	50	QDS	
CA-480-18	RG-11/U	70	QDS	
CA-480-19	RG-59/U	70	QDS	
CA-480-20	RG-216/U	70	QDS	
CA-480-21	RG-10/U	50	QDS	
CA-480-22	RG-12/U	70	QDS	
CA-480-23	RG-8/U	50	QDS	w/Face Washer
CA-480-24	RG-11/U	70	QDS	w/Face Washer
CA-480-25	RG-8/U	50	QDS	Connectors Angle
CA-480-26	RG-11/U	70	QDS	Connectors Angle
CA-480-27	RG-8/U	50	QDS	Conn. Angle w/Face Washer
CA-480-28	RG-11/U	70	QDS	Conn. Angle w/Face Washer
CA-480-29	RG-8/U	50	QDS-UHF	QDS. w/Face Washer
CA-480-30	RG-11/U	70	QDS-UHF	
CA-480-31	RG-8/U	50	UHF	
CA-480-32	RG-11/U	70	UHF	
CA-480-33	RG-8/U	50	C	
CA-480-34	RG-8/U	50	N	
CA-480-35	RG-11/U	70	N	
CA-480-36	RG-8/U	50	HN	
CA-480-37	RG-17/U	50	QDL	
CA-480-38	RG-164/U	70	QDL	
CA-480-39	RG-17/U	50	QDL	Connectors Angle
CA-480-40	RG-164/U	70	QDL	Connectors Angle
CA-480-43	RG-216/U	70	QDS	
CA-480-46	RG-55/U	50	QDS	
CA-480-49	RG-17/U	50	QDS-LC	Connectors Angle
CA-480-50	RG-214/U	50	QDS	
CA-480-51	RG-17/U	50	QDL	One Connector Angle
CA-480-59	RG-164/U	70	QDL-LC	Connectors Angle
CA-480-61	RG-164/U	70	QDL-LC	
CA-480-69	RG-58/U	50	QDM	
CA-480-70	RG-59/U	70	QDM	
CA-480-78	RG-213/U	50	QDS	
CA-480-79	RG-218/U	50	QDL	
CA-480-80	RG-218/U	50	QDL	Connectors Angle
CA-480-89	RG-62/U	93	QDM	
CA-480-93	RG-55/U	50	QDM	
CA-480-98	RG-213/U	50	C	



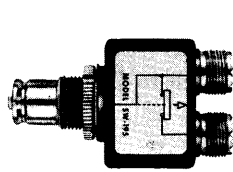
REPLACEMENT COMPONENTS

MODEL SPP

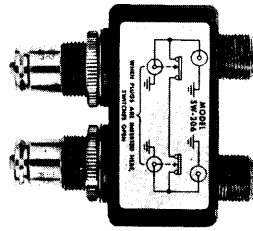
SWITCHING PATCH PANEL

- SPP-1 SW-195 & SA-598/U
- SPP-2 SW-192
- SPP-3 SW-206
- SPP-4 SW-224
- SPP-5 SW-225

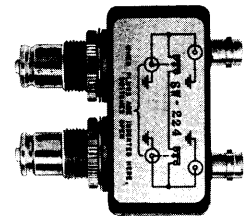
- SPP-7 SW-206
- SPP-8 SW-206 & JJ-147
- SPP-9 SW-206 & JJ-147
- SPP-10 SW-206 & JJ-147
- SPP-11 SW-263



SW-195

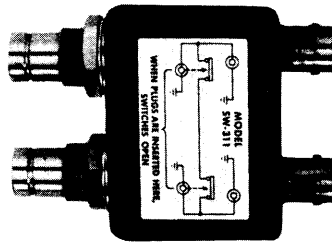


SW-206

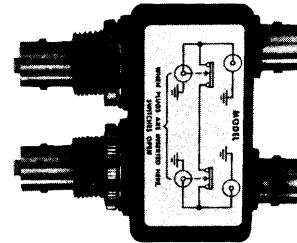


SW-224

- SPP-12 SW-206 & JJ-147
- SPP-13 SW-206 & JJ-147
- SPP-14 SW-282
- SPP-15 SW-284



SW-305



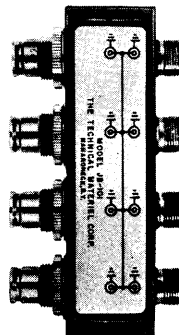
SW-348
(SPP 525 B11)

- SPP-30416 SW-305
- SPP-30516 SW-306
- SPP-30616 SW-307
- SPP-30716 SW-308
- SPP-40616 SW-309
- SPP-40516 SW-310
- SPP-40516 SW-311
- SPP-40716 SW-312

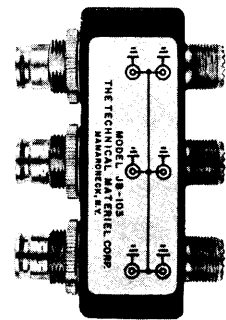
MODEL BJP

BRIDGING JACK PANEL

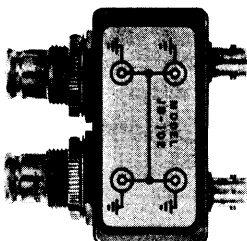
- BJP-1 - JB-103 Triple QDS to Triple UHF
- BJP-2 - JB-100 Dual QDS to Dual UHF
- BJP-3 - JB-102 Dual QDS to Dual BNC
- BJP-4 - JB-101 Dual QDS to Quad UHF
- BJP-6 - JB-104 Quad QDS to Quad BNC
- BJP-7 - JB-105 Triple QDS to Triple BNC
- BJP-8 - JB-104 Quad QDS to Quad BNC
- BJP-40616 - JB-107 Quad QDM to Quad N
- BJP-40016 - JB-108 Quad QDM—No connections rear
- BJP-40416 - JB-109 Quad QDM to Quad BNC



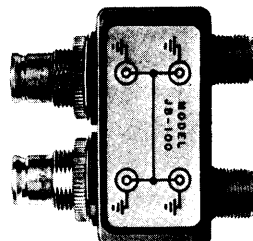
JB-101



JB-103



JB-102



JB-100

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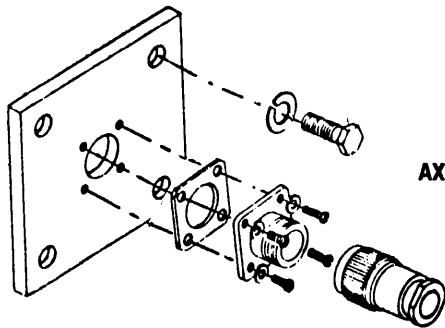
THE TECHNICAL MATERIEL CORP.
MAMARONECK, NEW YORK, 10544

MOUNTING PLATE ASSEMBLIES

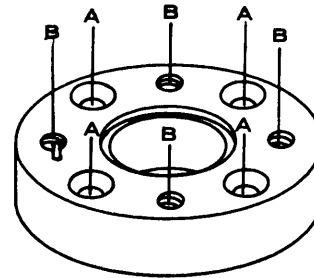


Plate-Connector assemblies are designed as accessories for convenient adaptation of a wide variety of RF Coaxial Cable entry to TMC's family of transmitting and receiving balanced to unbalanced Broadband RF transformers, (TRC, RAC, HLC, BAC), terminating resistors and dummy loads (TER and RTB), as well as adapting low and high power unbalanced transmitter outputs to EIA coax.

AX

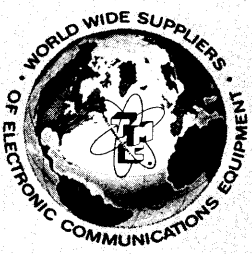


AX-259-2



AX-272

TMC ASSY NO.	SERIES	CABLE	RECEPTACLE	MATING PLUG
AX-256-2	UHF-(L)	RG-34/U	UG-357/U	UG-358/U
AX-259-2	N (50)	RG-8-9-10-213-214-215/U	UG-58/U	UG-218/U
AX-259-3	N	RG-11-12-13-216	JJ-222	UG-94A/U
AX-271-1	EIA	PM-708, 1-3/8", 70 ohm	PM-708	EIA Flange
AX-272-1	EIA	PM-708, 1-3/8", 50 ohm	PM-708	EIA Flange
AX-273-1	QDL	RG-17-18-35-164-218-219/U	JJ-137	PL-136
AX-274-2	ES	RG-85/U	PM-107	ES-85/U
AX-276-2	LC	PM-722, 3/4" EIA Flange	JJ-229	PL-214
AX-277-2	LC	PM-722, 3/4" EIA Flange	JJ-229	PL-214
AX-278-1	EIA	3/4" to 1-1/8" - 50 ohm	EIA 3/4"	EIA 1-1/8"
AX-279-1	EIA	3/4" to 1-1/8" - 70 ohm	EIA 3/4"	EIA 1-1/8"
AX-281-2	UHF	RG-8-9-10-11-13/U	JJ-214	PL-259A
AX-282-2	UHF(T)	RG-22A/U	UG-422/U	UG-421/U
AX-283-2	BN	RG-55-58-59-62-71-223/U	UG-87/U	UG-85/U
AX-284-2	BNC	RG-59-62-71/U	UG-447/U	UG-260P/U
AX-284-3	BNC	RG-55-58-223/U	UG-447/U	UG-88D/U
AX-285-2	HN	RG-17-18-35-164-218-219/U	UG-496/U	UG-495D/U
AX-285-3	HN	RG-8-10/U	UG-560/U	UG-59E/U
AX-286-2	C	RG-8-9-213-214/U	UG-568/U	UG-573A/U
AX-287-2	LC	RG-17-18-218-219/U	UG-352/U	UG-154A/U
AX-287-6	LC	RG-17-18-35-164-218-219/U	JJ-229	PL-214
AX-288-2	QDM	RG-56-58/U	JJ-276	PL-223
AX-288-3	QDM	RG-59-62-71/U	JJ-276	PL-224
AX-289-2	QDS	RG-9-10-11-12-13-213-214-215-216/U	JJ-164	PL-149
AX-300	QDL	Adapter, 3/4" - 50 ohm	JJ-225	PL-136
AX-301	QDL	Adapter, 3/4" - 70 ohm	JJ-225	PL-136
AX-310	1/2" Stuffing Tube	Cables to .500" Dia.		Cable
AX-405-1	EIA	1/2" - 50 ohm	PM-107	ES-85/U
AX-408-1	EIA	1/2" - 70 ohm	PM-107	ES-85/U
AX-421-2	LC (10)	RG-21/U	JJ-164	PL-149
AX-432-1	EIA	5/8" to 3/4" - EIA - 50 ohm	PM-107	ES-85/U



ACCESSORIES

Between Series Adapters are a series of in-line connectors allowing adaptation of one type of coaxial fitting to another type, thereby eliminating the necessity of costly end cable replacements. By use of these adapters it is possible to make rapid temporary or permanent connections between dissimilar coaxial cables.

TMC "RTG" connector construction is used throughout.

	<p>SA-101 Adapter, Receptacle QDS Male to UHF Female</p>		<p>PL - 149 Plug Connector, QDS Terminates Cables RG 8-9-10-11-12-213-215-216/U</p>
	<p>SA - 102 Adapter, Receptacle, Angle QDL Male to QDL Female</p>		<p>PL - 159 Plug Connector, QDS Terminates Cables RG 59/U</p>
	<p>SA - 105 Adapter, Receptacle QDS Male to BNC Female</p>		<p>PL - 136 Plug Connector QDL Terminates Cables RG 17-18-35-164-217-218/U</p>
	<p>SA - 106 Adapter, Receptacle QDS Female to UHF Male</p>		<p>PL - 223 Plug Connector QDM Terminates Cables RG 55-58/U</p>
	<p>SA - 118 Adapter, Receptacle QDL Male to QDS Female</p>		<p>PL - 141 Plug Connector, QDL, Angle Terminates Cables RG 17-18-35-164-217-218/U</p>
	<p>SA - 127 Adapter, Receptacle QDS Male to N Female</p>		<p>PL - 197 Plug Connector, LC, Angle Terminates Cables RG 17-18-35-164-217-218/U</p>

CONNECTOR PRODUCTS DIVISION OF

For further information or Application Engineering contact **THE TECHNICAL MATERIEL CORP.**

MAMARONECK, NEW YORK, 10544



CONNECTOR ADAPTER

TCA

The Connector Adapter series, Models TCA is for use in communication transmission systems where a requirement exists for terminating incoming RG-17, 85, etc., and adapting to a female coaxial receptacle. The series also includes adapters for the semi-rigid cables, Styroflex, Spirafil, Spiroline, Foamflex and Heliac.

The TCA-85/UHF, for example is for use with RG-85/U subterranean coaxial cable, adapting to UHF receptacle SO-239. This unit is equivalent to Bu-Ships RW491625. The connector body is made of cast bronze, machined, and utilizes teflon gaskets for sealing.

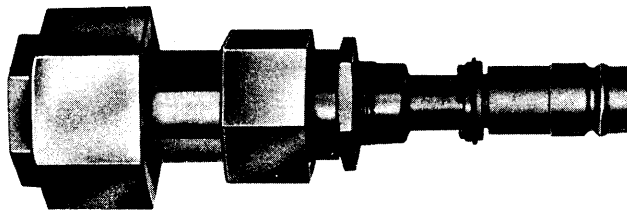
The Model TCA-85/QDS Connector Adapter incorporates the new series QDS Quick Disconnect family,

and is the equivalent of UG-1210/U, BuShips Dwg REC49355. The unit is supplied with mating plug, TMC Part PL-149, for use with 4000 volt rated cables such as RG-8, 10, 11 & 12/U.

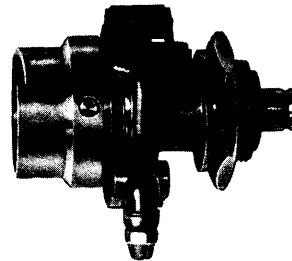
Model TCA-85/QDL was designed to adapt from RG-85 to QDL, the Quick Disconnect series replacing LC series. The series is used in systems where peak power does not exceed 10,000 volts.

The connector adapters for semi-rigid cables are constructed of brass or aluminum and appropriately finished to insure mechanical and electrical compatibility with the cables.

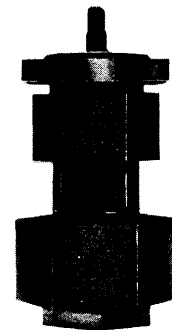
The Model TCA-ST71625/QDS for example is for use with semi-rigid cable, Styroflex 70 ohm 1 1/8" diameter and adapting to a QDS receptacle.



TCA-85/QDL

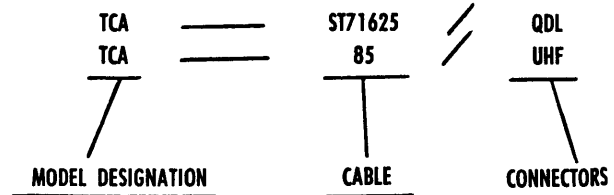


TCA-ST-51625/QDS



TCA-85/EIA51625

CABLE CODE	CONN.
ST 7 1625	QDL
CABLE	IMPEDANCE
HX (HELIAX)	5 (50 ohms)
FX (FOAMFLEX)	7 (70 ohms)
SF (SPIROFOAM)	
SL (SPIRAFIL)	
SR (SPIROLENE)	
ST (STYROFLEX)	
17 (RG-17/U)	
35 (RG-35/U)	
85 (RG-85/U)	
164 (RG-164/U)	
EIA (EIA-Flange)	
	CABLE DIA.
	500 (1/2")
	750 (3/4")
	875 (7/8")
	1125 (1 1/8")
	1625 (1 3/8")
	3125 (3 1/8")
	CONNECTORS
	QDS
	QDL
	QDM
	BNC
	C
	N
	UHF
	HN
	LC
	LT



For further information or Application Engineering contact **THE TECHNICAL MATERIEL CORP.**
 MAMARONECK, NEW YORK, 10544

CONNECTOR PRODUCTS DIVISION OF

PARTS LIST

QDP

QUICK DISCONNECT RF PATCHING PANELS

Q D P

QUICK DISCONNECT RF PATCHING PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
QDP-1A1X1 thru QDP-1A1X11	JJ141 MS3015-2	CONNECTOR, RECEPTACLE COVER, BLANK QDS
QDP-1B1X8	JJ141	CONNECTOR, RECEPTACLE
QDP-1C1S4	JJ141 SW189 PM427-2 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-1C1X4	JJ141	CONNECTOR, RECEPTACLE
QDP-2C1S4	JJ139 SW189 PM427-1 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-2C2S4	JJ138 SW189 PM427-1 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-2C1X4	JJ139	CONNECTOR, RECEPTACLE
QDP-2C2X4	JJ138	CONNECTOR, RECEPTACLE
QDP-2D2S4B	JJ138 JJ10004 SW189 PM427-1 TM-102-12 CA409-59-6.00 CA840-L CA840-R TM105-12AR	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND WIRING HARNESS, BRANCHED WIRING HARNESS, BRANCHED FANNING STRIP (Loose Item)
QDP-3A3X1 thru QDP-3A3X16	JJ261	CONNECTOR, RECEPTACLE
QDP-4A1X1 thru QDP-4A1X11	JJ227 MS3105-1	CONNECTOR, RECEPTACLE COVER, BLANK QDS

Q D P

QUICK DISCONNECT RF PATCHING PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
QDP-4A3X1 thru QDP-4A3X16	JJ247 HB101-3-G	CONNECTOR, RECEPTACLE PLUG BUTTON
QDP-4B3X17 thru QDP-4B3X32	JJ247 HB101-3-G	CONNECTOR, RECEPTACLE PLUG BUTTON
QDP-4C2X4	JJ298	CONNECTOR, RECEPTACLE
QDP-4C3X24	JJ247	CONNECTOR, RECEPTACLE
QDP-4J3X90	JJ247	CONNECTOR, RECEPTACLE
QDP-5A1X1 thru QDP-5A1X11	JJ191 HB101-5	CONNECTOR, RECEPTACLE PLUG BUTTON
QDP-5D1X40	JJ191	CONNECTOR, RECEPTACLE
QDP-5E1X50	JJ191	CONNECTOR, RECEPTACLE
QDP-5F1X60	JJ191	CONNECTOR, RECEPTACLE
QDP-6A1X1 thru QDP-6A1X11	JJ168 MS3015-1	CONNECTOR, RECEPTACLE COVER, BLANK QDS
QDP-6A3X1 thru QDP-6A3X16	JJ273 HB101-3-G	CONNECTOR, RECEPTACLE PLUG BUTTON
QDP-6B1X1 thru QDP-6B1X11	JJ168 MS3015-1	CONNECTOR, RECEPTACLE COVER, BLANK QDS
QDP-6C1S4	JJ168 SW189 PM427-2 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-6C1X1 thru QDP-6C1X8	JJ168	CONNECTOR, RECEPTACLE
QDP-7A1X1 thru QDP-7A1X11	JJ147 MS3105-2	CONNECTOR, RECEPTACLE COVER, BLANK QDS

Q D P

QUICK DISCONNECT RF PATCHING PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
QDP-7A1X12	JJ147	CONNECTOR, RECEPTACLE
QDP-7B1X8	JJ147	CONNECTOR, RECEPTACLE
QDP-7C1S4	JJ147 SW189 PM427-2 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-7C1X1 thru QDP-7C1X3	JJ147 MS3015-2	CONNECTOR, RECEPTACLE COVER, BLANK QDS
QDP-7C1X4	JJ147	CONNECTOR, RECEPTACLE
QDP-7C1X5 thru QDP-7C1X8	JJ147 MS3015-2	CONNECTOR, RECEPTACLE COVER, BLANK QDS
QDP-7D1S6	JJ147 SW189 PM427-4 TM102-12 CA409-69-6.00 TM105-12AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND FANNING STRIP (Loose Item)
QDP-9C2S4	JJ147 SW189 PM427-1 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-9C2X4	JJ147	CONNECTOR, RECEPTACLE
QDP-9D9X1	JJ220	CONNECTOR, RECEPTACLE
QDP-9E2S4A	JJ174 SW189 PM427-1 TM102-12 BI105-1 TS136-1FS TS136-2FS	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER LAMP, INCANDESCENT, screw base type SOCKET, LAMP: red lens, frosted, screw base SOCKET, LAMP: green lens, frosted, screw base

Q D P

QUICK DISCONNECT RF PATCHING PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
QDP-9E2S4A (contd)	CA409-69-6.00 CA732 TM105-12AR	CABLE ASSEMBLY, GROUND CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-9E2S4B	JJ174 JJ10004 SW189 PM427-1 TM102-12 CA409-59-6.00 CA840 TM105-12AR	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND WIRING HARNESS, BRANCHED FANNING STRIP (Loose Item)
QDP-9E2X4B	JJ174 JJ10004 TM102-8 CA409-59-6.00 CA839 TM105-8AR	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND WIRING HARNESS, BRANCHED FANNING STRIP (Loose Item)
QDP-9F2S2	JJ174 JJ231 SW189 PM427 TM102-8	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER
QDP-9F2S4	JJ174 SW189 PM427-1 TM102-8 CA409-69-6.00 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-9F2X4	JJ174 CA409-69-6.00	CONNECTOR, RECEPTACLE CABLE ASSEMBLY, GROUND
QDP-9F9X3	JJ220	CONNECTOR, RECEPTACLE
QDP-10C2S4	JJ322 SW189 PM427-1 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-10C2X4	JJ322	CONNECTOR, RECEPTACLE

Q D P

QUICK DISCONNECT RF PATCHING PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
QDP-12C12X4	JJ138 JJ141 CA409-69-6.00	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE CABLE ASSEMBLY, GROUND
QDP-12C22X4	JJ138 JJ139	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE
QDP-711B11X44	JJ147 JJ230	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE
QDP-EIA51625 2F22X3	JJ246-50 JJ138 MS2972 CA409-69-6.00	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE COVER, BLANK CABLE ASSEMBLY, GROUND
QDP-EIA51625 D2X4	JJ246-50	CONNECTOR, RECEPTACLE
QDP-EIA51625 F2X4	JJ246-50 CA409-69-6.00	CONNECTOR, RECEPTACLE CABLE ASSEMBLY, GROUND
QDP-EIA5875D 2S4B	JJ258-50 JJ10004 SW189 PM427-1 TM102-12 CA409-59-6.00 CA840-L CA840-R TM105-12AR	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND WIRING HARNESS, BRANCHED WIRING HARNESS, BRANCHED FANNING STRIP (Loose Item)
QDP-FX550B1X4	JJ250	CONNECTOR, RECEPTACLE
QDP-HX71625D 2X4	JJ246-70 PO207-70	CONNECTOR, RECEPTACLE CONNECTOR CABLE
QDP-PA-103	JJ138 JJ258-50 JJ10004 SW189 PM427-1 TM102-12 CA409-59-6.00 CA840-L CA840-R CA873-L CA873-R TM105-12AR	CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND WIRING HARNESS, BRANCHED WIRING HARNESS, BRANCHED WIRING HARNESS, BRANCHED WIRING HARNESS, BRANCHED FANNING STRIP (Loose Item)

Q D P

QUICK DISCONNECT RF PATCHING PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
QDP-PA-104	CA409-59-6.00 MS2972 HB101-3-G	CABLE ASSEMBLY, GROUND COVER, BLANK PLUG, BUTTON
QDP-PA-105	CA409-59-6.00 MS2972 HB101-3-G	CABLE ASSEMBLY, GROUND COVER, BLANK PLUG BUTTON
QDP-PA-111-1 thru QDP-PA-111-12	JJ168 (Customer Furnished) ———— [CONNECTOR, ADAPTER, QDS-N SWITCH, LIGHTED, 3 position, 2SPDT selection
QDP-RG11A1X1 thru QDP-RG11A1X11	JJ149 MS3015-2	CONNECTOR, RECEPTACLE COVER, BLANK QDS
QDP-RG164C2X4	JJ208	ADAPTER, CONNECTOR
QDP-RG17AC2S4	JJ208 SW189 PM427-1 TM102-8 CA345 TM105-8AR	ADAPTER, CONNECTOR SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-RG17AC2X4	JJ208	ADAPTER, CONNECTOR
QDP-RG8B1X1 thru QDP-RG8B1X8	JJ149 MS3015-2	CONNECTOR, RECEPTACLE COVER, BLANK QDS
QDP-RC8C1S4	JJ149 SW189 PM427-4 TM102-8 CA345 TM105-8AR	CONNECTOR, RECEPTACLE SWITCH, MICRO PLUNGER, SWITCH TERMINAL BOARD, BARRIER CABLE ASSEMBLY FANNING STRIP (Loose Item)
QDP-RG9A1X1 thru QDP-RG9A1X11	JJ149 MS3015-2	CONNECTOR, RECEPTACLE COVER, BLANK QDS

PARTS LIST

JPP

RF JACK PATCH PANELS

J P P

RF JACK PATCH PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
JPP-4A4X1 thru JPP-4A4X16	JJ243 HB101-11-G	CONNECTOR, RECEPTACLE PLUG BUTTON
JPP-6A6X1 thru JPP-6A6X11	JJ244 HB101-4-G	CONNECTOR, RECEPTACLE PLUG BUTTON
JPP-7A7X1 thru JPP-7A7X11	JJ272 MS3015-1	CONNECTOR, RECEPTACLE COVER, BLANK QDS
JPP-7B5X8	JJ252	CONNECTOR, RECEPTACLE
JPP-7B7X1 thru JPP-7B7X11	JJ272 MS3015-1	CONNECTOR, RECEPTACLE COVER, BLANK QDS
JPP-7C5X8	JJ252	CONNECTOR, RECEPTACLE
JPP-7D6X6	JJ221 CA409-69-6.00	CONNECTOR, RECEPTACLE CABLE ASSEMBLY, GROUND
JPP-8B8X1 thru JPP-8B8X8	JJ232 HB101-5-G	CONNECTOR, RECEPTACLE PLUG BUTTON
JPP-9C9X4	JJ220	CONNECTOR, RECEPTACLE
JPP-9D9X4	JJ220	CONNECTOR, RECEPTACLE
JPP-9F9X4	JJ220 CA409-69-6.00	CONNECTOR, RECEPTACLE CABLE ASSEMBLY, GROUND
JPP-9F9X4A	JJ220 TS106-1 BI101-1820 TM102-8 CA409-69-6.00 CA836	CONNECTOR, RECEPTACLE SOCKET, BAYONET BASE LAMP, INCANDESCENT BAYONET BASE TERMINAL BOARD, BARRIER CABLE ASSEMBLY, GROUND CABLE ASSEMBLY, BRANCHED
JPP-HX5500B8X1 thru JPP-HX5500B8X8	JJ300 MS3528-2	CONNECTOR, RECEPTACLE COVER, BLANK
JPP-11B5X8	JJ251	CONNECTOR, RECEPTACLE

PARTS LIST

SPP

RF SWITCHING PATCH PANELS

S P P

RF SWITCHING PATCH PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
SPP-1A1 thru SPP-1A11	SW195 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-14A1 thru SPP-14A11	SW282 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-15B1 thru SPP-15B11	SW284 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-2A1 thru SPP-2A11	SW196 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-3031 thru SPP-30316	SW317 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-3041 thru SPP-30416	SW305 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-3051 thru SPP-30516	SW306 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-3061 thru SPP-30616	SW307 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-3071 thru SPP-30716	SW308 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-3B1 thru SPP-3B11	SW206 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-4031 thru SPP-40316	SW318 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-4041 thru SPP-40416	SW311 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-4051 thru SPP-40516	SW310 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-4061 thru SPP-40616	SW309 HB101-11-G	SWITCH, RF PLUG BUTTON

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
SPP-4071 thru SPP-40716	SW312 HB101-11-G	SWITCH, RF PLUG BUTTON
SPP-41416	SW311	SWITCH, RF
SPP-4B1 thru SPP-4B11	SW224 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-525B1 thru SPP-525B11	SW348 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-5B1 thru SPP-5B11	SW225 HB101-5-G	SWITCH, RF PLUG BUTTON
SPP-8B102 SPP-8B110 SPP-8B28 SPP-8B38 SPP-8B46 SPP-8B56 SPP-8B64 SPP-8B74 SPP-8B82 SPP-8B92	SW196 SW224 HB101-5-G	SWITCH, RF SWITCH, RF PLUG BUTTON

PARTS LIST

BJP

BRIDGING JACK PANELS

B J P
BRIDGING JACK PANELS

MODEL	REPLACEMENT PARTS	
	TMC PART NUMBER	DESCRIPTION
BJP-21 thru BJP-29 BJP-210 BJP-211	JB100 HB101-5-G	CONNECTOR, RECEPTACLE PLUG BUTTON
BJP-400A1	JB108 HB101-3-G	CONNECTOR, RECEPTACLE PLUG BUTTON
BJP-40416	JB106	CONNECTOR, RECEPTACLE