

BR1/10 DLC Retrofit Kit Installation and Maintenance

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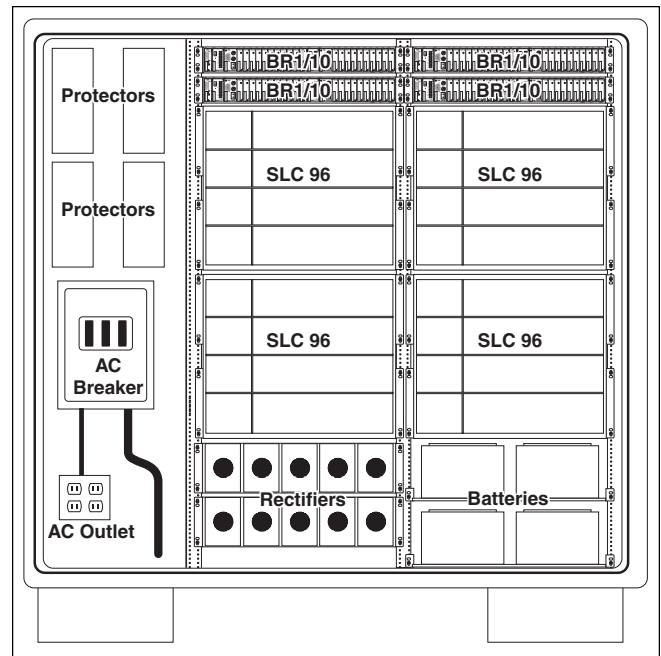


Figure 1. BR1/10 Retrofit Typical Assembly

1. GENERAL

The BR1/10 Retrofit Kit simplifies ISDN deployment from both DLCs and CEVs. With the BR1/10, ISDN deployment density is increased by 25 percent over standard channel bank deployment arrangements. The Kit will ease and speed installation, decrease craft resource requirements, and reduce equipment physical size. The system is designed to overlay POTS and ISDN DLC systems. Refer to **Figure 1** for the retrofit assembly.

Revision History

This is the initial release of this document. Future revisions will be explained in this subsection.

Features

The BR1/10 Retrofit Kit supports the following features and specifications:

- Compact 2-RU design for minimum space requirements.
- 10 ISDN interfaces per DS1 (20 total).
- BR 1/10 channel banks relieve ISDN density from existing DLCs and CEVs.

- Fits standard 23-inch racks.
- Factory pre-wiring for quick retrofit and turnup.
- Factory wire-wrapping of DS1 cable.
- Two Champ cable assemblies with reverse pinout for ISDN loops.
- Separate A-side and B-side power connections.
- Installation accessories included.
- Meets NEBS Level 3 requirements.
- Ten year warranty.

Description

The BR1/10 Retrofit Kit installs in existing enclosures. The unit is comprised of two BR1/10 chassis mated side by side (A-side and B-side), each fully wired and ready to populate with common and customer designated channel bank circuit cards (U-BR1TEs). On-site installation consists of mounting the unit and completing customer, network, and power connections. Instructions for each are included in this document.

2. INSTALLATION



After unpacking the equipment, inspect for damage or missing components. If damage or missing components are noted, file a claim with the carrier then notify ADTRAN. See *Warranty and Customer Service*.

Mounting Procedure

The BR1/10 installs in a standard 23-inch rack using the supplied flanges and fasteners.

1. Secure the left-side and right-side support flanges at the desired position on the shelf. The attached side should face to the rear.
2. Position the shelf at the designated location and secure to the rack. Keep about a 1-RU space above and below the BR1/10 shelf for ventilation.

CAUTION

When making wiring connections ensure power is not present.

Customer Connection

Each unit has a 50-pin Amphenol for connection to the Telco receptacle (JP-14). The trailing cable is 20 feet long for termination at the appropriate punch-down or protector block. Refer to **Table 1** for pinout identification.

Network Connection

Each unit has wire-wrapped connections to T/R, T1/R1, and Shield terminal posts (JP15). DS1 wire length is 2 feet, sufficiently long to reach their designated terminals or splice points. Refer to **Table 2** for wire-wrap identification.

Table 1. TELCO Pinout

Color Code	JP14 Pin Number		Color Code
ORN/WHT	26	1	WHT/ORN
BLU/WHT	27	2	WHT/BLU
BRN/WHT	28	3	WHT/BRN
GRN/WHT	29	4	WHT/GRN
BLU/RED	30	5	RED/BLU
SLT/WHT	31	6	WHT/SLT
GRN/RED	32	7	RED/GRN
ORN/RED	33	8	RED/ORN
SLT/RED	34	9	RED/SLT
BRN/RED	35	10	RED/BRN
ORN/BLK	36	11	BLK/ORN
BLU/BLK	37	12	BLK/BLU
BRN/BLK	38	13	BLK/BRN
GRN/BLK	39	14	BLK/GRN
BLU/YEL	40	15	YEL/BLU
SLT/BLK	41	16	BLK/SLT
GRN/YEL	42	17	YEL/GRN
ORN/YEL	43	18	YEL/ORN
SLT/YEL	44	19	YEL/SLT
BRN/YEL	45	20	YEL/BRN
Vacant	46-50	21-25	Vacant

Table 2. Network Connections

Network Connection	Wire Color	JP15 Terminal
R1-I	Orange	1
T1-I	White/Orange	2
R-O	Blue	3
T-O	White/Blue	4
Shield/Ground	Drain	5

Power Connection

Power cables are 6 feet long and are fitted with #6 ring lugs on the BR1/10 end. Six additional #6 ring lugs are provided for use on the power supply end. Each BR1/10 unit has its own power connection terminal (JP16) identified on the side-by-side units as A-Side and B-Side. If separate supplies are provided to each side, failure of one will not disrupt power to the other. Refer to **Table 3** for power terminal identification.

Table 3. Power Connections

JP16A-Side		JP16B-Side	
Pin #	Function	Pin #	Function
1 Grn	Frame Ground	1 Grn	Frame Ground
2 Blk	48 Vdc Ret	2 Blk	48 Vdc Ret
3 Red	-48 Vdc Sup	3 Red	-48 Vdc Sup

Refer to **Figure 2** for BR1/10 wiring layout. All other wiring requirements are factory connected to meet individual customer specifications. Only one “side” is shown, the other side is identical. After wiring connections are complete, dress and lace the wire runs to accepted workmanship standards.

3. TURNUP

After completing customer, network, and power connections, the following procedure will put the BR1/10 online:

CAUTION

ADTRAN recommends the shelf be populated while power is secured. If power is on the backplane, install the BCU and LIU cards before the PAU card.

1. Insert the LIU and BCU commons into their designated slots.
2. Insert the PAU into its slot.
3. Insert the U-BR1TE channel units into their designated slots.

The BR1/10 Turnup guide is recommended for complete turnup procedures, P/N 61150081L2-24.

NOTE

Refer to the documentation included with individual units for BR1/10 power-up procedures and associated LED indication.

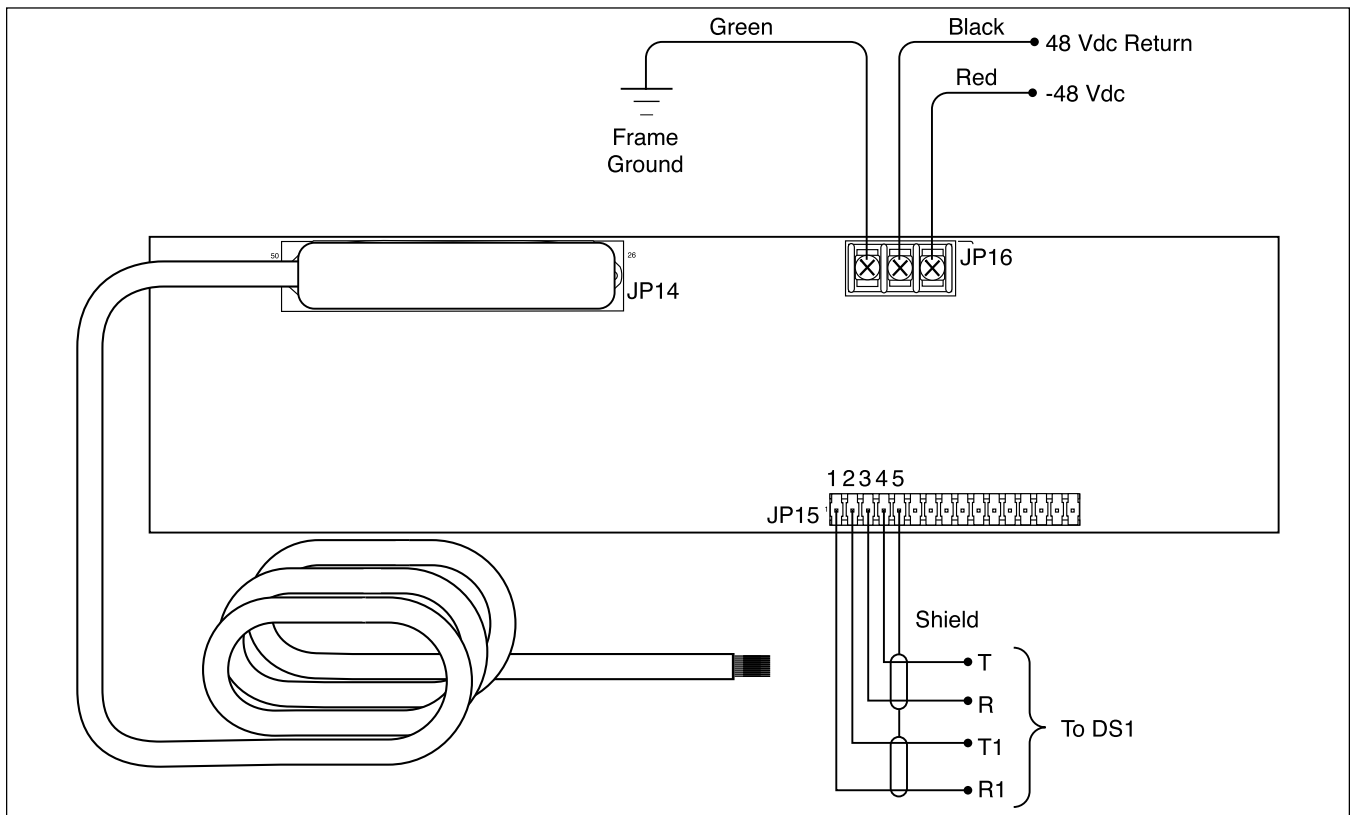


Figure 2. BR1/10 ON-Site Wiring Configuration

4. MAINTENANCE

The BR1/10 Retrofit Kit does not require maintenance for normal use.

5. SPECIFICATIONS AND PART NUMBERS

Refer to **Table 4** for BR1/10 specifications and relevant part numbers.

6. WARRANTY AND CUSTOMER SERVICE

ADTRAN will replace or repair this product within 10 years from the date of shipment if it does not meet its published specifications or fails while in service (see: *ADTRAN Carrier Networks Equipment Warranty, Repair, and Return Policy and Procedure*, document: 60000087-10).

Contact Customer And Product Service (CAPS) prior to returning equipment to ADTRAN.

For service, CAPS requests, or further information, contact one of the following numbers:

ADTRAN Sales

Pricing/Availability
(800) 827-0807

ADTRAN Technical Support

Presales Applications/Postsales Technical Assistance
(800) 726-8663

Standard hours: Monday-Friday, 7 a.m. – 7 p.m. CST
Emergency hours: 7 days/week, 24 hours/day

ADTRAN Repair/CAPS

Return for Repair/Upgrade
(256) 963-8722

Repair and Return Address

ADTRAN, Inc.
CAPS Department
901 Explorer Boulevard
Huntsville, Alabama 35806-2807

Table 4. Specifications and Parts Numbers

System Power Requirements			
Input DC Voltage:	-42 Vdc to -55 Vdc, -48 Vdc nominal		
Max Current:	2.0 Amp fused		
Fully populated (10 U-BR1TEs):	0.2 Amp nominal		
Commons only:	0.06 Amp		
Environmental			
Operating Temperature:	-40° to 70° C (-40° to 158° F)		
Storage Temperature:	-40° to 85° C (-40° to 185° F)		
Relative Humidity:	95% noncondensing		
Physical			
Dimensions:	2 7/8" high x 23" wide x 11 1/2" deep		
Weight:	13.2 Lbs (fully populated)		
Relevant Component & Document Part Numbers			
23-inch (2X) Shelf	1150081L2	D4MEZB02AA	61150081L1-5
Power & Alarm Unit (PAU)	1150078L2	D4CIJ8Y2AA	61150078L2-5
Line Interface Unit (LIU)	1150079L2	D4CIPT02AA	61150079L2-5
Bank Controller Unit (BCU)	1150080L1	D4CIS7Z2AA	61150080L1-5
U-BR1TE	1150077L1	D4C1A2T2AA	61150077L1-5
Channel Bank Turnup Guide	N/A	N/A	61150081L2-24