

## BR1/10 2X

CLEI: D4MEXZB02\_

### COMMONS /OPTIONS

**BR1/10 Common Unit required for each side of the 2X chassis**  
**H-LIU – Combination PAU/LIU** CLEI: D4MEG02AA  
 This unit replaces the individual PAU and LIU cards (shown).

**PAU – Power/Alarm Unit** CLEI: D4CIJY2, D4CU8Y2  
 This common unit has no options switches to set, verify the 1 AMP fuse is properly seated..

**LIU - Line Interface Unit** CLEI: D4CILT02  
 The LIU has no option switches to set. The DB9 connector and rotary switches are used for testing only.

**BCU- Bank Controller Unit** CLEI: D4CIKSZ2, D4CIK7Z2  
 The BCU is the only common unit with option settings on the printed circuit board.

#### BCU Option Settings:

- S1-1 through S1-3 DSX-1 Line Build Out: 0-133ft/133-266/266-399/399-533/533-655
- S2-1 Line Code Format: B8ZS/AMI
- S2-2 Framing Format: ESF/SF
- S2-3 Remote Loopback Selection: PAYLOAD/LINE
- S2-4 and S2-5 Timing Mode: EXTERNAL/LOCAL/LOOP/CAU
- S2-6 Bank Mode: 8DSL/10DSL
- S2-7 through S2-9 Terminal Mode: D4/ D1D/SLC Mode 1D1D/SLC Mode 3 D4/ D1D

Mini U-BRITE Switch Options		
	ON	OFF
SW1	B1 SER. ON	B1 SER. OFF
SW2	B2 SER. ON	B2 SER. OFF
SW3	D SER. ON	D SER. OFF
SW4	SC ON	S.C. OFF
SW5	LULT	LUNT
SW6	LULT	LUNT
SW7	ZBS ON	ZBS OFF

Mini U-BRITE Compatible Access Cards	
Mini BR1/10 ISDN U-BRITE	1150077LX
CLEI: D4C1A2T2AA (Shown)	
Mini BR1/10 TR ISDN UBR1TE	1152182LX
CLEI: D4CIA9T2AA	
Mini BR1/10 TR DDS DP	1151061LX
CLEI: D4D3M14DAA	
Mini BR1/10 DSO DP	1150103L1
CLEI: D4D3D3HDAA	

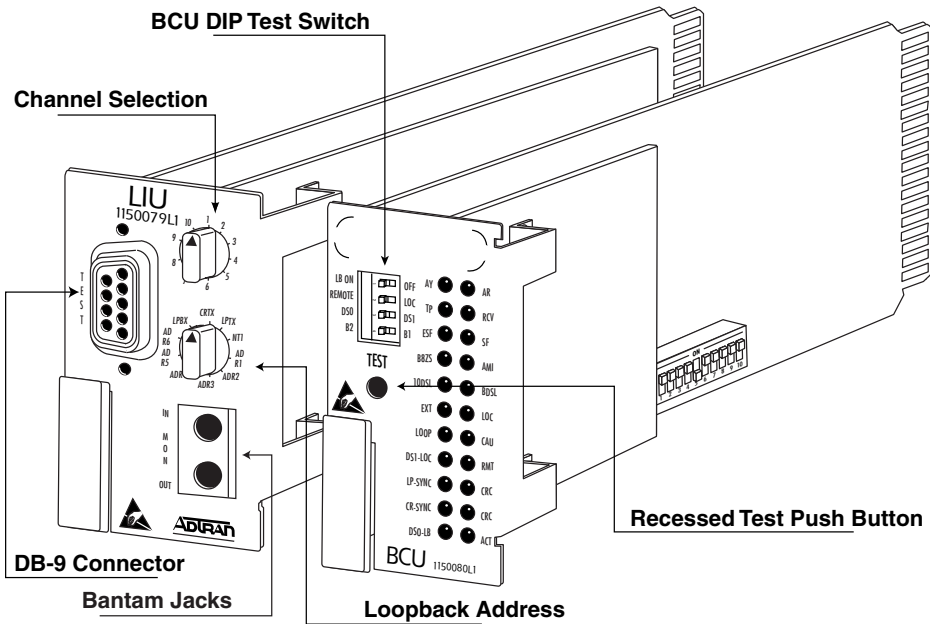
Faceplate LED on mini U-BRITE  
 Red- Indicates no sync to ISDN Switch/NT1  
 Green- Indicates sync to ISDN Switch/NT1

### BCU MANUAL TESTING DIP SWITCHES

<b>LB ON/OFF</b>	Enables and disables DS1 loopbacks for REMOTE/LOC direction depending on switch setting below
<b>REMOTE/LOC</b>	REMOTE in ESF will initiate a loopback to the far-end BR1/10 side when LB is switched to ON REMOTE in SF will initiate a loopback at the local BR1/10 side when LB is switched to ON LOC provides internal loopback at the T1 data stream at the local BR1/10 side when LB is switched to ON
<b>DS0/DS1</b>	When set towards DS1 controls the REMOTE/LOC loopback directions and initiates loopback with LB ON/OFF switch When set towards DS0 controls the B1/B2 channel selection. The TEST recessed button initiates test selected on LIU rotary switches. This option is normally in the DS0 position once the BR1/10 side is in service
<b>B1/B2</b>	When the switch above is in the DS0 position, B1 and B2 selects the appropriate B-Channel to be tested

BR1/10	1	2	3	4	5	6	7	8	9	10
D4/DID, SLC Mode 3	1	4	7	10	13	16	19	22	N/A	N/A
SLC Mode 1 (Physical Slots)	1	2	4	5	7	8	10	11	N/A	N/A
Digroup-A	1/2	3/4	7/8	9/10	13/14	15/16	19/20	21/22	N/A	N/A
Digroup-B	25/26	27/28	31/32	33/34	37/38	39/40	43/44	45/46	N/A	N/A
Digroup-C	49/50	51/52	55/56	57/58	61/62	63/64	67/68	69/70	N/A	N/A
Digroup-D	73/74	75/76	79/80	81/82	85/86	87/88	91/92	93/94	N/A	N/A
SLC Mode 3 (Physical Slots)	1	4	7	10	13	16	19	22	N/A	N/A
Digroup A/B	25/26	31/32	37/38	43/44	1/2	7/8	13/14	19/20	N/A	N/A
Digroup C/D	73/74	79/80	85/86	91/92	49/50	55/56	61/62	67/68	N/A	N/A





## BCU LEDs

Indicator	Color	Description
AY	Amber	ON indicates a Yellow Alarm is being received from the T1 carrier facility
AR	Red	ON indicates the BR1/10 side is in a Red Alarm condition
TP	Amber	ON indicates Trunk Processing is active on all U-BRITES (10)
RCV	Red	ON indicates a loss of framing of T1 signal from the T1 carrier facility
ESF	Green	ON indicates the T1 Extended SuperFrame format is selected
SF	Green	ON indicates the T1 SuperFrame format is selected
B8ZS	Green	ON indicates T1 B8ZS line coding is selected
AMI	Green	ON indicates T1 AMI line coding is selected
10DSL	Green	ON indicates D Channel 4:1 TDM mode is selected to transport 10 BRIs
8DSL	Green	ON indicates TR-397 3-DS0 framing across the T1 facility to transport 8 BRIs
EXT	Green	ON indicates External timing input is selected (BITS)
LOC	Green	ON indicates BR1/10 side is using a locally generated clock source to time the T1 network
LOOP	Green	ON indicates BR1/10 clock is recovered clock from the T1 network
CAU	Green	ON indicates clock is recovered from the DSL position #1 to time the T1 network
DS1-LOC	Green	ON indicates the BR1/10 side is in a Local DS1 Loopback
RMT	Green	ON indicates the unit has initiated remote DS1 loopback when set in ESF mode FLASHING indicates it responded to remotely commanded loopback, or has provided a loopback path for the T1 data-stream in SF mode
LP-SYNC*	Red	ON indicates the U-interface is out of sync for the selected channel unit
LP-CRC*	Red	In normal operation flashes upon receiving NEBEs from the loop. In Local PM mode flashes 6-19 CRCs and is solid when >20 CRC errors are detected from the loop
CR-SYNC*	Red	ON indicates no TR-397 framing across the T1 carrier for the selected channel
CR-CRC*	Red	In normal operation flashes upon receiving NEBEs from the T1 carrier. In Local PM mode flashes 6-19 CRCs and is solid when >20 CRC errors are detected from the T1
DS0-LB*	Amber	ON indicates the selected U-BRITE is in a 2B+D commanded eoc loopback. Flashing once per second=B1 is looped, flashing twice per second=B2 is looped
ACT*	Green	ON indicates the customer's NT1 has successfully exchanged ACT bits with the network for the selected channel

\* Status is for the channel unit selected on the DSL 10-position rotary switch on the LIU of the BR1/10 side

## LOOPBACK TEST (ADR6, NT1)

Loopbacks in the network to customer direction can be initiated from either the ISDN switch (eoc) or the BR1/10 LIU and BCU. The down-stream direction is automatically selected based on the channel unit position in the circuit. To initiate a loopback, perform the following steps:

1. Insert TX and RX bantam plugs of the DS0 digital test set (i.e. TPI 108/109) to the TEST jacks of the LIU
2. Connect test set clock interface to DB9 connector of the LIU and configure the test set for Near Logic and 64kb/s
3. Select the desired U-BRITE using the DSL rotary switch on the LIU (the selected U-BRITE LED flashes red and green for 3 seconds)
4. Select the desired loopback address using the address rotary switch on the LIU (note: ADR1 is always the U-BRITE your test set is connected to)
5. Select DS0 option and select the desired Bearer channel B1/B2 dip switches on the BCU
6. Press the recessed TEST push-button on the BCU to initiate the loopback test
7. The DS0 LB status LED on the BCU will illuminate if the loopback is successful and will not illuminate if the loopback failed
8. Send and Receive 2047 to the established loopback and observe the DS0 digital test set for bit errors
9. It is not necessary to exit the test mode to select additional addresses (ADR2, NT1) or to change to B1/B2 channels
10. To terminate the loopback, press the TEST push-button and the amber DS0-LB LED will go out

## WARRANTY

Warranty for Carrier Networks products manufactured by ADTRAN and supplied under Buyer's order for use in the U.S. is ten (10) years. For a complete copy of ADTRAN's U.S. and Canada Carrier Networks Equipment Warranty, call (877) 457-5007, Document #414.