

64A- AND 64C-TYPE DATA MOUNTINGS IDENTIFICATION

1. GENERAL

1.01 This section contains a physical and functional description of the 64A-type data mounting (Fig. 1) and 64C-type data mounting.

1.02 This section is reissued to include the 64C2 data mounting and to rate manufacture discontinued (MD) the 64A1 data mounting which is replaced by the 64A2 data mounting. The 64C1 data mounting is MD and is replaced by the 64C2 data mounting. Since this reissue is a general revision, no revision arrows have been used to denote significant changes.

1.03 The 64A2 data mounting is used for private line customer premise DATAPHONE® II data sets. The 64C2 data mounting is used for private line central office DATAPHONE II data sets.

1.04 The 64A- and 64C-type data mountings are designed to accommodate up to eight private line data sets 2024-, 2048-, or 2096-type.

1.05 The 64A2 and 64C2 data mountings will be jointly referred to as the 64-type data mounting. The 64A2 and 64C2 data mountings will be referred to as 64A-type and 64C-type data mountings, respectively.

2. PHYSICAL DESCRIPTION

2.01 The 64A-type data mounting measures 19 or 23 inches wide, 15.4 inches deep, 14 inches high and weighs 52 pounds equipped with a 290-type power unit without the data sets installed.

2.02 The 64C-type data mounting measures 19 or 23 inches wide, 15.5 inches deep, 15 inches high, and weighs 35 pounds without a power source.

2.03 The 64-type data mounting can house up to eight private line data sets 2024-, 2048-, or 2096-type or a mixture of these data sets. The maxi-

imum power dissipation of a 64-type data mounting fully loaded is approximately 515 watts.

2.04 The 64-type data mounting is furnished with a static discharge protection plate (comcode 842992489). The static discharge protection plate is used whenever the 64-type data mounting is partially filled with data sets (less than eight data sets). The 64A-type data mounting static discharge plate is mounted in front of circuit pack CP3. The 64C-type data mounting static discharge plate is shipped loose.

2.05 In a partially filled 64-type data mounting the static discharge protection plate should be inserted in the slot directly to the right of every data set that does not have another data set to its right to protect the data set(s) from high voltage static discharge due to human contact.

Warning: *Before shipping 64A-type data mounting to service center, separate 290-type power unit (part of 64A-type mounting) to avoid damages to the mounting.*

2.06 The 64A2 data mounting is equipped with a 290B1 power unit which is mounted on the side of the 64A2 data mounting in a 23-inch rack and above or below in a 19-inch rack.

2.07 The power source needed for the 64C-type data mounting is housed in a 65A-type data mounting, which accommodates four dc to dc converters. These converters are two 130D power units and two 133K power units. The 64C-type data mounting with five or more private line data sets 2024-, 2048-, or 2096-type requires two 130D and two 133K power units. The 64C-type data mounting with four or less private line data sets 2024-, 2048-, or 2096-type requires one 130D and one 133K power unit.

2.08 The 64C2 data mounting is powered by the 65A-type data mounting which includes a capacitor unit for energy storage. This capacitor unit

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mounts on the 64C-type data mounting (Fig. 2), or in special cases, on an external panel. The 65A-type data mounting converts either -48V or -140 Vdc to +18V or -24 Vdc.

2.09 Mounting the 64A-type data mounting in a 19-inch rack requires two flush mounting brackets (comcode 842532541), a mounting plate (comcode 842989451), a data set power extension cord (comcode 842989469), and a fan power extension cord (comcode 842992463) ordered separately. The mounting plate (comcode 842989451) will accommodate either one or two power units, and may be used to serve two data mountings if it is mounted between them with no intervening equipment.

2.10 The 290B-type power unit supplies 36 Vac power through two sets of fuses, transformer, and backplane busses to two groups of four data sets.

2.11 The 290B-type power unit also supplies power to the three fans located in the bottom of the 64A-type data mounting for removing heat from the mounting through a separately fused 117 Vac outlet.

2.12 The rear of the 64-type data mountings (Fig. 3 and 4) contains 20 connectors, exclusive of the connector for the power unit, ie, dial backup (DBU) connector, channel interface unit (CIU) connector, control channel-in (CC-IN) connector, control channel-out (DC-OUT) connector, diagnostic channel-in (DC-IN) connectors, and diagnostic channel-out (DC-OUT) connectors.

2.13 Refer to Table A for DBU connector, Table B for CIU connector, Table C for CC-IN connector, Table D for CC-OUT connector, Table E for DC-IN connector, and Table F for DC-OUT connector, pin numbers, and the corresponding lead designations.

2.14 The rear of the 64-type data mounting has a 5-position address switch (group part of local address) and alarm (ALM) terminal (Fig. 3 and 4). The switch allows only a change in the group number portion of the local address, the position number portion of the local address is set automatically when the data set is inserted into the mounting. The alarm screws are provided to allow connection to an external, noninductive indicator.

2.15 The rear of the 64C2 data mounting contains circuit pack CP4 with alarm terminals for of-

fice alarm and fan failure alarm. The alarm terminals are provided to allow connection to an external noninductive indicator. These terminals can safely handle a load of $100 \text{ mA} \leq 50\text{V}$. For inductive or greater loads a slave relay or similar external circuit is required. The alarm relay contacts need to be protected with a 458A diode (or equivalent) connected across the alarm terminals when a slave relay is used.

2.16 The front of the mounting is equipped with a panel or hinged front cover that covers approximately the lower half of the data set faceplates when raised. The hinged front cover must be lowered when installing and removing data sets and when gaining access to the switches on the data set faceplates. A write-on plastic strip is included on the front cover to note line and circuit numbers.

3. CIRCUIT PACKS

3.01 The 64A- and 64C-type data mountings each have eight data set connectors mounted on the backplane and identified as circuit pack CP1. The power cable connects circuit pack CP1 to the power supply.

3.02 Circuit pack CP2 is connected through cabling to rear connectors of circuit pack CP1.

3.03 Circuit pack CP3 plugs into the backplane circuit pack CP1 in position 9 next to the last data set.

3.04 The circuit pack CP3 (Fig. 5) on 64A-type data mounting is secured by two screws and has two light-emitting diodes (LEDs) marked as CC-BLK (RED LED) and CC-BYP (GREEN LED). The circuit pack CP3 (Fig. 6) on 64C-type data mounting has plugs similar to a data set and has two additional LEDs, ie, ALM FAIL (RED LED) and ALM OFF (YELLOW LED) and a 3-position paddle switch.

3.05 The CC-BLK LED lights when the control channel is blocked by a steady spacing signal. The CC-BYP LED (normally on) is extinguished when the mounting is bypassed by the control channel because of a steady spacing condition originating within the mounting or due to a power failure on circuit pack CP3 or due to a general power failure. The additional LEDs on the 64C-type mounting, the ALM FAIL LED will light when the fan speed falls below 60 percent of rated speed and ALM OFF LED will light when the central office alarm is inactive.

3.06 The 3-position paddle switch on the circuit pack CP3 of the 64C-type data mounting activates the central office alarm circuit for fan failure in the ON position, resets the fan failure detector and alarm circuits in the RST position (momentary contact), and turns off the alarm contacts in the center position.

3.07 The 64C-type mounting also contains a circuit pack CP4 which provides connection between circuit pack CP3 and the dc fans. There are three sets of alarm (screw) terminals for alarm connections to the central office.

4. REFERENCE

4.01 For installation and connection information refer to the following Bell System Practices:

SECTION	TITLE
592-040-120	Private Line Data Sets 2024, 2048, and 2096—Description and Operation—Stand-Alone — Multiple—DATAPHONE® II Service
592-040-220	Private Line Data Sets 2024, 2048, and 2096—Installation and Connections—Stand Alone—Multiple DATAPHONE® II Service

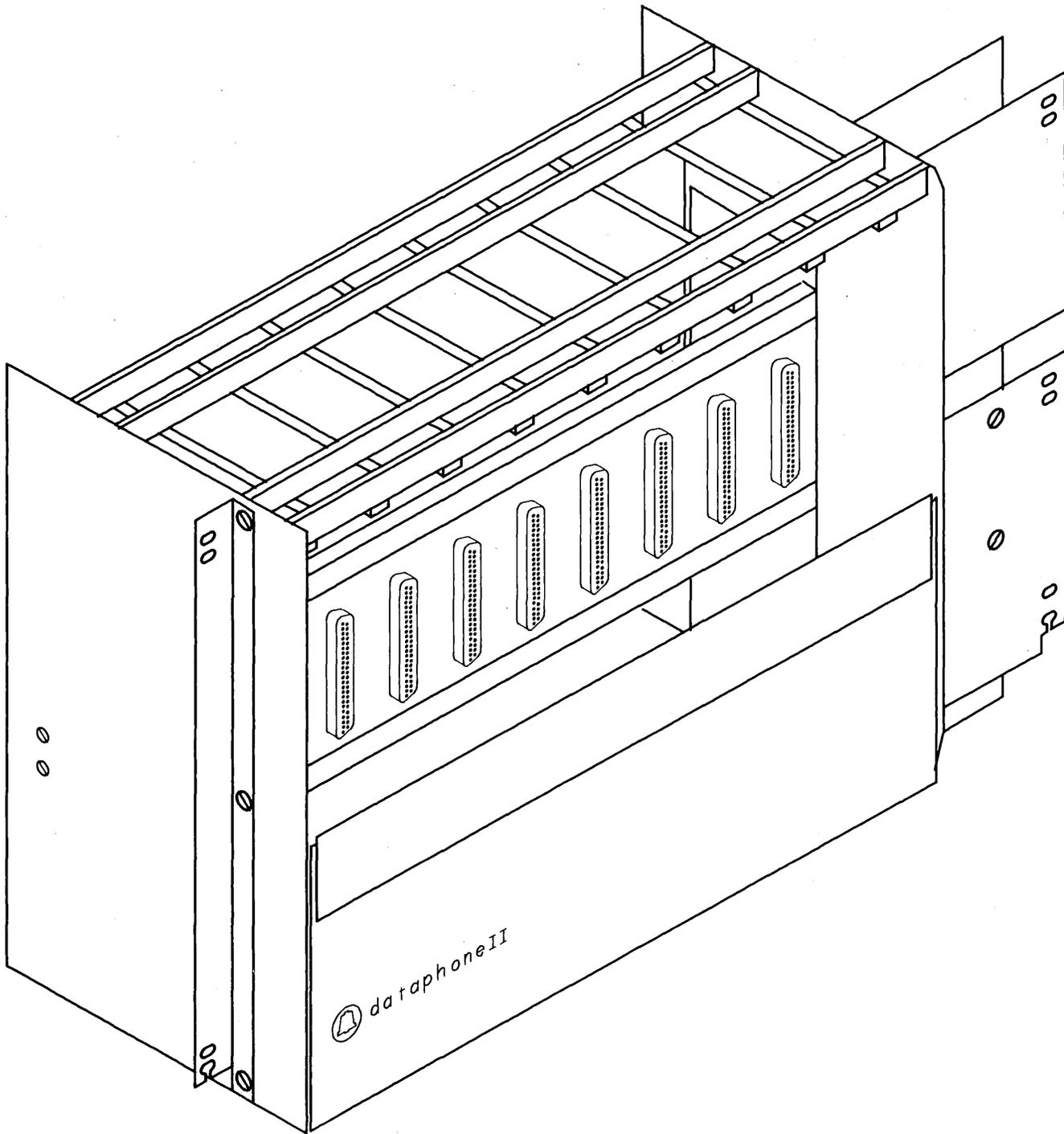


Fig. 1—64A-Type Data Mounting

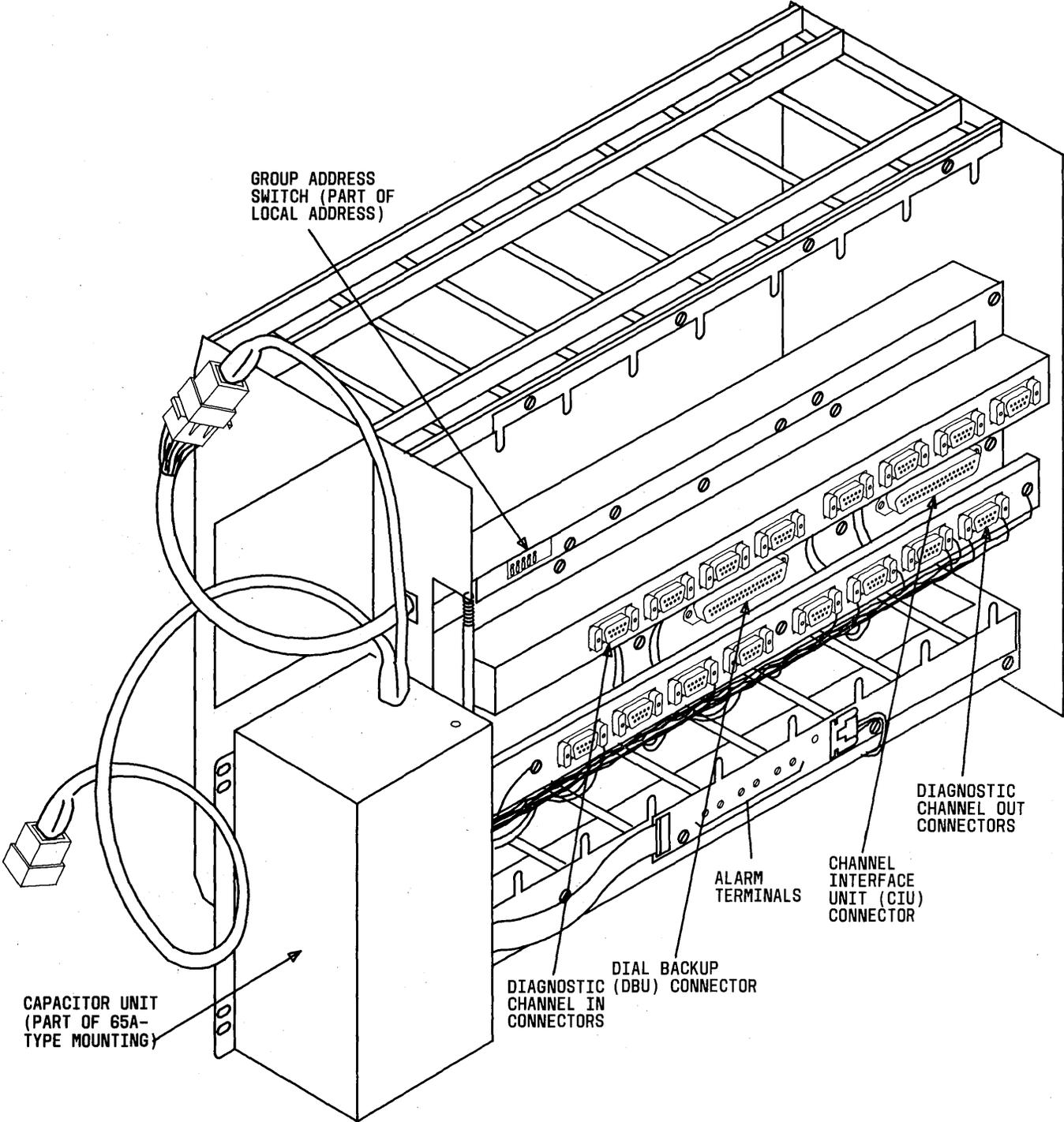


Fig. 2—64C-Type Data Mounting Equipped With Capacitor Unit

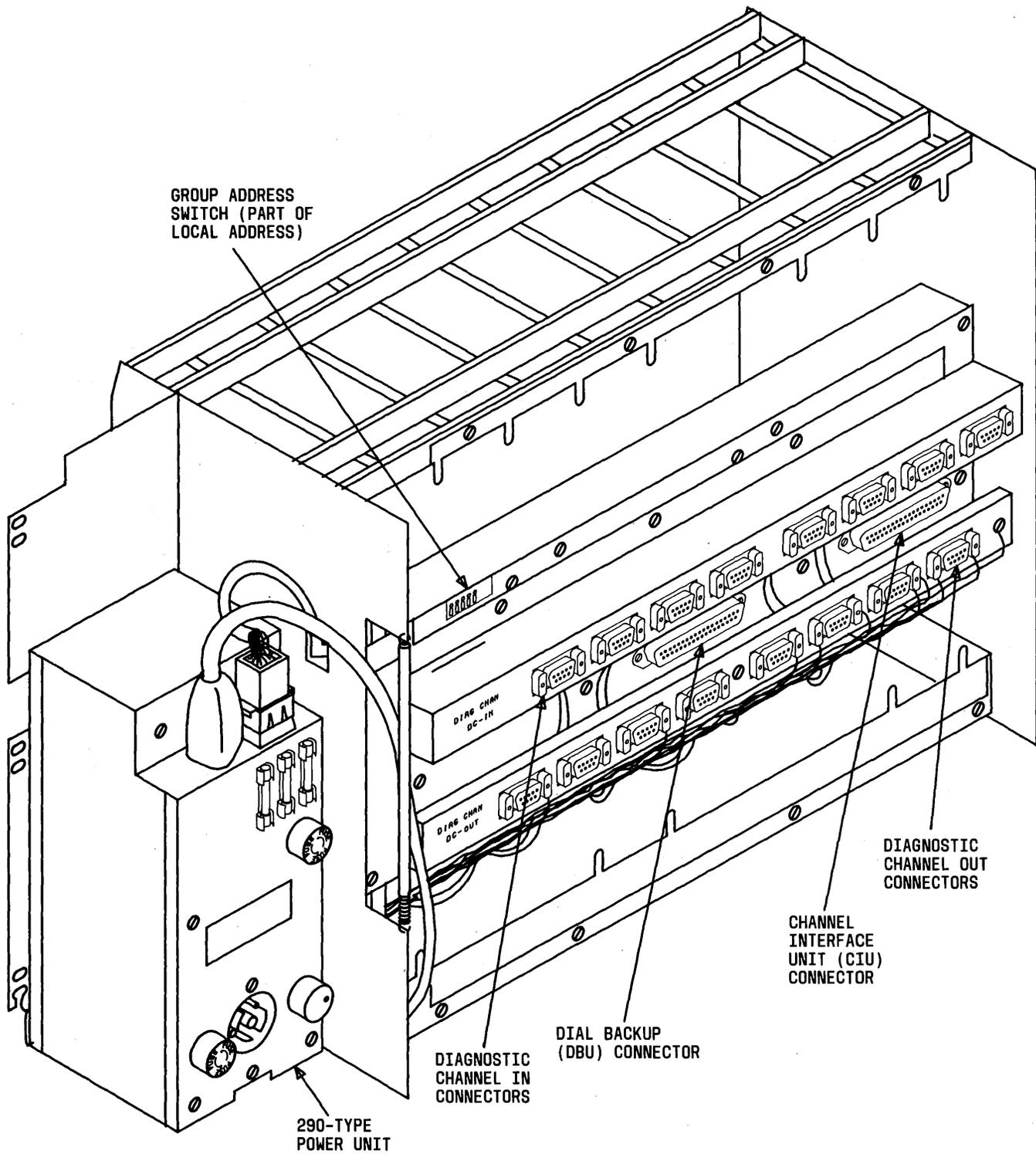


Fig. 3—Rear View of 64A-Type Data Mounting (Control Channel IN and OUT Connectors and Alarm Screws are not Shown)

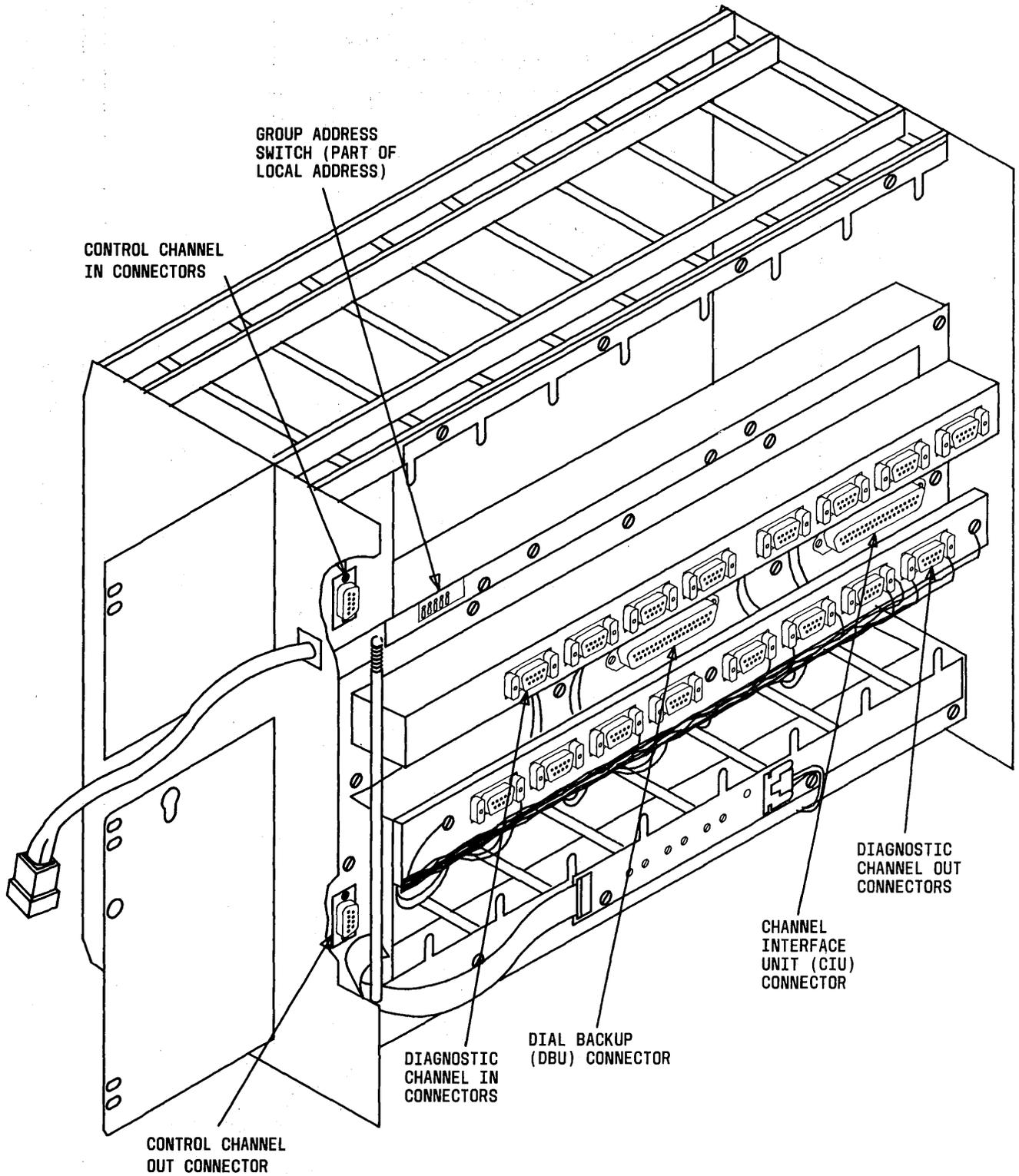


Fig. 4—Rear View of 64C-Type Data Mounting

TABLE A
MULTIPLE MOUNTING DIAL BACKUP
UNIT (DBU) CONNECTOR

PIN NO.	LEAD DESIGNATIONS	DATA SET POSITION NO.	FUNCTION
1,26 2,27 3,28 4,29 5,30 6,31 7,32 8,33	DBU1,DBU2	1 2 3 4 5 6 7 8	Dial Backup Control Leads 1 and 2
17,42 18,43 19,44 20,45 21,46 22,47 23,48 24,49	DBU3,DBU4	1 2 3 4 5 6 7 8	Dial Backup Control Leads 3 and 4

TABLE B
MULTIPLE MOUNTING CHANNEL
INTERFACE UNIT (CIU) CONNECTOR

PIN NO.	LEAD DESIGNATIONS	DATA SET POSITION NO.	FUNCTIONS
1,26	DR, DT	1	Receive Pair
2,27	DR1, DT1	1	Transmit Pair
3,28	TEK6, TEK5	1	Line Status Indicator
4,29	DR, DT	2	Receive Pair
5,30	DR1, DT1	2	Transmit Pair
6,31	TEK6, TEK5	2	Line Status Indicator
7,32	DR, DT	3	Receive Pair
8,33	DR1, DT1	3	Transmit Pair
9,34	TEK6, TEK5	3	Line Status Indicator
10,35	DR, DT	4	Receive Pair
11,36	DR1, DT1	4	Transmit Pair
12,37	TEK6, TEK5	4	Line Status Indicator
13,38	DR, DT	5	Receive Pair
14,39	DR1, DT1	5	Transmit Pair
15,40	TEK6, TEK5	5	Line Status Indicator
16,41	DR, DT	6	Receive Pair
17,42	DR1, DT1	6	Transmit Pair
18,43	TEK6, TEK5	6	Line Status Indicator
19,44	DR, DT	7	Receive Pair
20,45	DR1, DT1	7	Transmit Pair
21,46	TEK6, TEK5	7	Line Status Indicator
22,47	DR, DT	8	Receive Pair
23,48	DR1, DT1	8	Transmit Pair
24,49	TEK6, TEK5	8	Line Status Indicator

TABLE C

CONTROL CHANNEL-IN (CC-IN) CONNECTOR

PIN NO.	LEAD DESIGNATION	FUNCTION
1	FG	Frame Ground
2	ALM	Alarm Circuit
3	SD	Send Data
4	RD	Receive Data
5	GRD	Circuit Ground
6	RC	Receive Common
7	RS	Request-to-Send
8	CS	Clear-to-Send
9	SC	Send Common

TABLE E

DIAGNOSTIC CHANNEL-IN (DC-IN) CONNECTOR

PIN NO.	LEAD DESIGNATION	FUNCTION
1	FG	Frame Ground
3	SD	Send Data
4	RD	Receive Data
5	GRD	Circuit Ground
6	RC	Receive Common
7	RS	Request-to-Send
8	CS	Clear-to-Send
9	SC	Send Common

TABLE D

CONTROL CHANNEL-OUT (CC-OUT) CONNECTOR

PIN NO.	LEAD DESIGNATION	FUNCTION
1	FG	Frame Ground
2	ALM	Alarm Circuit
3	SD	Send Data
4	RD	Receive Data
5	GRD	Circuit Ground
6	RC	Receive Common
9	SC	Send Common

TABLE F

DIAGNOSTIC CHANNEL-OUT (DC-OUT) CONNECTOR

PIN NO.	LEAD DESIGNATION	FUNCTION
1	FG	Frame Ground
3	SD	Send Data
4	RD	Receive Data
5	GRD	Circuit Ground
6	RC	Receive Common
7	RS	Request-to-Send
8	CS	Clear-to-Send
9	SC	Send Common

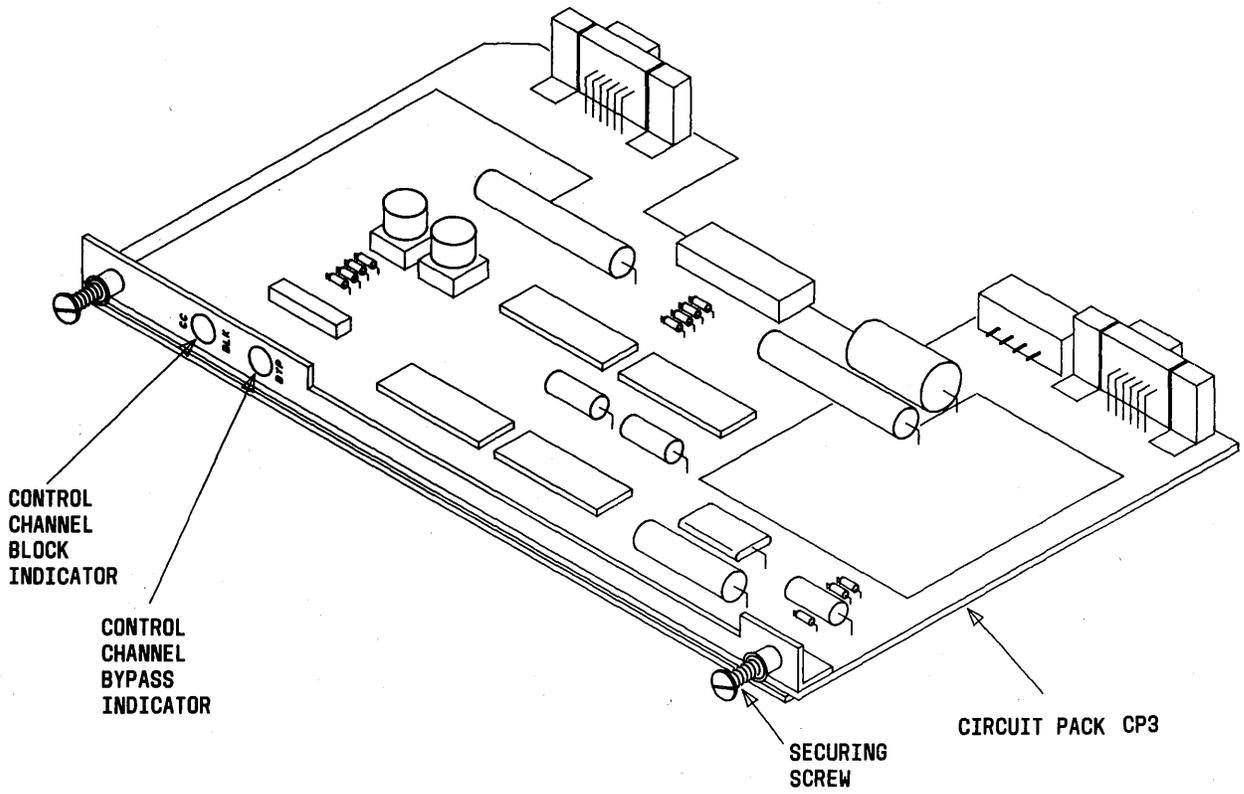


Fig. 5—Circuit Pack CP3 of 64A-Type Data Mounting

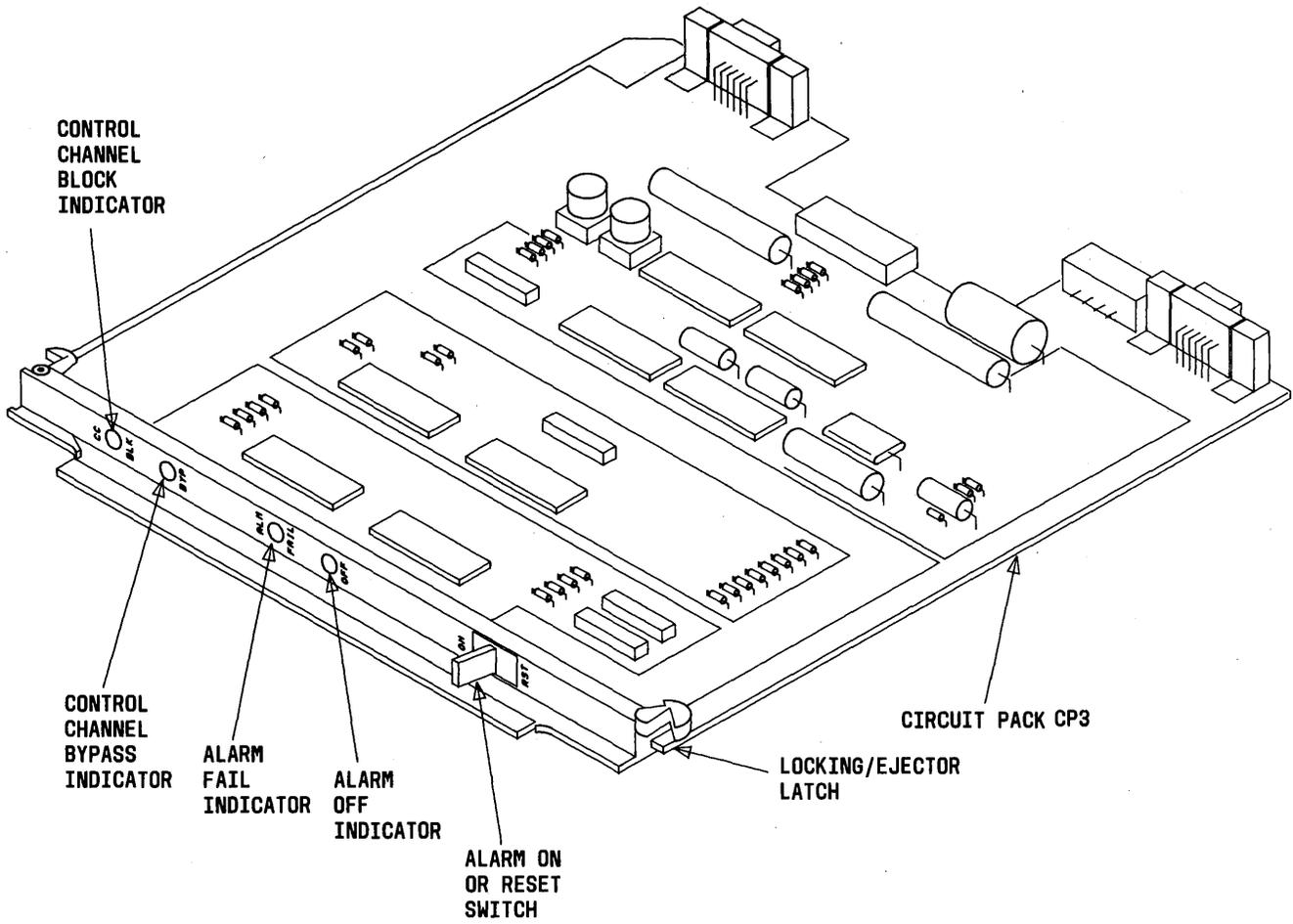


Fig. 6—Circuit Pack CP3 of 64C-Type Data Mounting