65A-TYPE DATA MOUNTING

IDENTIFICATION

1. GENERAL

1.01 This section contains a physical and functional description of the 65A-type data mounting (Fig. 1).

1.02 This section is reissued to include information on the 65A-2 type data mounting and to update the voltage and current requirements for the power units. Since this is a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 The 65A-type data mounting is designed to house the power units that convert −48 (65A1-type) or +140 (65A2-type) volts DC to +18.5 volts DC at 23 amperes and -24 volts DC at 2 amperes. These power units supply the voltages used for powering eight DATAPHONE II® data communications service data sets housed in a 64C-type data mounting. In addition, -48 or +140 volts is passed through the 65A-type data mounting to power fans on the 64C-type data mounting.

1.04 The 65A-type data mounting accommodates four power units which are ordered separately (See Table A). If less than five data sets are used, they should be in the even numbered positions on the 64C-type data mounting and the power units plugged into the right side of the 65A-type mounting looking at the front (see Fig. 2).

1.05 A ship loose capacitor unit is included to reduce the voltage dip on the +18.5 volt bus when an additional data set is plugged into the associated 64C-type data mounting.

1.06 The difference between the 65A1 and 65A2 data mounting is the change in two types of power units (DC/DC converters), the stamping on the faceplate of the data mounting, and the wiring connections required for the new power units.

2. PHYSICAL DESCRIPTION

2.01 The 65A-type data mounting consists of two apparatus mountings mounted on a 4-inch wide by 23-inch long mounting plate with associated connectors and wiring. Overall dimensions are 4-inches high, 23-inches wide, and 10-inches deep. The unit weighs approximately 5.5 pounds empty and 24 pounds when equipped with power units.

2.02 A retainer is used on the front of the 65A-type data mounting (Fig. 1) to prevent inadvertent operation of the faceplate mounted ON/OFF switches on the power units. Figure 2 shows the retainer in the up position, and Fig. 1 shows the retainer in the down or locked position.

2.03 The faceplate mounted ON/OFF switches also control a mechanical latch to prevent the power units from becoming unplugged. The switch must be in the OFF position when installing or removing the associated power unit.

2.04 A low voltage alarm is provided on each of the four power units in the 65A-type data mounting. The alarm consists of a contact closure (accessible through the backplane connectors shown in Fig. 3 and 4) and a red indicator lamp on each power unit faceplate. The alarm contacts are rated at 100 volts and 100 milliamperes maximum.

2.05 The alarm terminals are assigned on the backplane connector terminals as shown in Table B. The alarm will only function when the output voltage is low and the input voltage is present. For the -24 volt power units, the low voltage alarm will activate anytime the output voltage drops below the range of +18 to 12 VDC. For the +18.5 volt power units, the low voltage alarm will activate anytime the output voltage drops below the range of 14.3 to 12.9 VDC.

2.06 An electronic shutdown feature is provided to allow the power units to be turned off and on from a remote location. A power unit is turned off by connecting terminal R to terminal S of the associated connector (Table C). The power unit may be returned to service by breaking the connection.

2.07 The ship loose capacitor unit consists of a metal enclosure (7.5 by 7.5 by 3.98 inches)

NOTICE
Not for use or disclosure outside the
Bell System except under written agreement

weighing approximately six pounds and equipped with two pendant cards. The unit is designed to mount on the mounting flange of the 64C-type data mounting. Lockwashers are used on the lower two (non-keyhole type) of the four mounting points. The shorter pendant card plugs into the pendant card from the 64C-type data mounting and the longer pendant card plug into the 65A-type data mounting (see Fig. 5).

2.08 The 65A-type data mounting is designed to operate in an ambient temperature range of 32°F to 149°F and a relative humidity range of 20 to 95 percent. A 2-inch air space should be provided below and a 4 inch space above the mounting, which will dissipate 100 watts at full load when powering eight 2096-type data sets in the associated 64C-type data mounting.

2.09 The card for connecting power to the fans on the 64C-type data mounting is supplied with the 64C-type data mounting. This card, comcode 842989477, connects the control office battery from the 65A-type data mounting to the 64C-type data mounting.

2.10 The power connections to be made at the 65A1 data mounting are given in Table D. The full load current drains for the power units contained in the 65A1 data mounting are given in Table E. Table F gives the power connections to be made at the 65A2 and Table G gives the full load current drains for the power units contained in the 65A2 data mounting.

3. REFERENCE

3.01 The following Bell System Practices are listed for references.

SECTION	TITLE
161-202-100	120 Through 123-, 130 Through 133-, 140 Through 143-, Type Power Units Pulse Width Control DC to DC Converters Summarizing Specification Power Systems
590-102-161	64-Type Data Mountings— Identification

TABLE A

DC/DC POWER CONVERTER UNITS FOR 65A1 AND 65A2 DATA MOUNTINGS

DC SOURCE VOLTAGE	REQUIRED DATA MOUNTING	RQUIRED POWER UNITS	
		1-4 DATA SETS	5-8 DATA SETS
-48 Volts	65A1	1-133K (+18.5V) 1-130D (-24V)	2-133K (+18.5V) 2-130D (-24V)
+140 Volts	65A2	1-143B (+18.5V) 1-140K (-24V)	2-143B (+18.5V) 2-140K (-24V)

TABLE B

ALARM TERMINAL ASSIGMENTS

DC SOURCE VOLTAGES	DATA SETS 1,3,5,7	DATA SET 2,4,6,8
+18.5 Volts	J1, terminals 13 and 14	J4, terminals 13 and 14
–24 Volts	J3, terminals 13 and 14	J6, terminals 13 and 14

TABLE C

ELECTRONIC SHUTDOWN TERMINAL ASSIGNMENTS

TO SHUT DOWN		CONNECT
Data Sets 1,3,5,7	-18.5V	Terminals R and S on Connector J1
	-24V	Terminals R and S on Connectors J3
Data Sets 2,4,6,8	+18.5V	Terminals R and S on Connectors J4
	-24V	Terminals R and S on Connectors J6

TABLE D

POWER CONNECTORS TO THE 65A1 DATA MOUNTING

DC SOURCE VOLTAGE	CONNECTS TO	POWERED UNITS
-48 Volts +14%, -11% Fused at 10A*	The "—" terminal on the wiring adapter on connector J1	Data sets 1,3,5,7 on the associated 64C-type data mounting
-48 Volts +14%, -11% Fused at 10A*	The "—" terminal on the wiring adapter on connector J4	data sets 2,4,6,8 and common circuits on the associated 64C-type data mounting
-48 Volts +14%, -11% Fused at 1.5A*	Terminal 1 on connector J6	DC fans on the associated 64C-type data mounting
-48 Volts Return	The "+" terminal on the wiring adapter on connector J1 The "+" terminal on the wiring adapter on connector J4 Terminal 12 on connector J6	

*Dedicated Fuse

TABLE E

FULL LOAD CURRENT DRAINS FOR THE 65A1 DATA MOUNTING

CURRENT SOURCE	DRAIN IN AMP
10A Fuse supplying connector J1	5.7
10A Fuse supplying connector J4	5.7
1.5A Fuse supplying connector J6	.4

TABLE F

POWER CONNECTOR TO THE 65A2 DATA MOUNTING

DC SOURCE VOLTAGE	CONNECTS TO	POWERED UNITS
+140 Volts +10%, -15% Fused at 5A*	The "+" terminal on the wiring adapter on connector J1	Data sets 1,3,5,7 on the associated 64C-type data mounting
+140 volts +10%, -15% Fused at 5A*	The "+" terminal on the wiring adapter on connector J4	Data sets 2,4,6,8 and common circuits on the associated 64C-type data mounting
+140 Volts +10%, -15% fused at 3/4A*	Terminal 12 on connector J6	DC fans on the associated 64-type data mounting
+140 Volts Return	The "—" terminal on the wiring adapter on connector J1. The "—" terminal on the wiring adapter on connector J4.	
*	Terminal 1 on connector J6	

* Dedicated fuse

TABLE G

FULL LOAD CURRENT DRAINS FOR THE 65A2 DATA MOUNTING

CURRENT SOURCE	DRAIN IN AMPERES
5-ampere fuse supplying connector J1	2.9
5-ampere fuse supplying connector J4	2.9
3/4-ampere fuse supplying connector J6	.12

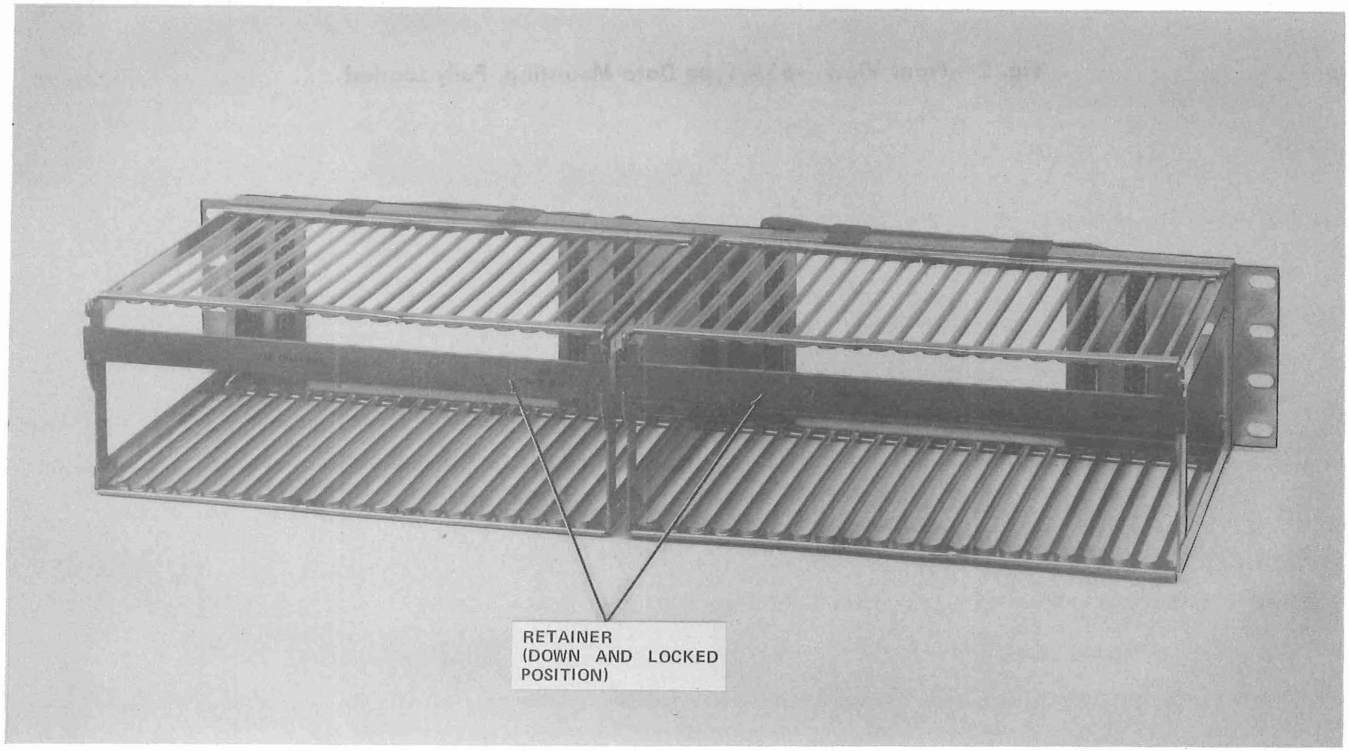

Fig. 1—Front View—65A-Type Data Mounting

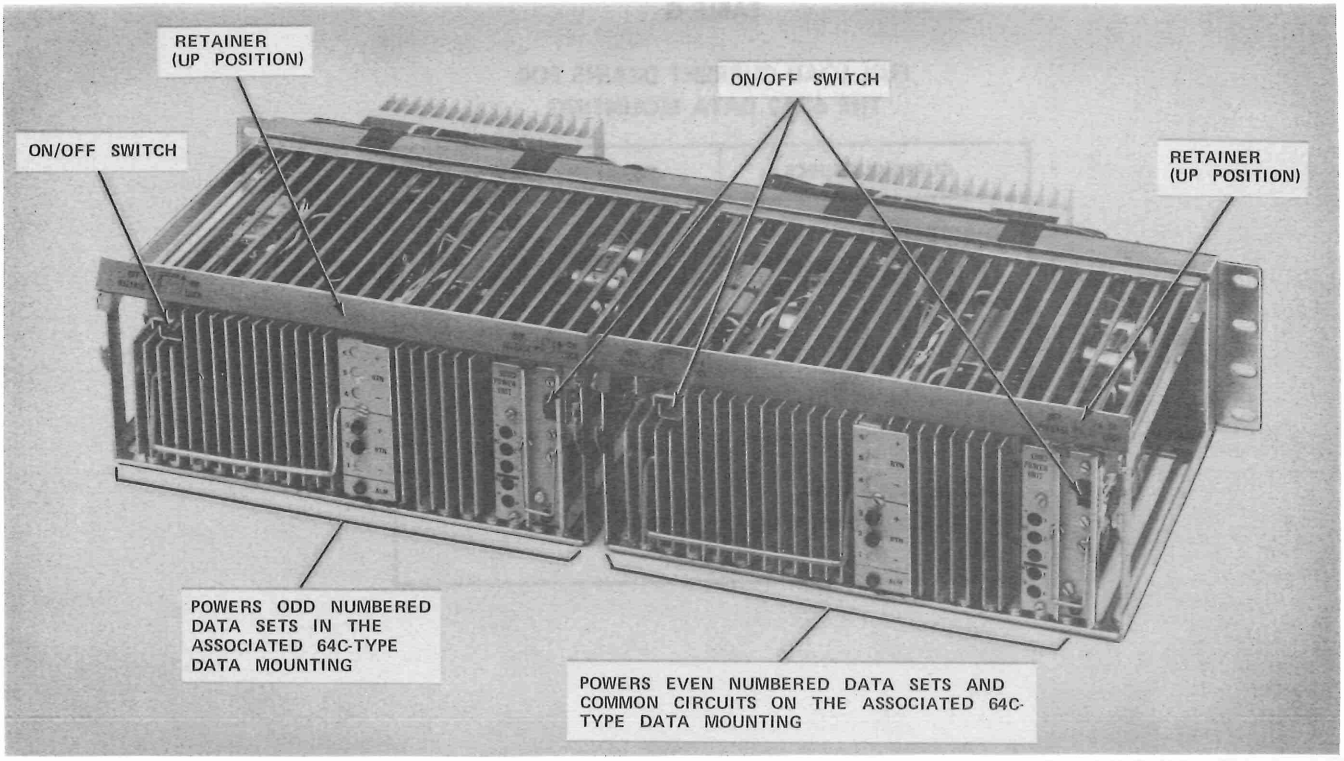

Fig. 2—Front View—65A-Type Data Mounting, Fully Loaded

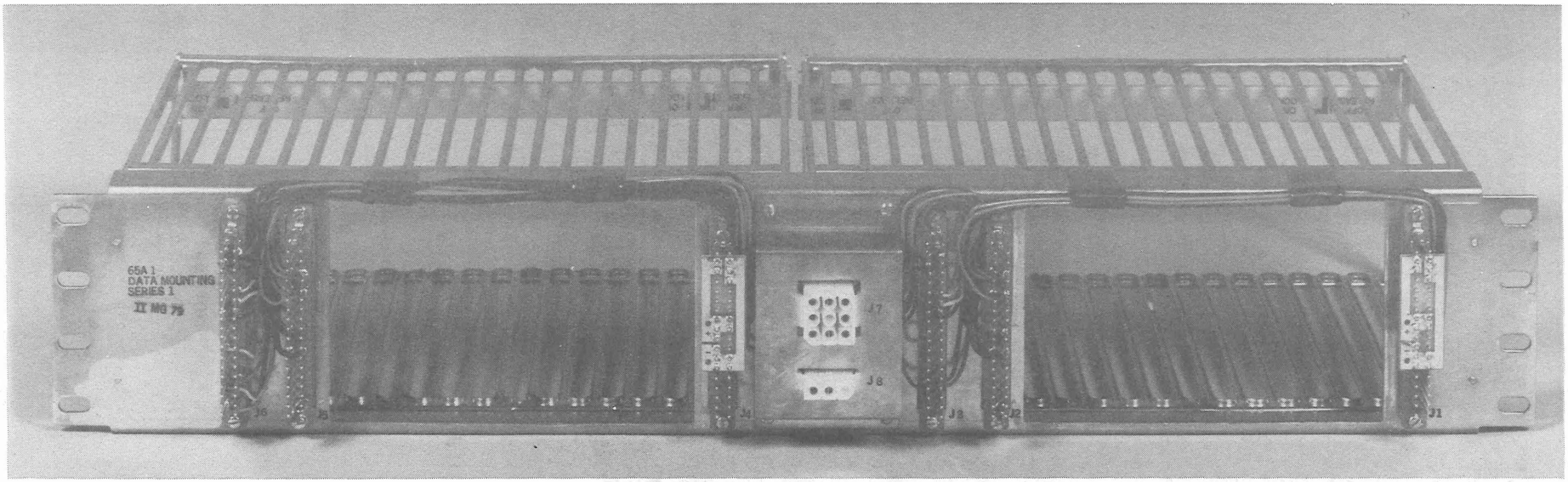

Fig. 3—Rear View—65A-Type Data Mounting

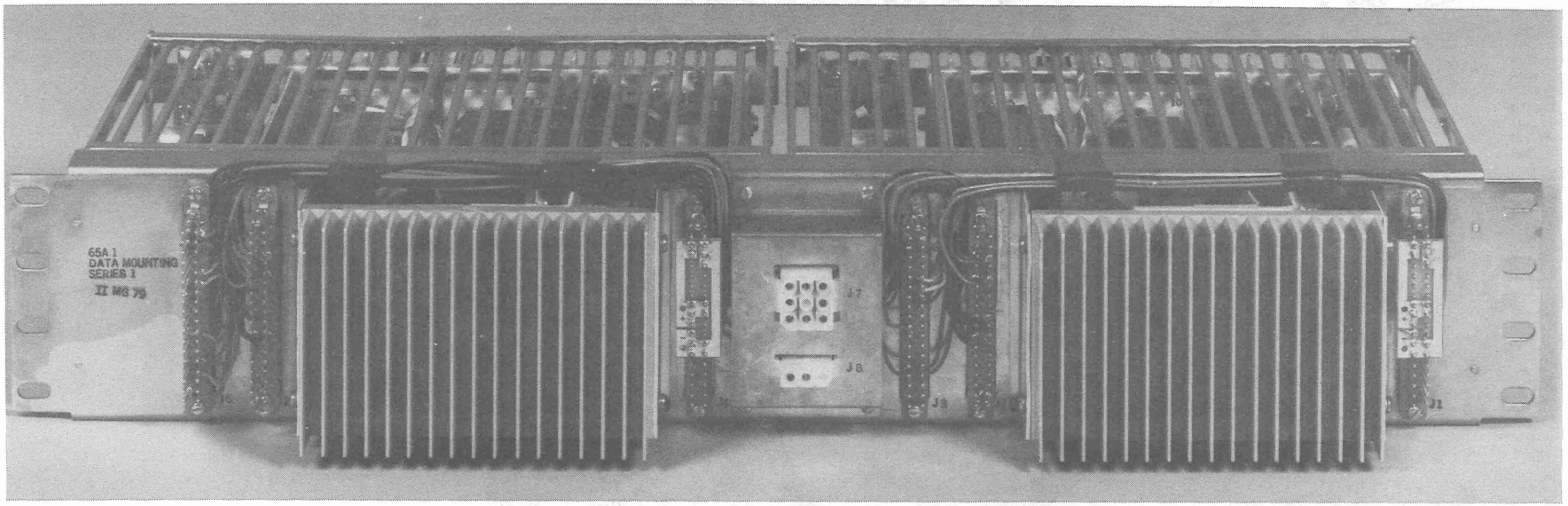

Fig. 4—Rear View—65A-Type Data Mounting, Fully Loaded

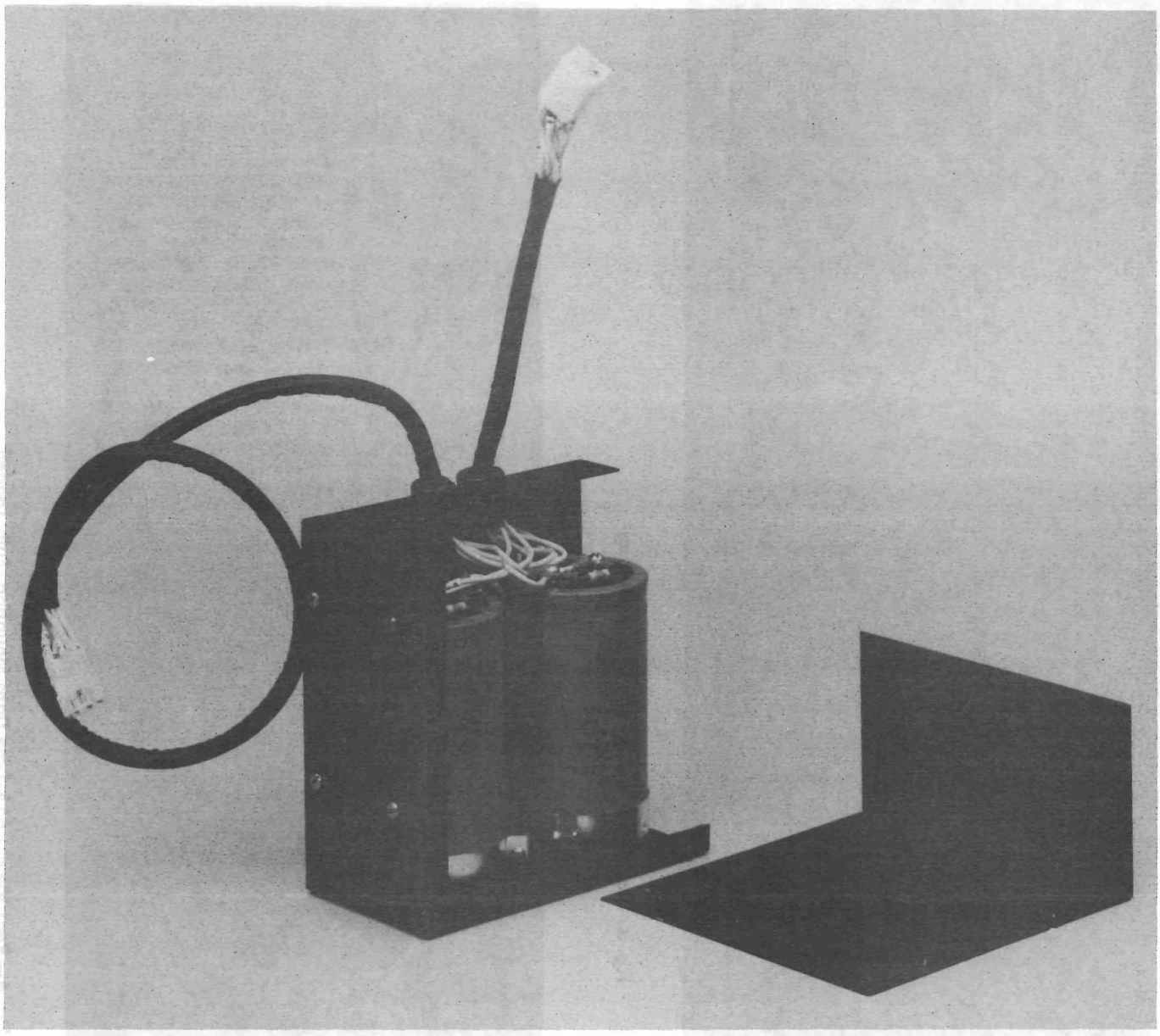

Fig.5 — Ship-Loose Capacitor Unit