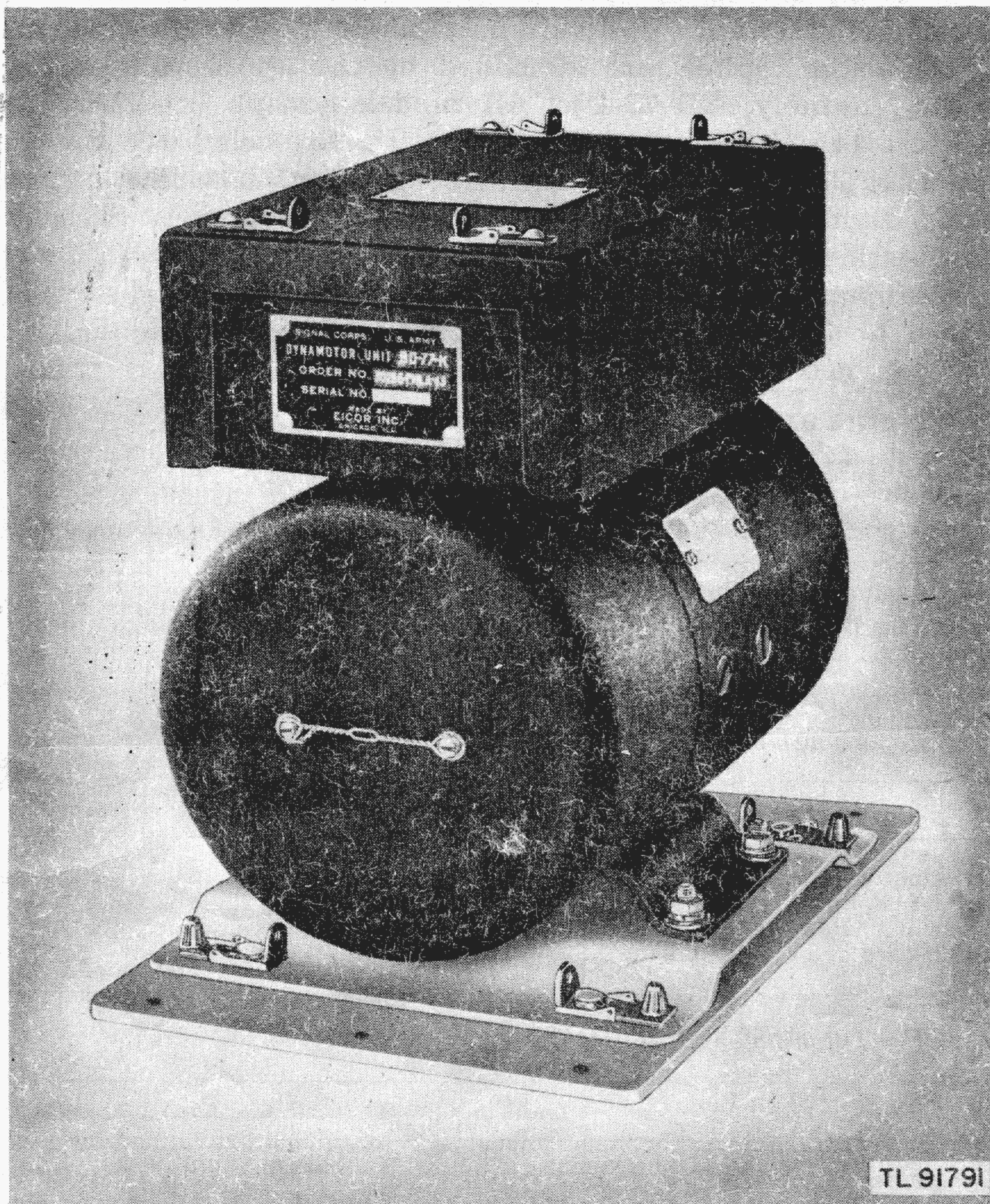


TECHNICAL MANUAL
DYNAMOTOR UNIT BD-77-C

CHANGES }
No. 1 }

WAR DEPARTMENT,
WASHINGTON 25, D. C., 30 October 1944.

TM 11-934, 11 September 1943, is changed as follows:



TL 91791

Fig. 1.1 Dinamotor Units BD-77-K and -KM, and Mounting FT-107.

DYNAMOTOR UNIT BD-77-C

1. General

Dynamotor Unit BD-77-() consists of a dynamotor upon which is mounted a box containing the relay, fuses, sockets, capacitors, etc. The dynamotor proper * * * d-c rotating machine. The nomenclature Dynamotor Unit BD-77-() is intended to refer to all models of Dynamotor Unit BD-77 covered in this Technical Manual. Individual models, to which specific information applies, are identified by the appropriate suffix letter, (namely, BD-77-C). All models except BD-77-L are rated at 14 volts, 40 amperes input, with 1000-volts, 0.35-ampere output at 5000 rpm, with 55° Centigrade rise for ½-hour intermittent duty. Dynamotor Unit BD-77-L is rated at 6000-rpm. Skeleton type bearing * * * of the dynamotor.

The input binding posts and fuse clips are mounted on and securely pinned to a molded or bakelite terminal board. In addition, all * * * maximum noise suppression.

2. Weights and Dimensions

a. (Superseded.) For Dynamotor Units BD-77-C and -CM.

Part	Length (in.)	Width (in.)	Height (in.)	Weight (lb.)
Dynamotor-----	11 ¹ / ₁₆	7 ¹ / ₂	6 ²⁵ / ₃₂	31. 95
Relay-fuse Box-----	9 ¹ / ₃₂	5 ¹⁵ / ₃₂	3 ²² / ₃₂	5. 30
Mounting-----	10 ⁵ / ₈	7 ¹ / ₂	⁵ / ₃₂	1. 347

b. For Dynamotor Units BD-77-K and -KM.

Part	Length (in.)	Width (in.)	Height (in.)	Weight (lb.)
Dynamotor-----	9 ²¹ / ₃₂	6 ¹ / ₄	6 ⁷ / ₈	27. 5
Relay-fuse Box-----	9 ¹¹ / ₃₂	5 ⁷ / ₁₆	3 ⁹ / ₁₆	5. 9
Mounting Base FT-107 and Sub-base-----	10 ⁵ / ₈	7 ¹ / ₂	²¹ / ₃₂	2. 0

c. For Dynamotor Unit BD-77-L.

Part	Length (in.)	Width (in.)	Height (in.)	Weight (in.)
Dynamotor-----	10 ¹ / ₂	7 ¹ / ₂	6 ²⁵ / ₃₂	31. 1
Relay-fuse Box-----	8 ¹⁵ / ₁₆	5 ¹ / ₂	3 ¹ / ₁₆	4. 9
Mounting-----	10 ⁵ / ₈	7 ¹ / ₂	³ / ₁₆	1. 57

DYNAMOTOR UNIT BD-77-C

d. Over-all Weights.—The weight of the complete Dynamotor Units BD-77-C and -CM is 38.6 pounds. The weight of the complete Dynamotor Units BD-77-K and -KM is 35.4 pounds. The weight of the complete Dynamotor Unit BD-77-L is 37.57 pounds.

3. Installation

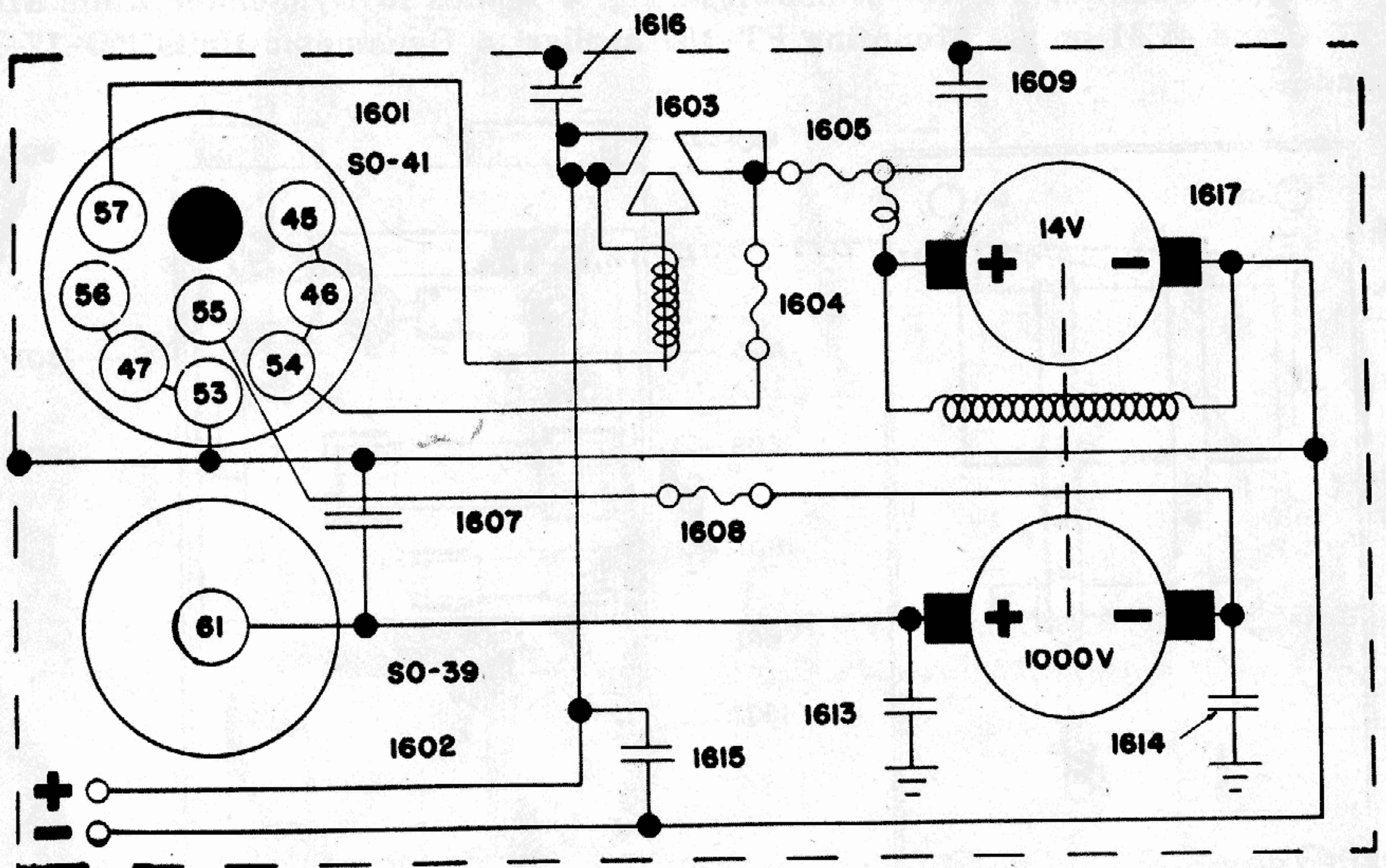
Mount the dynamotor * * * exceed 0.04 ohms. Clamp the dynamotor unit securely to Mounting FT-107 or FT-107-B so that the dynamotor unit cannot be torn loose.

After the dynamotor unit is clamped securely to Mounting FT-107-B the mounting by means of the four snap-slide catches, insert Plug PL-59 and Plug PL-61 of the attaching cords into Socket SO-39 and Socket SO-41, respectively, on the dynamotor unit. Then clamp the * * * to its mounting.

* * * * *

6. General

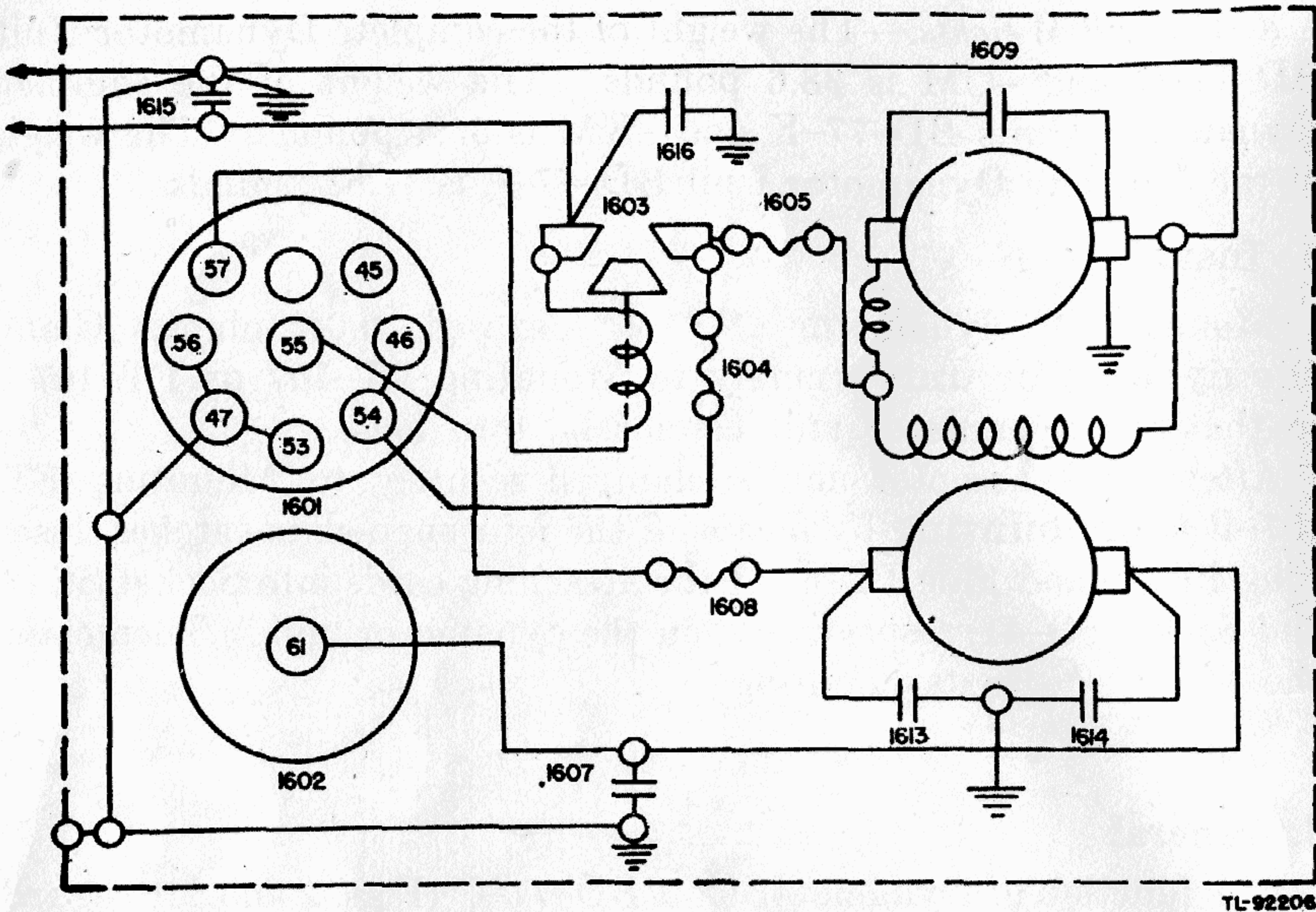
The function of Dynamotor Unit BD-77-C (Figs. 2 and 2.1 regardless of model) is to provide high voltage for the vacuum tube plates of a transmitter unit. Spare fuse links * * * the flame-proof type.



TL90684

Fig. 2.1.—Dynamotor Unit BD-77-CM and -L, Schematic Diagram.

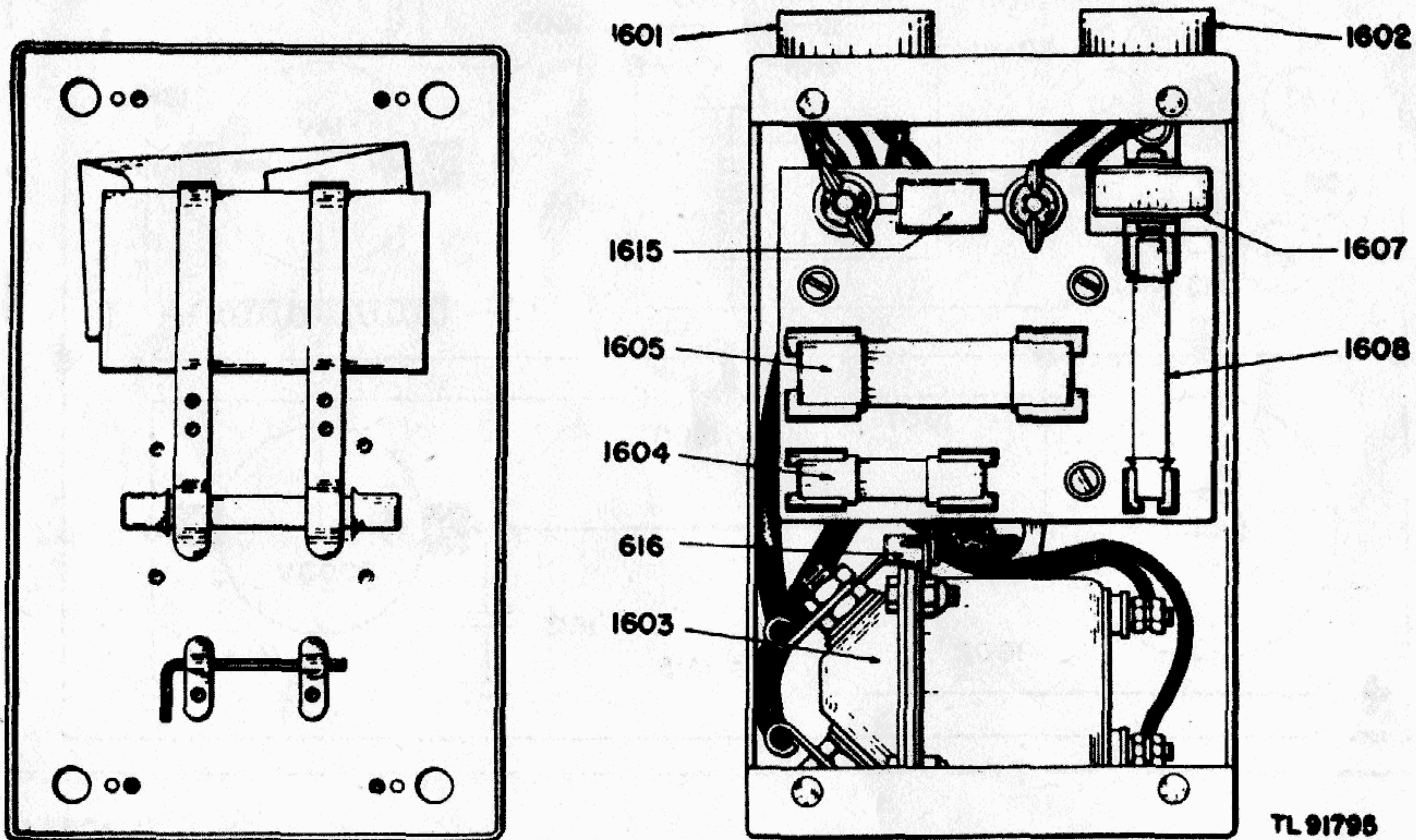
DYNAMOTOR UNIT BD-77-C



TL-92208

Fig. 2.2.—Dynamotor Unit BD-77-KM, Schematic Diagram.

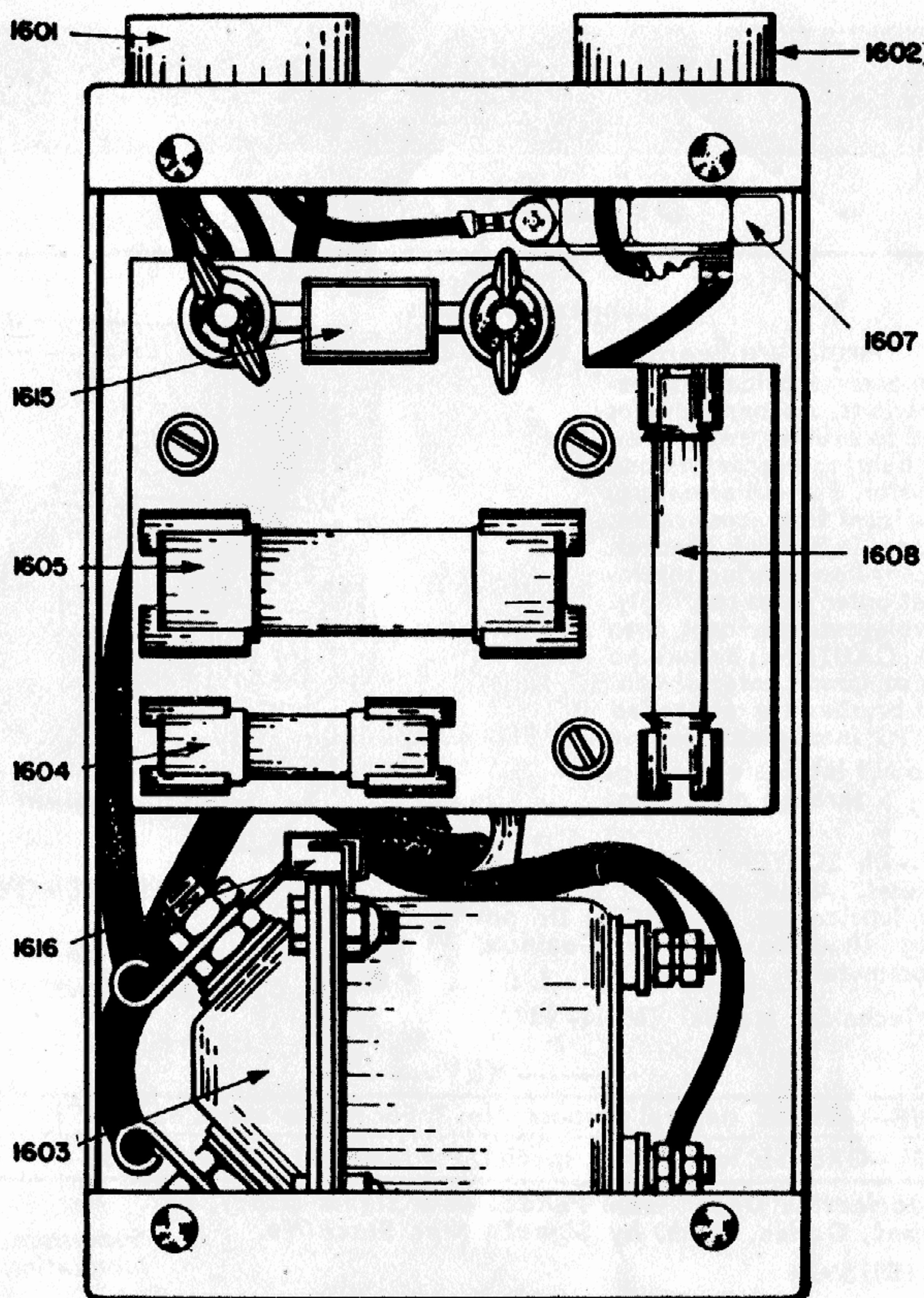
Note. Mounting FT-107-B shown in Fig. 4 applies to Dynamotor Units BD-77-C and -CM only. Mounting FT-107 applies to Dynamotor Units BD-77-K and -L.



TL 91795

Fig 3.1.—Dynamotor Unit BD-77-K, Top View of Relay Fuse Box with Cover Removed.

DYNAMOTOR UNIT BD-77-C



TL-92208

Fig. 3.2.—Dynamotor Unit BD-77-KM, Top View of Junction Box with Cover Removed.

SECTION IV

MAINTENANCE

Note. Failure or unsatisfactory performance of this equipment will be reported on W. D., A. G. O. Form No. 468. If this form is not available, see TM 38-250.

* * * * *

8. Lubrication

a. (Superseded.) For instruction on lubricating and cleaning this equipment, see War Department Lubrication Order (fig. 3.2).

b. Use only cleaning materials authorized by policies of Signal Corps, Army Air Forces, and Army Service Forces. These are: Solvent,

WAR DEPARTMENT LUBRICATION ORDER No. 3001
SIGNAL CORPS

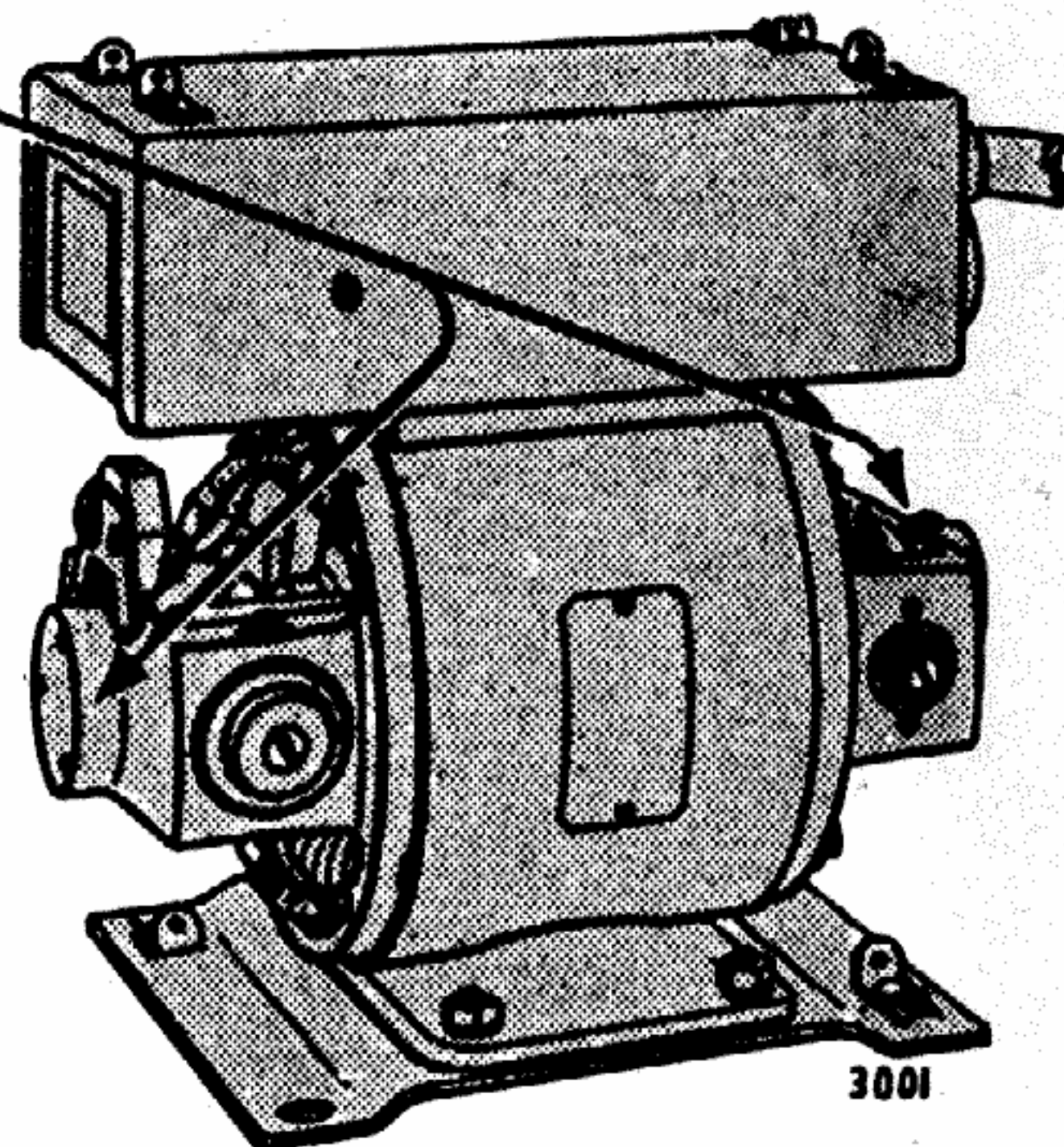


DYNAMOTOR BD-77



Armature Bearings
 Remove, clean and relubricate. To relubricate bearings, disconnect wires attached to brushes, remove all brushes and bearing bracket on one end of dynamotor. Pull out armature, clean old lubricant from inner races; also outer races in bearing bracket. Knead lubricant into bearing retainers and coat outer races sparingly. Remove excess lubricant, then reassemble. **CAUTION:** Be sure no lubricant gets on commutator or contacts and that brushes are reinstalled in original position.
 Do not lubricate bearings through plug holes.

Operating
 Lubricant • Hours
WB 1024



END COVERS REMOVED

By Order of the Secretary of War:
G. C. Marshall, Chief of Staff.

CLEAN parts with SOLVENT, dry-cleaning, or OIL, fuel, Diesel. Allow parts to dry thoroughly before lubricating. **CAUTION:** Do not allow cleaning fluid to get on Contacts, Brushes or Commutator.

REFERENCE—Technical Manual TM 11-934

KEY

- WB—GREASE, general purpose, No. 2. For temperatures above 0°F.**
- GL—GREASE, lubricating, special. For temperatures below 0°F.**

Requisition Lubrication Order from Philadelphia Signal Depot, or Utah ASF Depot, Ogden, Utah, by Signal Corps Stock No.
6D10113-01

1 Apr 1944
 Supersedes all previous lubrication instructions.

TL91802

Fig. 3.3.—War Department Lubrication Order No. 3001 for Dynamotor Unit BC-77-().

Note. To lubricate bearings on Dynamotor Units BD-77-K and -KM, remove end covers and bearing plates from each end of the unit and lubricate according to instructions above. It is not necessary to remove the armature.

dry cleaning, Federal Specification No. P-S-661a and Oil, fuel, Diesel, U. S. Army Specification No. 2-101B.

* * * * *

10. Commutators

Wipe both commutators * * * of service, respectively. However, if the commutator bars have worn down flush with the mica, the dynamotor unit should be sent to a higher echelon of maintenance for repairs.

* * * * *

DYNAMOTOR UNIT BD-77-C

12. Disassembly (Superseded.)

The disassembly procedure for the various models differs in some cases. Apply the following procedures according to the particular model being disassembled.

a. Dynamotor Unit BD-77-C or -CM

(1) Remove the three safety-wired screws on each end of the dynamotor and take off the two end bells.

(2) Unscrew the slotted brush cap in each brush holder and remove all four brushes. Take special care to mark the position of the brushes in their holders so they can be replaced in their exact positions.

(3) Unscrew the four slotted screws located around the rim of the low-voltage bearing bracket, and pry the bracket loose from the frame. The low-voltage end of the dynamotor can be identified by the long small-diameter commutator and the large copper-graphite brushes.

(4) Detach the two field leads from the terminal clamps on the low-voltage brush holders by unscrewing the screw in each terminal clamp. It is not necessary to remove the terminal clamp from the brush holders.

(5) Place the bearing bracket out of the way and withdraw the armature from the frame. Be careful not to injure the armature windings or commutator by rubbing them against the field poles. Do not lose any of the shim washers which may be in the bearing housing or that may be found sticking to the bearing. If any shims are present reassemble them in the same housing.

b. Dynamotor Unit BD-77-K and -KM

(1) Remove the two safety-wired screws on each end of the dynamotor and take off the dynamotor end covers.

(2) Remove the bearing plates, placing the gaskets and the end play washers aside for further use. The armature bearings may now be lubricated according to the War Department Lubrication Order (Fig. 3.3).

(3) To remove the armature bearing for cleaning, remove the dynamotor end covers as described above. Unscrew the four brush holder caps and remove the two sets of brushes.

(4) Disconnect both sets of high- and low-voltage leads from the brush holder lugs. Attached capacitors need not be disturbed.

(5) Remove the bearing plates as described in (2) above.

(6) Remove the two sets of four screws securing the end brackets to the frame.

DYNAMOTOR UNIT BD-77-C

(7) Pull the end brackets squarely away from the armature and frame, and lift out the armature.

Note. Be sure not to touch the commutators on the armature, because any trace of oil or grease on them will affect the operation of the dynamotor. Place the disassembled parts on clean paper.

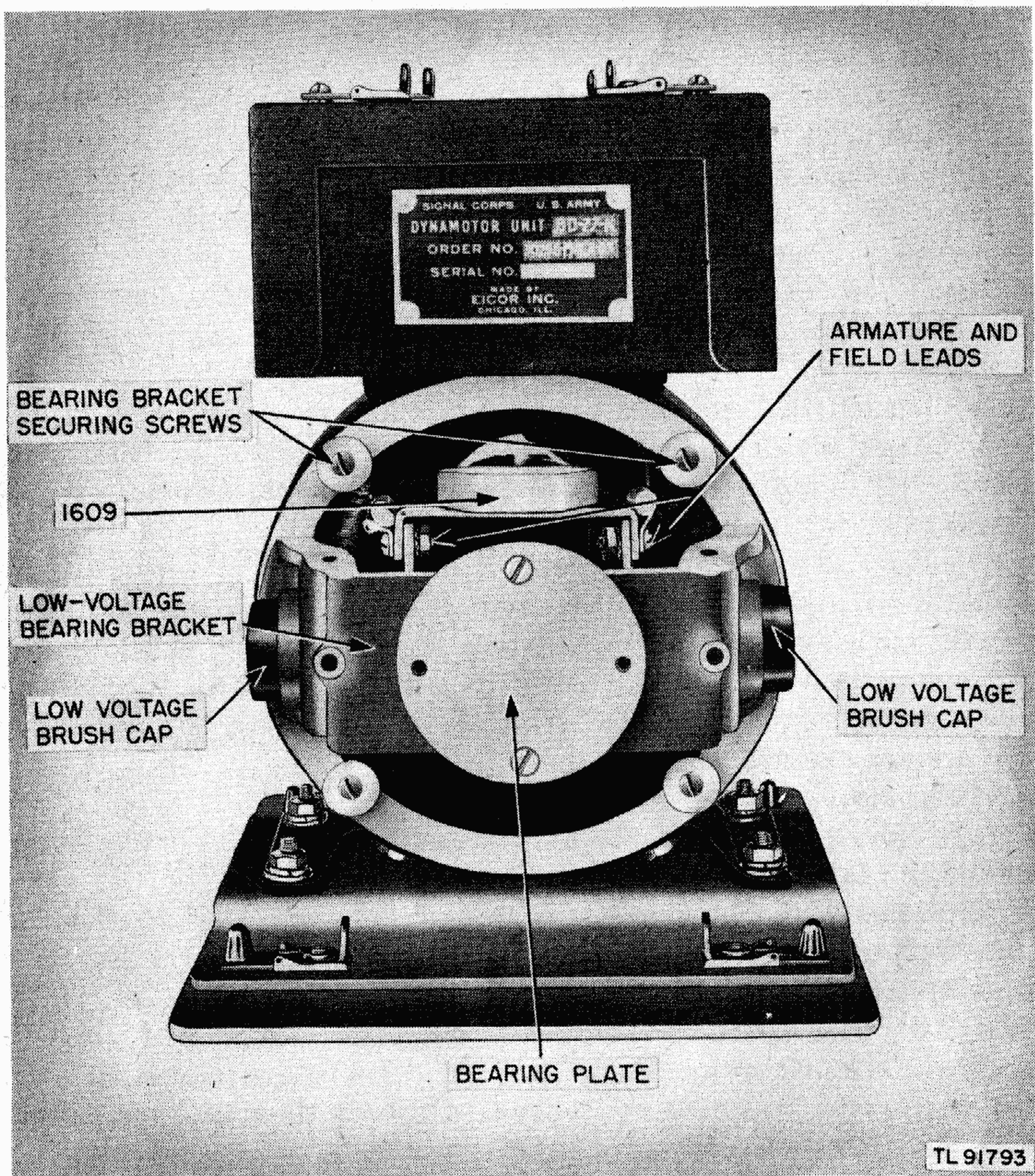


Fig. 4.1.—Dynamotor Units BD-77-K and -KM, Low-voltage End, Dynamotor End Cover Removed.

DYNAMOTOR UNIT BD-77-C

c. *Dynamotor Unit BD-77-L.* Apply steps in a (1) and (2) above for disassembly of Dynamotor Unit BD-77-C, or -CM and proceed as follows:

(1) Detach the two leads from the lugs on the high-voltage brush holders.

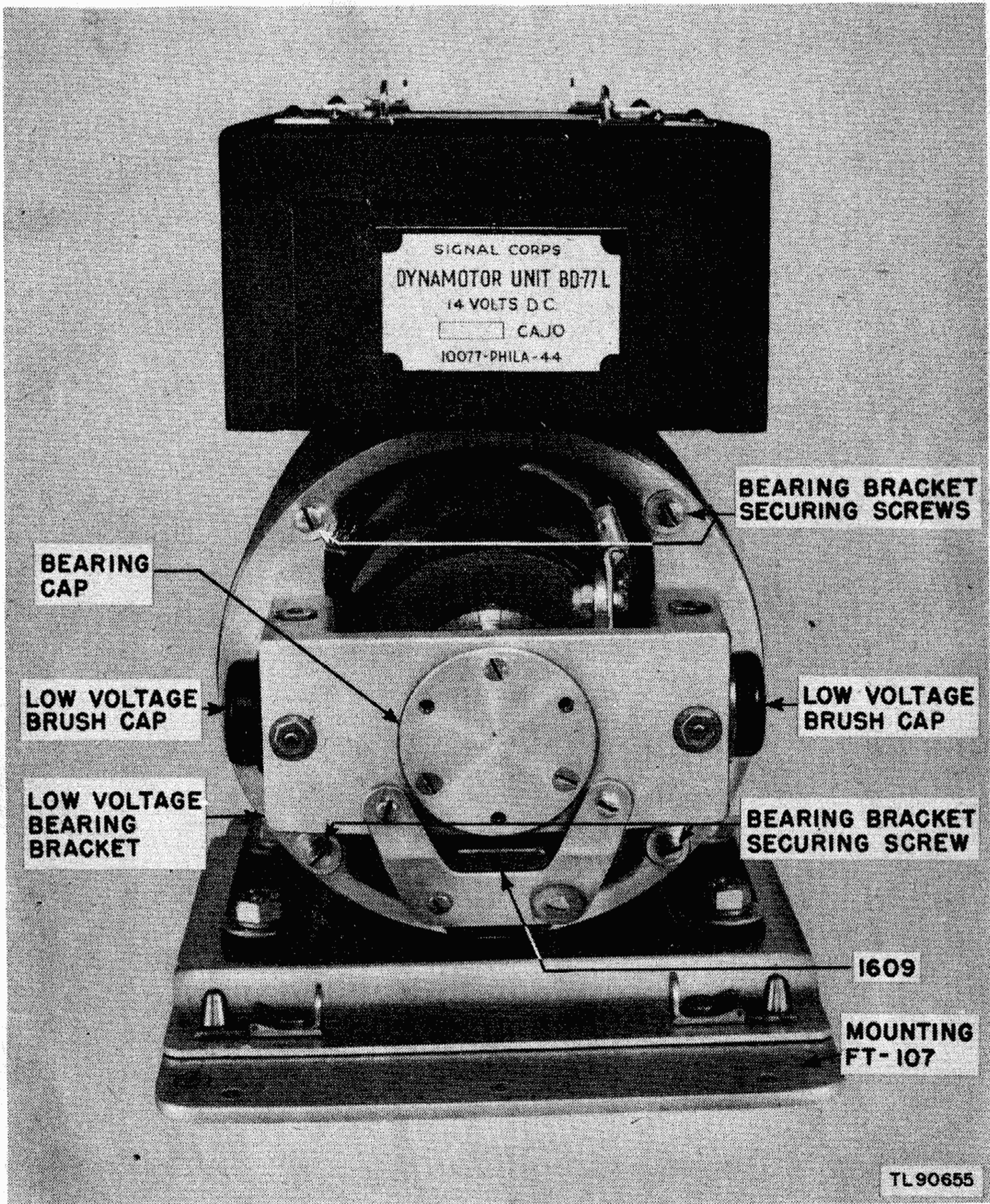


Fig. 4.2.—Dynamotor Unit BD-77-L, Low-voltage End, Dynamotor End Cover Removed.

DYNAMOTOR UNIT BD-77-C

(2) Unscrew the four slotted screws located around the rim of the high-voltage bearing bracket, and pry the bracket loose from the frame. The high-voltage end of the dynamotor is identified by the short, small-diameter commutator and the small graphite brushes.

d. End Play Adjustment.--A spanner screw * * * to 8/1000 inch.

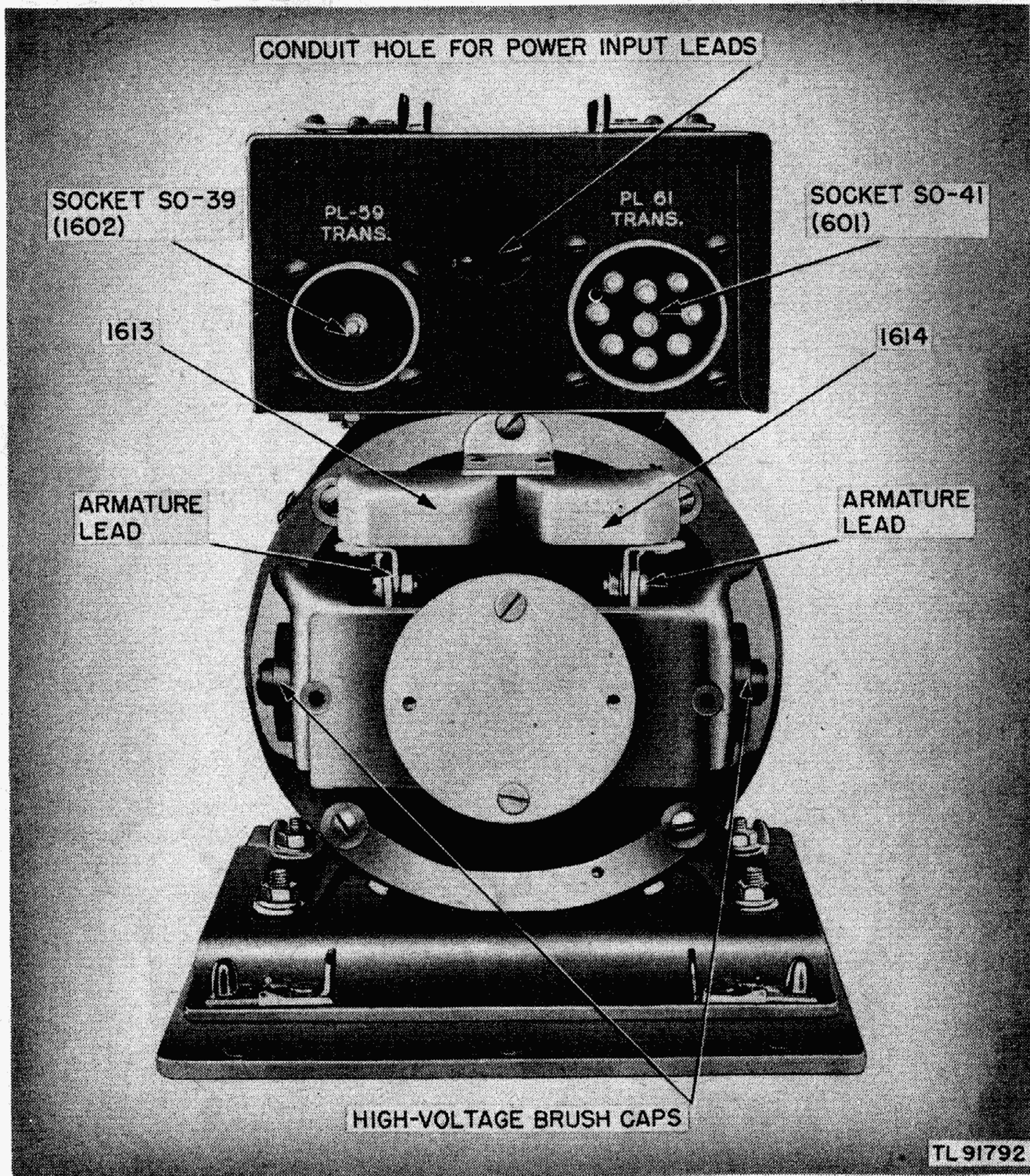


Fig. 5.1.—Dynamotor Units BD-77-K and -KM, High-voltage End, Dynamotor End Cover Removed.

DYNAMOTOR UNIT BD-77-C

e. (Superseded.) *End Play Adjustment for Dynamotor Unit BD-77-L Only.*—The end play is properly adjusted at the factory and need not be changed unless the armature or bearings are replaced. The adjustment consists of using a spring washer and a number of shim washers between the outer bearing race and the bearing cap.

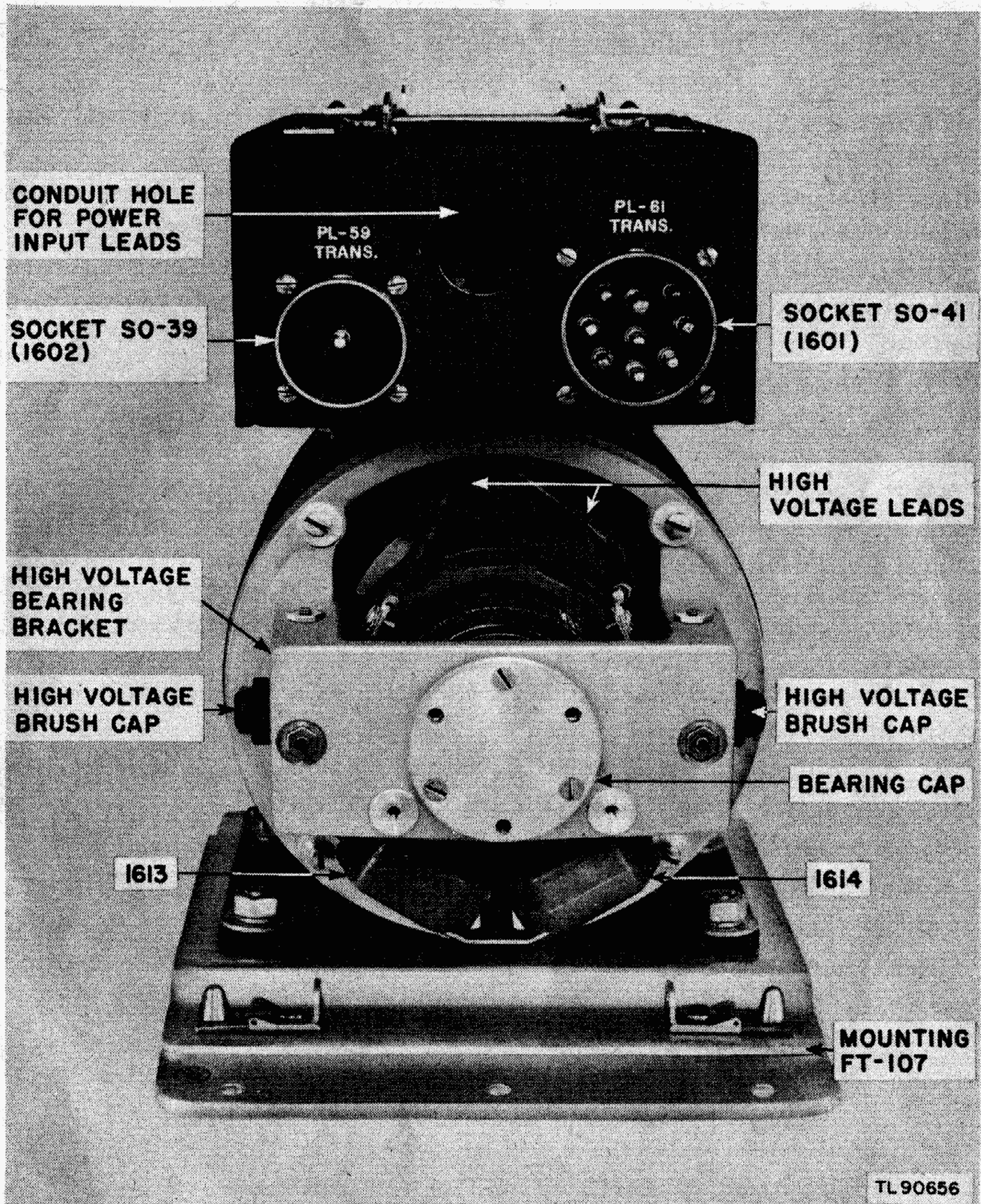


Fig. 5.2.—Dynamotor Unit BD-77-L, High-voltage End, Dynamotor End Cover Removed.

DYNAMOTOR UNIT BD-77-C

To change the adjustment, remove the bearing cap and add or remove shim washers to give proper end play, which is 0.015 to 0.020 inch. The amount of end play is measured with an indicator reading to 0.001 inch.

13. Reassembly

a. In reassembling the * * * against the commutator.

b. (Added.) The following applies to Dynamotor Units BD-77-K and -KM only. Reassemble the dynamotor as follows:

(1) Replace the low-voltage end bracket, and set the unit with the open end up.

Note. The end brackets are marked for the high or low end of the machine and are individually notched for positioning on the frame at the proper end.

(2) Lower the armature carefully, inserting the low-voltage end into the bottom bearing socket, and push it to approximately the correct position.

(3) Replace the high-voltage end bracket, pushing it squarely on the armature bearing; locate it properly so that it can be screwed to the frame.

(4) Replace the end play washers EXACTLY as found, adjusting the position of the armature if necessary. Fasten the bearing plates.

Note. Dynamotor Units BD-77-K and -KM have been designed with an allowance of 0.005 inch for armature end play. If the end play washers are replaced exactly as originally installed, the armature should spin freely and end play will be correct.

(5) Replace the brushes. Check them to see that they are spaced evenly on the commutators.

(6) Reconnect the leads to the brush holder lugs, screw on the brush holder caps, and replace the dynamotor end covers.

14. Service and Repair

a. *Typical Performance* (1)

* * * * *

(2) Dynamotor Unit BD-77-K and -KM should operate approximately as follows on a load test at normal room temperature:

Input		Output	
Volts	Amperes*	Volts	Milliamperes
14. 0	11-12	1, 170-1, 190	0
14. 0	41-43. 5	1, 050-1, 070	350

*The input current above includes that taken by the starting relay.

DYNAMOTOR UNIT BD-77-C

(3) *Typical Performance*

Dynamotor Unit BD-77-L should operate as follows on a load test:

Input		Output	
Volts	Amperes*	Volts	Milliamperes
14.0	12.5	1,150	0
14.0	31.5	1,120	220
14.0	43.0	1,080	350

*The input current includes that taken by the starting relay.

b. *Service Data* (1)

* * * * *

(2)

Use the following data when checking Dynamotor Units BD-77-K and -KM for defects in case of trouble.

1. Field resistance at 25° C are:

- Shunt field ----- 7.0 ohms.
- Series field ----- 0.0026 ohm.

2. Armature resistance measured between brushes at 25° C.:

- High voltage ----- 135 ohms (approx.).
- Low voltage ----- 0.00157 ohm.

3. Resistance between bars of the commutators at 25° C.:

- High voltage ----- 6.43 ohms.
- Low voltage ----- 0.00157 ohm.

4. With 14 volts applied to the input terminals and a line current of 40 amperes, there will be approximately 13.7 volts at the low-voltage brush holders.

(3)

Use the following data when checking Dynamotor Unit BD-77-L for defects in case of trouble. Tolerances are approximately 10 percent.

1. The field resistance at 25° C are:

- Shunt field ----- 20.4 ohms.
- Series field ----- 0.008 ohm.

2. With 14 volts input the normal shunt-field current is:

- 0.068 ampere at 25° C.
- 0.60 ampere at operating temperature.

3. At 25° C the resistance of the armature winding between brushes is:

- High voltage ----- 70 ohms.
- Low voltage ----- 0.0075 ohm.

4. At 25° C the resistance of the armature winding between commutator bars is:

High voltage	-----	4.0 ohms.
Low voltage	-----	0.00068 ohm.

c. *Location of Faults*

Certain troubles will * * * listed as follows:

* * * * *

Test Procedure

Test Fuse FU-22 * * * lower dynamotor efficiency.

14.1 Moistureproofing and Fungiproofing

a. *General.*—The operation of Signal Corps equipment in tropical areas where temperature and relative humidity are extremely high requires special attention. The following items represent problems which may be encountered in operation:

- (1) Resistors, capacitors, coils, etc. fail.
- (2) Electrolytic action takes place in resistors, coils, chokes, etc., causing eventual break-down.
- (3) Hook-up wire and cable insulation breakdown. Fungus growth accelerates deterioration.
- (4) Moisture forms electrical leakage paths on insulating strips, causing flash-overs.

b. *Treatment.*—A moistureproofing and fungiproofing treatment has been devised which, if properly applied, provides a reasonable degree of protection against fungus growth, insects, corrosion, salt spray, and moisture. The treatment involves the use of a moisture- and fungi-resistant varnish applied with a spray gun or brush. Refer to TBSIG 13, Moistureproofing and Fungiproofing Signal Corps Equipment, for a detailed description of the varnish-spray method of moistureproofing and fungiproofing.

CAUTION: *Varnish spray may have toxic effects if inhaled. Use a respirator, if available; otherwise, fasten cheesecloth or other cloth or material over nose and mouth.*

c. *Step-by-step Instructions for Treating Dynamotor Unit BD-77-()*

- (1) *Preparation.* (a) Make all repairs and adjustments necessary for the proper operation of the equipment.

DYNAMOTOR UNIT BD-77-C

(b) Clean all dirt, dust, rust, fungus, oil, grease, etc., from the equipment.

(2) *Disassembly.* (a) Loosen slide fasteners, and remove cover from junction box on top of dynamotor.

(b) Remove four screws holding fuse and terminal strip.

(c) Remove one screw holding capacitor to the high-voltage fuse clip.

NOTE. This procedure is not necessary on Dynamotor Unit BD-77-KM.

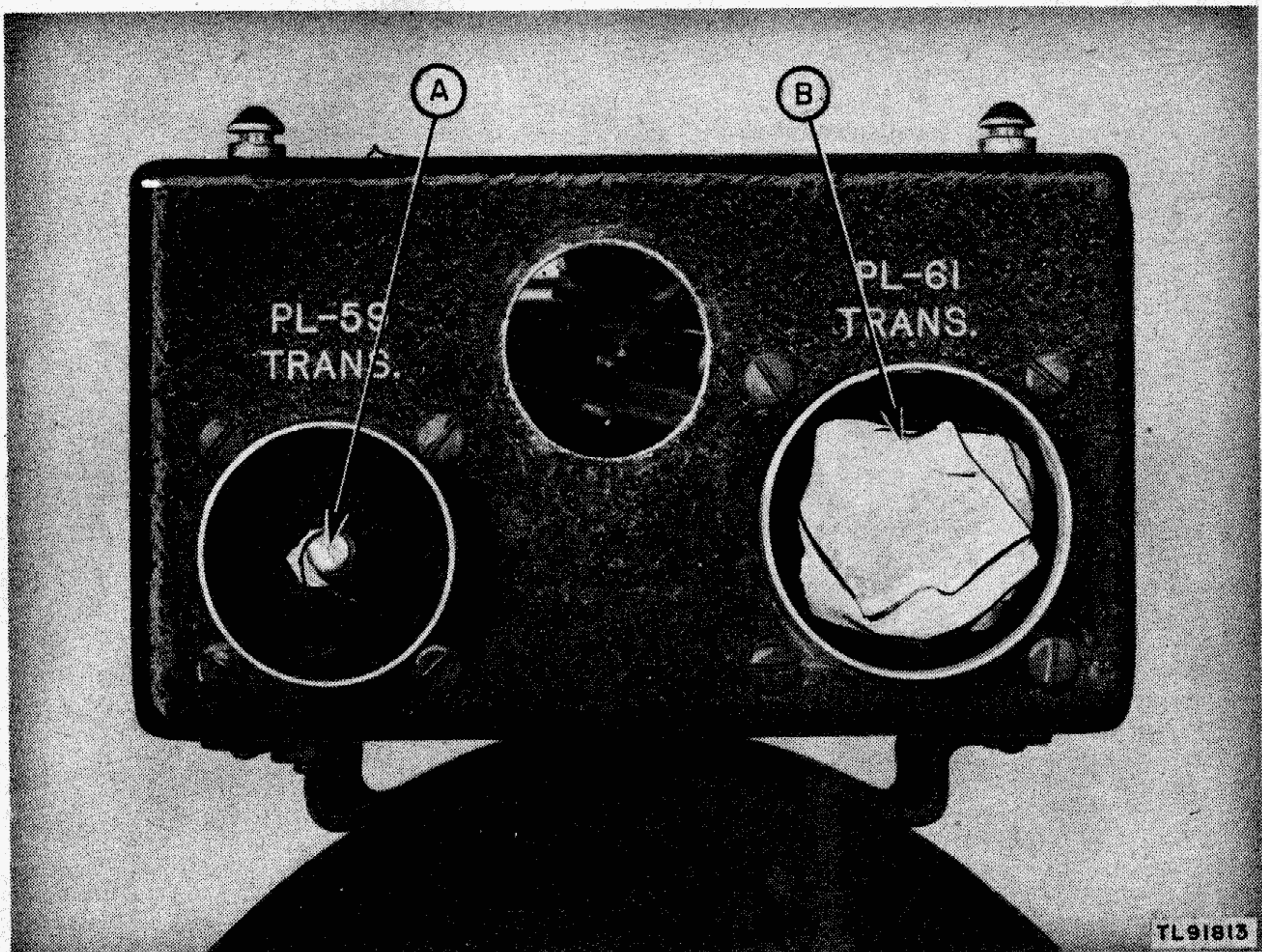


Fig. 5.3.—Dynamotor Unit BD-77-(). Masking Required on Plug Sockets before Moistureproofing and Fungiproofing Treatment.

(d) Lift fuse and terminal strip.

(e) Loosen wingnuts and cable clamp and remove low-voltage cable.

(f) Tighten wingnuts securely.

(3) *Masking.* Cover the following components with masking tape, as shown in figures 8 and 9, in this supplement.

(a) Prong on high-voltage Plug PL-59 (Fig. 5.3Ⓐ).

(b) Prongs on Plug PL-61 (Fig. 5.3Ⓑ).

(c) Contacts on all fuse clips on terminal strip (Fig. 5.4Ⓐ).

DYNAMOTOR UNIT BD-77-C

(4) *Drying.* (a) Place the unit in an oven or under heat lamps and dry for 2 to 3 hours at 160° F.

CAUTION: *Drying temperature must not exceed 160° F.*

(b) If wax should begin to melt on any of the components, decrease the temperature used for drying the equipment and increase the drying time approximately 1 hour per 10° temperature reduction.

(5) *Varnishing.* (a) Apply three coats of moistureproofing and fungiproofing varnish with a spray gun to all components of the junction box. Allow a 15- to 20-minute drying period between each coat.

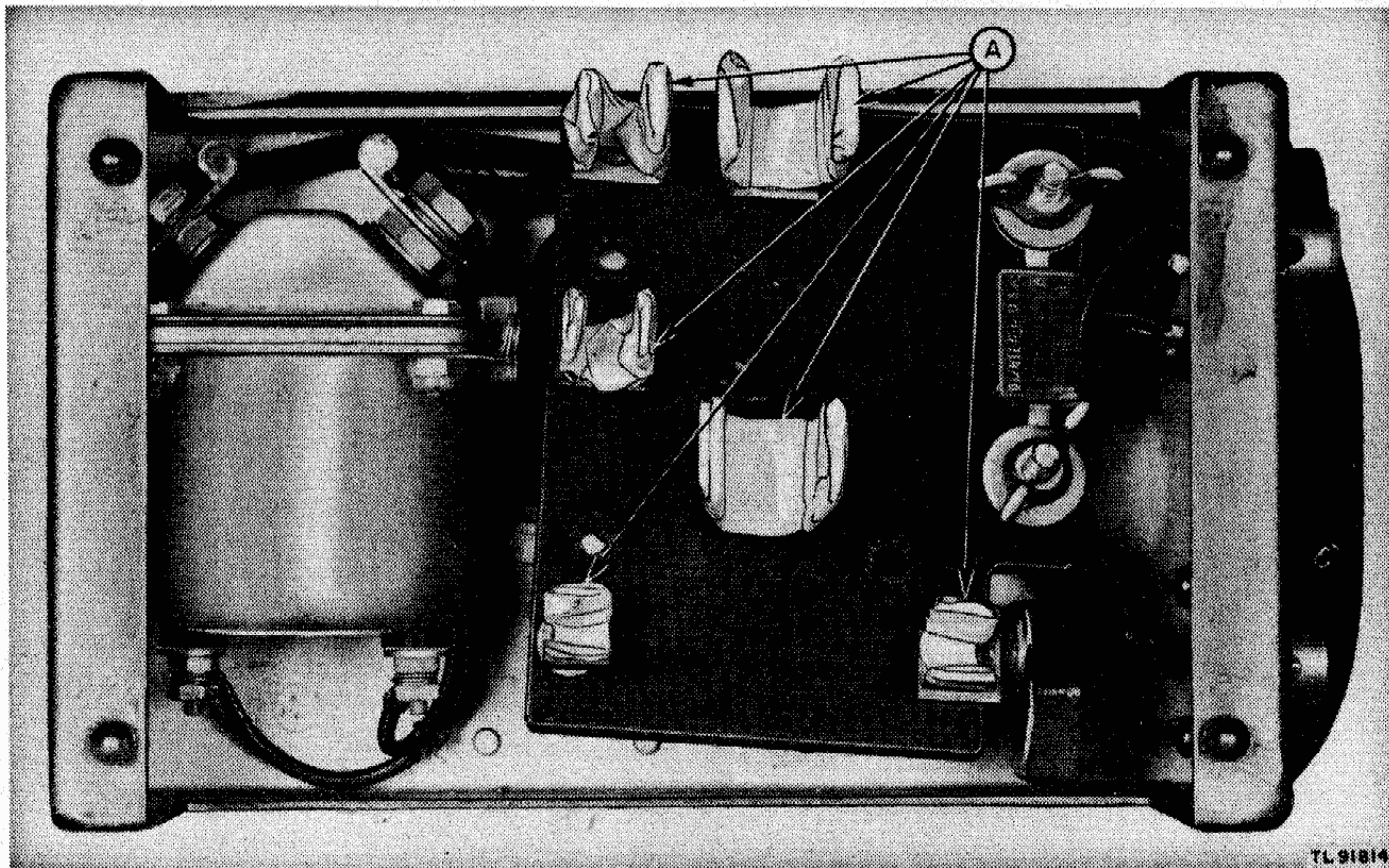


Fig. 5.4.—Dynamotor Unit BD-77-C, -CM, -K, -L. Interior of Junction Box Showing Disassembly and Masking Required before Moistureproofing and Fungiproofing Treatment.

(b) Using a brush, apply varnish to those portions not reached by the spray gun, making sure that all components are adequately covered.

(6) *Reassembly.* (a) Remove all masking tape.

(b) Clean all contacts with varnish remover, and burnish the contacts.

(c) Reassemble the dynamotor and test its operation.

(7) *Marking.* Mark the unit with "MFP" and the date of treatment.

Example: MFP—5 June 1944.

15. (Superseded.) Maintenance Parts List for Dynamotor Unit BD-77-A, -B, -C, -CM, -K, -KM, or -L.

Ref. symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Running spares	Orgn stock	3d ech	4th ech	5th ech	Depot stock
	3H481	BRUSH BR-1: w/spring and pig tail; low-voltage commutation; National Graphite No. 39 or Morganite Brush Co.	2	4	---	(*)	(*)	(*)	(*)
	3H482	BRUSH BR-2: w/spring and pig tail; high-voltage commutation; Pure Carbon Co., or equal.	2	4	---	(*)	(*)	(*)	(*)
	3H1777/8	BRUSH RETAINER CAP: metal; black-bakelite insulation; (for low-voltage brushes); GE.	2	---	---	(*)	(*)	(*)	(*)
	3H1777/7	BRUSH RETAINER CAP: metal; black-bakelite insulation; (for high-voltage brushes); GE.	2	---	---	(*)	(*)	(*)	(*)
1607	3D9500-12	CAPACITOR: fixed; mica; 500-mmf $\pm 5\%$; 2,500 v d-c (working); Cornell-Dubilier type 9L.	1	---	---	(*)	(*)	(*)	(*)
1609	3DA10-17	CAPACITOR: fixed; mica; 10,000-mmf $\pm 10\%$; 1,200 v d-c (working); Cornell-Dubilier type 9L.	1	---	---	(*)	(*)	(*)	(*)
1615	3DA10-84	CAPACITOR: fixed; mica; 10,000-mmf $\pm 10\%$; 300 v d-c (working); Cornell-Dubilier type 3YL.	1	---	---	(*)	(*)	(*)	(*)
1616	3DA10-85	CAPACITOR: fixed; mica; 10,000-mmf $\pm 10\%$; 300 v d-c (working); Cornell-Dubilier type 3LL.	1	---	---	(*)	(*)	(*)	(*)
1613 } 1614 }	3DA15-5	CAPACITOR: fixed; mica; 15,000-mmf $\pm 10\%$; 2,500 v d-c (working); Cornell-Dubilier type 9L.	2	---	---	(*)	(*)	(*)	(*)
1617	3H1514-9	DYNAMOTOR: $10\frac{1}{2} \times 7\frac{1}{2} \times 6\frac{2}{32}$ "; GE No. 5D48B8, Eicor No. ML-6125-33, or Electrolux No. 23100.	1	---	---	---	---	---	---
1608	3Z1918A	FUSE FU-18A: cartridge; 1-amp, 1,000-v; (non-renewable).	1	3	---	(*)	(*)	(*)	(*)
1605	3Z1922	FUSE FU-22: 60-amp, 250-v; superlag (renewable).	1	2	---	(*)	(*)	(*)	(*)
	3Z3060-1	FUSE LINK M-168: 60-amp, 250-v; type II	1	6	---	(*)	(*)	(*)	(*)
1603	2Z7648-1	RELAY: starting; 14-v d-c; GE No. CF2800-384A2 or Magnecon Co.	1	---	---	(*)	(*)	(*)	(*)
1602	2Z8739	SOCKET SO-39: single-contact	1	---	---	(*)	(*)	(*)	(*)
1601	2Z8741	SOCKET SO-41: 8-contact	1	---	---	(*)	(*)	(*)	(*)
	6013138	TECHNICAL MANUAL TM 11-934	2	---	---	(*)	(*)	(*)	(*)
	6R57400	WRENCH: socket; $\frac{5}{16}$ " hex; fits No. 8-0; 164" diam	1	1	---	(*)	(*)	(*)	(*)

DYNAMOTOR UNIT BD-77-C

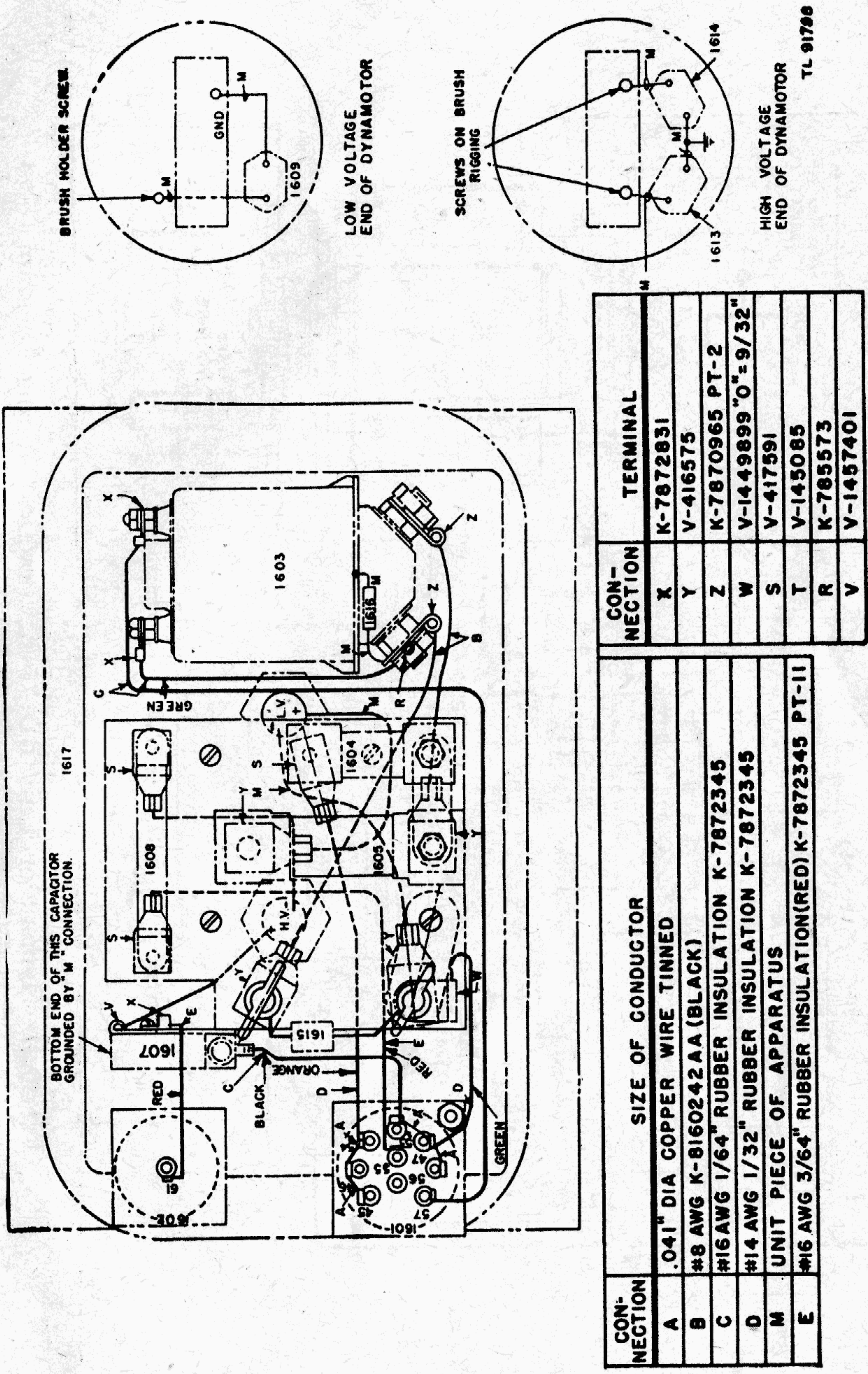
TM 11-934
C 1

DYNAMOTOR UNIT BD-77-C

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Running spares	Orgn stock	3d ech	4th ech	5th ech	Depot stock
1604	3Z1920	ADD FOR DYNAMOTOR UNITS BD-77-A, -B.	1	2	---	(*)	(*)	(*)	(*)
	3Z3002	FUSE FU-20: 30-amp, 250-v; superlag; (renewable)	1	6	---	(*)	(*)	(*)	(*)
	3H3907-B	FUSE LINK M-160: 30-amp, 250-v; superlag; type II MOUNTING FT-107: GE	1	---	---	(*)	(*)	(*)	(*)
		ADD FOR DYNAMOTOR UNITS BD-77-K, -KM, -L, -C, -CM.							
	3Z3002	FUSE LINK M-141: 30-amp, 250-v	1	6	---	(*)	(*)	(*)	(*)
	3H3907	MOUNTING FT-107: Electrolux	1	---	---	(*)	(*)	(*)	(*)
	3Z1913	FUSE FU-13: 30-amp, 250-v (renewable)	1	2	---	(*)	(*)	(*)	(*)

*Indicates stock available.

DYNAMOTOR UNIT BD-77-C



TL 91786

CON-SECTION	SIZE OF CONDUCTOR	CON-SECTION	TERMINAL
A	.041" DIA COPPER WIRE TINNED	X	K-7872831
B	#8 AWG K-8160242 AA (BLACK)	Y	V-416575
C	#16 AWG 1/64" RUBBER INSULATION K-7872345	Z	K-7870965 PT-2
D	#14 AWG 1/32" RUBBER INSULATION K-7872345	W	V-1449899 "O" = 9/32"
M	UNIT PIECE OF APPARATUS	S	V-417591
E	#16 AWG 3/64" RUBBER INSULATION (RED) K-7872345 PT-II	T	V-145085
		R	K-785573
		V	V-1457401

Fig. 6.1.—Dynamotor Unit BD-77-CM, Connection Diagram.

DYNAMOTOR UNIT BD-77-C

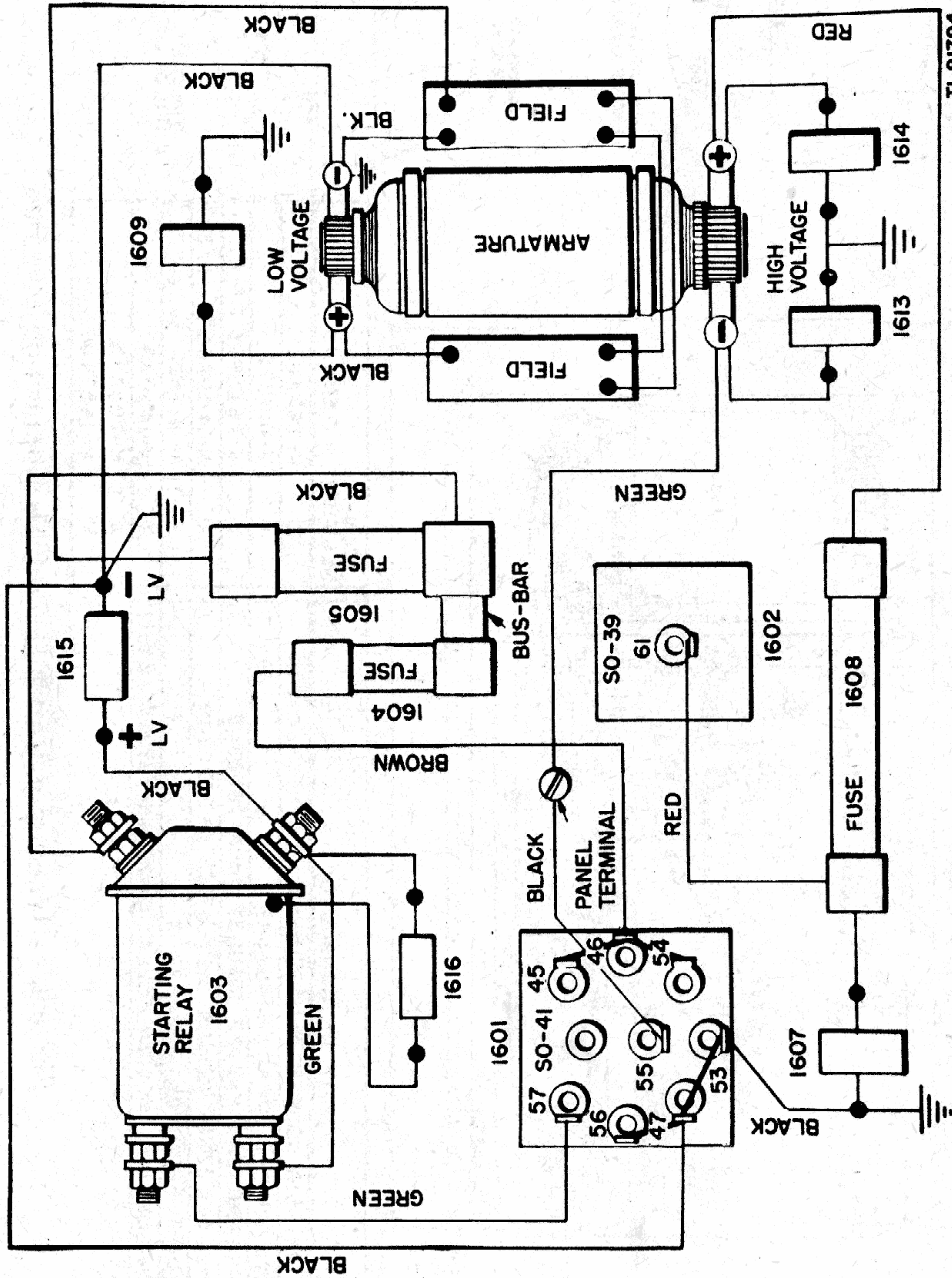
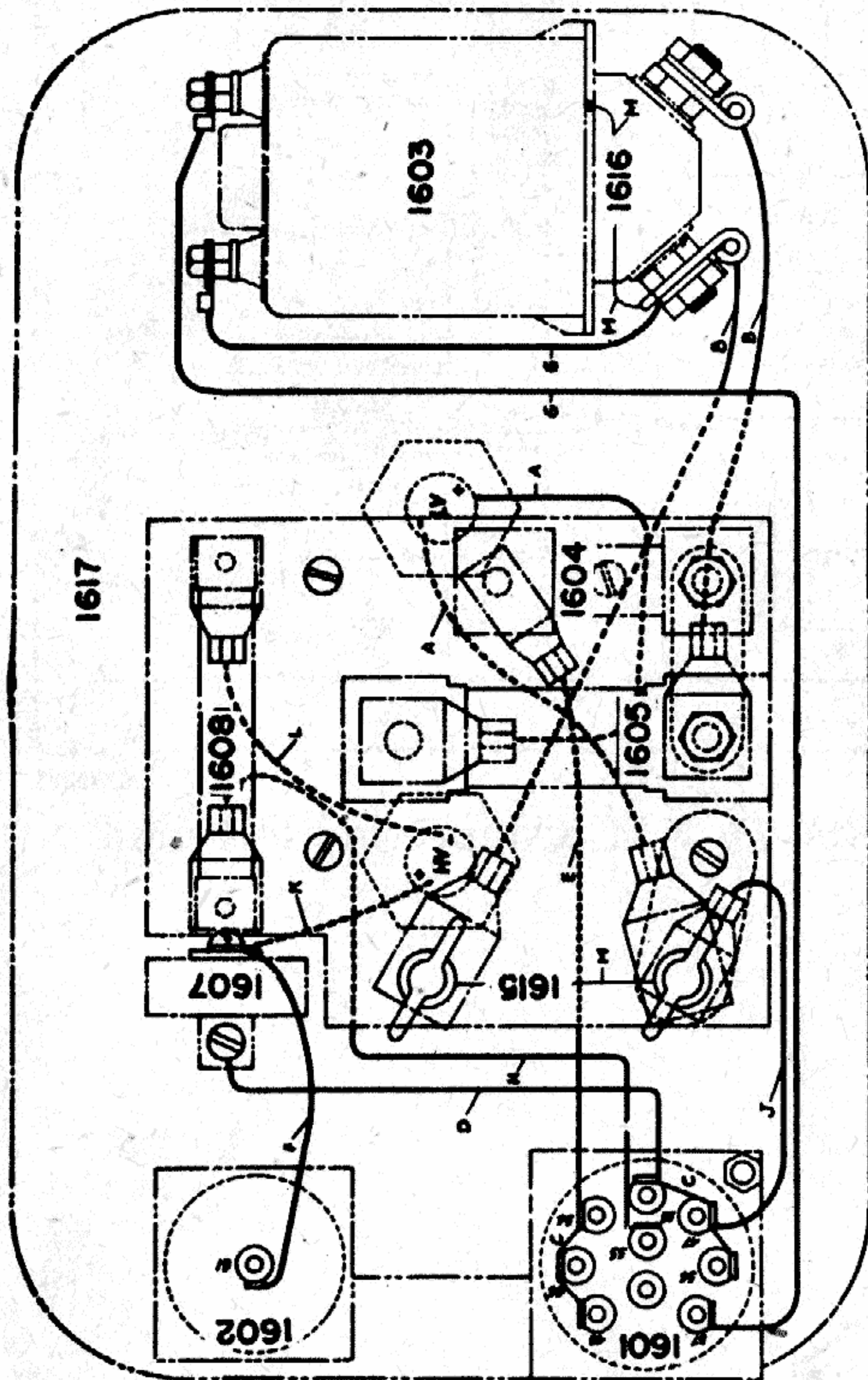
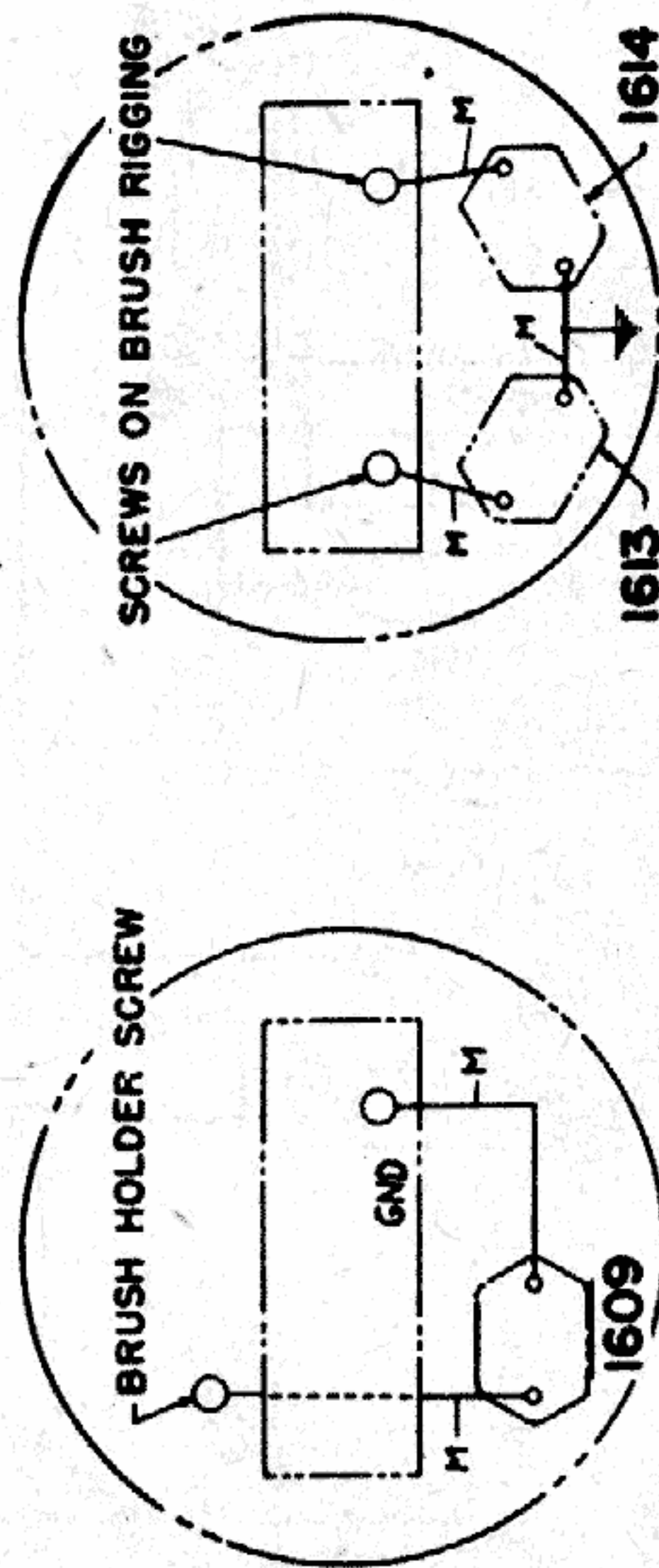


Fig. 6.2.—Dynamotor Unit BD-77-K, Practical Wiring Diagram.

DYNAMOTOR UNIT BD-77-C



CONNECTION	SIZE OF CONDUCTOR
A	LV LEAD, NO 8 GA. WHITE, GREEN TRACER
B	CONTACTOR LEAD, NO 8 GA. WHITE, GREEN TRACER
C	JUMPERS ON CONNECTORS: NO 16 GA. BARE TINNED COPPER WIRE
D	GROUND LEAD TO CONNECTOR: NO 16 GA. BLACK R.C.W. /32 WALL
E	FILAMENT LEAD: NO 12 GA. BROWN R.C.W. /32 WALL
F	H.V.- LEAD TO CONNECTOR: NO 16 GA. RED R.C.W. /32 WALL
G	CONTACTOR CONTROL LEADS: NO 16 GA. GREEN R.C.W. /32 WALL
H	H.V.- LEAD TO CONNECTOR: NO 16 GA. BLACK R.C.W. /32 WALL
J	L.V.- LEAD TO CONNECTOR: NO 12 GA. R.C.W. /32 WALL
K	H.V.- LEAD TO DYNAMOTOR: NO 16 GA. RED R.C.W. /32 WALL
L	H.V.- LEAD TO DYNAMOTOR: NO 16 GA. GREEN R.C.W. /32 WALL
M	UNIT PIECE OF DYNAMOTOR



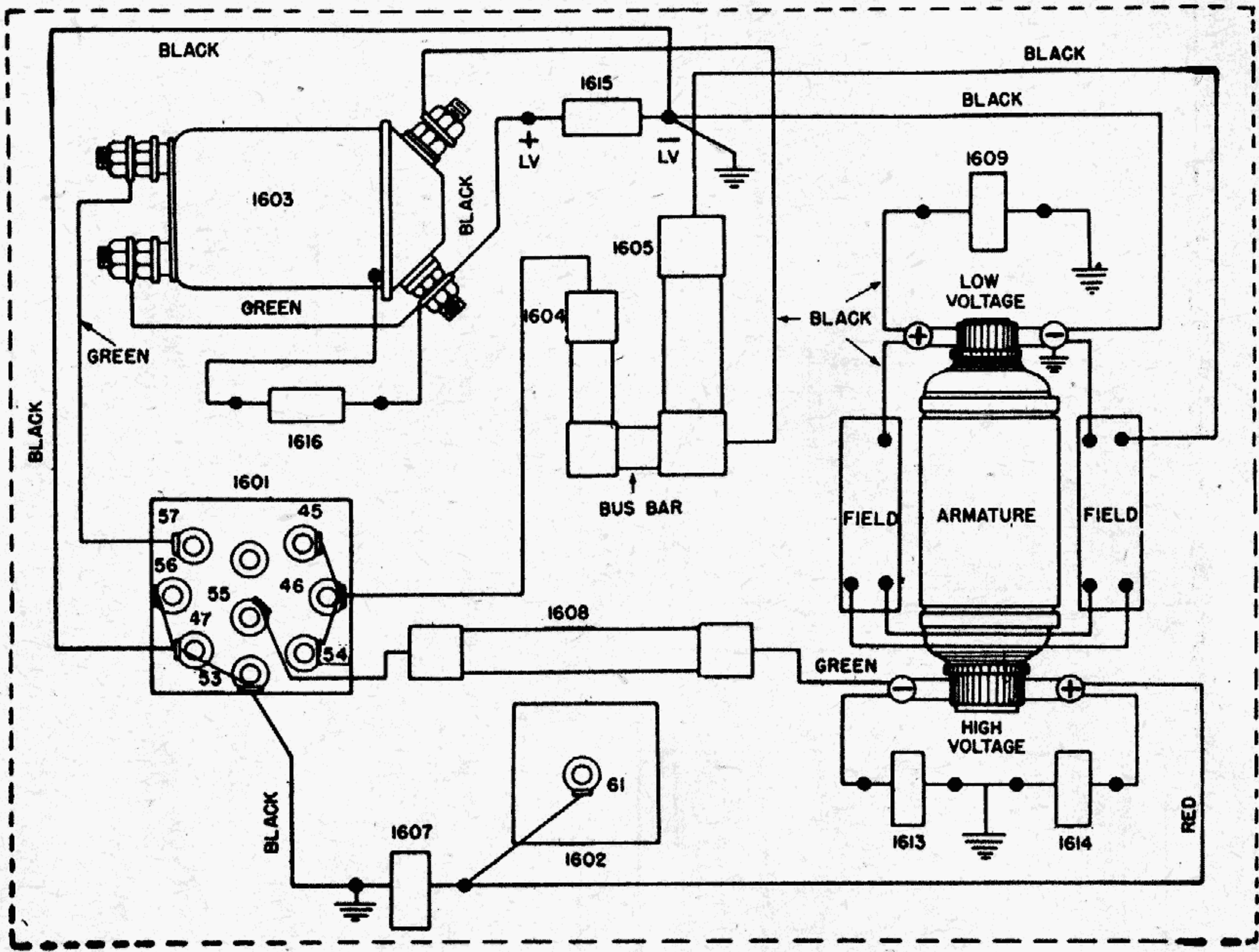
LOW VOLTAGE END OF DYNAMOTOR

LOW VOLTAGE END OF DYNAMOTOR

TL 90657

Fig. 6.3.—Dynamotor Unit BD-77-L, Connection Diagram.

DYNAMOTOR UNIT BD-77-C



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Fig. 6.4.—Dynamotor Unit BD-77-KM, Connection Diagram.

DYNAMOTOR UNIT BD-77-C

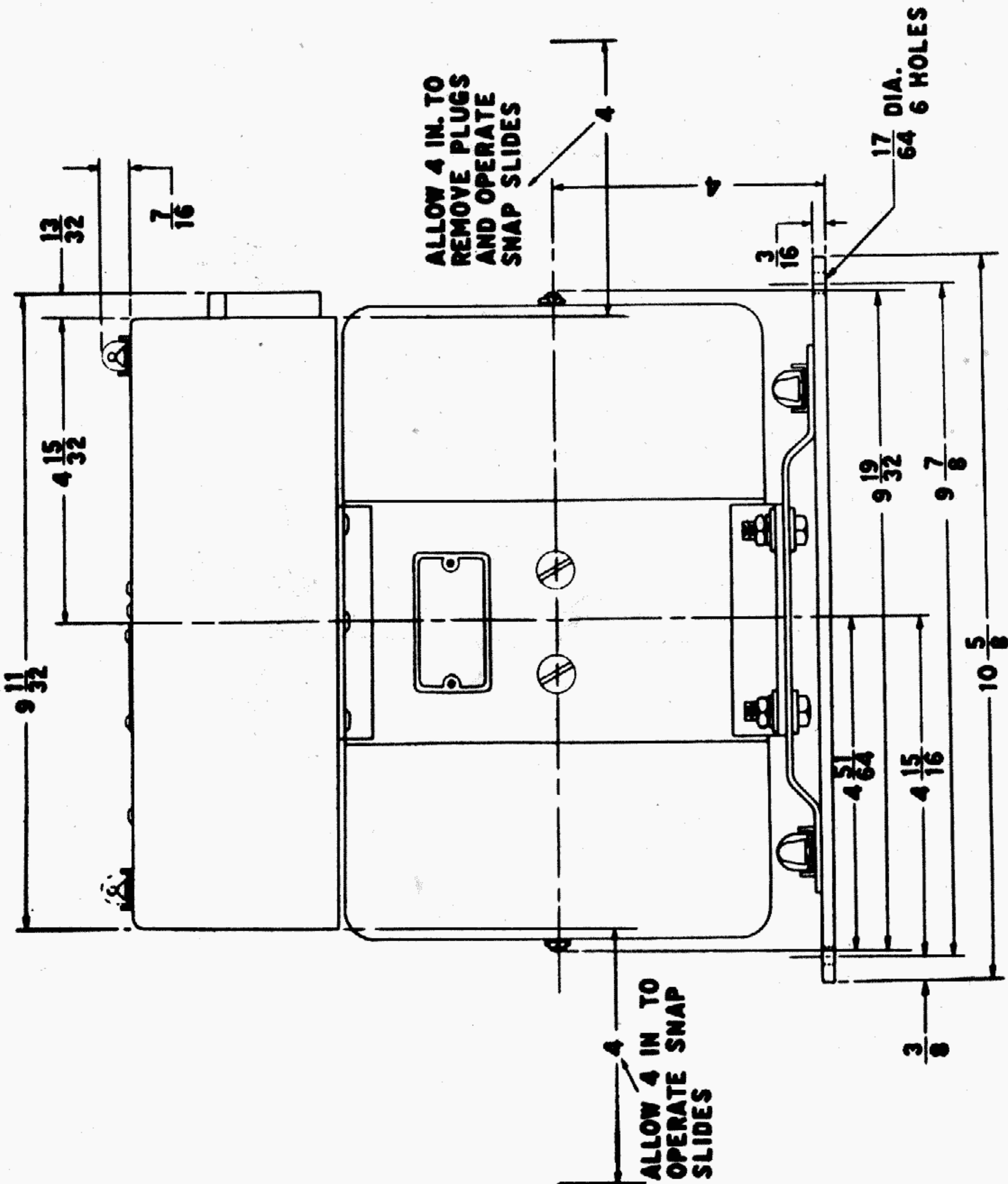
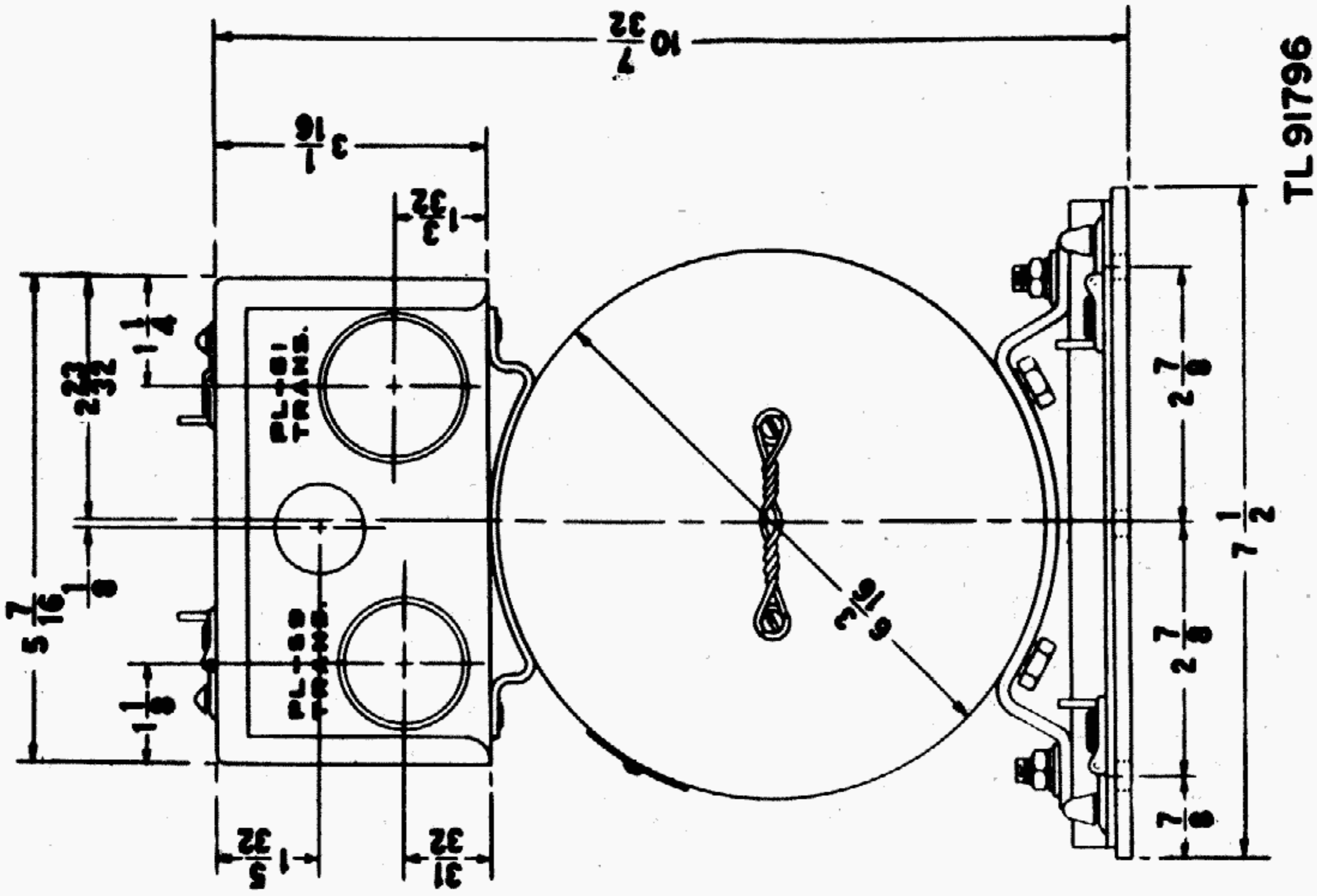
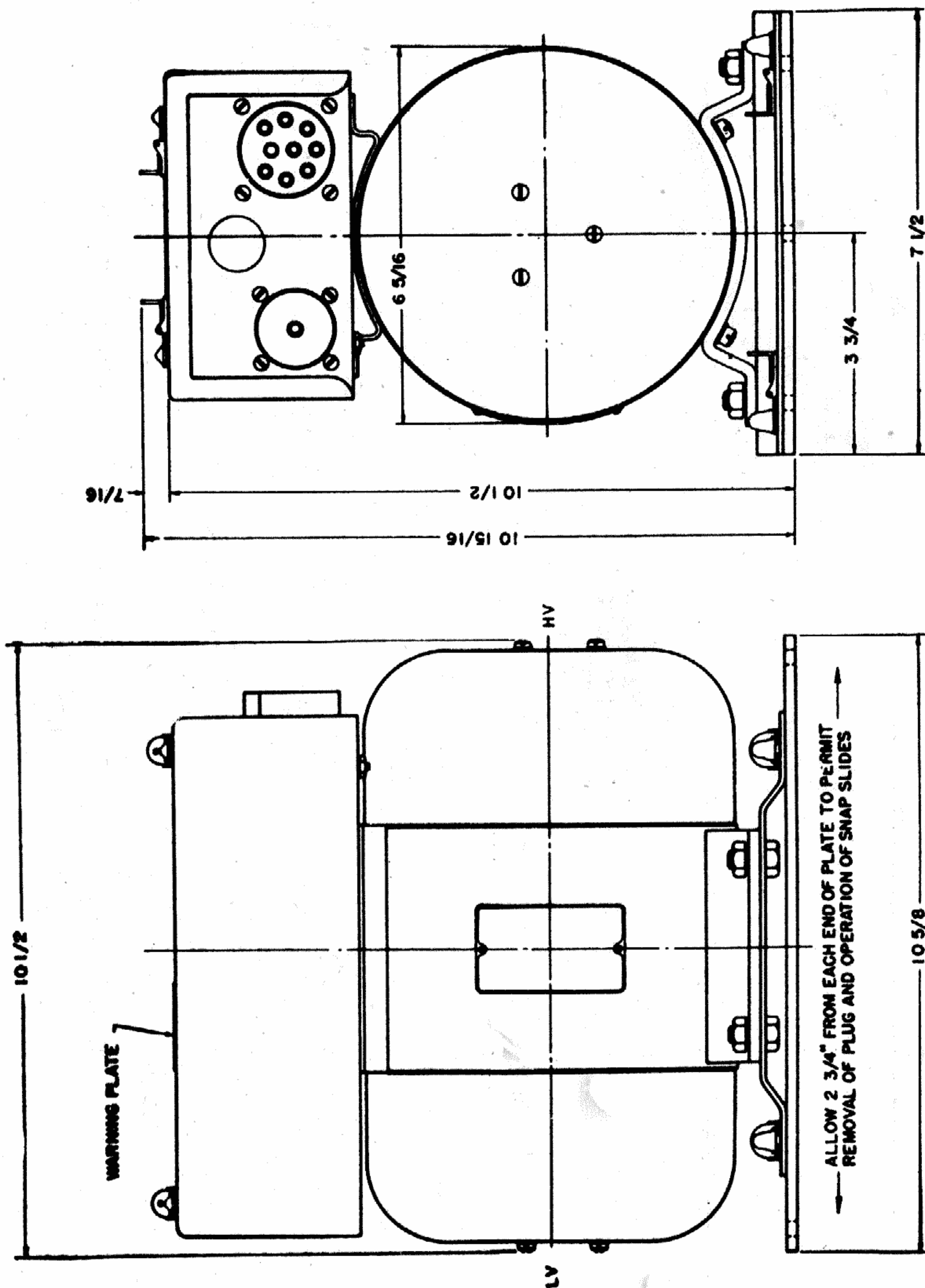


Fig. 7.1.—Dynamotor Units BD-77-K and -KM, Outline Dimensional Sketch.

DYNAMOTOR UNIT BD-77-C



TL90658

Fig. 7.2.—Dynamotor Units BD-77-L, Outline Dimensional Sketch.

[(AG 300.7 (19 Aug 44).]

DYNAMOTOR UNIT BD-77-C

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General
The Adjutant General.

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For explanation of symbols, see FM 21-6.