

MODEL SET OF NOTES

SECTION A301.621

COMMON EQUIPMENT TROUBLE - RINGING AND COIN CONTROL GENERATORS AND  
ASSOCIATED APPARATUS AND CIRCUITS

METHOD OF RESTORING SERVICE AND CLEARING TROUBLE

RESTORING SERVICE

1. Failures of ringing, coin collect, impulse, or tone features of the ringing generator circuit will be one of three classes:

- (A) Complete failure of all circuits (all ringing, tones, etc.)
- (B) Complete failure of one circuit (1 bell ring, C. C., etc.)
- (C) Partial failure of one circuit (dial tone off part of selectors, etc.)

(A) Complete Failure of All Circuits

2. In case of a complete failure: First, start the emergency battery-driven generator and transfer the load to it. Second, check the various tones, etc., to see that they are restored. If one or more circuits are still in trouble proceed as outlined in 5.

(B) Complete Failure of One Circuit

3. In case of a complete failure of one circuit, such as the 1-bell ring, coin collect, etc., start the emergency battery-driven generator and transfer the load to it. Check the circuit that was in trouble to see if it is clear.

(C) Partial Failure of One Circuit

4. Where the trouble is a failure of one of the circuits, such as dial tone, ringing current, etc., on only part of the equipment, trace the circuit back from the selector, connector, or other equipment involved toward the fuse panel until the trouble is located.

PROBABLE LOCATION OF TROUBLE

5. If found to be still in trouble, proceed as follows: (The attached model schematic drawings show the circuits and locations of apparatus:)

Busy and Dial Tones (Reference Drawing No. 3)

Location

- |   |  |
|---|--|
| (1) Check transfer switch contacts and connections  | Front and rear of power board panel No _____ |
| (2) Check connections at 30A and 60A repeating coils  | Rear of power board panel No _____           |
| (3) Test for 48V battery at terminal 1 of 30A coil or "S" terminals of 60A coil.                                    | Rear of power board panel No _____           |
| (4) If no battery is received on the coils (see 3) check the 48V-5 amp fuse and connections.                        | Front of power board panel No _____          |
| (5) Check for tone across terminals 1 and 2 of 30A or "S" terminals of 60A coils. No tone indicates defective coil. | Rear of power board panel No _____           |
| (6) Check wiring and tone at 3 amp tone fuses. These fuses are at the end of common tone circuit.                   | Front of power board panel No _____          |

Coin Collect Circuits 110V+ & 110V-D-C

- |  |  |
|--|--|
| (1) Check the transfer switch contacts and connections and test for current. | Front and rear of power board panel No _____ |
| (2) Check the 2 amp CC+ or - fuse connections and test for current.          | Front and Rear of power board panel No _____ |

Coin Collect Circuits 110V+ & 110V-D-C (Cont.)

Location

Note: These fuses are the end of the common circuit.

RinginG Generator (Drawing No. 2)

- (1) Check the contacts and connections at the transfer switch and test for current.
- (2) Check the connections at the 3 amp fuses (direct generator) and check for generator. (These fuses are the end of the common circuit.
- (3) Check the connections at the 5 amp fuses (interrupted generator R1 and R2) and check for generator.

Front and rear of  
power board panel No \_\_\_\_\_

Front and rear of  
power board panel No \_\_\_\_\_

Front and rear of  
power board panel No \_\_\_\_\_

Note: The fuses in 2 and 3 are the end of the common circuit.

60 Interruptions per Minute (60-I. P. M.) (Drawing No. 5)

- (1) Check the contacts and connections at the transfer switch and test for interrupted ground.
- (2) Check the contacts and connections at the #707 Trumbull switches and test for interrupted ground.

Front and rear of  
power board panel No \_\_\_\_\_

Rear of  
power board panel No \_\_\_\_\_

Note: These switches are the end of the common circuit.

120 Interruptions per Minute (120-I. P. M.) (Drawing No. 5)

- (1) Check the contacts and connections at the transfer switch and test for interrupted ground.
- (2) Check the contacts and connections at the #707 Trumbull switches and test for interrupted ground.

Rear of  
power board panel No \_\_\_\_\_

Rear of  
power board panel No \_\_\_\_\_

Note: These switches are the end of the common circuit.

Pick-up

- (1) Check the contacts and connections of the transfer switches of each branch of the pick-up circuit.
- (2) Check the contacts and wiring of the #707 Trumbull switches.

Front and rear of  
power board panel No \_\_\_\_\_

Rear of  
power board panel No \_\_\_\_\_

Note: These switches are the end of the common circuit.

Pick-up Alarm

- (1) Check the contacts and connections of the transfer switches.
- (2) Check the wiring and fuses at the alarm contacts of the interrupted ringing current fuses.

Front and rear of  
power board panel No \_\_\_\_\_

Front and rear of  
power board panel No \_\_\_\_\_

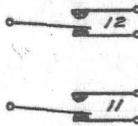
# SCHEMATIC-RINGING GENERATOR #1

TONES - LOW-HIGH-BUSY-DIAL-GO & 120 I.P.M.

20 ~ A.C. 86-V. & 105-V.  
110-V. + & - D.C. COIN BATT.

TRANSFER SWITCH

T-1

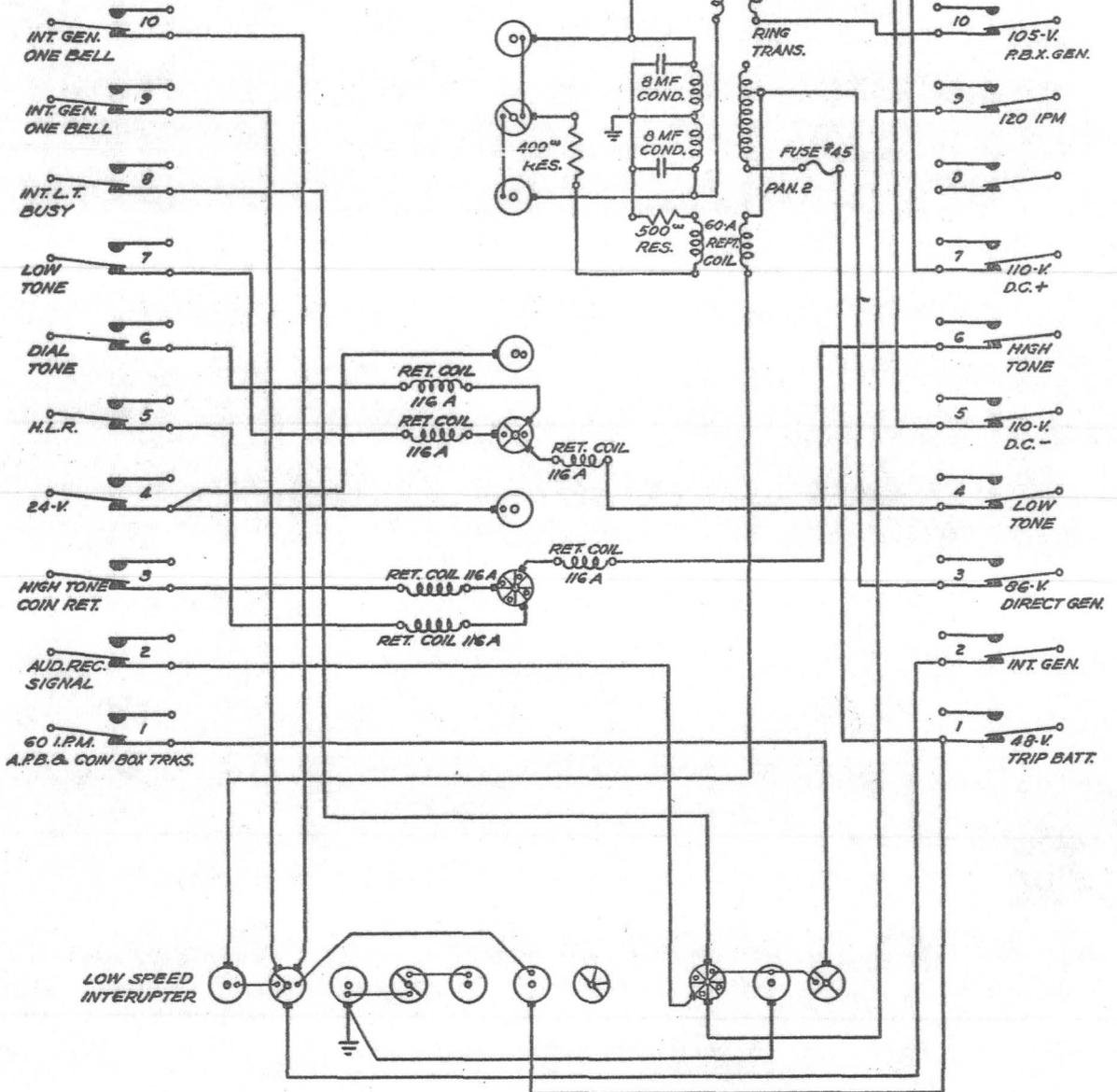
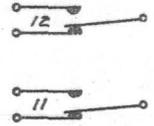


**NOTE;**  
COILS & CONDENSERS  
MOUNTED UNDER RINGING  
MACHINE TABLE.

COIN CONTROL CURRENT  
COMMUTATOR & BRUSHES

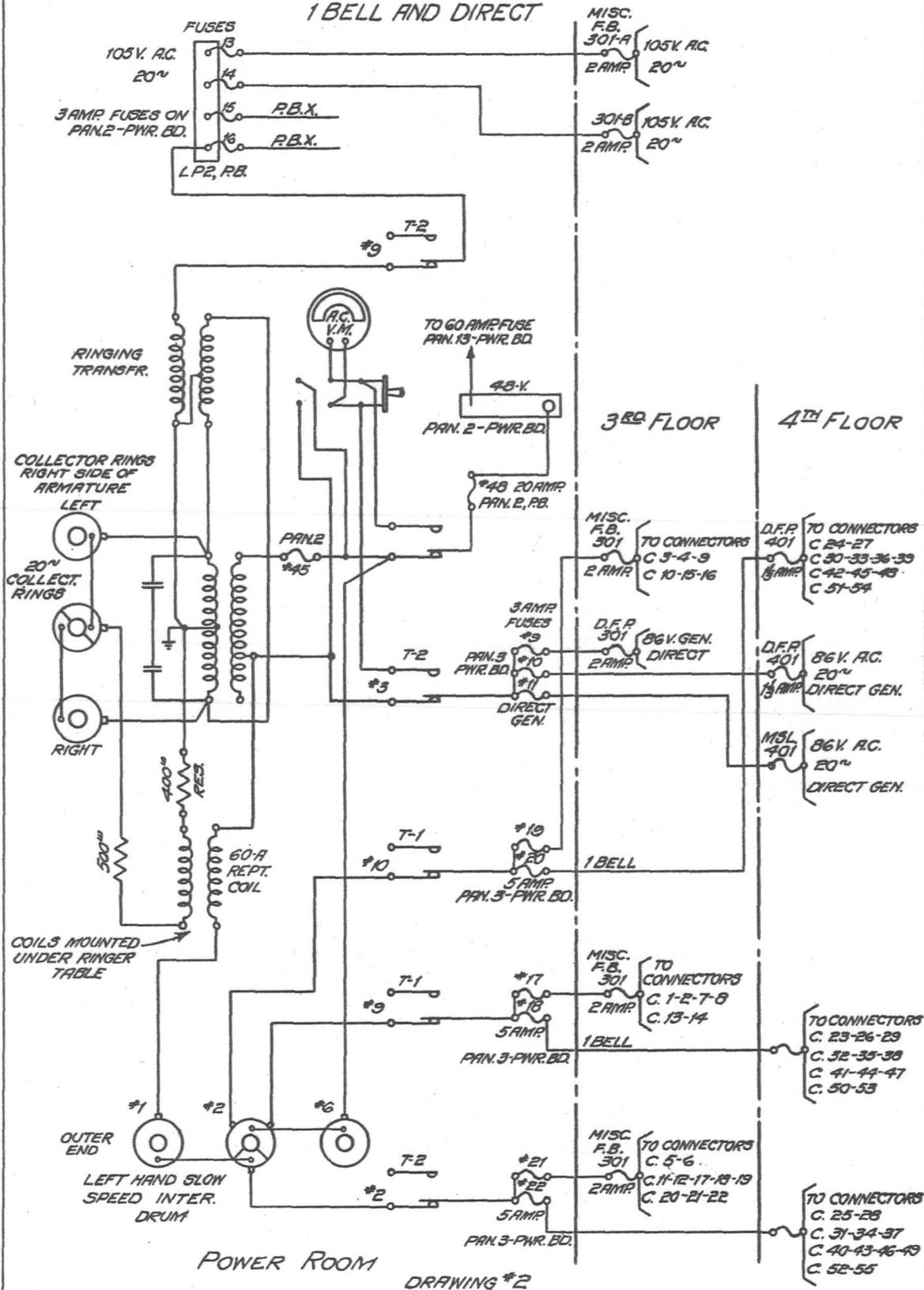
TRANSFER SWITCH

T-2

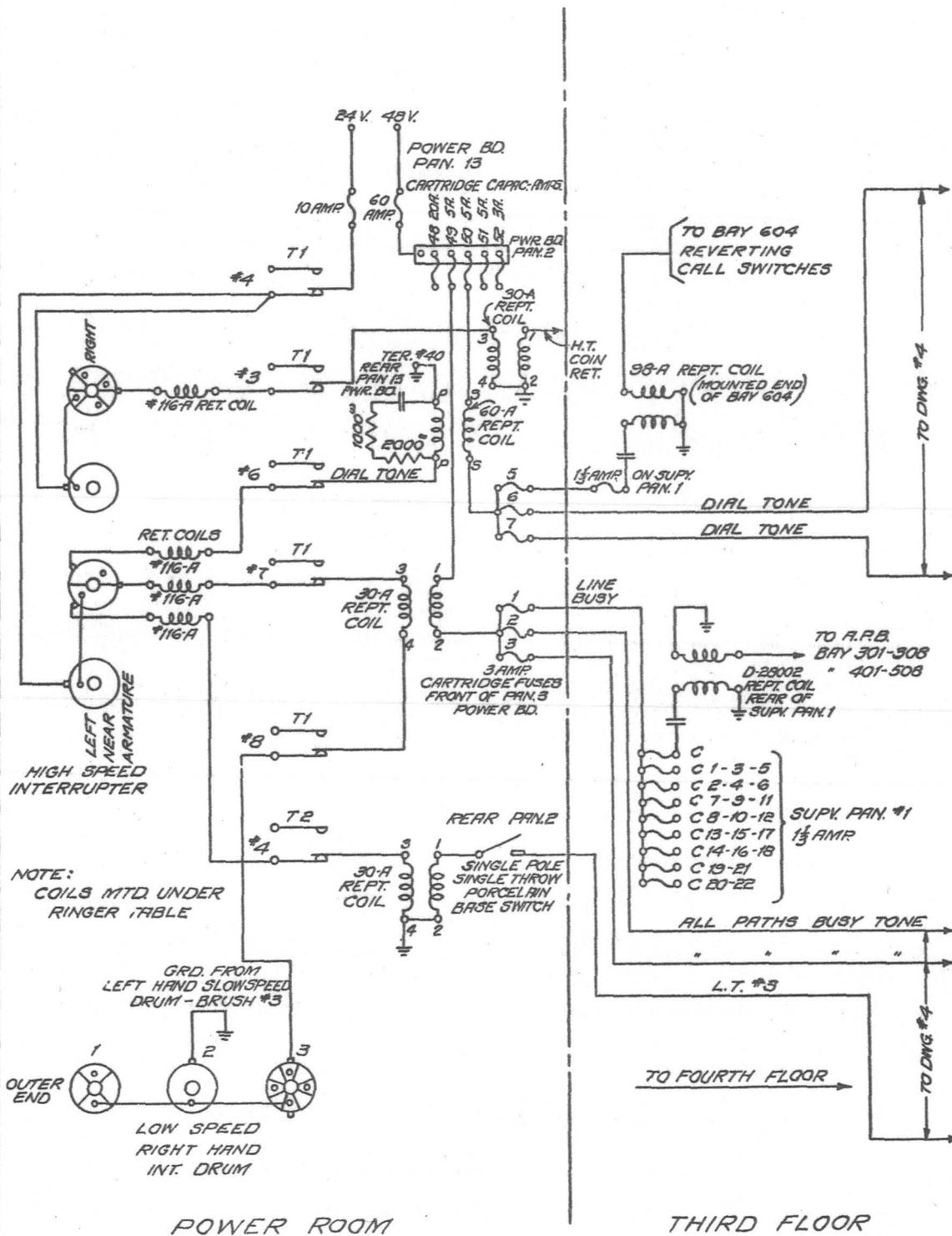


DRAWING #1

# 20 CYCLE RINGING GENERATOR 1 BELL AND DIRECT



TONES - BUSY - A.P.B. - DIAL - COIN



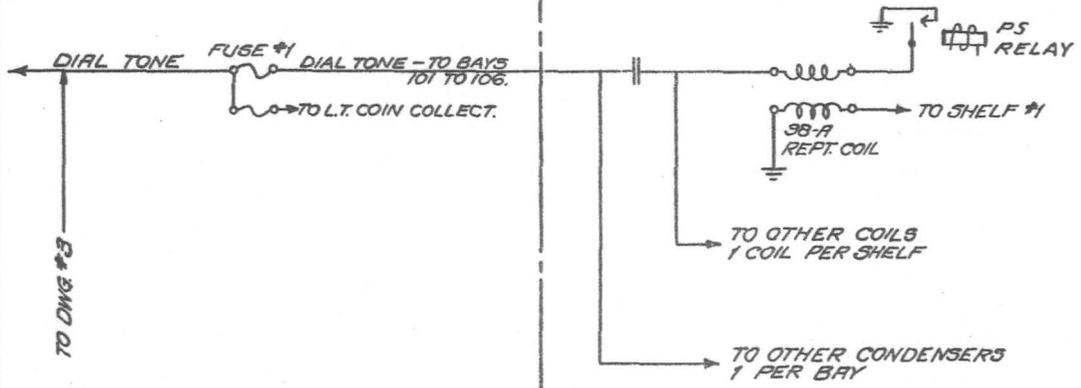
DRAWING #3

# TONES — BUSY — A.P.B. — DIAL — COIN

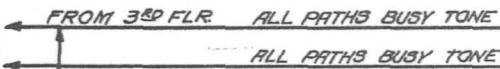
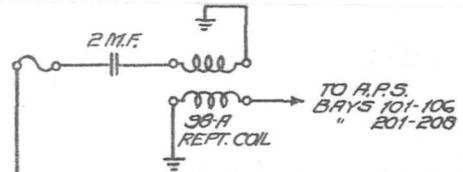
SUPV. PAN. #1&2

LOCATION \*

\* COILS AND CONDENSERS ARE IN A VARIETY OF LOCATIONS, SUCH AS TOP OF LOW BAYS, MISC. RELAY RACK, OAF, COILS ONLY ON END OF EACH SHELF.



SUPV. FUSE PAN. #2



MISC. F.B. 401

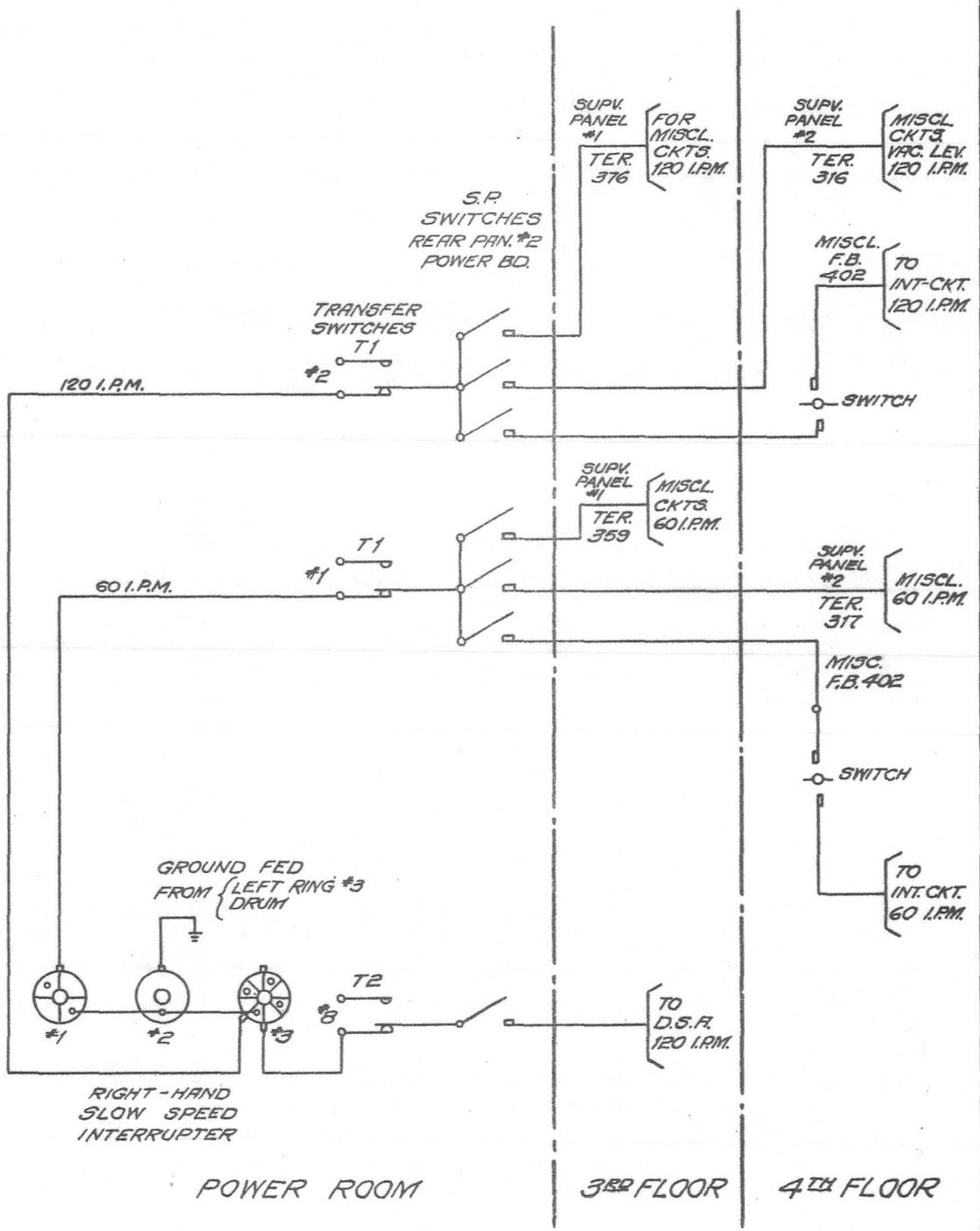


MISCL. FUSE PANEL #401



FOURTH FLOOR  
DRAWING #4

IMPULSE CIRCUITS  
 60 I.P.M.  
 120 I.P.M.  
 MACHINE #1



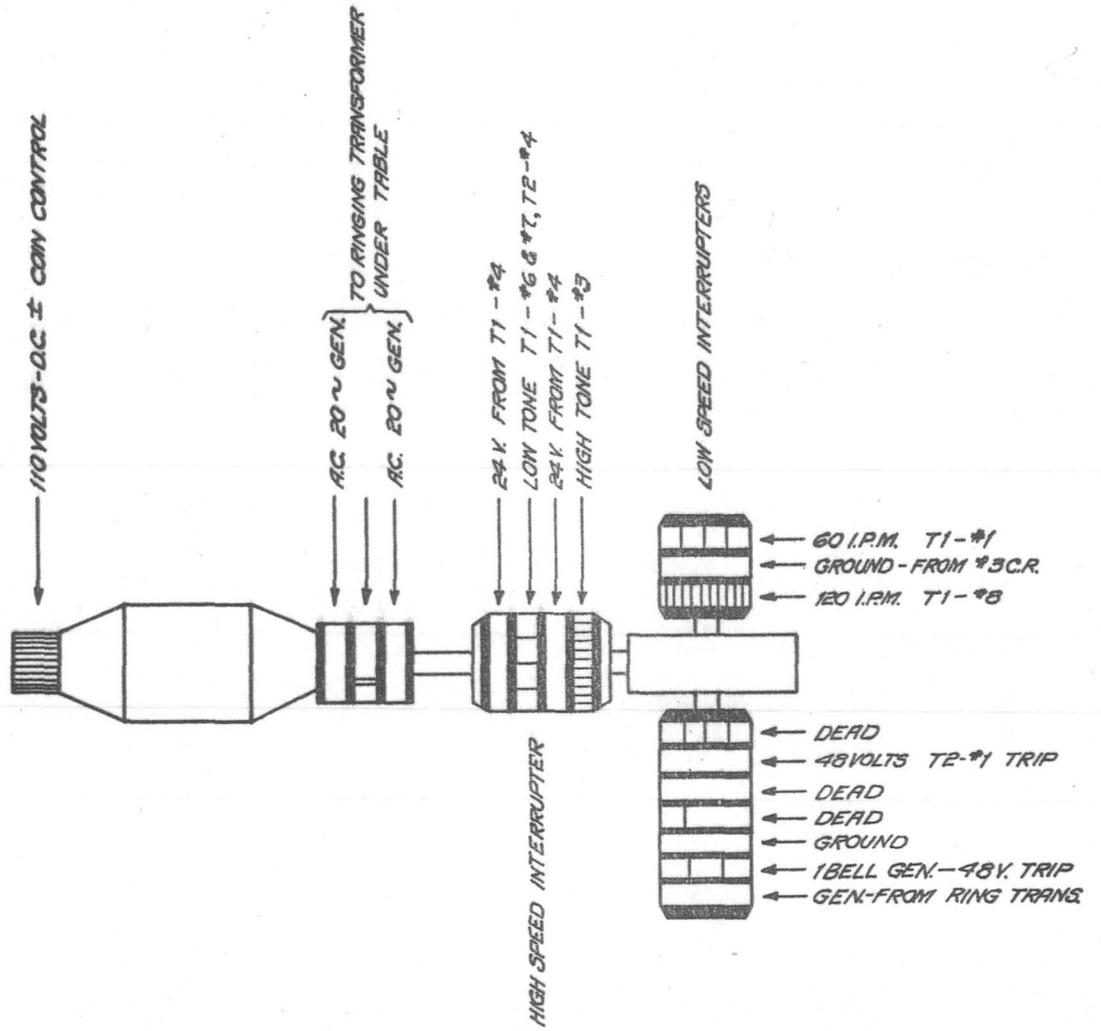
POWER ROOM

3<sup>RD</sup> FLOOR

4<sup>TH</sup> FLOOR

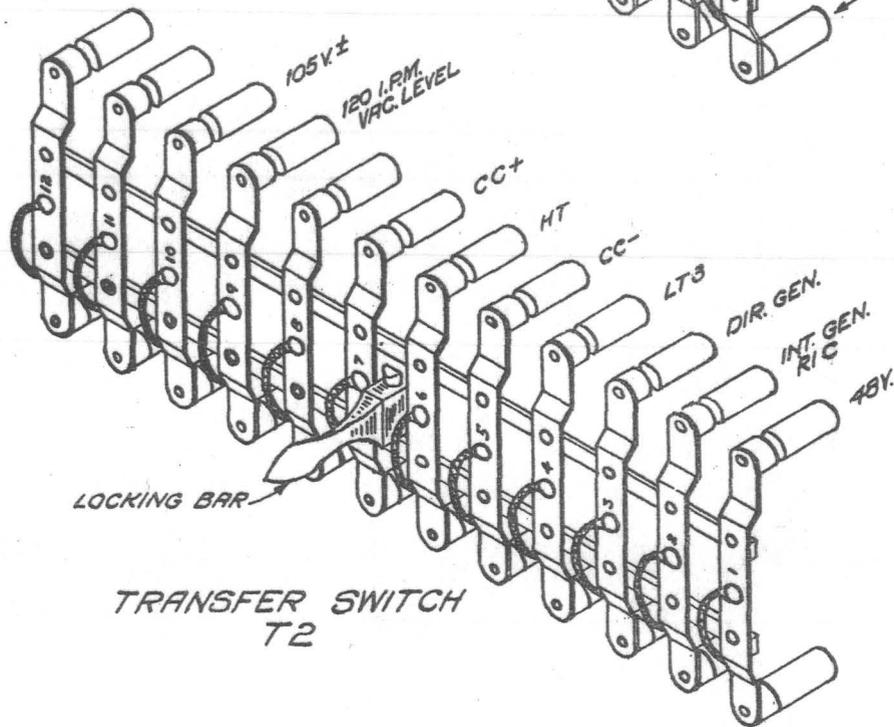
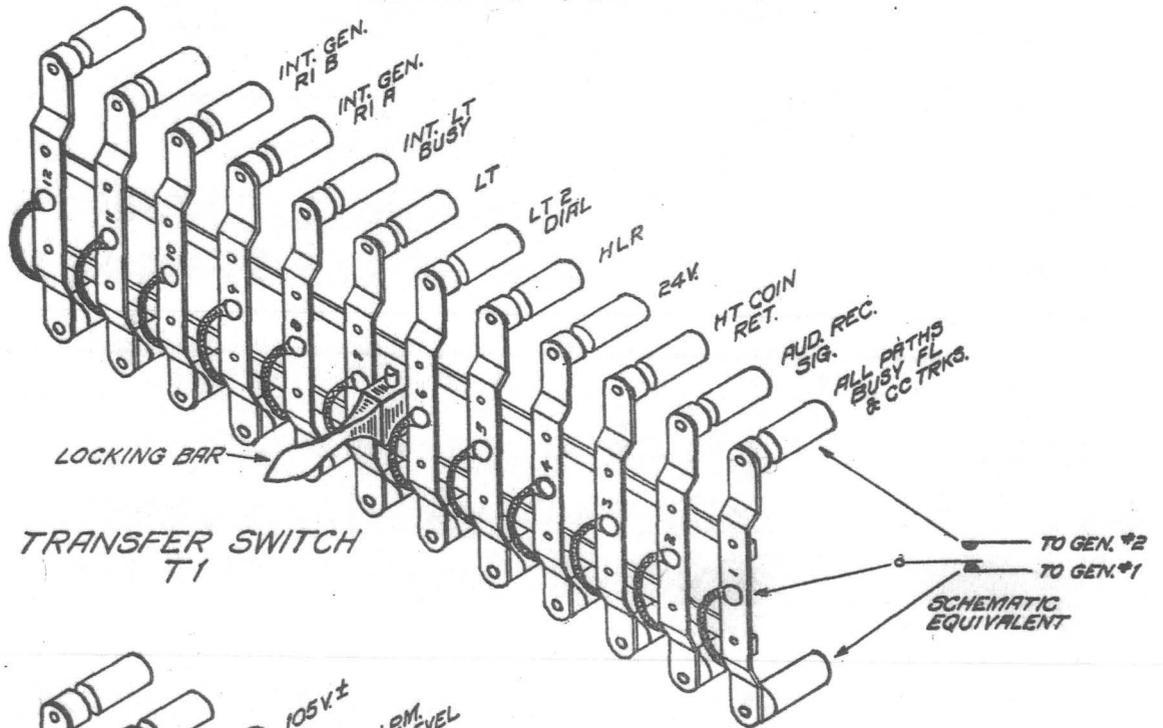
DRAWING #5

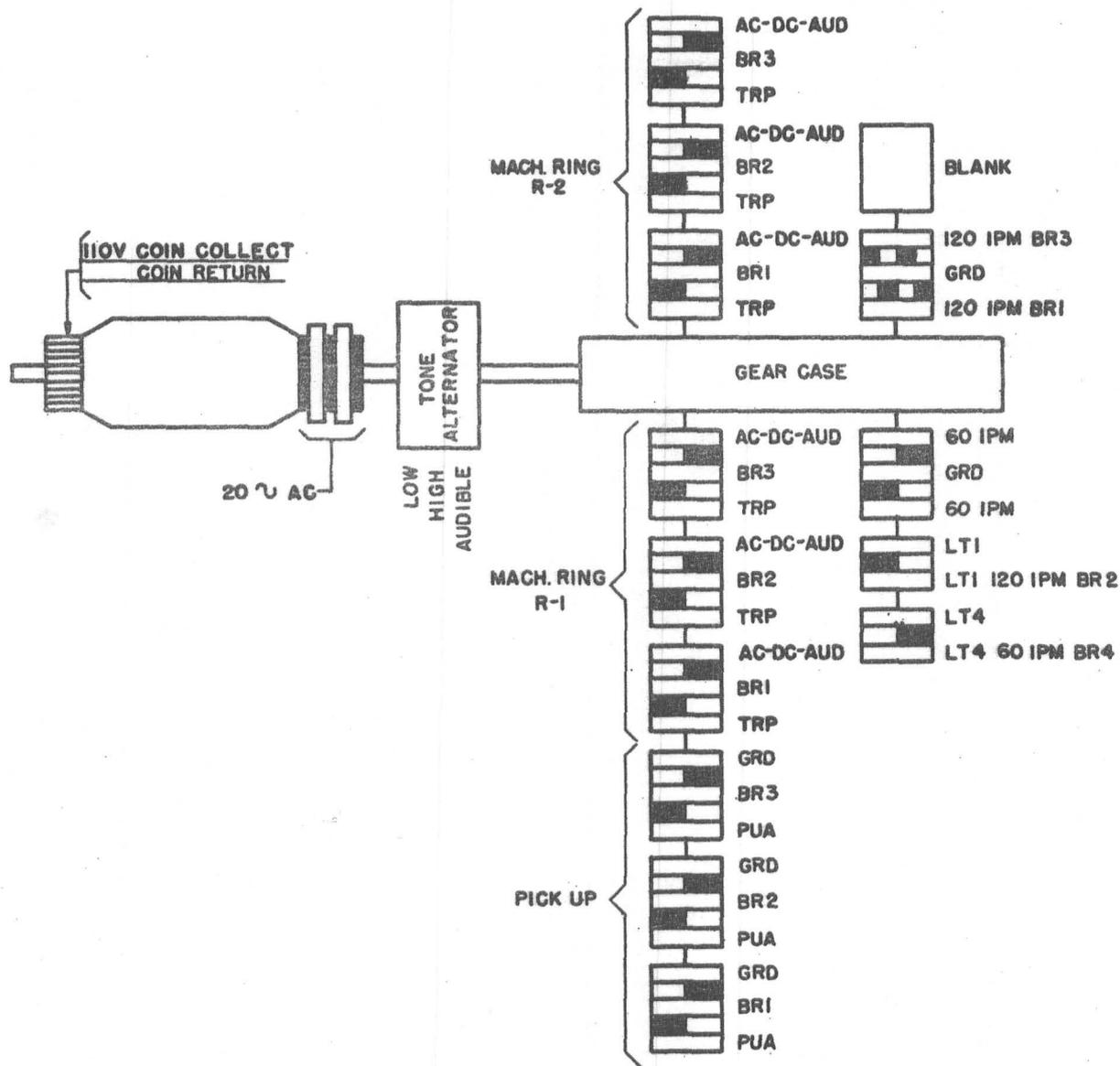
# RINGING GENERATOR #1



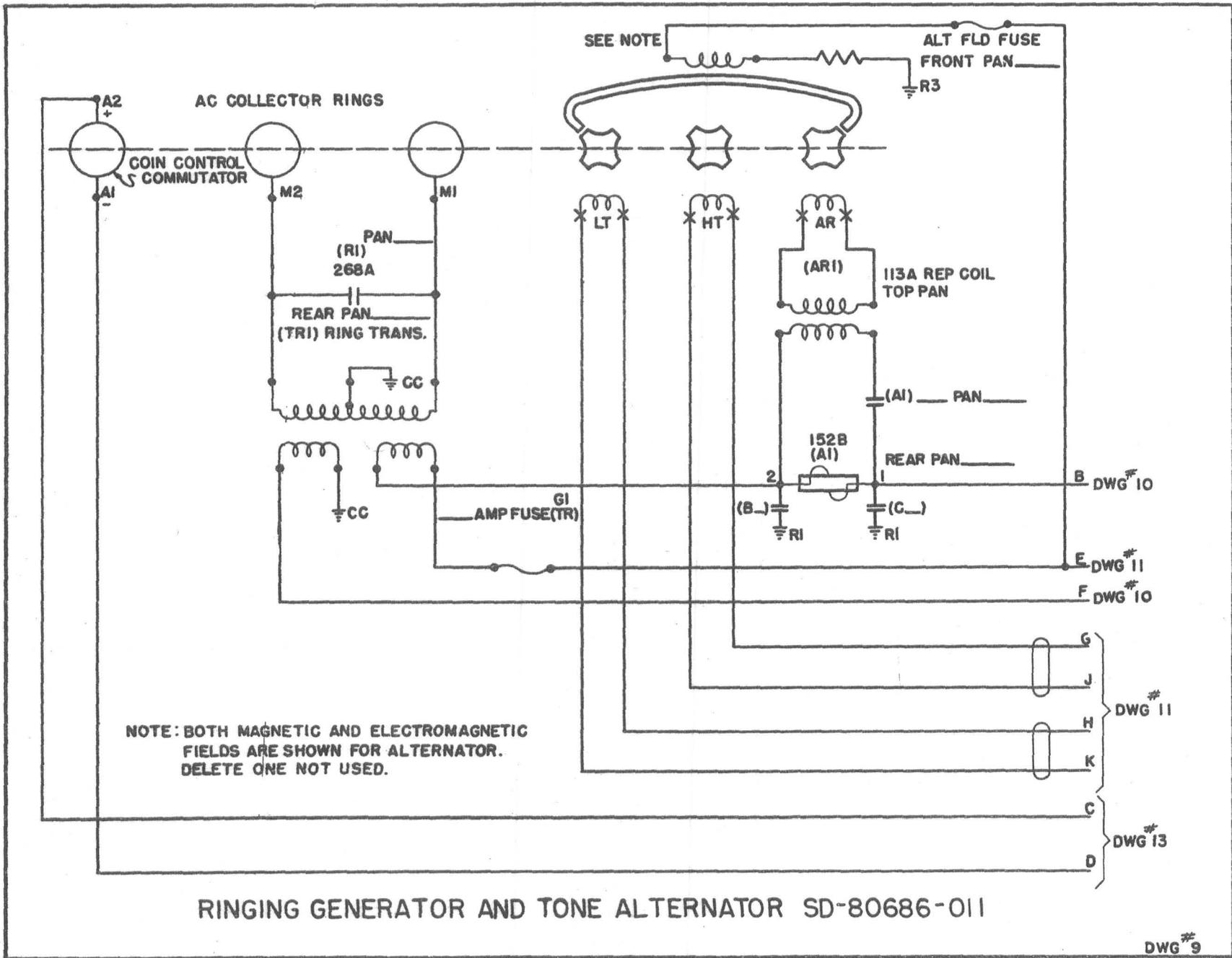
DRAWING #6

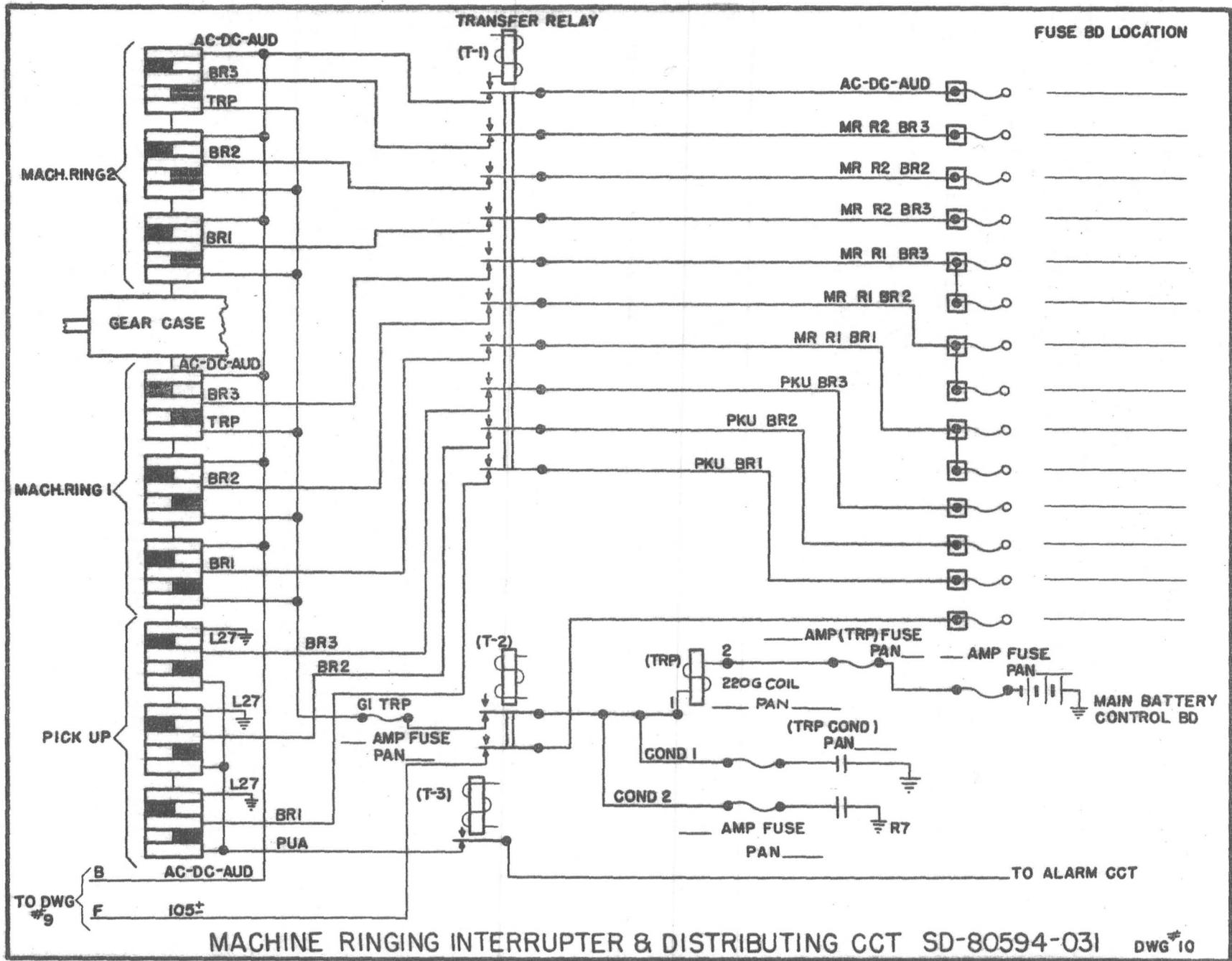
# AUTOMATIC TRANSFER SWITCHES FOR RINGING GENERATORS

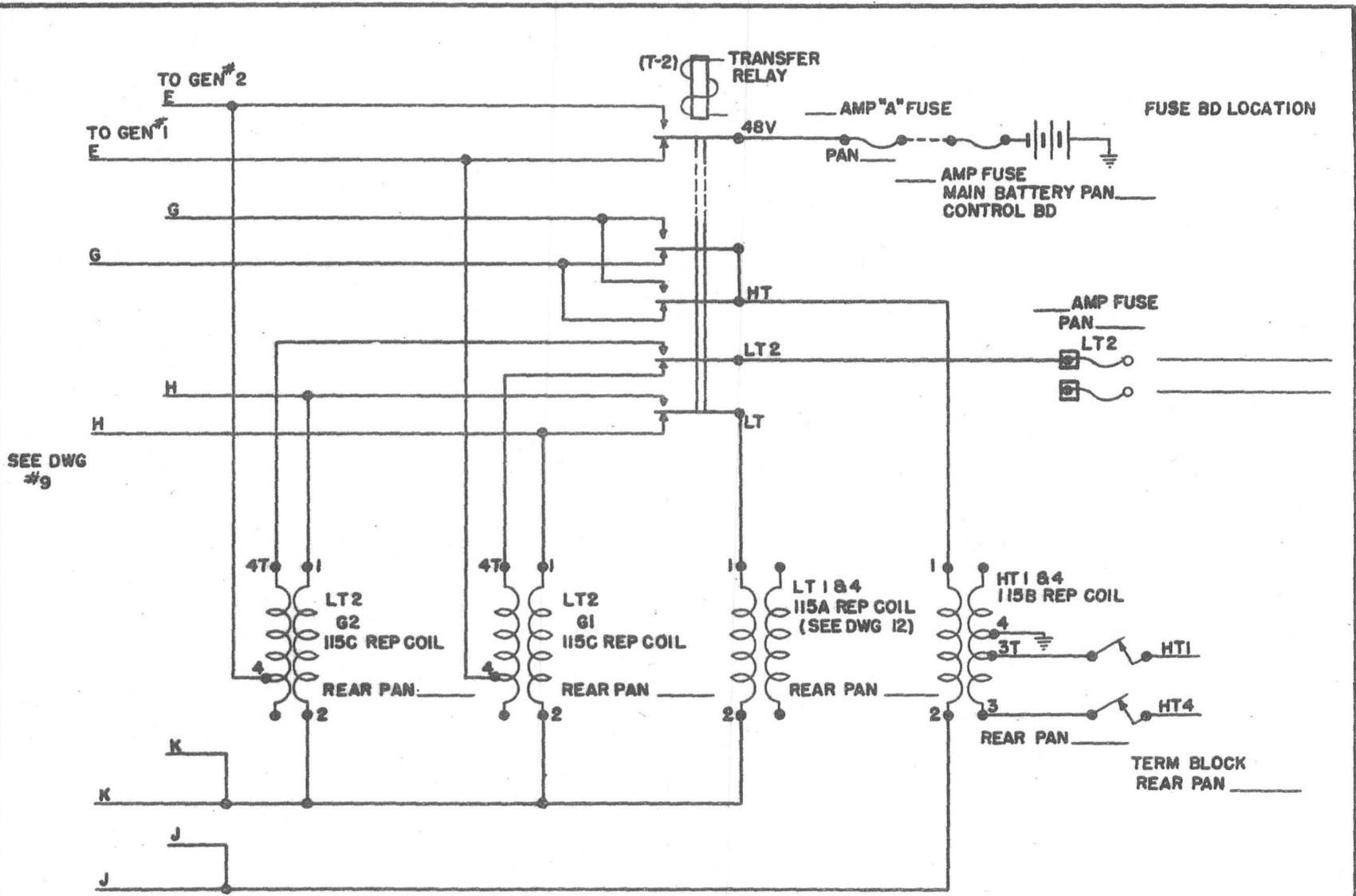




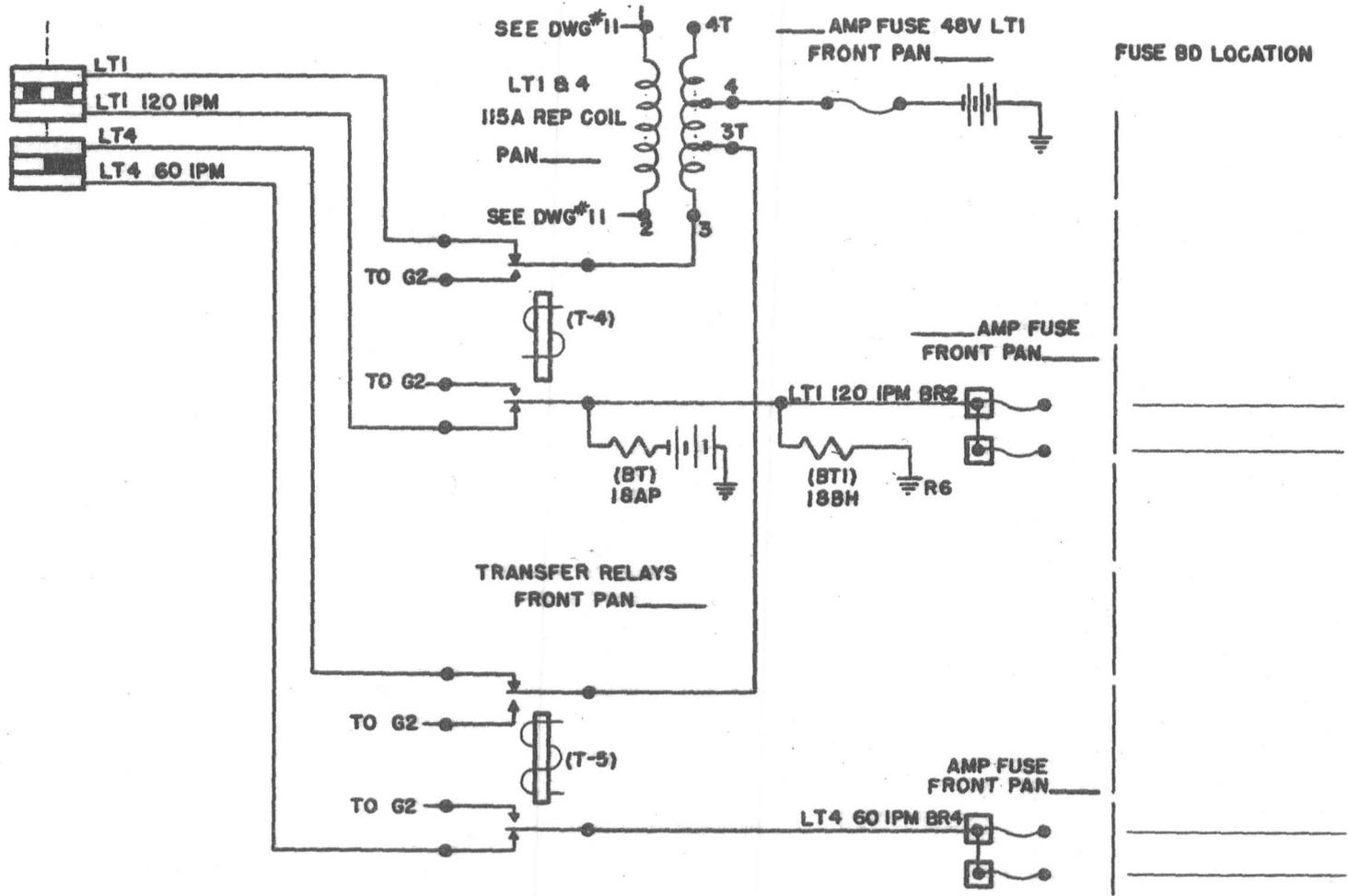
RINGING AND COIN CONTROL GENERATOR - TONE ALTERNATOR MERCURY INTERRUPTERS





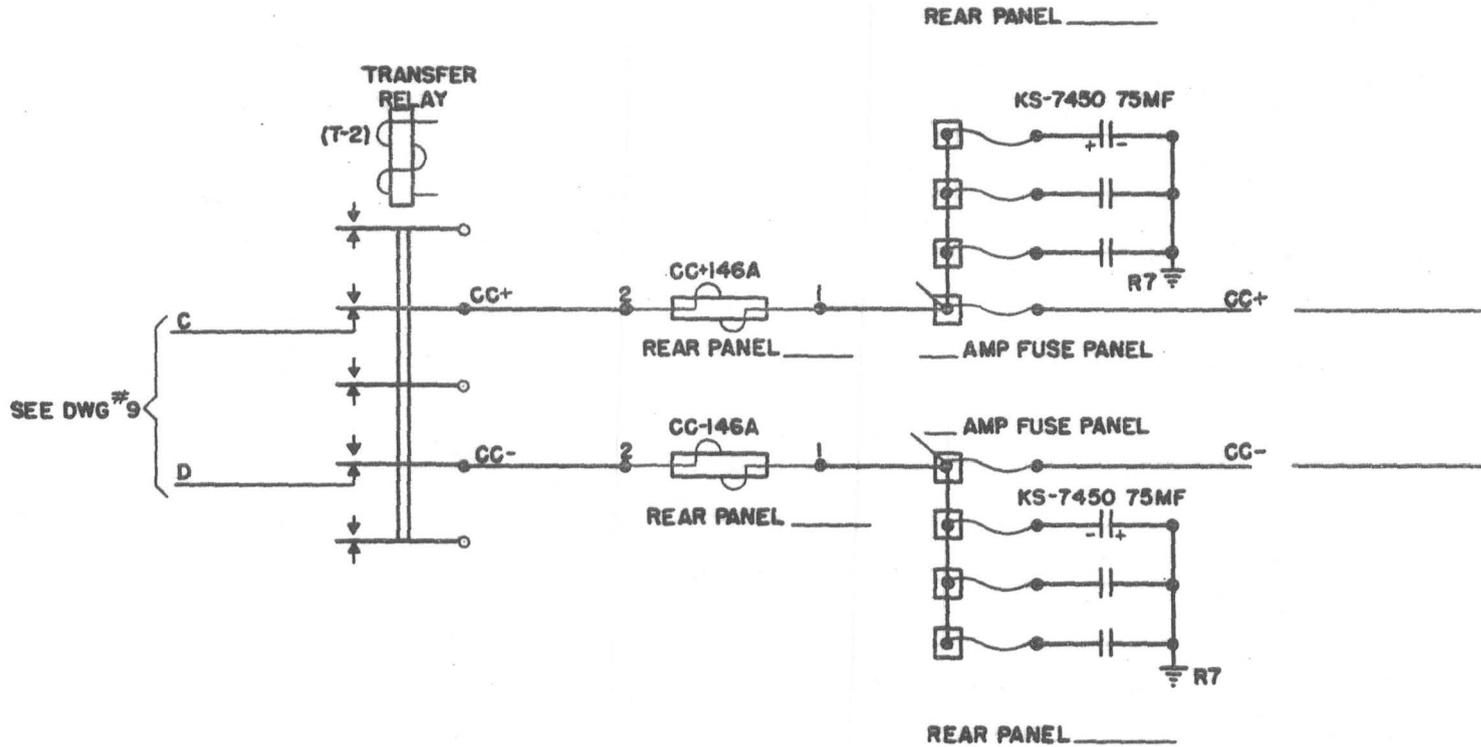


LT2 (DIAL TONE) HT1 & 4  
PRIMARY LT1 & 4 SD-80594-031



LT1 120 IPM BR2 AND LT4 60 IPM BR4 SD-80594-031

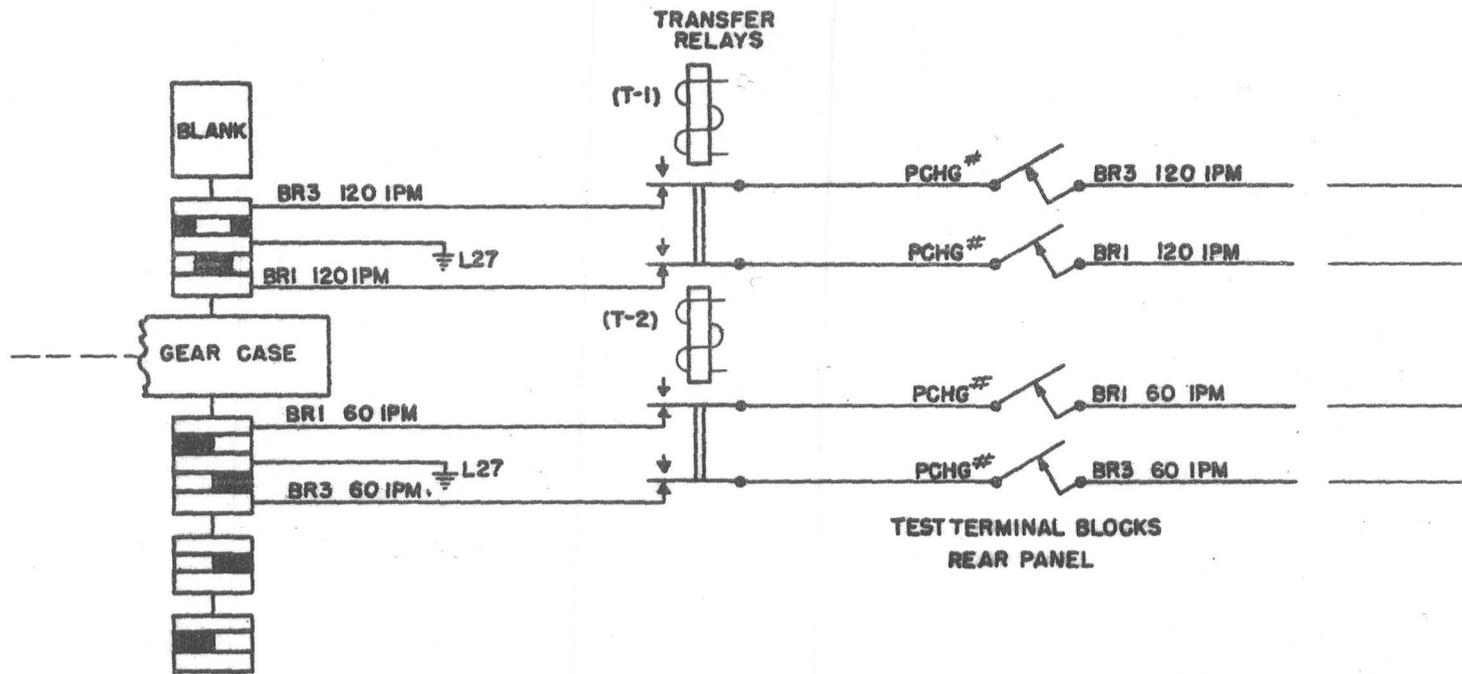
FUSE BD LOCATION



COIN CONTROL - SD-80594-03I

DWG#13

FUSE BD LOCATION



60 AND 120 IPM GROUND SD-80594-031