KS-16844 *RAPIDIAL*

IDENTIFICATION, INSTALLATION, OPERATION, CONNECTIONS, AND MAINTENANCE

1. GENERAL

1.01 This section covers identification, installation, operation, connections, and maintenance of KS-16844, List 1 and List 10 ***Rapidials.***

1.02 This section is reissued to:

- Eliminate foldouts Fig. 13, and Table F
- Rearrange text for clarity
- Include 1013A test set and show 1011B test set MD.

1.03 Authorization to connect a ***Rapidial*** to a switchboard must be obtained from the local operating company.

1.04 The KS-16844 ***Rapidial*** is rated MD.

2. IDENTIFICATION

2.01 The KS-16844 ***Rapidial*** (Fig. 1 and 2) is a magnetic-type repertory dialer used in conjunction with a customer telephone set. It records, stores, and transmits dial pulses.

2.02 Connecting a ***Rapidial*** to the telephone set will not affect the normal operation of the telephone. For ease of operation, the ***Rapidial*** should be located near the telephone set.

2.03 Cord connections are required between the telephone set and the ***Rapidial*** and between the ***Rapidial*** and the low-voltage power supply. The power supply (List 2) is shown in Fig. 3 and 4.

2.04 ***Rapidial*** provides writing space for the entry of 290 names and telephone numbers on a revolving tape. A scan knob on the right side of the machine is provided for manual rotation of tape. The List 10 ***Rapidial*** has a motor-driven tape for rapid scanning.

2.05 Names and numbers are written on the tape with a lead pencil so changes can be made, if required, by erasure.

Instruct subscriber to use kneadable eraser to prevent eraser residue from darkening tape.

2.06 The dial on the ***Rapidial*** unit is used only to record numbers on the tape and is inoperative (locked), when the unit is not in recording condition.

2.07 The list numbers for the components are:

(a) KS-16844, List 1 ***Rapidial*** includes:

- List 3—Power Supply Cord (4 conductors, 8 feet long)*
- List 4—Telephone Cord (6 conductors, 8 feet long)*
- List 6—Tape Assembly (Manual)

(b) KS-16844, List 10 ***Rapidial*** includes:

- List 3—Power Supply Cord (4 conductors, 8 feet long)*
- List 4—Telephone Cord (6 conductors, 8 feet long)*
- List 12—Tape Assembly (Power Driver)

(c) Housings are not included with the List 1 or List 10 ***Rapidial.*** They may be ordered separately as required.

- List 20—Housing Green (-51)
- List 20—Housing White (-58)
- List 20—Housing Beige (-50)

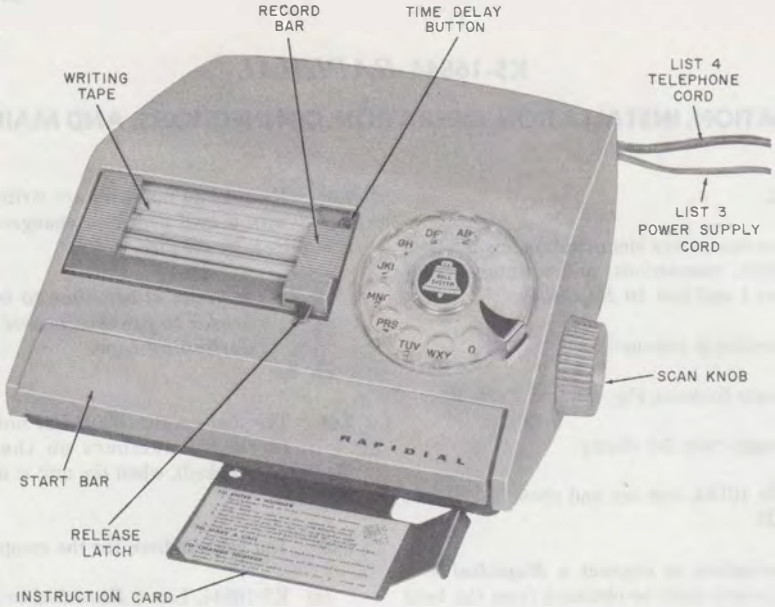

Fig. 1—KS-16844, List 1 *Rapidial*

●List 20—Housing Gray (-61)

(d) KS-16844, List 2 Power Supply† (equipped with List 5 power cord†) must be ordered separately.

* Lists 3 and 4 available in gray only.

† Lists 2 and 5 available in light olive gray.

2.08 Optional equipment (ordered separately) for switchboard conversion:

●Strip, Terminal, 10-141

●Unit, Telephone, Key, 17B

●Box, Apparatus, 105B

●Connector, D-161488

3. INSTALLATION

3.01 Before choosing a location for ***Rapidial*** and power supply refer to section entitled Separation and Protection for Wire and Cable in Division 460.

3.02 Select a convenient location near customer telephone set and 115-volt ac receptacle. To avoid placing ***Rapidial*** in a magnetic field, do not locate it adjacent to electric typewriters, desk calculators, etc.

3.03 Complete ***Rapidial*** assembly is shipped in three separate cartons as follows:

(1) Carton 1 (Fig. 5):

List 1 ***Rapidial***

List 3 Power Supply Cord

List 4 Telephone Cord

List 6 Tape Assembly

or

List 10 ***Rapidial***

List 3 Power Supply Cord

List 4 Telephone Cord

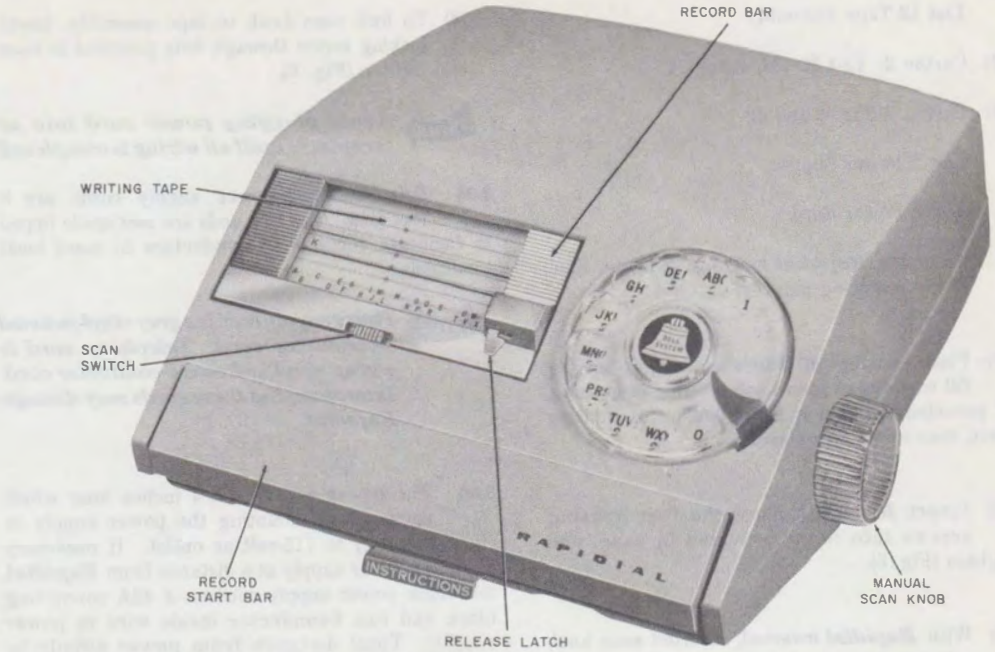

Fig. 2—KS-16844, List 10 *Rapidial*

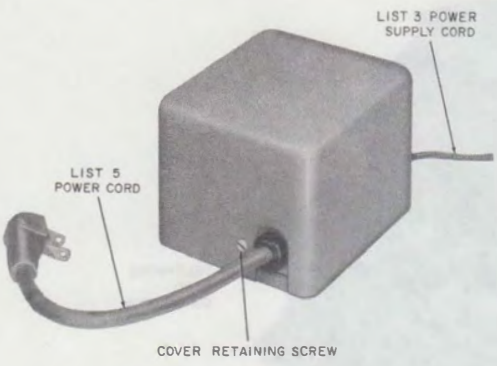

Fig. 3—Power Supply

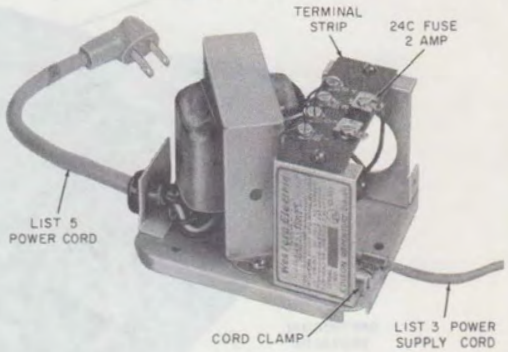

Fig. 4—Power Supply (Cover Removed)

List 12 Tape Assembly

(2) Carton 2: List 20—Housing ( )

(3) Carton 3 (Fig. 3 and 4):

List 2 Power Supply

List 5 Power Cord

3.04 Assemble ***Rapidial*** housing and scan knob in the following manner:

(1) Place housing on ***Rapidial,*** (after removing fill washers at scan knob opening in housing, if provided). Position front portion of housing first; then lower into place.

(2) Invert ***Rapidial,*** place the four housing screws into holes provided in base, and tighten (Fig. 6).

(3) With ***Rapidial*** inverted, inserted scan knob into position, making certain it properly engages tape assembly (Fig. 6).

(4) To lock scan knob to tape assembly, insert locking screw through hole provided in base and tighten (Fig. 6).

THINK ***Avoid plugging power cord into ac receptacle until all wiring is completed.***

3.05 Telephone and power supply cords are 8 feet long. The free ends are ***not*** spade tipped to facilitate cutting the conductors to meet local conditions.

THINK ***Power supply cord is a gray vinyl-jacketed 4-conductor cord. Telephone cord is a gray vinyl-jacketed 6-conductor cord. Interchanging these cords may damage Rapidial.***

3.06 The power cord is 8-3/4 inches long which necessitates mounting the power supply in close proximity to 115-volt ac outlet. If necessary to mount power supply at a distance from ***Rapidial,*** terminate power supply cord on a 42A connecting block and run 4-conductor inside wire to power supply. Total distance from power supply to ***Rapidial,*** including the 8-foot power supply cord, should not exceed 38 feet.

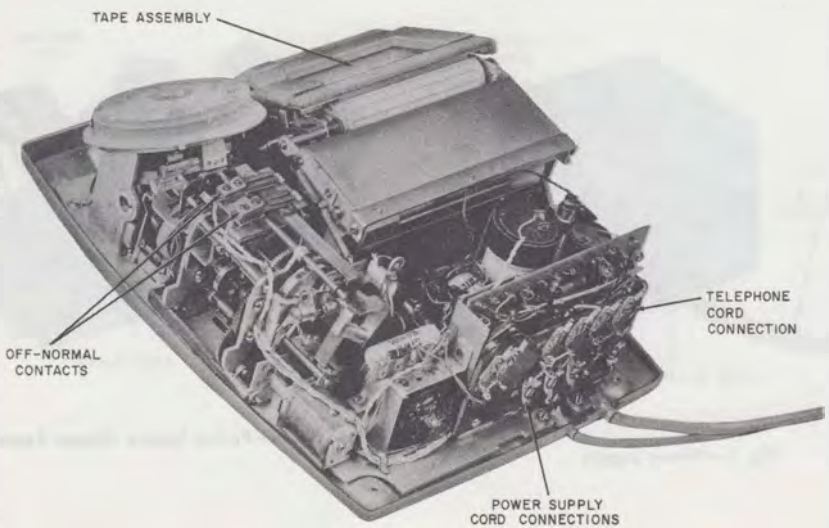

Fig. 5—KS-16844 *Rapidial* (Housing Removed)

3.07 Power supply may be mounted with three No. 6 or 8 wood screws. Two retaining screws hold cover in position (Fig. 3). Power supply cord is fed through cutout in cover and secured under cord clamp.

3.08 ***Rapidial*** is shipped with List 3 power supply cord terminated. Cut free end of cord to desired length, strip outer jacket, twist stranded conductor ends, and terminate on power supply terminal strip.

3.09 Power cord shall plug into a 115-volt ac receptacle not under control of a wall switch. The low voltage power supply consists of two voltages: 19.5 and 26.5 volts ac. ***Rapidial*** is protected by a 24C, 2-ampere fuse located on terminal strip in power supply (Fig. 4).

3.10 ***Rapidial*** is shipped with List 4 telephone cord terminated.

(1) Cut free end of cord to desired length.

(2) Strip outer jacket and twist stranded conductor ends.

(3) Terminate conductors in telephone set as outlined in Table A, B, C, D, or E.

(4) Secure cord, ***inside*** telephone set, under cord clamp or by taping it to telephone set mounting cord.

(5) Make certain conductors are properly dressed so as not to interfere with normal operation of telephone set.

3.11 After assembling ***Rapidial,*** it is necessary to adjust start bar for operation. This is accomplished in the following manner:

(1) Connect to power outlet.

(2) Position ***Rapidial*** upside down. (Be sure to protect cover from scratches.)

(3) Start bar adjustment screw can be reached through base of ***Rapidial*** by aligning hole in the instruction card with hole in base (Fig. 6).

(4) Using a 3-1/2 inch screwdriver, turn screw clockwise and revolve scan knob until a clicking sound is heard.

(5) Back off on screw approximately one to one and a half turns so that clicking sound disappears. On power driven scan model, also check that scan switch is free in both directions.

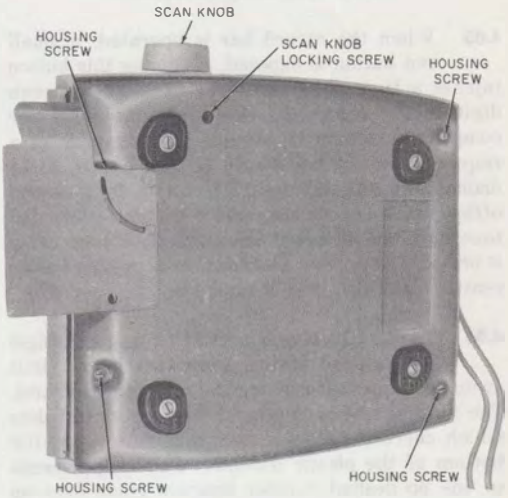

Fig. 6—*Rapidial* (Bottom View)

3.12 Test operation of ***Rapidial*** by recording and calling the telephone number usually called for job completion.

4. OPERATION

4.01 The operation of List 1 and List 10 ***Rapidial*** sets is similar with the exception of the power-driven scan on List 10.

4.02 Operation of release latch and record bar:

- Opens plastic window to expose writing tape. An entry is made on writing tape, with lead pencil, for future reference.
- Erases previous recording on magnetic tape.
- Unlocks dial mechanism for recording telephone number. Dial is normally locked.

Operation of record bar automatically erases a portion of the telephone number previously recorded on magnetic tape. When demonstrating Rapidial, turn writing tape to a blank space before operating record bar.

4.03 When the record bar is operated, a small red button is exposed. Pressing this button injects a time delay of three seconds between digits being recorded. Only one time delay per complete recording is possible. An example of a required time delay would be the pause, after dialing digit 9 from a dial PBX station, for a central office trunk connection. Since central office dial tone may not be heard immediately, a time delay is provided to prevent ***Rapidial*** from pulsing before central office dial tone is available.

4.04 The List 10 ***Rapidial*** (List 12 tape cartridge) is equipped with a scan switch and limit switches to prevent running the tape off the drums. The writing tape is imprinted with a series of dots which correspond with the guide letters on the bottom of the plastic window. Final adjustments to line up desired number between guide lines on window is made with manual scan knob.

4.05 To record a telephone number, proceed as follows:

(1) Check directory listing of number.

(2) Locate an unused space on writing tape for new entry by rotating scan knob.

(3) Move release latch to right and slide record bar down.

(4) Use lead pencil to enter name and telephone number on writing tape.

(5) Record new telephone number by using dial on ***Rapidial.*** Refer to 4.03 for use of time delay button. ***Rapidial*** is capable of recording 13 digits.

(6) Restore record bar by releasing latch.

4.06 To place a call, proceed as follows:

(1) Operate scan switch and rotate scan knob until desired telephone number appears between horizontal black lines on plastic window.

(2) Lift telephone handset.

(3) Wait for dial tone.

(4) Depress start bar.

(5) If there is a delay in dial tone and ***Rapidial*** has started pulsing before central office dial tone is heard (for example, when dialing a central office from a dial PBX station), customer should hang up immediately. ***Rapidial*** will continue pulsing through a complete cycle with an on-hook condition of the associated telephone set.

(6) When placing call from a key telephone set, caution customer not to answer an incoming call on another line while ***Rapidial*** is pulsing. ***Rapidial*** circuitry is common to all lines in the set and hence the pulsing will be carried over to the answered call.

4.07 To remove a recorded telephone number from ***Rapidial:***

(1) Position the number between horizontal black lines on plastic window.

(2) Operate latch and record bar (see 4.02).

(3) Remove entry from writing tape with an artist's rubber ***kneadable eraser*** such as Faber-Castell.

(4) Restore record bar.

5. CONNECTIONS

5.01 ***Rapidial*** pulsing contacts (BL and G telephone cord conductors) are placed in series with the ring side of the line for 200-type telephone sets, and in series with dial contacts in all other rotary and TOUCH-TONE® dial sets.

5.02 Two sets of off-normal contacts (Fig. 5 and 7) are provided. Their function is the same as the off-normal contacts in a conventional dial, to reduce receiver clicks during operation of ***Rapidial.***

- White off-normal leads are placed across receiver in telephone set.

- Yellow off-normal leads are placed across loudspeaker (P3 and P4 leads) in speakerphone installations.

Telephone Set Connections

5.03 Fig. 13 shows typical connections to rotary and TOUCH-TONE telephone sets.

Key Equipment Connections

5.04 The KS-16844 ***Rapidial*** may be connected to 4A key equipment or 400-type mountings as shown in Table F.

Switchboard Connections

5.05 The KS-16844 ***Rapidial*** may be connected to the various type switchboards listed in Table G.

6. MAINTENANCE

THINK ***Disconnect power cord before removing housing. Power should remain disconnected when not required for immediate maintenance operations.***

6.01 Maintenance on ***Rapidial*** is limited to items covered herein.

6.02 Housing is removed from ***Rapidial*** in the following manner:

- Invert ***Rapidial,*** loosen scan knob locking screw, and remove scan knob (Fig. 6).
- Loosen four captive housing screws.
- Turn ***Rapidial*** right side up and remove housing.

6.03 Should ***Rapidial*** fail to operate after depressing start bar, check the following:

- AC power source.
- 24C, 2-ampere fuse located on terminal strip in power supply (Fig. 4).
- Voltage between terminals 2 and 1, and 2 and 3 on terminal strip in ***Rapidial*** with voltmeter (Fig. 5).
- Burnish K1 relay contacts (Fig. 7).
- Start bar travel with housing in place (see 3.04 and 3.11).

6.04 Replacement of parts in List 1 or List 10 ***Rapidial*** is limited to tape assembly. To remove tape assembly, proceed as follows:

(1) Disconnect recording head plug from jack (Fig. 8). On List 12 cartridges disengage scan motor power lead plug from jack (Fig. 9).

(2) Release three base-locking clamps by turning screws 1/4-turn counterclockwise (Fig. 7, 8, and 10).

(3) Loosen retaining screw on front right side of tape assembly (Fig. 7 and 11).

(4) Grasp tape assembly with right hand on either side of writing tape window frame. Lift slowly, carefully disengaging recording head carriage pin from hole in draw tape tab (Fig. 7, 8, and 10).

6.05 To insert tape assembly in ***Rapidial,*** proceed as follows:

(1) Make certain start bar mechanism is not operated. If operated, plug in power cord momentarily until ***Rapidial*** has recycled.

(2) Grasp tape assembly as explained in 6.04. Carefully lower tape assembly into position, making certain recording head carriage pin properly engages hole in draw tape tab (Fig. 7, 8, and 10).

(3) Lift front of tape assembly sufficiently to allow record bar leaf spring to clear record bar latch. Hold spring up with 3-1/2 inch screwdriver and lower front of tape assembly into position, allowing record bar leaf spring to rest upon record bar latch (Fig. 7 and 11).

(4) Grasp in right hand and position tape assembly over unit.

(5) Place wiring from motor around the front and left side of the cartridge assembly.

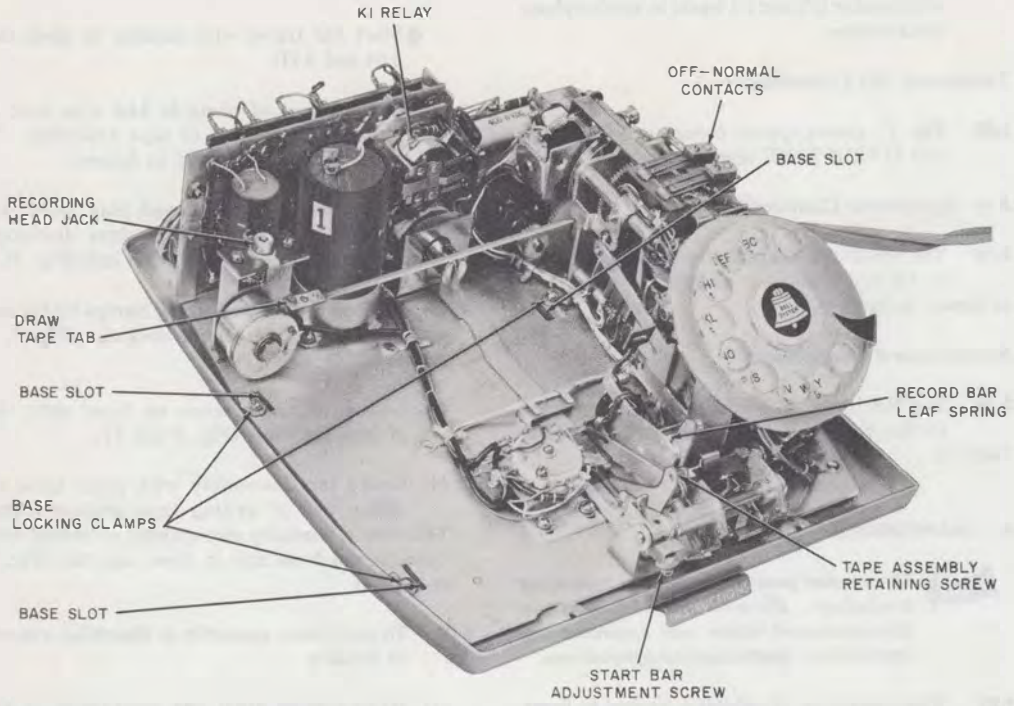

Fig. 7—KS-16844 *Rapidial* List 6 Tape Assembly Removed (Front View)

(6) Lower tape assembly onto base, carefully engaging recording head pin in hole in draw tape tab.

(7) Line up tape assembly so all four lugs fall in base slots.

(8) Lift front of tape assembly approximately 3/4-inch and push record bar leaf spring back (with 3-1/2 inch screwdriver) about 1/2-inch.

(9) Lower tape assembly, allowing spring to rest on latch (Fig. 11).

(10) Be sure all lugs on tape assembly are engaged with base slots (Fig. 7 and 8).

(11) Secure base locking clamps (Fig. 7 and 8).

(12) Secure tape assembly retaining screw.

(13) Place scan locking lever on shaft. Line lever with slot in scan switch (vertically) with top edge of scan locking lever approximately 1/32-inch below scan switch (see Fig. 2, 9, and 12). Operate the start lever and verify that scan switch will not operate in either direction. Operate release latch (Fig. 2). Hold scan switch operated to right and verify that start lever will not operate. Repeat with scan switch operated to left. Verify that spline screws in scan locking lever are tight.

(14) Connect recording head to jack and connect motor leads to receptacle placed in (6). Dress wires behind large capacitor to clear recording head travel.

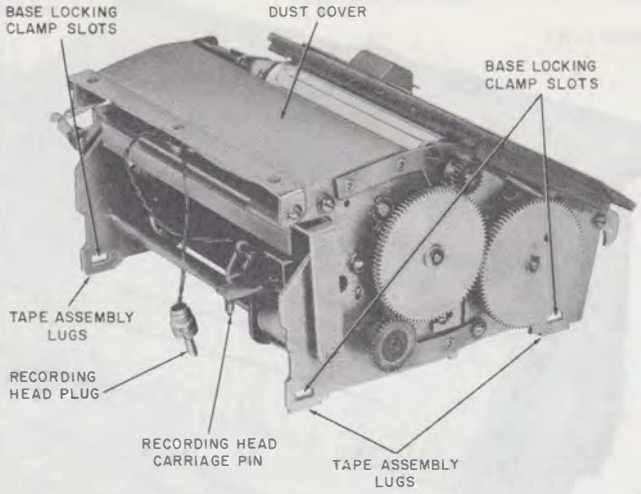

Fig. 8—List 6 Tape Assembly (Rear View)

(15) Replace housing [3.04(1)] and scan knob.

(16) Readjust start bar per 3.11.

(17) Remind customer to record numbers on new tape (recording instructions are on base and in 4.05).

6.06 Should ***Rapidial*** operate but fail to reach called number, make the following check:

(1) Select a blank space on writing tape and record a known telephone number (see 4.05).

(2) ◆Place 1013A or 1011B (MD) test set (with button in monitoring position across BL and G leads of ***Rapidial*** telephone cord, Fig. 5).◆

(3) Initiate call, listen for pulsing clicks; if pulsing clicks are not heard or if heard and wrong number is reached (and telephone set operation is normal), replace ***Rapidial.***

6.07 Should ***Rapidial*** require replacement due to electrical or mechanical failure, proceed as follows:

(1) Order List 1 or List 10 ***Rapidial*** unit, as required.

(2) Remove tape assembly from new ***Rapidial*** and replace with tape assembly from defective unit. ***This is done to avoid rerecording customer entries to new tape assembly.***

(3) Place new tape assembly in defective ***Rapidial*** and return for repairs.

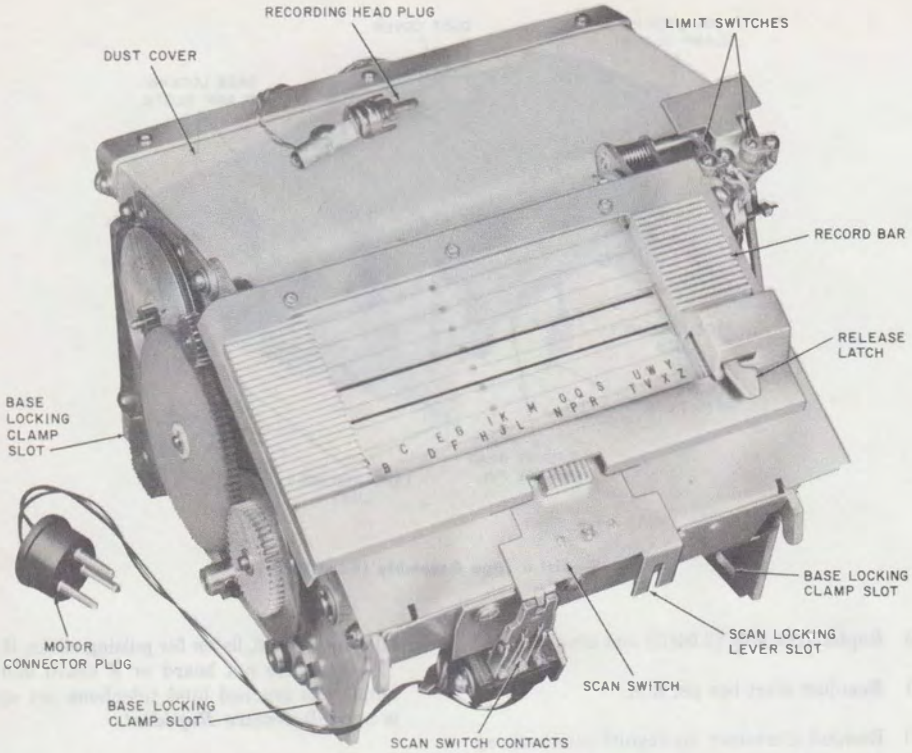

Fig. 9—List 12 Tape Assembly

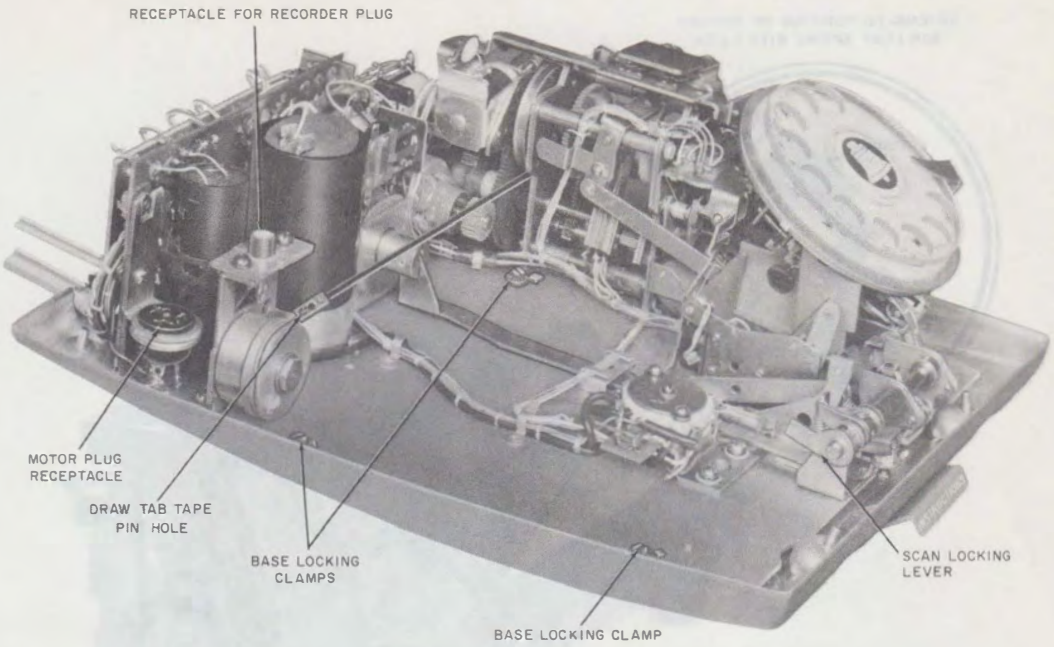

Fig. 10—KS-16844 List 10 *Rapidial,* With List 12 Tape Assembly Removed

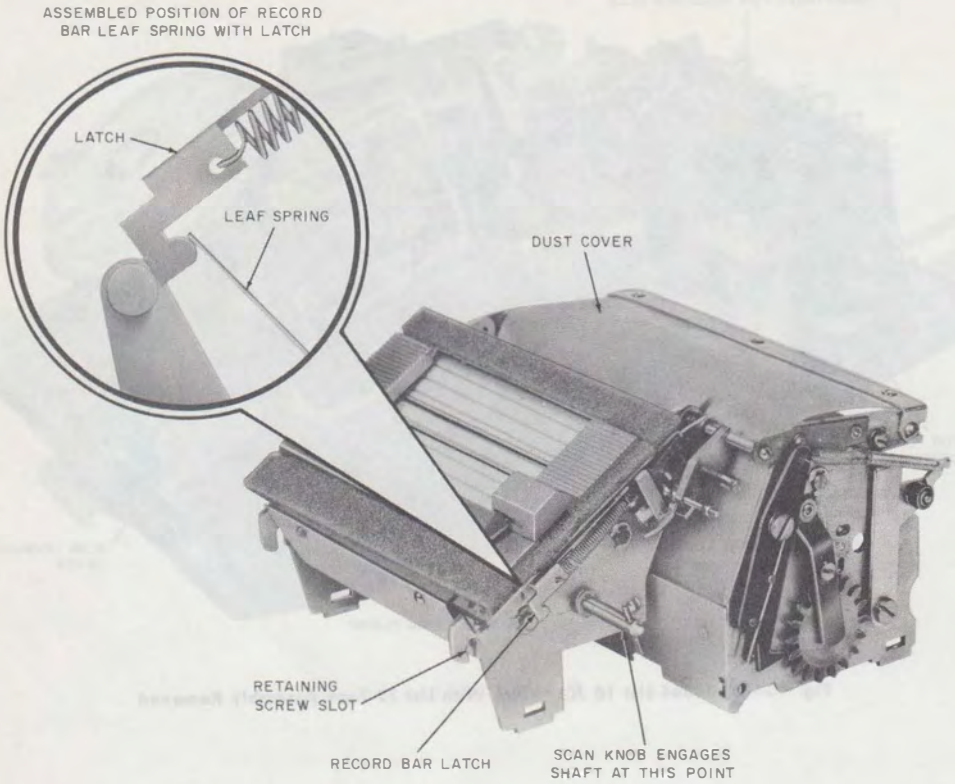

Fig. 11—List 6 Tape Assembly (Front View)

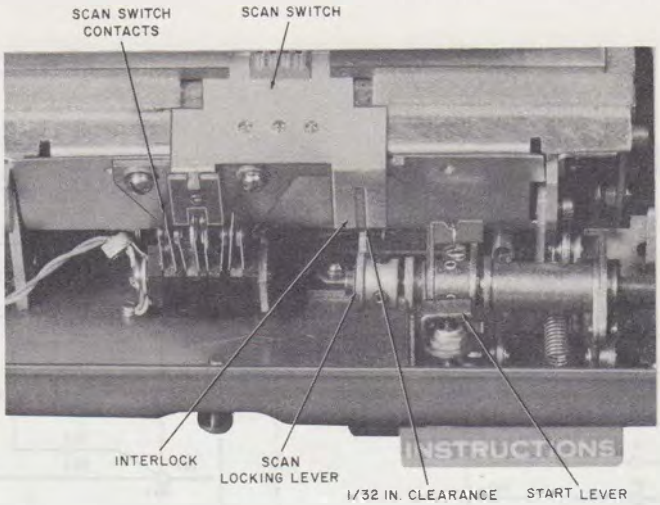

Fig. 12—KS-16844 List 10 *Rapidial* Start Lever Mechanism

TABLE A

200 SERIES TELEPHONE SETS — CONNECTIONS

TYPE OF SERVICE	CONNECTIONS MADE IN SUBSCRIBER SET								
	INSIDE WIRE			*RAPIDIAL* TELEPHONE CORD					
				PULSING		OFF-NORMAL		SPEAKERPHONE	
	R	G	Y	BL	G	W	W	Y	Y
Individual or Bridged	Ground	L2-Y	Tape and store	Ground	L1	GN	R	Insulate and store in telephone set	Insulate and store in telephone set
Ring Party	Connect BL of *Rapidial* telephone cord to R of inside wire with D-161488 connector.	L1	Ground	Connect BL of *Rapidial* telephone cord to R of inside wire with D-161488 connector.	L2-Y				
Tip Party		L2-Y			L1				
211 Telephone with 685A Subscriber Set		L1 on term. strip	G on term. strip		L2 on term. strip	GN on network	B on network	1 on term. strip	G on network

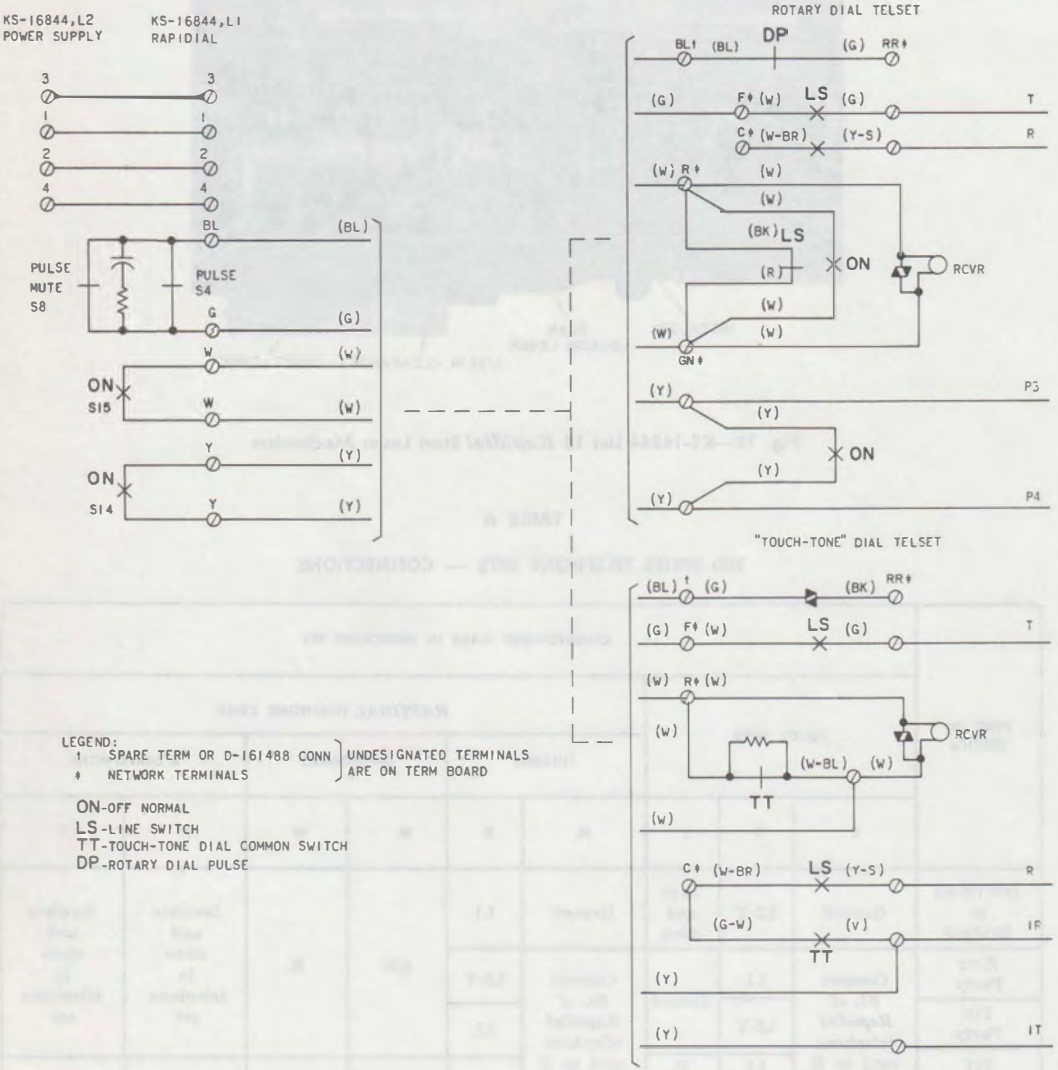

Fig. 13—Typical Connection To Rotary and TOUCH-TONE Dial Equipped Telephone Sets

TABLE B

CONNECTIONS TO 300 AND 400 SERIES TELEPHONE SETS

KS-16844 *RAPIDIAL* TEL CORD LEADS		300 SERIES				400 SERIES		
		All 300 series except those listed to right	332C	334C	306G	All 400 series except those listed to right	440 and 460 series (4-and 6-button sets)	442AC 466AC
PULSING	BL	Remove BR-Y lead from Y term. on dial and		Remove Y lead from Y term. on dial and		Remove BR-Y lead from Y term. on dial and	Remove G lead from L2Y term. on induction coil and	Remove R lead of mounting cord from L1 on term. strip and
		Connect to BL of *Rapidial* telephone cord with D-161488 connector						
	G	Y term. on dial				Y term. on dial	L2Y term. on induction coil	L1 term. in set
OFF-NORMAL	W	GN term. on induction coil	E post on term. strip	GN term. on induction coil		GN term. on induction coil		W term. on dial
	W	R term. on induction coil				R term. on induction coil		
SPEAKERPHONE	Y	Insulate and store in telephone set				Insulate and store in telephone set		
	Y	Insulate and store in telephone set				Insulate and store in telephone set		

TABLE C

CONNECTIONS TO 500, 600, AND 700 SERIES TELEPHONE SETS

<table>
<tr><td colspan="2" rowspan="2">KS-16844
RAPIDIAL
TEL
CORD
LEADS</td><td colspan="7">500 SERIES</td><td colspan="2">600 SERIES</td><td>700
SERIES</td></tr>
<tr><td>All 500 series except those listed to right</td><td>500F
501F</td><td>532B
533B
535B</td><td>500S</td><td>511D
558D</td><td>565H
565L
566MB</td><td>556G</td><td>All 600 series except 610A</td><td>610A</td><td>7018
701D
711B*</td></tr>
<tr><td rowspan="2">PULSING</td><td>BL</td><td>Remove BL dial lead from F term. on network and</td><td>Remove W lead from F term. on network and</td><td colspan="5">Remove BL dial lead from F term. on network and</td><td>Remove BL dial lead from F term. on network and</td><td>Remove Y dial lead from term. 6 of TS2 and</td><td>Remove BL dial lead from F term. on network and</td></tr>
<tr><td>G</td><td colspan="9">Connect to BL of Rapidial telephone cord with D-161488 connector</td></tr>
<tr><td rowspan="2">OFF-NORMAL</td><td>W</td><td colspan="2">GN term. on network</td><td>W term. on 151B amp.</td><td colspan="5">GN term. on network</td><td>GN term. on network</td><td>Term. 1 of TS2</td><td>GN term. on network</td></tr>
<tr><td>W</td><td colspan="9">R term. on induction coil</td><td>R term. on network</td><td>Term. 2 of TS2</td><td>R term. on network</td></tr>
<tr><td rowspan="2">SPEAKERPHONE</td><td>Y</td><td colspan="3">Insulate and store in telephone set</td><td>Term. 1 on term. strip in set</td><td>Term. 11 on term. strip in set</td><td colspan="2">ON term. on term. strip in set</td><td>W term. on dial</td><td>Insulate and store in tel set</td><td>Insulate and store in tel set</td></tr>
<tr><td>Y</td><td colspan="3">Insulate and store in telephone set</td><td>Term. 6 on term. strip in set</td><td>G term. on network</td><td>ON 1 term. on term. strip in set</td><td>Connect to O-W mounting cord conductor with D-161488 connector</td><td>BB term. on dial</td><td>Insulate and store in tel set</td><td>Insulate and store in tel set</td></tr>
</table>

* Increase depth of housing mounting cord entrance hole 1/16-inch, using 3-1/2 inch half-round file.

TABLE D

CONNECTIONS TO TELEPHONE SETS EQUIPPED WITH *TOUCH-TONE* DIALS

KS-16844 *RAPIDIAL* TEL CORD LEADS		56BHT	1500D 1500Y 1502B 1558D	1500M	1500S	1510F	1511D
PULSING	BL	Remove G dial lead from 2 on terminal strip and	Remove G dial lead from F on network and	Remove G dial lead from 1 on terminal strip and	Remove G dial lead from 8 on terminal strip and	Remove G dial lead from F on network and	Remove G dial lead from L1 on network and
		Connect to BL of *Rapidial* telephone cord with D-161488 connector					
	G	Terminal 2 on terminal strip	F terminal on network	Terminal 1 on terminal strip	Terminal 8 on terminal strip	F terminal on network	L1 terminal on network
OFF-NORMAL	W	Terminal 3 on terminal strip	GN terminal on network				
	W	Terminal 4 on terminal strip	Terminal 10 on terminal strip	Terminal E1 on terminal strip	Terminal 10 on terminal strip		Terminal 13 on terminal strip
SPEAKERPHONE	Y	Insulate and store			Terminal 9 of terminal strip	Insulate and store	Terminal 10 of terminal strip
	Y	Insulate and store			Terminal 6 of terminal strip	Insulate and store	Terminal 12 of terminal strip

TABLE D

CONNECTIONS TO TELEPHONE SETS EQUIPPED WITH

TOUCH-TONE DIALS (Cont)

KS-16844 *RAPIDIAL* TEL CORD LEADS		1514B	1554B	1564HK 1564HL	1565GK 1565HK 1565LK	1568HT	1702B 1702D 1712B
PULSING	BL	Remove G dial lead from 2 on terminal strip and	Remove G dial lead from G on network and	Remove G dial lead from L1 on network and	Remove G dial lead from L2 on network and	Remove G dial lead from 3 on key terminal strip and	Remove G dial lead from F on network and
		Connect to BL of *Rapidial* telephone cord with D-161488 connector					
	G	Terminal 2 on terminal strip	G terminal on network	L1 terminal on network	L2 terminal on network	Terminal 3 on key terminal strip	F on network
OFF-NORMAL	W	Terminal 8 on terminal strip	GN terminal on network			Terminal 2 on key terminal strip	GN terminal on network
	W	Terminal 11 on terminal strip	Terminal 10 on terminal strip	Terminal 7 on key terminal strip	Terminal 6 on key terminal strip	Terminal 4 on key terminal strip	Terminal 5 on terminal block
SPEAKERPHONE	Y	Insulate and store			Terminal 7 of key terminal strip	Terminal G of network	Insulate and store
	Y	Insulate and store			Terminal 8 of key terminal strip	Connect to Y-BL with D-161488 conn (see note)	Insulate and store

Note: Remove (Y-BL) from terminal 1 of key terminal strip.
Transfer (Y-BR) from L2 to terminal 1 of key terminal strip.
Connect (Y-BR) of connector cable to FW lead at 4-wire circuit.

TABLE E

CONNECTIONS TO CALL DIRECTOR TYPE TELEPHONE SETS EQUIPPED WITH *TOUCH-TONE* DIALS

<table>
<tr><th colspan="2">KS-16844
RAPIDIAL
TEL
CORD
LEADS</th><th>1616A2</th><th>1623A</th><th>1630
1631
1632
1634
1635</th><th>1636
1637
1638
1639</th><th>2626A</th></tr>
<tr><td rowspan="2">PULSING</td><td>BL</td><td>Remove G dial lead from 6 on terminal board TB2 and</td><td>Remove G dial lead from B on terminal board and</td><td colspan="2">Remove G dial lead from 4 on terminal block and</td><td>Remove G dial lead from 6 of terminal board TB1 and</td></tr>
<tr><td>G</td><td colspan="5">Connect to BL of Rapidial telephone cord with D-161488 connector</td></tr>
<tr><td rowspan="3">OFF-NORMAL</td><td>W</td><td>Terminal 5 on 241A amplifier</td><td>L1 terminal on network</td><td>GN terminal on network</td><td>Terminal 5 on 241A amplifier</td><td>Terminal 8 on terminal board TB1</td></tr>
<tr><td>W</td><td>L1 terminal on network</td><td>L2 terminal on network</td><td colspan="2">L1 terminal on network</td><td>Terminal 9 on terminal board TB1</td></tr>
<tr><td colspan="6">Terminal 6 on terminal board TB2 | Terminal B on terminal board | Terminal 4 on terminal block</td></tr>
<tr><td rowspan="2">SPEAKERPHONE</td><td>Y</td><td colspan="5">Insulate and store</td></tr>
<tr><td>Y</td><td colspan="5">Insulate and store</td></tr>
</table>

TABLE F

CONNECTIONS TO 4A KEY EQUIPMENT OR 400-TYPE MOUNTINGS

KS-16844 *RAPIDIAL* TEL CORD LEADS		685A Subscriber set	688A, B or C Subscriber set	634YD Subscriber set
PULSING	BL	Remove G inside wire from L2 in subscriber set and connect to BL of *Rapidial* tel cord using D-161488 connector	Remove Y lead from F terminal in network and connect to BL of *Rapidial* tel cord using D-161488 connector	Remove G inside wire from L2 GN of subscriber set and connect to BL of *Rapidial* using D-161488 connector
	G	L2 in subscriber set	F on network	L2 GN terminal in subscriber set
OFF-NORMAL	W	GN terminal on network	GN terminal on network	BK terminal in subscriber set
	W	R terminal on network	R terminal on network	R terminal in subscriber set
SPEAKERPHONE	Y	Insulate and store		
	Y	Insulate and store		

TABLE G

SWITCHBOARD CONNECTIONS

RAPIDIAL TELEPHONE CORD		552 A, B, D, E 605A	555A 556A 557A	557B	608 A, B	756A with 700 Modular Unit	756A with 3A Console
PULSING	BL	Note 1 and 4 10-141 term. strip terminal 3	Notes 2, 3, 5, 8, and 10 10-141 term. strip terminal 3	Notes 5, 6, 7, 8, and 10 10-141 term. strip terminal 4	Note 9 terminal 5 KS-16323 connector on dial unit	Remove Y lead from Y of dial and connect to BL of *Rapidial* with D-161488 connector	Remove Y dial lead from 6 of TS2 and connect to BL of *Rapidial* with D-161488 connector.
	G	10-141 term. strip terminal 5	10-141 term. strip terminal 2	10-141 term. strip terminal 2	Terminal 2 KS-16323 connector on dial unit	Y of dial	Terminal 6 of TS2
OFF-NORMAL	W	10-141 term. strip terminal 1	10-141 term. strip terminal 8	10-141 term. strip terminal 8	Terminal 21 KS-16323 connector on dial unit	17 on handset mounting	Terminal 1 of TS2
	W	10-141 term. strip terminal 2	10-141 term. strip terminal 9	10-141 term. strip terminal 9	Terminal 3 KS-16323 connector on dial unit	16 on handset mounting	Terminal 2 of TS2
SPEAKERPHONE	Y	Insulate and store	Insulate and store	Insulate and store	Insulate and store	Insulate and store	Insulate and store
	Y	Insulate and store	Insulate and store	Insulate and store	Insulate and store	Insulate and store	Insulate and store

Note 1:

Mount 10-141 terminal strip under keyshelf adjacent to wire entrance for dial. Remove cable from 6044B dial mounting and reterminate as follows:

6044B	10-141	6044B
REMOVE	CONNFCT STRAPS	
	FROM	TO
R	1	R
GN	2	GN
B	3	
Y	4	Y
	5	B

Note 2:

Mount 10-141 terminal strip under keyshelf adjacent to wire entrance for dial. Remove cable from 6044B dial mounting and reterminate as follows:

6044B	10-141	6044B	17B
REMOVE	CONNECT STRAPS		
	FROM	TO	TO
R	1	R	9
GN	3		7
B	7		5
Y	4	Y	
W	6	W	
	2	GN	
	5	B	4
	8		1

Note 3:

If ***Rapidial*** is disconnected, remove 17B KTU. Leave 10-141 TS in place and strap 2 to 3 and 5 to 7.

Note 4:

If ***Rapidial*** is disconnected, leave 10-141 TS in place and strap 3 to 5.

Note 5:

Mount 17B KTU in 105A apparatus box on side of switchboard. Mount 10-141 terminal strip under keyshelf adjacent to the wire entrance hole of dial.

Note 6:

If ***Rapidial*** is disconnected, remove 17B KTU. Leave the 10-141 terminal strip in place and strap 2 to 4 and 5 to 7.

Note 7:

Remove wire from 6044B dial mounting and reterminate as follows:

6044B	10-141	6044B	17B
REMOVE	CONNECT STRAPS		
	FROM	TO	TO
R	1	R	9
GN	3	GN	7
BL	7		5
Y	4		
W	6	W	
	5	BL	4
	8		1
	2	Y	

Note 8:

Connect terminal 9 of 10-141 terminal strip to PBX ground and terminal 3 of 17B KTU to PBX battery.

Note 9:

Move or wire from terminal 2 to terminal 5. If ***Rapidial*** is removed, move or wire from terminal 5 to terminal 2.

Note 10:

Where PBX battery is −48 volts, connect a KS-13490, List 1 1000-ohm resistor in battery lead to 17B KTU.

Note 11:

The following are reference drawings:

552 PBX SD-65787-01, 555 PBX
SD-66520-01, and 556 PBX SD-65658-01