

NONKEY TELEPHONE SETS CONVERSION FOR USE WITH 1A1 OR 1A2 KEY TELEPHONE SYSTEMS

1. GENERAL

1.01 This section provides connections and conversion of nonkey general purpose sets to **A** lead control to permit their use with 1A1 or 1A2 key telephone systems.

1.02 This section is reissued to:

- Revise Fig. 5
- Revise Fig. 11
- Revise Fig. 12

1.03 Sets that are factory-wired for **A** lead control such as the 500L/M or 2500M are not included since no conversion is required.

1.04 The sets included in this section are equipped with line switches adjusted to break the line circuit before the **A** lead when going on-hook to prevent false hold conditions.

2. CONNECTIONS

2.01 Connections shown provide for a separate ringer circuit when possible. This is necessary

with older types of 1A1 KTS line circuits where tip and ring are not available for incoming signals at the telephone set.

2.02 At installations equipped with 1A1 or 1A2 KTS line circuits where tip and ring are continuous to the telephone set and only one line is picked up, the R-R1 and B-B1 leads may not be required and the ringer can be connected across the line in the set. When used as an individual line ringer, the capacitor must be in the ringer circuit with the ringer poled as a ring station.

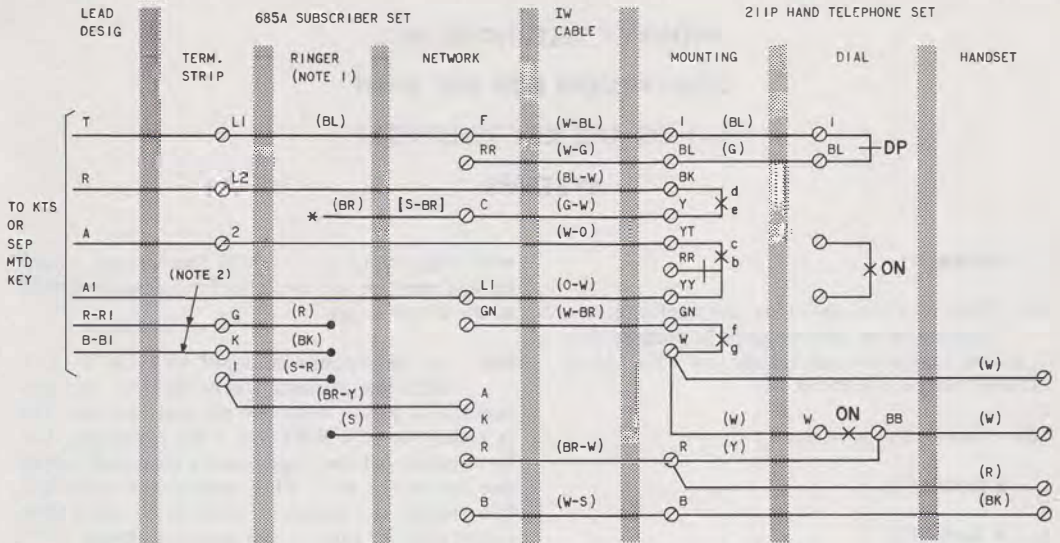
2.03 Some sets included in this section also have the capability of other services such as 3-type speakerphone, requiring additional connections and leads. For information on these features, refer to the Reference Section for the Set involved.

2.04 For connection of the sets to separately mounted keys, refer to Division 512.

2.05 In sets having a dial light (TRIMLINE® or PRINCESS® type) A1 ground should not be common with one of the transformer leads. This is necessary to prevent feedback of AC to the A relay in the case of accidental grounding of the transformer leads.

NOTICE

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



NOTES:

1. FOR COMMON RINGER WITHOUT CAPACITOR, MOVE (S) RINGER LEAD TO A.
2. CONNECT R-RI AND B-BI LEADS FOR COMMON OR LINE RINGER AT EQUIPMENT OR KEY AS REQUIRED.

* INSULATED AND STORED

() CURRENT COLOR CODE

[] MD COLOR CODE

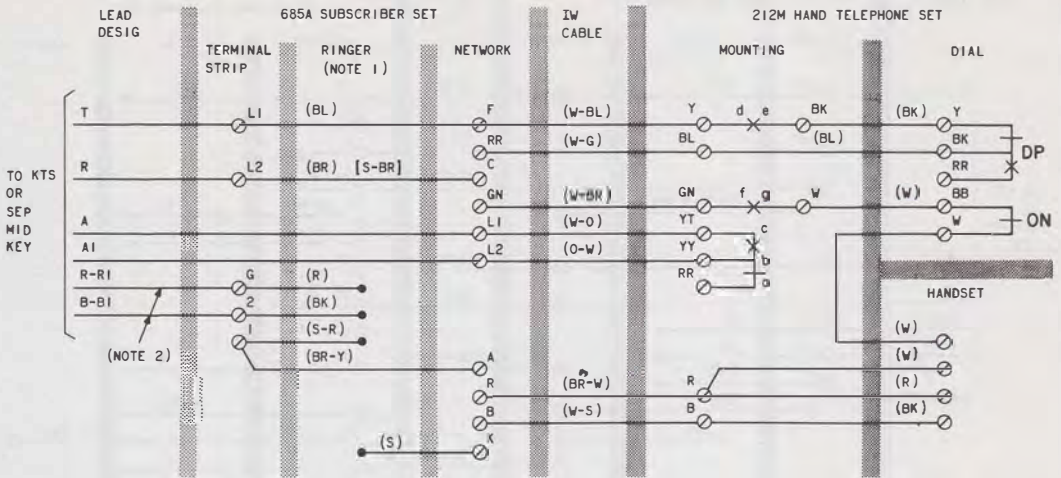
DP- DIAL PULSE CONTACT

ON-OFF NORMAL CONTACT

SET MODIFICATION

LEAD	COLOR	FROM	TO
RINGER	(R)	L2	G
	(BK)	L1	K
STRAP	(BR) [S-BR]	L2 OR 2	*

Fig. 1—211P Telephone Set, Connections for Use with 1A1 or 1A2 KTS



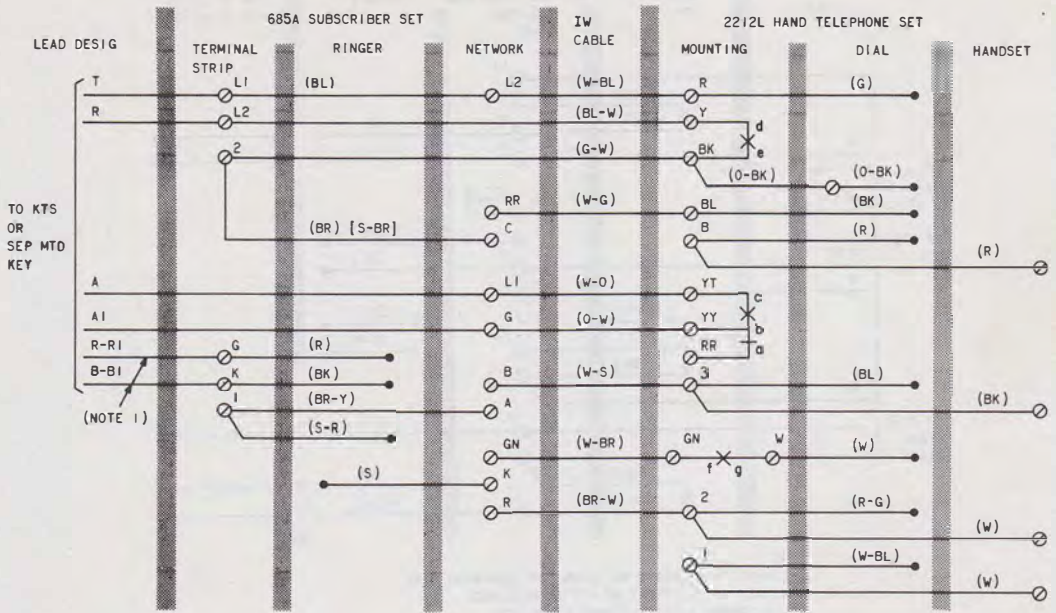
- NOTES:
1. FOR COMMON RINGER WITHOUT CAPACITOR, MOVE (S) RINGER LEAD TO A.
 2. CONNECT R-RI AND B-BI LEADS FOR COMMON OR LINE RINGER AT EQUIPMENT OR KEY AS REQUIRED.

() CURRENT COLOR CODE
 [] MD COLOR CODE
 DP - DIAL PULSE CONTACT
 ON - OFF NORMAL CONTACT

SET MODIFICATION

LEAD	COLOR	FROM	TO
RINGER	R	L2	G
	BK	L1	2
STRAP	BL	L2 OR RR	F
	(BR) [S-BR]	2	L2

Fig. 2—212M Telephone Set, Connections for use with 1A1 or 1A2 KTS



NOTES:

1. CONNECT R-RI AND B-BI LEADS FOR COMMON OR LINE RINGER AT EQUIPMENT OR KEY AS REQUIRED.
2. FOR COMMON RINGER WITHOUT CAPACITOR, CONNECT (S) RINGER LEAD TO A.

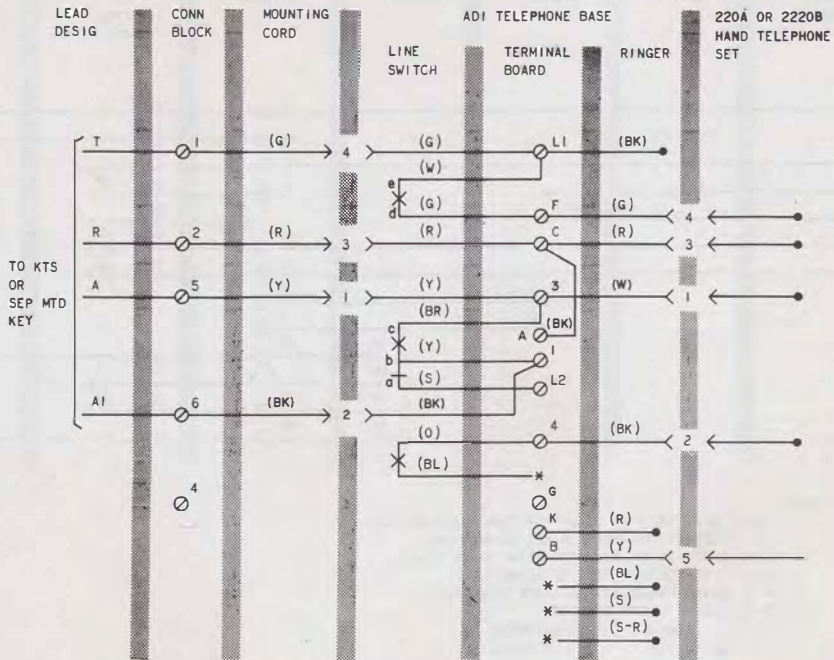
() CURRENT COLOR CODE

[] MD COLOR CODE

SET MODIFICATION

LEAD	COLOR	FROM	TO
STRAP	(BL)	RR	L2
RINGER	(R)	L2	G
	(BK)	L1	K

Fig. 4—2212L Hand Telephone Set, Connections for use with 1A1 or 1A2 KTS



NOTE:
COMMON RINGER AND DIAL LIGHT CANNOT BE SUPPLIED
DUE TO A LACK OF MOUNTING CORD CONDUCTORS.

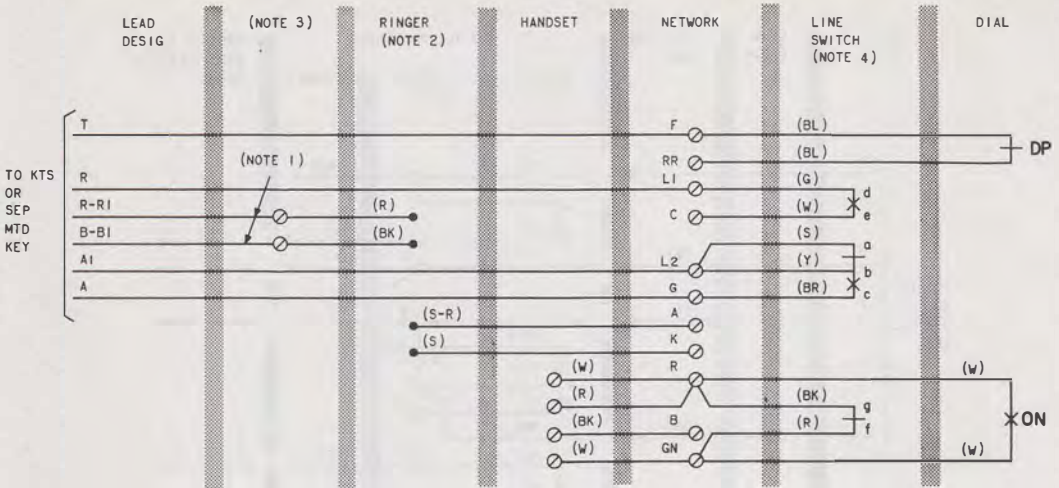
* INSULATED AND STORED

SET MODIFICATION

LEAD	COLOR	TERMINAL BOARD	
		FROM	TO
LINE SWITCH	(BR)	C	G
	(S)	A	L2
	(Y)	L2	3
MTG CORD STRAP	(R)	L2	C
CAPACITOR STRAP	(BK)	A	C

Fig. 6—AD1 Telephone Base and 220A or 2220B Hand Telephone Set, Connections for use with 1A1 or 1A2 KTS

SECTION 502-110-102



NOTES:
 1. CONNECT R-RI AND B-BI LEADS FOR COMMON AUDIBLE OR LINE RINGER AT EQUIPMENT OR KEY AS REQUIRED.
 2. IF CAPACITOR IS NOT REQUIRED WITH COMMON RINGER, MOVE (S) RINGER LEAD TO A OF NETWORK.
 3. USE D-161488 CONNECTORS OR SPARE TERMINALS.
 4. OFF-HOOK LINE SWITCH SEQUENCE
 (A) bc CLOSES (c) ab OPENS
 (B) de CLOSES (d) fg OPENS

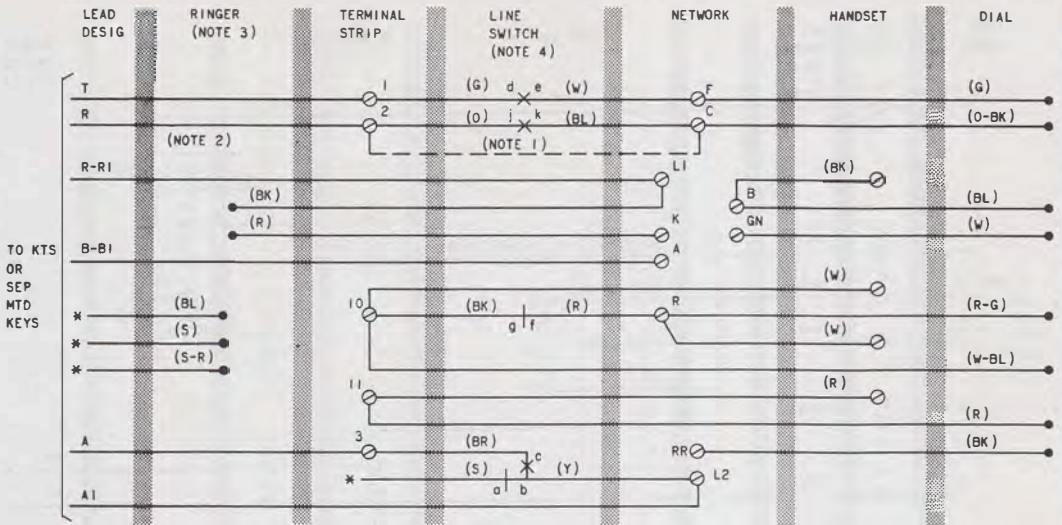
DP - DIAL PULSE CONTACTS
 ON - OFF NORMAL CONTACTS

SET MODIFICATION

LEAD	COLOR	FROM	TO
LINE	W	F	C
SWITCH	BR	C	G
RINGER	R	L2	*
	BK	LI	*

* D-161488 CONNECTOR OR SPARE TERMINAL

Fig. 7—554B, F Telephone Set, Connections for use with 1A1 or 1A2 KTS



NOTES:

1. USE MIW CORD IF (O) AND (BL) LEADS AND ASSOCIATED CONTACTS ARE NOT SUPPLIED.
2. CONNECT R-RI AND B-BI LEADS FOR COMMON OR LINE RINGER AT EQUIPMENT OR KEY AS REQUIRED.
3. FOR COMMON RINGER WITHOUT CAPACITOR, CONNECT B-BI LEAD TO K OF NETWORK.
4. OFF-HOOK LINE SWITCH SEQUENCE:

(A) bc MAKES	(c) ab BREAKS
(B) de MAKES	(D) fg BREAKS

* INSULATE AND STORE

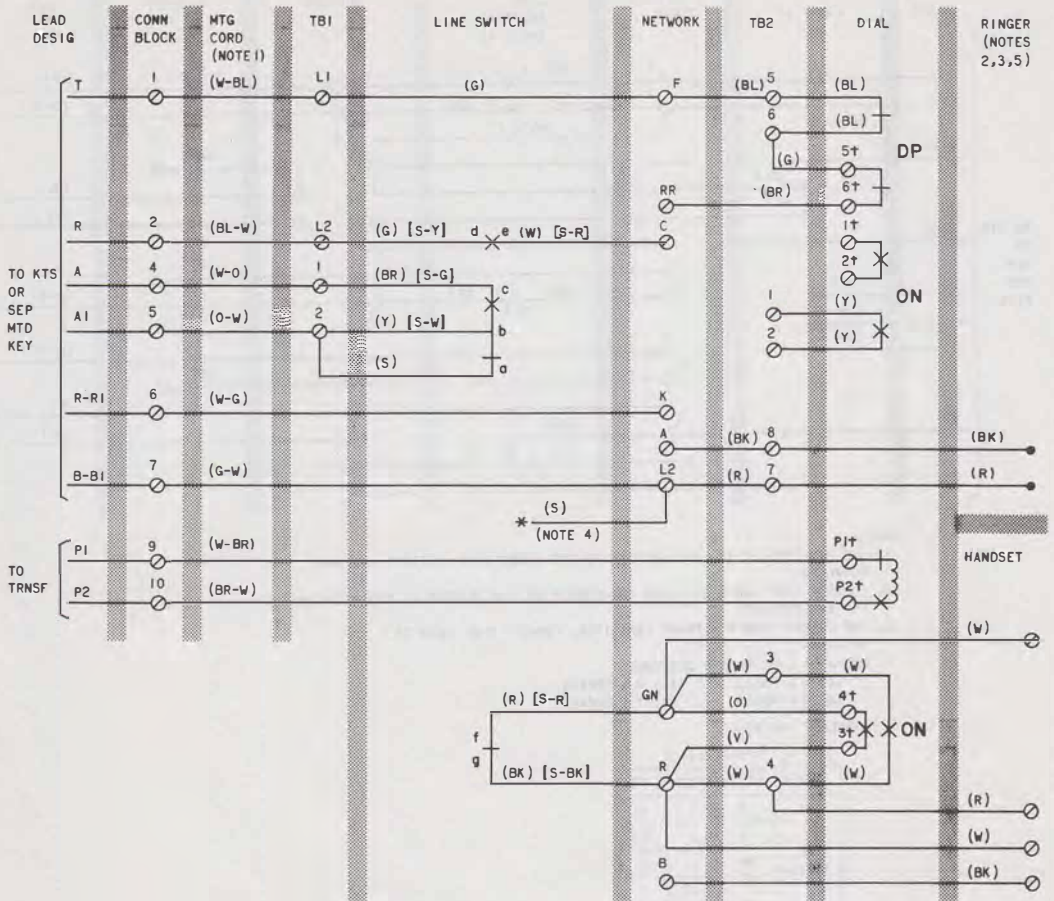
SET MODIFICATION

LEAD	COLOR	FROM	TO
LINE SWITCH	S	A	*
	Y	2	L2
	BR	C	3
	OT	L2	2
	BL†	L2	C
RINGER	BK	1	L1

† SEE NOTE 1

Fig. 8—2554B Telephone Set, Connections for use with 1A1 or 1A2 KTS

SECTION 502-110-102



NOTES:

1. REPLACE D6AF MTG CORD WITH D10R.
2. CONNECT R-R1 AND B-B1 LEADS FOR COMMON OR LINE RINGER AS REQUIRED.
3. FOR COMMON RINGER WITHOUT CAPACITOR, CONNECT (W-G) MTG CORD LEAD TO A.
4. REMOVE FROM TBI-L2, INSULATE AND STORE.
5. CONNECTIONS SHOWN ARE FOR C4B RINGER, IF C4A IS USED, WIRE AS FOLLOWS:

- | | | | |
|-------------------|--------------------------------|-------|--|
| RINGER | | STRAP | |
| ● (R) TO TB2-7 | ● (R) TB2-7 TO L2 OF NETWORK | | |
| ● (BK) TO TB2-8 | ● (BK) TB2-8 TO G OF NETWORK | | |
| ● (S) TO TB2-9 | ● (S) TB2-9 TO K OF NETWORK | | |
| ● (S-R) TO TB2-10 | ● (S-R) TB2-10 TO A OF NETWORK | | |
- CONNECT (W-G) MTG CORD LEAD TO G

* INSULATE AND STORE

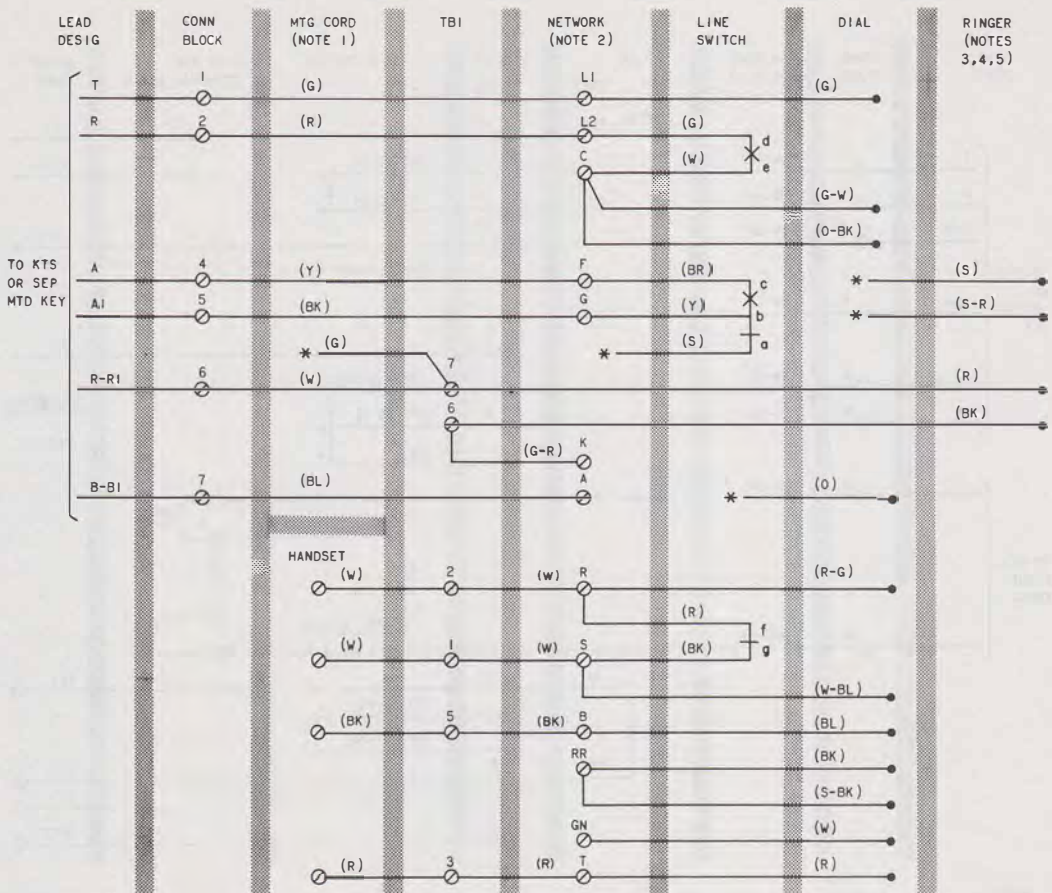
† TERMINALS AND CONTACTS ON 41-TYPE DIAL

DP DIAL PULSE CONTACTS

ON OFF NORMAL CONTACTS

LEAD	COLOR	FROM	TO
STRAP	(G)	L1	F
	(S)	TBI-L2	*
LINE SWITCH	(G) [S-Y]	L1	L2
	(W) [S-R]	F	C
	(BR) [S-G]	C	TBI-1
	(Y) [S-W]	TBI-L2	TBI-2
	(S)	TBI-L2	TBI-2

Fig. 9—660A1 Telephone Set, Connections for use with 1A1 or 1A2 KTS



NOTES:

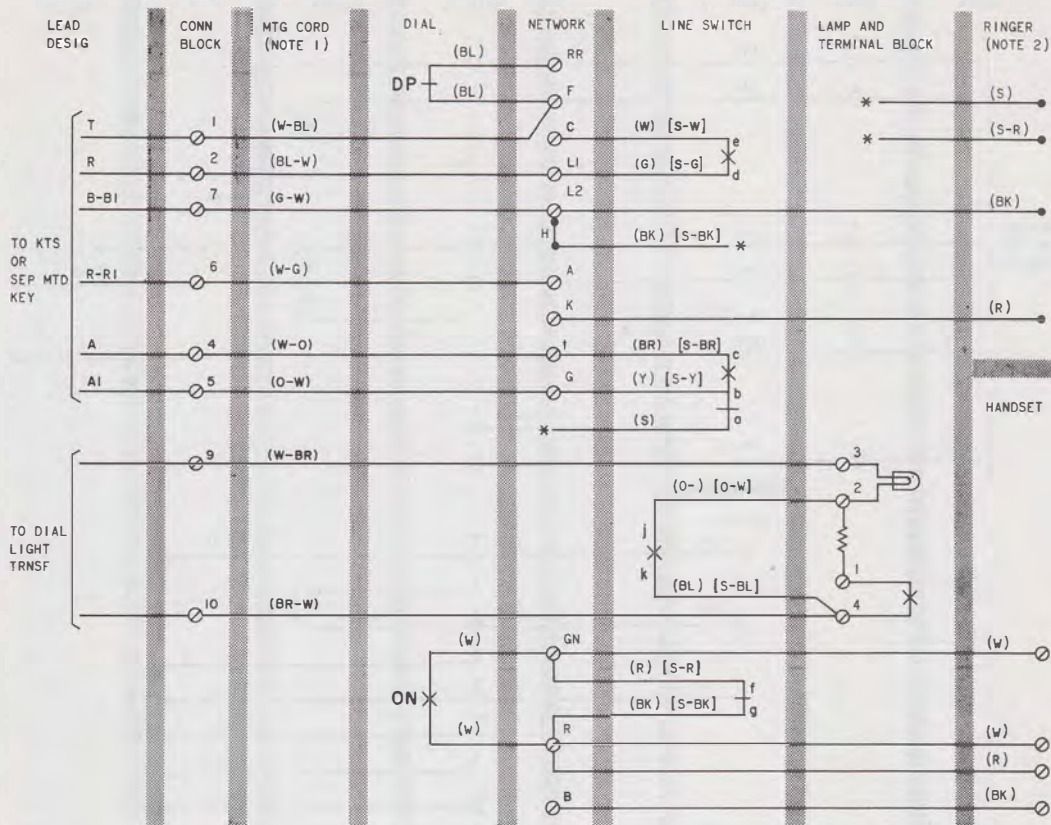
1. REPLACE D3BN MOUNTING CORD WITH D6AF.
2. CONNECTIONS FOR 425K NETWORK SHOWN. FOR 425G CONNECT:
 - (BK) LINE SWITCH AND (w-BL) DIAL LEAD TO TBI-1
 - (R) DIAL LEAD TO TBI-3
 (w) AND (R) STRAPS ARE NOT REQUIRED.
3. SETS MAY BE EQUIPPED WITH AN MIA OR MIB RINGER. MIB DOES NOT HAVE (S) AND (S-R) LEADS.
4. CONNECT R-R1 AND B-B1 LEADS FOR COMMON OR LINE RINGER AT EQUIPMENT OR KEY AS REQUIRED.
5. FOR COMMON RINGER WITHOUT CAPACITOR, CONNECT (BL) MOUNTING CORD LEAD TO K OF NETWORK.

SET MODIFICATION

LEAD	COLOR	FROM	TO
DIAL	G	F	L1

Fig. 10—2660A1 Telephone Set, Connections for use with 1A1 or 1A2 KTS

SECTION 502-110-102



NOTES:

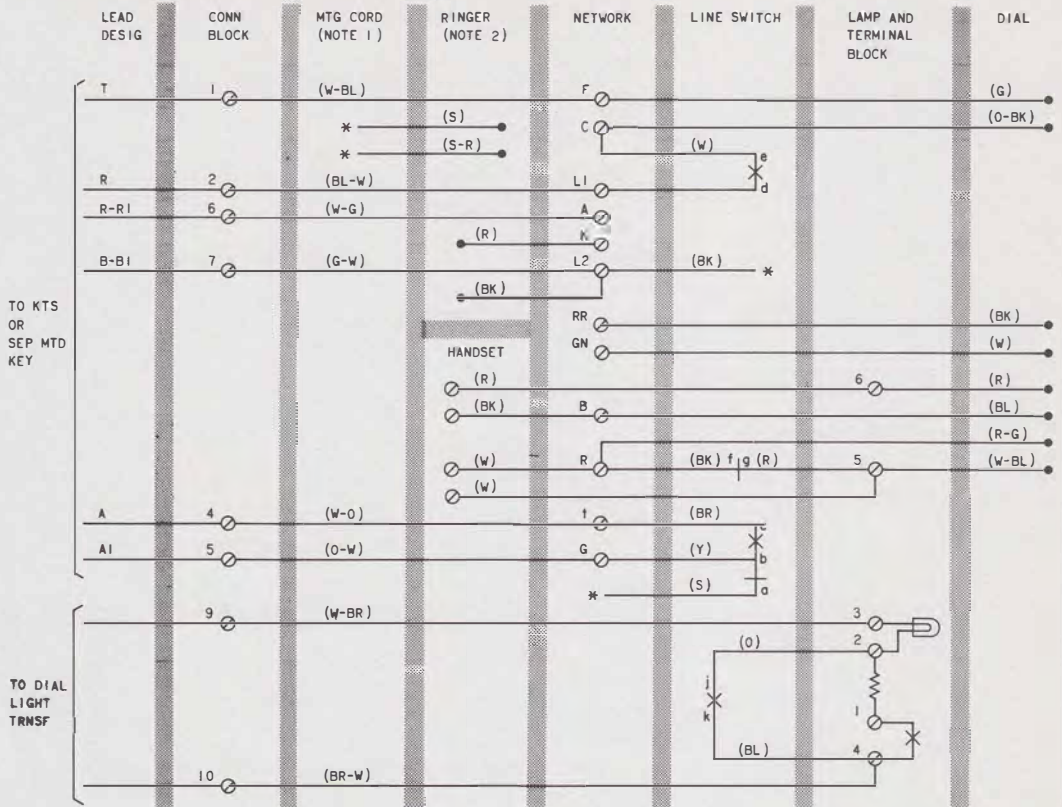
1. CONNECTIONS SHOWN PROVIDE SEPARATE RINGER CIRCUIT. DSAK CORD FURNISHED WITH SET MUST BE REPLACED WITH DIOR. CONNECT R-RI AND B-BI LEADS AT EQUIPMENT OR KEY AS REQUIRED.
2. FOR COMMON RINGER WITHOUT CAPACITOR, MOVE (R) RINGER LEAD FROM K TO A OF NETWORK.
3. LINE SWITCH OFF-HOOK SEQUENCE:
 (a) bc CLOSES (c) ab OPENS
 (b) de CLOSES (d) fg OPENS

* INSULATED AND STORED
 † SPARE TERMINAL OR D-161488 CONNECTOR
 () CURRENT COLOR CODE
 [] MD COLOR CODE
 DP - DIAL PULSE CONTACTS
 ON - OFF NORMAL CONTACTS

SET MODIFICATION

LEAD	COLOR	FROM	TO
LINE SWITCH	(BR) [S-BR]	C	†
	(S)	A	*
	(Y) [S-Y]	L2	G
RINGER	(BK)	G	L2

Fig. 11—702B Telephone Set, Connections for use with 1A1 or 1A2 KTS



NOTES:

1. CONNECTIONS SHOWN PROVIDE SEPARATE RINGER CIRCUIT. D5AK CORD FURNISHED WITH SET MUST BE REPLACED WITH DIOR. CONNECT R-RI AND B-BI LEADS AT EQUIPMENT OR KEY AS REQUIRED.
2. FOR COMMON RINGER WITHOUT CAPACITOR, MOVE (R) RINGER LEAD FROM K TO A OF NETWORK.
3. LINE SWITCH OFF-HOOK SEQUENCE:
 (A) bc CLOSES (C) ab OPENS
 (B) de CLOSES (D) fg OPENS

* - INSULATED AND STORED
 † - SPARE TERMINAL OR D-161488 CONNECTOR

SET MODIFICATION

LEAD	COLOR	FROM	TO
LINE SWITCH	BR	C	†
	S	A	*
	Y	L2	G
RINGER	BK	G	L2

Fig. 12—2702B Telephone Set, Connections for use with 1A1 or 1A2 KTS