

1A1 KEY TELEPHONE SYSTEM
STATION CONNECTIONS
USING 440 AND 460 SERIES KEY TELEPHONE SETS
CONNECTION DATA

1.00 GENERAL

1.01 This section covers station connections of 440 and 460 series key telephone sets. This includes key cable, connecting block, cord conductor, and internal set wiring connections.

1.02 Due to extensive changes marginal arrows have been omitted.

2.00 APPLICATION OF THE 440 AND 460 SERIES KEY TELEPHONE SETS

2.01 Only the 440 and 460 series key telephone sets indicated in Table A may be used in the 1A1 key telephone system.

2.02 These sets are equipped with an additional set of switchhook contacts (for A lead

control) and are furnished shop-wired for use in the 1A key telephone system. To use these sets in the 1A1 key telephone system, certain spade-tipped leads must be reterminated within the set.

2.03 Key telephone set internal wiring changes and connections are shown in Fig. 1 and 2.

2.04 Ringer and buzzer connections are shown in Fig. 3.

3.00 KEY CABLE

Key cable, connecting block, and cord conductor connections shown in Table A conform to key cable, connecting block, and cord conductor functional connection patterns established for 500-type key telephone sets.

KEYS ARE WIRED IN THE SHOP FOR USE WITH KEY TELEPHONE SYSTEM NO. 1A, REQUIRING BALANCE AND HOLD LEADS AS SHOWN IN FIG. 1, BELOW. CONNECTIONS MUST BE CHANGED FOR USE WITH KEY TELEPHONE SYSTEM NO. 1A1 REQUIRING AUXILIARY CONTROL LEADS AS SHOWN IN FIG. 2.

400 TYPE TELEPHONE SETS

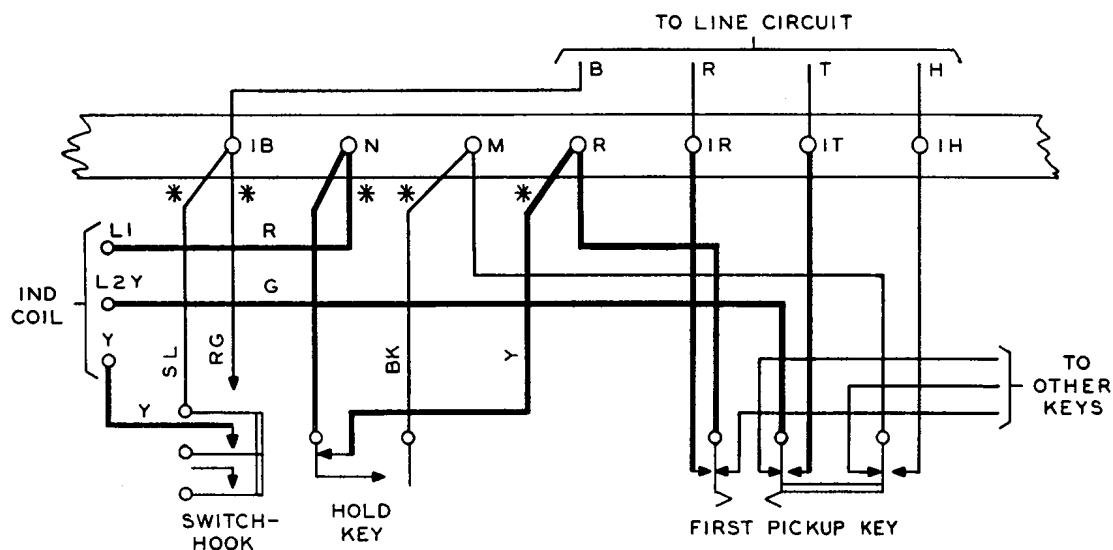


Fig. 1 - 1A System

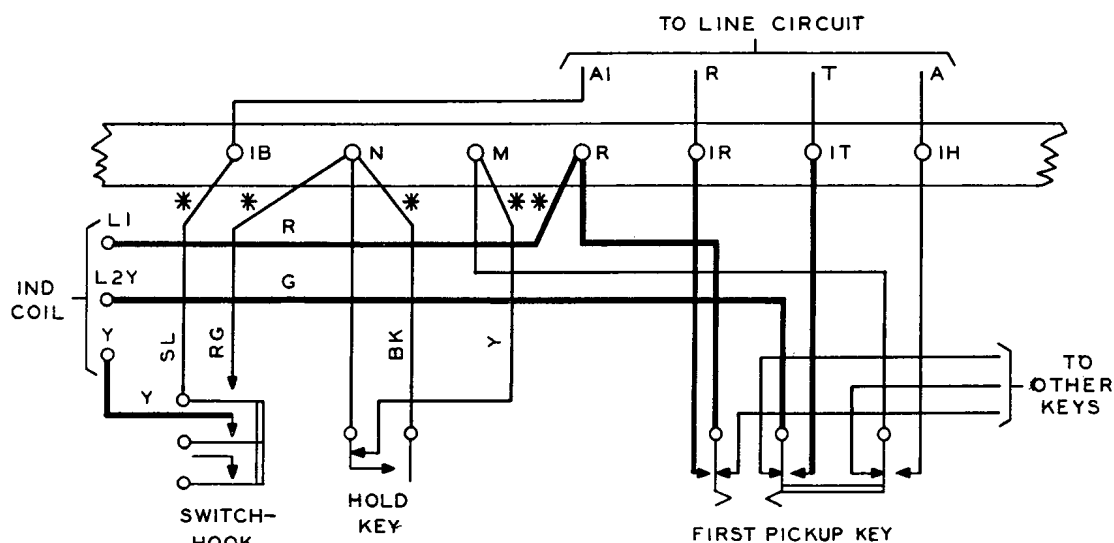
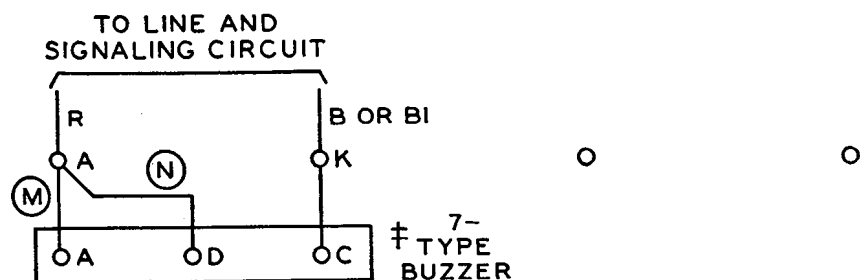
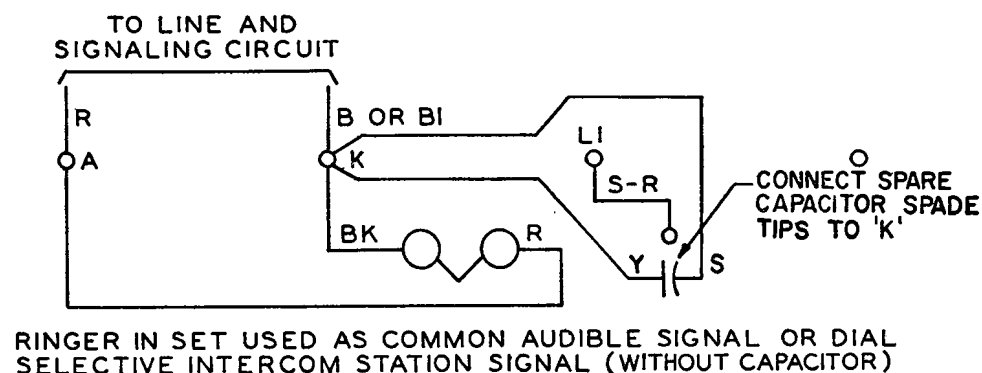
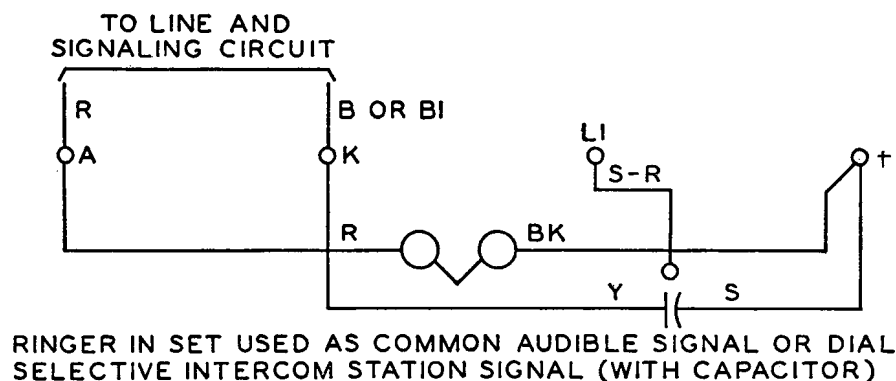
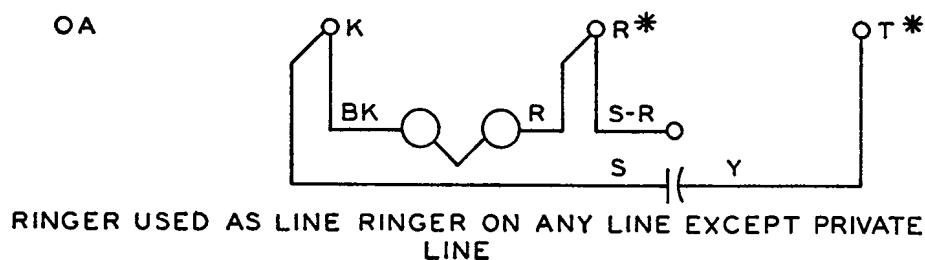


Fig. 2 - 1A1 System

CONVERSION TABLE

WIRES IN TEL SET	ONE END CONNECTED TO	SWITCH	LI	HOLD KEY	HOLD KEY
	COLOR	R-G	R	Y	BK
CONNECT TO TERMINALS IN SET	FOR KEY TELEPHONE SYSTEM NO. 1A	IB	N	R	M
	FOR KEY TELEPHONE SYSTEM NO. 1A1	N	R	M	N



*TERMINALS ARE DESIGNATED 1R AND 1T IF RINGER IS CONNECTED TO THE FIRST LINE, 2R AND 2T FOR THE SECOND LINE, ETC.

+ CONNECT AT SPARE TERMINAL OR BY MEANS OF A DC 161488 CONNECTOR.

‡ IF 152A CAPACITOR IS USED, CONNECT CAPACITOR LEADS TO BUZZER TERMINALS A AND D.

Fig. 3 — Ringer and Buzzer Connections

Lead Desig		Key Cable			44A Conn. Blk		Dial Sets	440EG		440FG		440GG		441EG		444EG		444FG		445EG		460GG		460HG		460MG	
		Pr No.	Inside Wiring				Manual Sets	440EE		440FE		440GE		441EE		444EE		444FE		445EE		460GE		460HE		460ME	
							Features*	HPPP		HPPS		HPPC		HPPP-E		HPPP-L		HPPS-L		HPPP-L-E		HPPPPP		HPPPPS		HPPPS	
			Fab. Cord Mod				D14A			D12A			D12A			D18C			D18C			D16B			D22B		
1A	1A1		C Type	D Type	Term.	No.	Vinyl Cord	D14G		D17A		D17A		D17A		D17A		D17A		D17A		D23C		D23C		D23C	
R T	R T	1	BL W	BL W	1 2	1‡	1R 1T	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G
B H	A1 A	2	O W	O W	4† 5		1B 1H	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK
R T	R T	3	G W	G W	6 7		2R 2T	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W
B H	A1 A	4	BR W	BR W	9 10		— 2H	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G
R T	R T	5	S W	S W	3 8		3R 3T	BR-Y BR-BK	BR-Y BR-BK						BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK			BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK
B H-S	A1 A-S	6	BL-W W	BL R	1 2	2	— 3H-S§	(BR-BL) BR-W	(BR-BL) BR-W	BR-W	BR-Y	BR-W	(BR-BL) BR-W	(BR-BL) BR-W	BR-W	R-G	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W
R T	R T	7	BL-O W	O R	4 5		4R 4T													R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y			
B H-S	A1 A-S	8	BL-G W	G R	6 7		— 4H-S§								R-BL					R-BL		(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	R-BK R-BL	R-G
R T	R T	9	BL-BR W	BR R	9 10		5R 5T														R-W G-Y	R-W G-Y	R-W G-Y		R-W G-Y		
B H-S	A1 A-S	10	BL-S W	S R	3 8		— 5H-S§								G-BL					G-BL		G-BK G-BL	(G-BK) G-BL	G-BK G-BL	R-W	G-BK G-BL	R-BK
GRD	GRD	11	O-W W	BL BK	1 2	3	G —			G-W	BR-BK	G-W		G-W				G-W	R-Y BR-BK	G-W		G-W		G-W	G-Y	G-W	R-Y R-BL
R1 B1	R1 B1	12	O-G W	O BK	4 5		A K¶	Y-BL Y-W	R-G R-Y	Y-BL Y-W	BR-BL BR-W	Y-BL Y-W	R-W G-Y	Y-BL Y-W	R-BK R-BL	Y-BL Y-W	G-W Y-BK	Y-BL Y-W	G-W Y-BK	Y-BL Y-W	G-W Y-BK	Y-BL Y-W	G-BK G-BL	Y-BL Y-W	R-W G-Y		
R T	R T	13	O-BR W	G BK	6 7		E1 E2							BK-BL BK-W	R-G R-Y					BK-BL BK-W	R-W G-Y						
B H	B A	14	O-S W	BR BK	9† 10		E3 E4							BL-W S	R-BK R-BL					BL-W S	G-BK G-BL						
R T	R T	15	G-W W	S BK	3 8		CR CT			S-R S-G		S-R S-G	BR-Y BR-BK	S-R S-G					S-R S-G		S-R S-G						
L LG	L LG	16	G-BR W	BL Y	1 2**	4	L1 LG			S-Y S-BK		S-Y S-BK		S-Y S-BK	R-Y R-G	S-Y S-BK	BR-BL BR-Y	S-Y S-BK	R-Y R-G								
L LG	L LG	17	G-S W	O Y	4 5**		L2 —			S-BL		S-BL		S-BL		S-BL	R-BK	S-BL	BR-W	S-BL	R-BK						
L LG	L LG	18	BR-W W	G Y	6 7**		L3 —							S-W		S-W	R-BL			S-W	R-BL						
L LG	L LG	19	BR-S W	BR Y	9 10**		L4 —																				
L LG	L LG	20	S-W W	S Y	3 8**		L5 —																				

Note 1: Italic indicates spare conductors.
Note 2: () Indicate conductors not terminated in set.
* P means pickup; S, signal; C, cutoff; E, extension; L, illuminated.
† When exclusion feature is required in 1A1 key telephone system, strap terminal 4 of connecting block 1 to terminal 9 of connecting block 3.
‡ Block nearest cord butt.

§ May be S, 1S, 2S, 3S, or 4S depending on number of signal buttons on a particular set.
¶ Where common ringer is not used, connect cord conductor to A.
** LG leads strap together.
References: SD-69096-01; SD-69128-01; SD-69129-01; SD-69187-01; SD-69188-01; SD-69206-01.

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							Manual Sets	464GE		464HE		464ME		465GE		465HE		465KE		465LE		465ME		465NE	
		Features*	HPPPPP-L				HPPPPS-L		HPPPPSS-L		HPPPPP-L-E		HPPPPS-L-E		HPPPPC-L-E		HPPPPSC-L-E		HPPPPSS-L-E		HPPSSS-L-E				
		Pr No.	Inside Wiring				Fab. Cord Mod																		
1A	1A1		C Type	D Type	Term.	No.	Vinyl Cord	D28C	D29A	D25B	D26B	D25B	D22B	D35A	D32A	D35A	D29A	D35A	D29A	D27A	D26B	D27A	D26B	D27A	D22B
R T	R T	1	BL W	BL W	1 2	1†	1R 1T	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	R G	
B H	A1 A	2	O W	O W	4† 5		1B 1H	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	Y BK	
R T	R T	3	G W	G W	6 7		2R 2T	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	BL W	
B H	A1 A	4	BR W	BR W	9 10		— 2H	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	(BR-R) BR-G	
R T	R T	5	S W	S W	3 8		3R 3T	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	BR-Y BR-BK	
B H-S	A1 A-S	6	BL-W W	BL R	1 2	2	— 3H-S§	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	(BR-BL) BR-W	BR-BL BR-W	BR-Y	
R T	R T	7	BL-O W	O R	4 5		4R 4T	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y	R-G R-Y						
B H-S	A1 A-S	8	BL-G W	G R	6 7		— 4H-S§	(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	R-BK R-BL	R-W	(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	(R-BK) R-BL	R-BL	R-G	R-BL	R-G	R-BL	BR-BL
R T	R T	9	BL-BR W	BR R	9 10		5R 5T	R-W G-Y	R-W G-Y					R-W G-Y	R-W G-Y	R-W G-Y		R-W G-Y							
B H-S	A1 A-S	10	BL-S W	S R	3 8		— 5H-S§	(G-BK) G-BL	(G-BK) G-BL	G-BL	R-W	G-BL	G-BK	(G-BK) G-BL	(G-BK) G-BL	G-BK G-BL	G-W	G-BK G-BL		G-BL		G-BL	R-BK	G-BL	BR-W
GRD	GRD	11	O-W W	BL BK	1 2	3	G —		Y-BK	G-W	G-Y G-BK	G-W	G-Y G-BL	G-W		G-W	Y-BK	G-W		G-W	R-Y	G-W	R-Y R-BL	G-W R-BL	
R1 B1	R1 B1	12	O-G W	O BK	4 5		A K¶	Y-BL Y-W	Y-BL Y-W	Y-BL Y-W	BK-W BL-W	Y-BL Y-W	G-W Y-BK	Y-BL Y-W	BK-W BL-W	Y-BL Y-W	Y-BL Y-W	Y-BL Y-W	Y-BL Y-W	Y-BL Y-W	Y-BL Y-W	Y-BL Y-W	Y-BL Y-W	G-W Y-BK	
R T	R T	13	O-BR W	G BK	6 7		E1- E2							BK-BL BK-W	G-W Y-BK	BK-BL BK-W	R-W G-Y	BK-BL BK-W	R-W G-Y	BK-BL BK-W	R-W G-Y	BK-BL BK-W	R-W G-Y	BK-BL BK-W	
B H	B A	14	O-S W	BR BK	9† 10		E3 E4							BL-W S	Y-BL Y-W	BL-W S	G-BK G-BL	BL-W S	G-BK G-BL	BL-W S	G-BK G-BL	BL-W S	G-BK G-BL	BL-W S	
R T	R T	15	G-W W	S BK	3 8		CR CT							S-R S-G		S-R S-G		S-R S-G	G-W Y-BK	S-R S-G	R-BK R-BL	S-R S-G		S-R S-G	
L LG	L LG	16	G-BR W	BL Y	1 2**	4	L1 LG	S-Y S-BK	BL-W BK-W	S-Y S-BK	Y-BK G-W	S-Y S-BK	R-Y R-G	S-Y S-BK	S BK-BL	S-Y S-BK	BL-W BK-W	S-Y S-BK	BL-W BK-W	S-Y S-BK	Y-BK G-W	S-Y S-BK	Y-BK G-W	S-Y S-BK	
L LG	L LG	17	G-S W	O Y	4 5**		L2 —	S-BL	BK-BL	S-BL	Y-BL	S-BL	R-BK	S-BL	BR-S	S-BL	BK-BL	S-BL	BK-BL	S-BL	Y-BL	S-BL	Y-BL	S-BL	
L LG	L LG	18	BR-W W	G Y	6 7**		L3 —	S-W	S	S-W	Y-W	S-W	R-BL	S-W	R-S	S-W	S	S-W	S	S-W	Y-W	S-W	Y-W	S-W	
L LG	L LG	19	BR-S W	BR Y	9 10**		L4 —	S-BR	BR-S	S-BR	G-BL	S-BR		S-BR	G-S	S-BR	BR-S	S-BR	BR-S						
L LG	L LG	20	S-W W	S Y	3 8**		L5 —	BR	G-W					BR	Y-S	BR		BR							

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