

6-BUTTON, ROTARY DIAL, KEY TELEPHONES

CIRCUIT LABELS

1. GENERAL

1.01 This document covers the 6-button, rotary dial, key telephones. (See Figure 1.) The circuit labels that are related to the various models of 6-button, rotary dial, key telephones and the associated features available in each are included in this document. (See Table A.)



AW 86-372

Figure 1: 6-Button, Rotary Dial, Key Telephone

1.02 This section is reissued to provide the latest issue of circuit labels for the following 6-button, rotary dial, key telephones:

- (a) Model 564, Types 40 and 41
- (b) Model 565, Types 40 and 41
- (c) Model 565, Type 42
- (d) Model 566, Types 40 and 41
- (e) Model 567, Types 40 and 41
- (f) Model 567, Type 42

Issue 2 of this section provided the circuit label for Model 565 Type 42 at issue 3 and for Model 557 Type 40 at issue 3.

1.03 For additional information on description and installation of the telephones, refer to Section 50-565-100. A replacement parts list and an exploded-view drawing for the telephones are contained in Section 50-565-101. Related documents of the ITT Telephone Apparatus Practices Manual provide information on components.

1.04 The Models 564/565, 566/567 key telephones are identified by a code number stamped in ink on the bottom of the base plate. Refer to Section 50-565-100 of the ITT Telephone Apparatus Practices Manual for ordering information of complete telephones and for an explanation of each code number.

1.05 The Models 564/565, 566/567 key telephones are 6-button, rotary dial, anti-sidetone type units that operate efficiently over a wide range of loop resistances and line impedances. They are designed to be used with key systems, such as the ITT 1A2 System, where several telephones have access to the same lines, CO trunks, or intercom lines.

1.06 The Model 564 Type 40 telephone is the standard 6-button, rotary dial, desk type, key telephone. The Model 565 Type 40 telephone is similar to the Model 564 Type 40 with the addition of an exclusion switch. The Model 566 Type 40 telephone is similar to the Model 564 Type 40 with the addition of the hookswitch restoration feature. The Model 567 Type 40 telephone is similar to the Model 565 Type 40 with the addition of the hookswitch restoration feature.

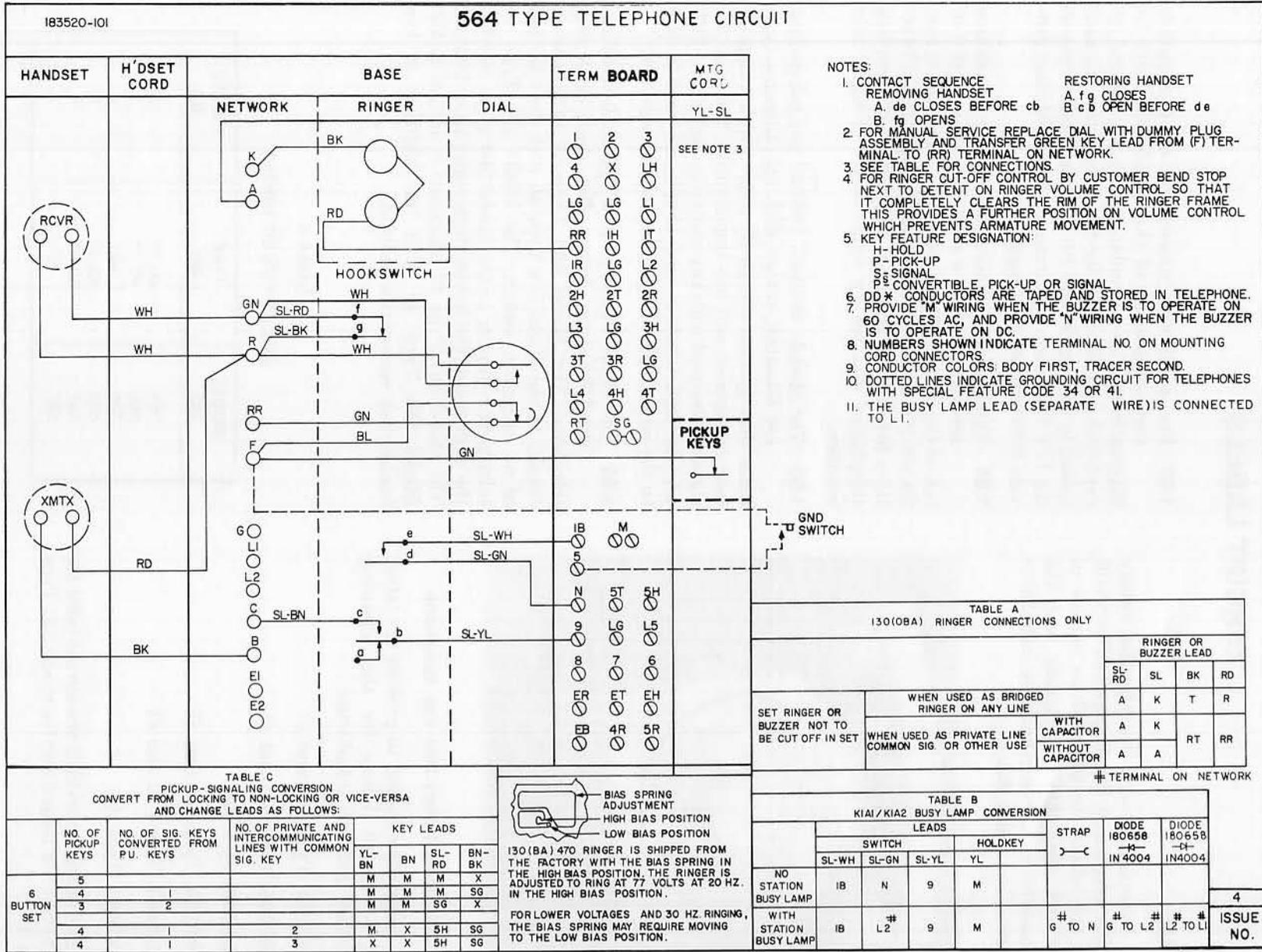
TABLE A
LIST OF CIRCUIT LABELS

MODEL NO	TYPE NO	FIGURE NO
564	40, 41	2
565	40, 41	3
565	42	4
566	40, 41	5
567	40, 41	6
567	42	7

AW 86-335

183520-101

564 TYPE TELEPHONE CIRCUIT



- NOTES:
- CONTACT SEQUENCE RESTORING HANDSET
 REMOVING HANDSET A. de CLOSES BEFORE cb B. fg OPENS
 A. fg CLOSES B. cb OPEN BEFORE de
 - FOR MANUAL SERVICE REPLACE DIAL WITH DUMMY PLUG ASSEMBLY AND TRANSFER GREEN KEY LEAD FROM (F) TERMINAL TO (RR) TERMINAL ON NETWORK.
 - SEE TABLE FOR CONNECTIONS.
 - FOR RINGER CUT-OFF CONTROL BY CUSTOMER BEND STOP NEXT TO DETENT ON RINGER VOLUME CONTROL SO THAT IT COMPLETELY CLEARS THE RIM OF THE RINGER FRAME THIS PROVIDES A FURTHER POSITION ON VOLUME CONTROL WHICH PREVENTS ARMATURE MOVEMENT.
 - KEY FEATURE DESIGNATION:
 H-HOLD
 P-PICK-UP
 S-SIGNAL
 PS-CONVERTIBLE, PICK-UP OR SIGNAL
 DD* CONDUCTORS ARE TAPED AND STORED IN TELEPHONE.
 - PROVIDE 'M' WIRING WHEN THE BUZZER IS TO OPERATE ON 60 CYCLES AC, AND PROVIDE 'N' WIRING WHEN THE BUZZER IS TO OPERATE ON DC.
 - NUMBERS SHOWN INDICATE TERMINAL NO. ON MOUNTING CORD CONNECTORS.
 - CONDUCTOR COLORS: BODY FIRST, TRACER SECOND.
 - DOTTED LINES INDICATE GROUNDING CIRCUIT FOR TELEPHONES WITH SPECIAL FEATURE CODE 34 OR 41.
 - THE BUSY LAMP LEAD (SEPARATE WIRE) IS CONNECTED TO L1.

TABLE A
130(OBA) RINGER CONNECTIONS ONLY

SET RINGER OR BUZZER NOT TO BE CUT OFF IN SET	WHEN USED AS BRIDGED RINGER ON ANY LINE				RINGER OR BUZZER LEAD			
	SL-RD	SL	BK	RD	SL-RD	SL	BK	RD
WHEN USED AS PRIVATE LINE COMMON SIG. OR OTHER USE	A	K	T	R	A	K	RT	RR
	A	A						

‡ TERMINAL ON NETWORK

TABLE C
PICKUP-SIGNALING CONVERSION
CONVERT FROM LOCKING TO NON-LOCKING OR VICE-VERSA AND CHANGE LEADS AS FOLLOWS:

	NO. OF PICKUP KEYS	NO. OF SIG. KEYS CONVERTED FROM P.U. KEYS	NO. OF PRIVATE AND INTERCOMMUNICATING LINES WITH COMMON SIG. KEY	KEY LEADS			
				YL-BN	BN	SL-RD	BN-BK
6 BUTTON SET	5			M	M	M	X
	4	1		M	M	M	SG
	3	2		M	M	SG	X
	4	1	2	M	X	5H	SG
4	1	3	X	X	5H	SG	

BIAS SPRING ADJUSTMENT
 HIGH BIAS POSITION
 LOW BIAS POSITION

130(BA) 470 RINGER IS SHIPPED FROM THE FACTORY WITH THE BIAS SPRING IN THE HIGH BIAS POSITION. THE RINGER IS ADJUSTED TO RING AT 77 VOLTS AT 20 HZ. IN THE HIGH BIAS POSITION.

FOR LOWER VOLTAGES AND 30 HZ. RINGING, THE BIAS SPRING MAY REQUIRE MOVING TO THE LOW BIAS POSITION.

TABLE B
K1A1/K1A2 BUSY LAMP CONVERSION

	LEADS				STRAP	D10DE 180658 -H- IN 4004	D10DE 180658 -H- IN 4004	ISSUE NO.
	SWITCH		HOLDKEY					
	SL-WH	SL-GN	SL-YL	YL				
NO STATION BUSY LAMP	IB	N	9	M			4	
WITH STATION BUSY LAMP	IB	# L2	9	M	# G TO N	# G TO L2	# L2 TO L1	

Figure 2: Circuit Label, Model 564 Types 40, 41 (Sheet 1 of 2)

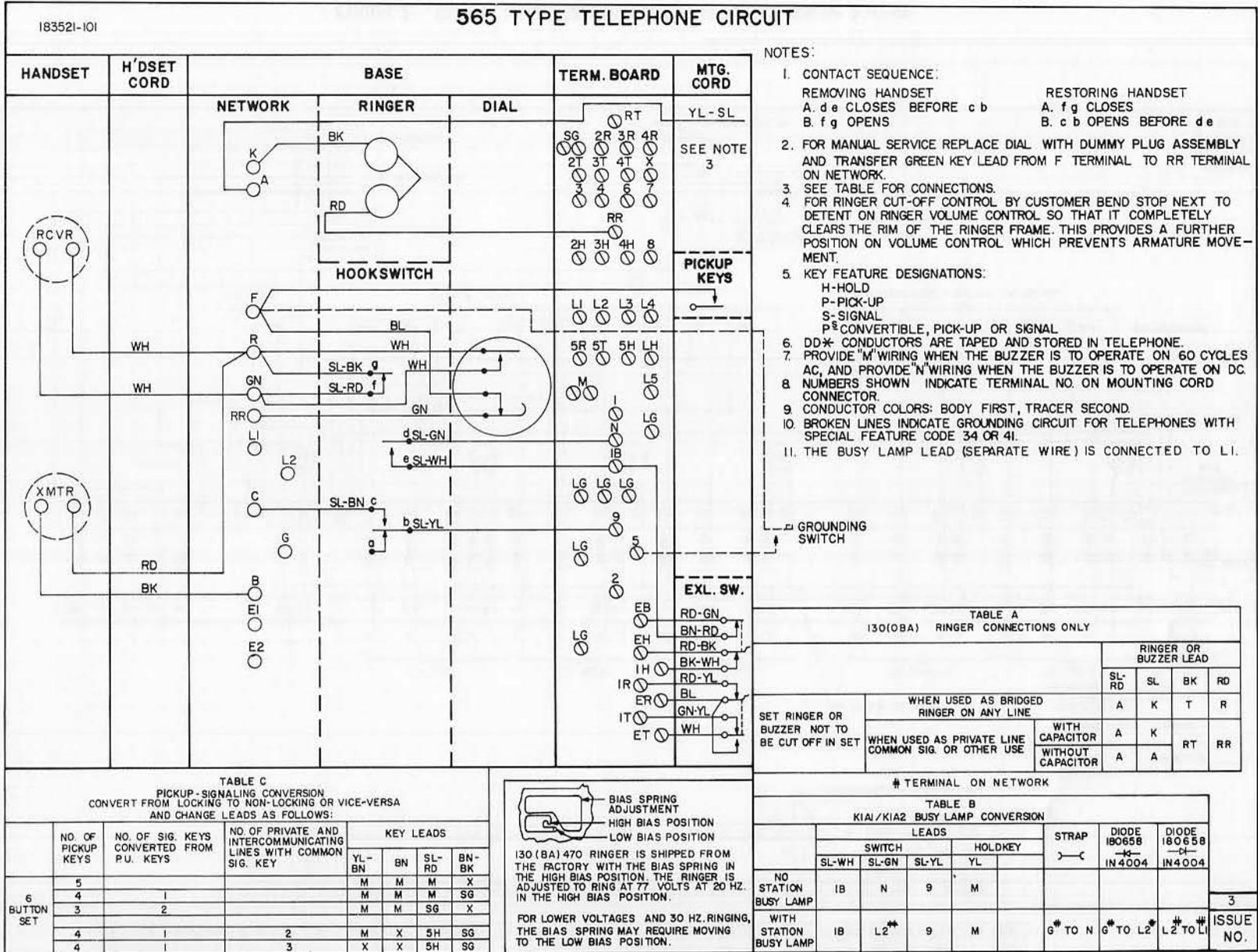


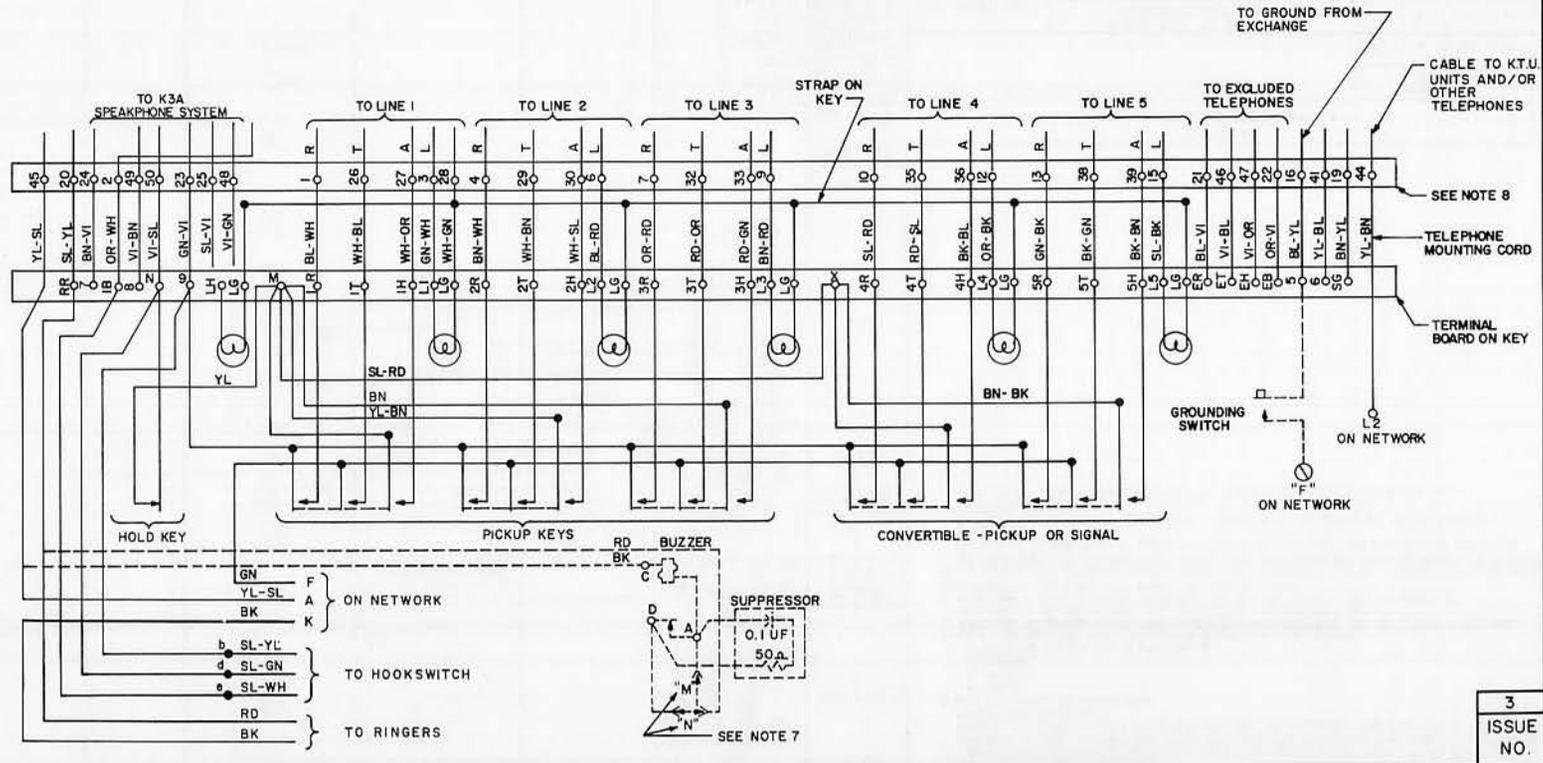
Figure 3: Circuit Label, Model 565 Types 40, 41 (Sheet 1 of 2)

565 TYPE TELEPHONE CIRCUIT

TEL CODE	KEY FEATURES 565***(BA) HPPP ⁵ P ⁵ P ⁵	COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 9)																								
		BL-WH	OR-WH	GN-WH	WH-BN	WH-SL	WH-BL	OR-RD	GN-RD	RD-BN	RD-SL	RD-BL	BK-BL	BK-BK	OR-BK	GN-BK										
		IR	IT	IB	IH	LI	LG	2R	2T	DD*	2H	L2	LG	3R	3T	DD*	3H	L3	LG	4R	4T	DD*	4H	L4	LG	5R

COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 9)																								
BK-GN	BN-BK	BK-BN	SL-BK		BL-VI	VI-OR	VI-OR				BN-VI	VI-BN	GN-VI	VI-GN	YL-BN	SL-VI	VI-SL	BN-YL	SL-YL	YL-BL	YL-BL			
5 T	DD*	5 H	L5	LG	ER	ET	EB	EH	LH	LG	3	4	7	8	9	RR	L2	LI	N	SG	RR	A	5	6

TERMINAL ON NETWORK

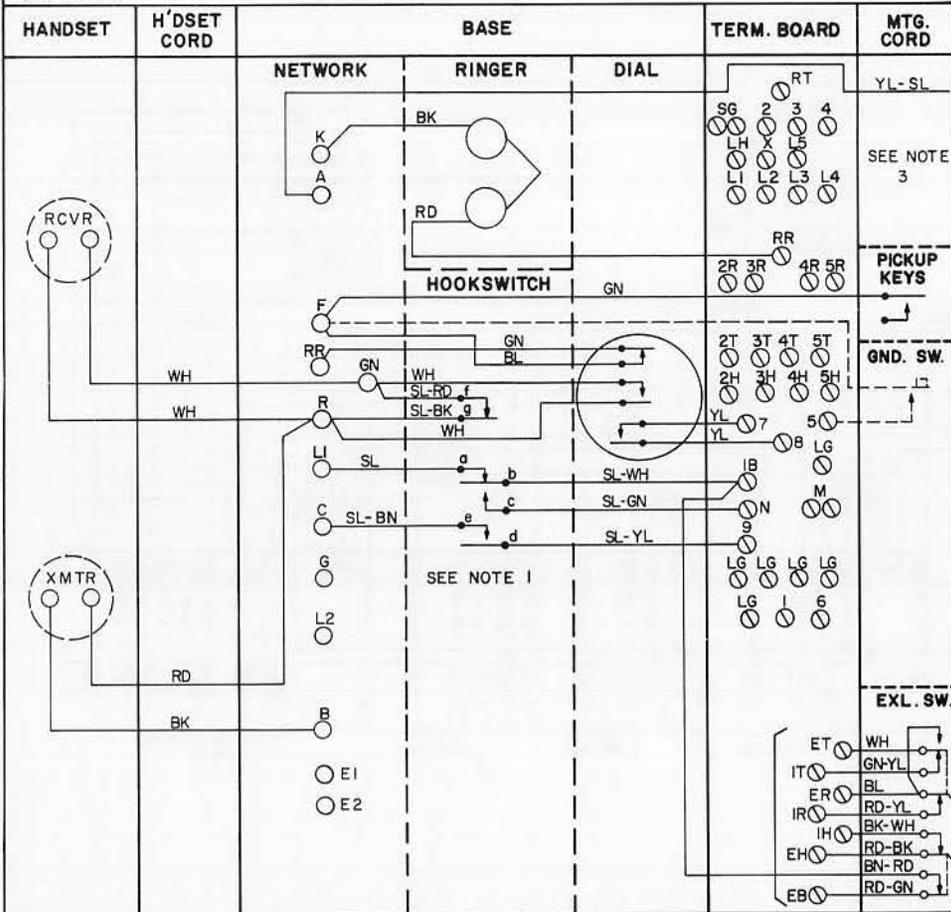


3
ISSUE NO.

Figure 3: Circuit Label, Model 565 Types 40, 41 (Sheet 2 of 2)

565** () 42 / 46 TYPE TELEPHONE CIRCUIT

183522-101



- NOTES:
- CONTACT SEQUENCE:
REMOVING HANDSET RESTORING HANDSET
A. cb CLOSES BEFORE de A. fg CLOSES BEFORE ab
B. ab OPENS BEFORE fg B. de OPENS BEFORE cb
 - FOR MANUAL SERVICE REPLACE DIAL WITH DUMMY PLUG ASSEMBLY AND TRANSFER GREEN KEY LEAD FROM (F) TERMINAL TO (RR) TERMINAL ON NETWORK.
 - SEE TABLE FOR CONNECTION.
 - FOR RINGER CUT-OFF CONTROL BY CUSTOMER, BEND STOP NEXT TO DETENT ON RINGER VOLUME CONTROL SO THAT IT COMPLETELY CLEARS THE RIM OF THE RINGER FRAME. THIS PROVIDES A FURTHER POSITION ON VOLUME CONTROL WHICH PREVENTS ARMATURE MOVEMENT.
 - KEY FEATURE DESIGNATIONS:
H- HOLD
P- PICK-UP
S- SIGNAL
P¹ CONVERTIBLE, PICK-UP OR SIGNAL
 - DD* CONDUCTORS ARE TAPED AND STORED IN TELEPHONE.
 - PROVIDE "M" WIRING WHEN THE BUZZER IS TO OPERATE ON 60 CYCLES AC, AND PROVIDE "N" WIRING WHEN THE BUZZER IS TO OPERATE ON DC.
 - NUMBERS SHOWN INDICATE TERMINAL NO. ON MOUNTING CORD CONNECTOR.
 - CONDUCTOR COLORS: BODY FIRST, TRACER SECOND.
 - EXCLUSION AND SPEAKERPHONE LEADS NOT ASSOCIATED WITH THESE FEATURES MUST BE DISCONNECTED, INDIVIDUALLY TAPED AND STORED WHEN TWO OR MORE TELEPHONE SETS ARE CONNECTED IN MULTIPLE THROUGH CONNECTING BLOCKS OR BRIDGING ADAPTERS.
 - BROKEN LINES INDICATE GROUNDING CIRCUIT FOR TELEPHONES WITH SPECIAL FEATURE CODE 46.
 - THE BUSY LAMP LEAD (SEPARATE WIRE) IS CONNECTED TO L1.

TABLE A
130(OBA) RINGER CONNECTIONS ONLY

	RINGER OR BUZZER LEAD			
	SL-RD	SL	BK	RD
SET RINGER OR BUZZER NOT TO BE CUT OFF IN SET	WHEN USED AS BRIDGED RINGER ON ANY LINE			
	A	K	T	R
	WHEN USED AS PRIVATE LINE COMMON SIG. OR OTHER USE			
	WITH CAPACITOR		WITHOUT CAPACITOR	
	A	A	RT	RR

TABLE C
PICKUP-SIGNALING CONVERSION
CONVERT FROM LOCKING TO NON-LOCKING OR VICE-VERSA AND CHANGE LEADS AS FOLLOWS:

	NO. OF PICKUP KEYS	NO. OF SIG. KEYS CONVERTED FROM P.U. KEYS	NO. OF PRIVATE AND INTERCOMMUNICATING LINES WITH COMMON SIG. KEY	KEY LEADS			
				YL-BN	BN	SL-RD	BN-BK
6 BUTTON SET	5			M	M	M	X
	4	1		M	M	M	SG
	3	2		M	M	SG	X
	4	1	2	M	X	5H	SG
	4	1	3	X	X	5H	SG

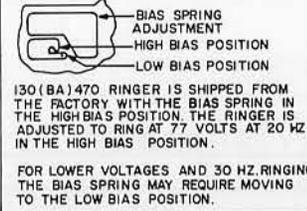


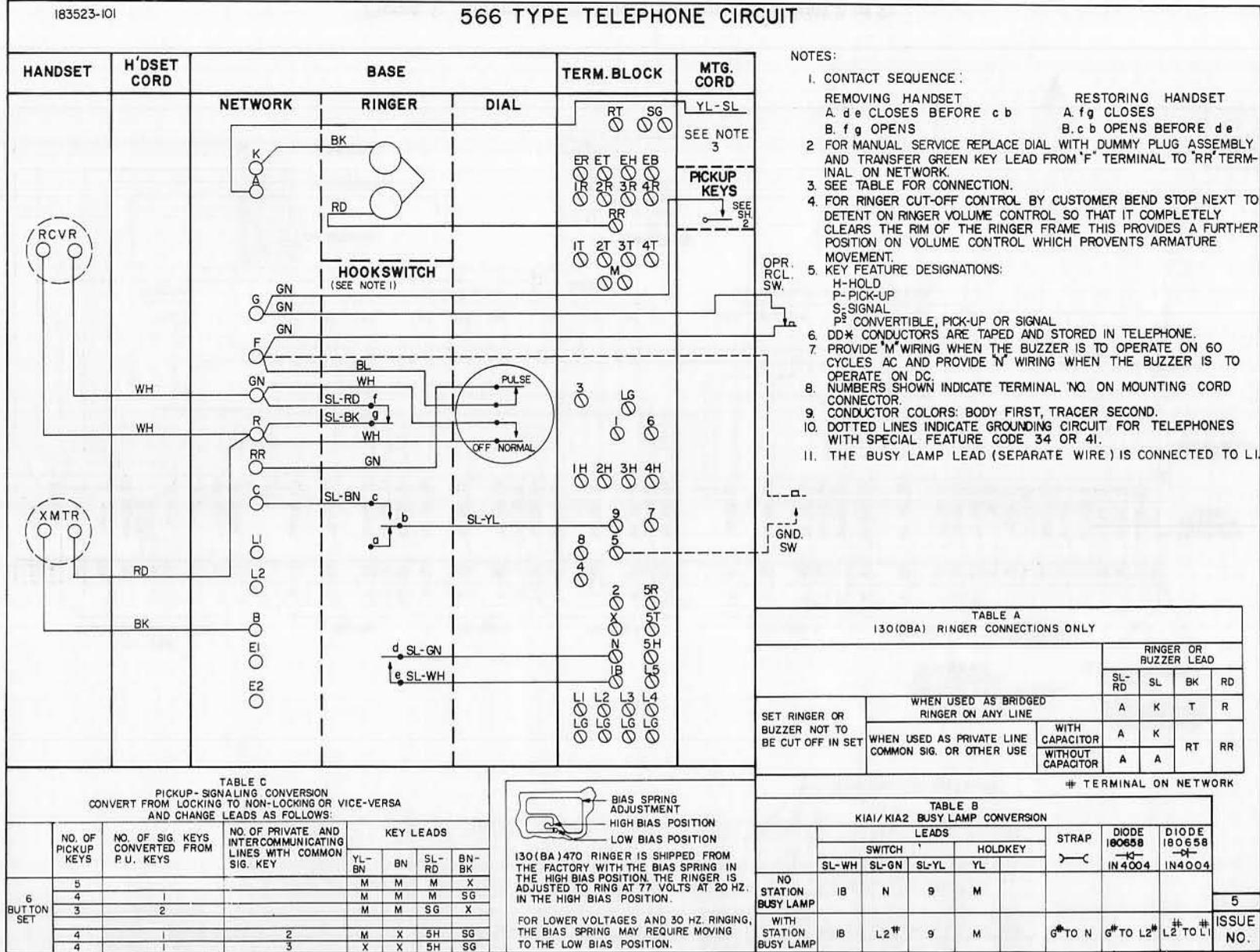
TABLE B
KIAI/KIA2 BUSY LAMP CONVERSION

	LEADS				STRAP —C—	DIODE 180658 —H— IN4004	DIODE 180658 —H— IN4004	ISSUE NO.
	SWITCH		HOLDKEY					
	SL-WH	SL-GN	SL-YL	YL				
NO STATION BUSY LAMP	IB	N	9	M			4	
WITH STATION BUSY LAMP	IB	#	9	M	# # G TO N	# # G TO L2	# # L2 TO L1	

Figure 4: Circuit Label, Model 565 Type 42 (Sheet 1 of 2)

183523-101

566 TYPE TELEPHONE CIRCUIT



- NOTES:
- CONTACT SEQUENCE:
 - REMOVING HANDSET A. d e CLOSES BEFORE c b
 - RESTORING HANDSET A. f g CLOSES
 - B. f g OPENS
 - B. c b OPENS BEFORE d e
 - FOR MANUAL SERVICE REPLACE DIAL WITH DUMMY PLUG ASSEMBLY AND TRANSFER GREEN KEY LEAD FROM 'F' TERMINAL TO 'RR' TERMINAL ON NETWORK.
 - SEE TABLE FOR CONNECTION.
 - FOR RINGER CUT-OFF CONTROL BY CUSTOMER BEND STOP NEXT TO DETENT ON RINGER VOLUME CONTROL SO THAT IT COMPLETELY CLEARS THE RIM OF THE RINGER FRAME THIS PROVIDES A FURTHER POSITION ON VOLUME CONTROL WHICH PREVENTS ARMATURE MOVEMENT.
 - KEY FEATURE DESIGNATIONS:
 - H-HOLD
 - P-PICK-UP
 - S₁SIGNAL
 - S₂ CONVERTIBLE, PICK-UP OR SIGNAL
 - DD* CONDUCTORS ARE TAPED AND STORED IN TELEPHONE.
 - PROVIDE 'M' WIRING WHEN THE BUZZER IS TO OPERATE ON 60 CYCLES AC AND PROVIDE 'N' WIRING WHEN THE BUZZER IS TO OPERATE ON DC.
 - NUMBERS SHOWN INDICATE TERMINAL NO. ON MOUNTING CORD CONNECTOR.
 - CONDUCTOR COLORS: BODY FIRST, TRACER SECOND.
 - DOTTED LINES INDICATE GROUNDING CIRCUIT FOR TELEPHONES WITH SPECIAL FEATURE CODE 34 OR 41.
 - THE BUSY LAMP LEAD (SEPARATE WIRE) IS CONNECTED TO L1

TABLE A
130(OBA) RINGER CONNECTIONS ONLY

SET RINGER OR BUZZER NOT TO BE CUT OFF IN SET	WHEN USED AS BRIDGED RINGER ON ANY LINE		RINGER OR BUZZER LEAD				
	WHEN USED AS PRIVATE LINE COMMON SIG. OR OTHER USE	WITH CAPACITOR	WITHOUT CAPACITOR	SL-RD	SL	BK	RD
		A	K	T	R		
		A	K		RT	RR	

TERMINAL ON NETWORK

TABLE C
PICKUP-SIGNALING CONVERSION
CONVERT FROM LOCKING TO NON-LOCKING OR VICE-VERSA
AND CHANGE LEADS AS FOLLOWS:

6 BUTTON SET	NO. OF PICKUP KEYS	NO. OF SIG KEYS CONVERTED FROM P. U. KEYS	NO. OF PRIVATE AND INTERCOMMUNICATING LINES WITH COMMON SIG. KEY	KEY LEADS			
				YL-BN	BN	SL-RD	BN-BK
	5			M	M	M	X
	4	1		M	M	M	SG
	3	2		M	M	SG	X
	4	1	2	M	X	5H	SG
	4	1	3	X	X	5H	SG

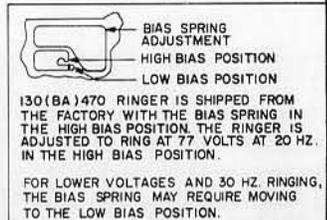


TABLE B
K1A1/K1A2 BUSY LAMP CONVERSION

	LEADS				STRAP	DIODE 180658 IN 4004	DIODE 180658 IN 4004	ISSUE NO.
	SWITCH		HOLDKEY					
	SL-WH	SL-GN	SL-YL	YL				
NO STATION BUSY LAMP	IB	N	9	M			5	
WITH STATION BUSY LAMP	IB	L2#	9	M	G# TO N	G# TO L2#	# L2 TO L1	

Figure 5: Circuit Label, Model 566 Types 40, 41 (Sheet 1 of 2)

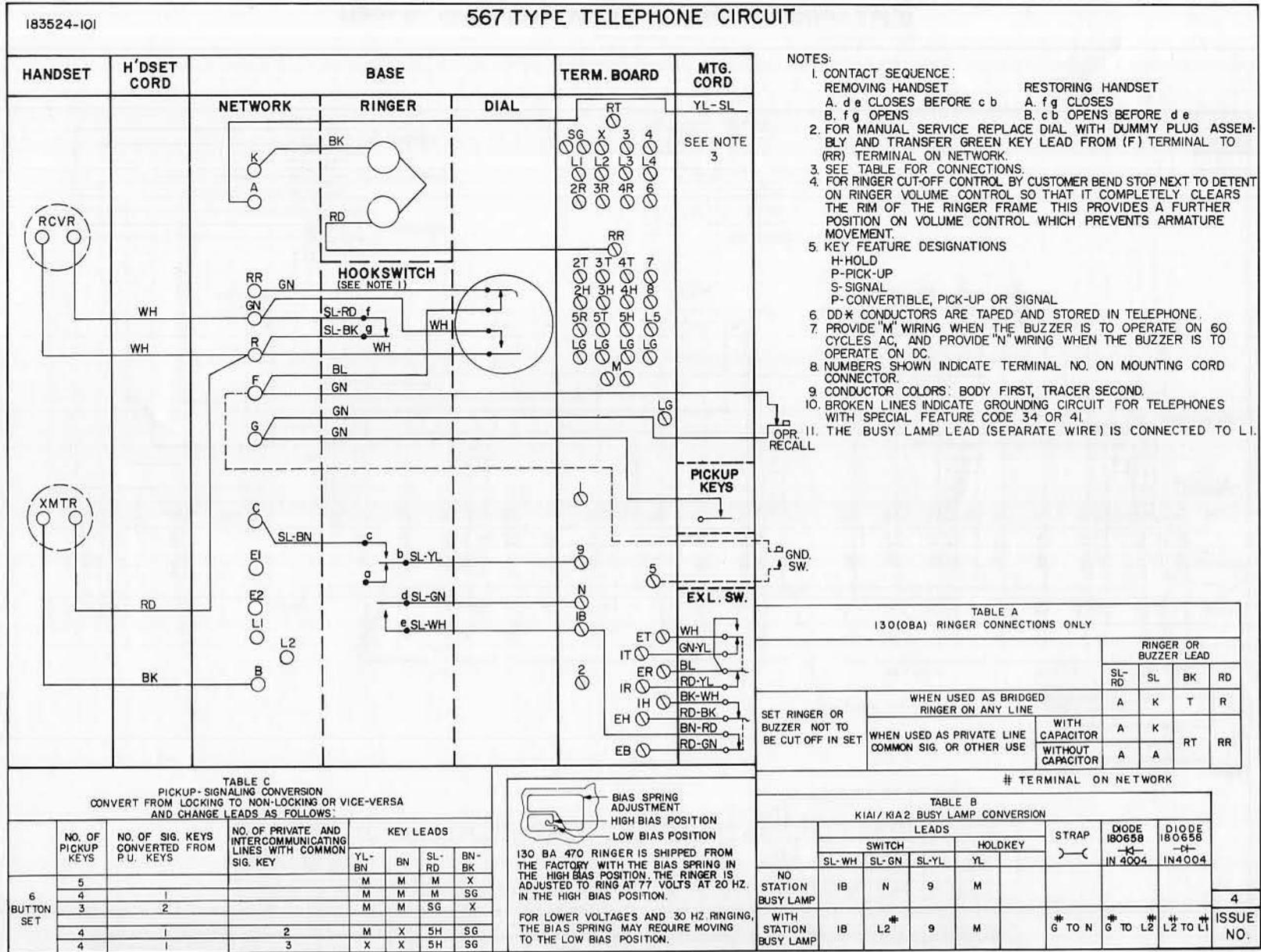


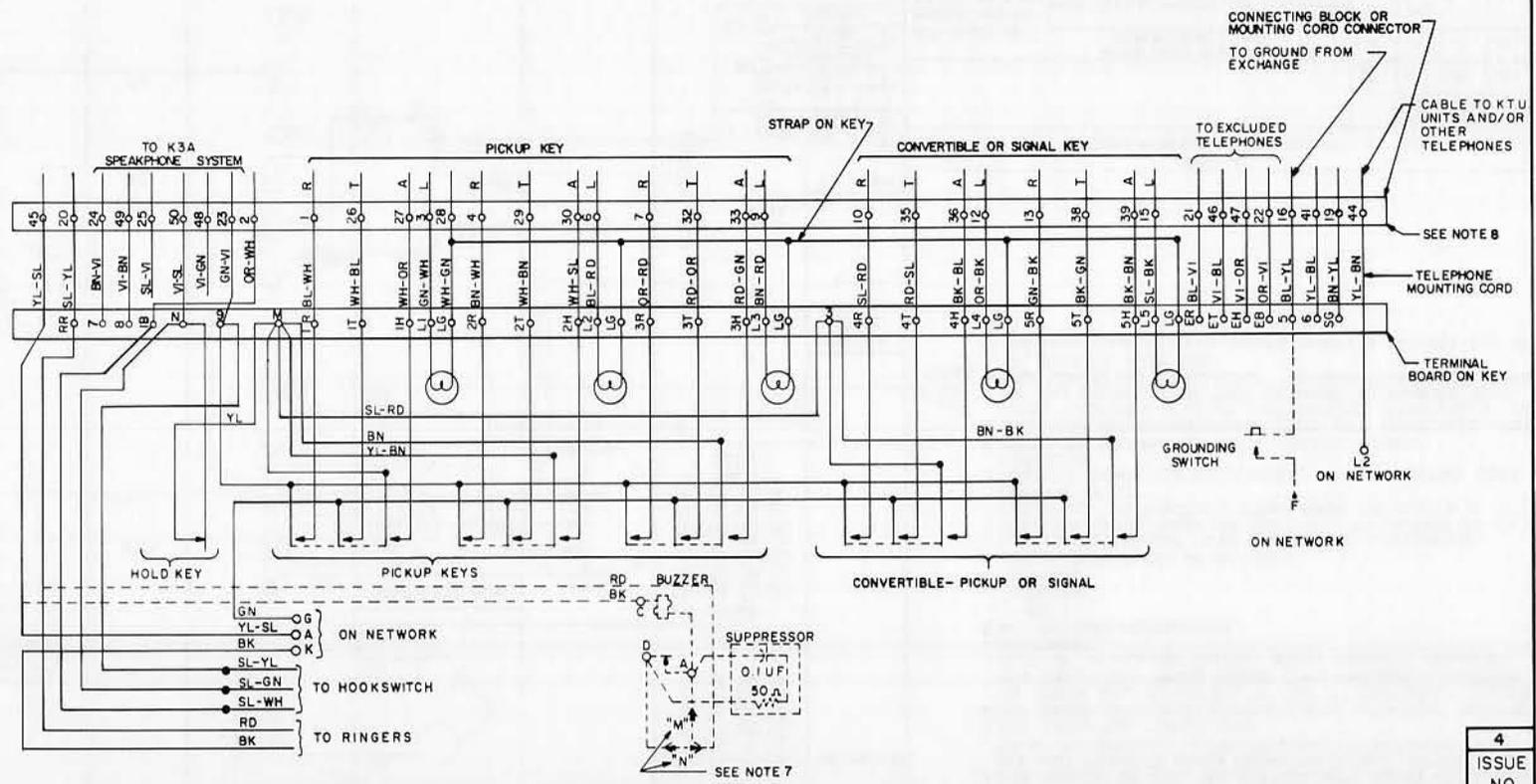
Figure 6: Circuit Label, Model 567 Types 40, 41 (Sheet 1 of 2)

567 TYPE TELEPHONE CIRCUIT

TEL CODE	KEY FEATURES 567 *X(BA) HPPP ⁵ P ⁵	COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 9)																								
		BL-WH	WH-BL	OR-WH	WH-OR	GN-WH	WH-GN	BN-WH	WH-BN	SL-WH	WH-SL	WH-BL	BL-WH	OR-RD	RD-OR	GN-RD	RD-GN	BN-RD	RD-BN	SL-RD	RD-SL	BL-BK	BK-BL	OR-BK	GN-BK	
		IR	IT	IB	IH	LI	LG	2R	2T	DDX	2H	L2	L6	3R	3T	DDX	3H	L3	L6	4R	4T	DDX	4H	L4	LG	5R

COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 9)																								
BK-GN	BN-BK	BK-BN	SL-BK	BL-VI	VI-BL	OR-VI	VI-OR	BN-VI	VI-BN	GN-VI	VI-GN	YL-BN	SL-VI	VI-SL	BN-YL	SL-YL	YL-BL	YL-BL	YL-BL					
5T	DDX	5H	L5	LG	ER	ET	EB	EH	LH	LG	3	4	7	8	9	RR	L2	LI	N	SG	RR	A	5	6

TERMINAL ON NETWORK



4
ISSUE
NO

Figure 6: Circuit Label, Model 567 Types 40, 41 (Sheet 2 of 2)

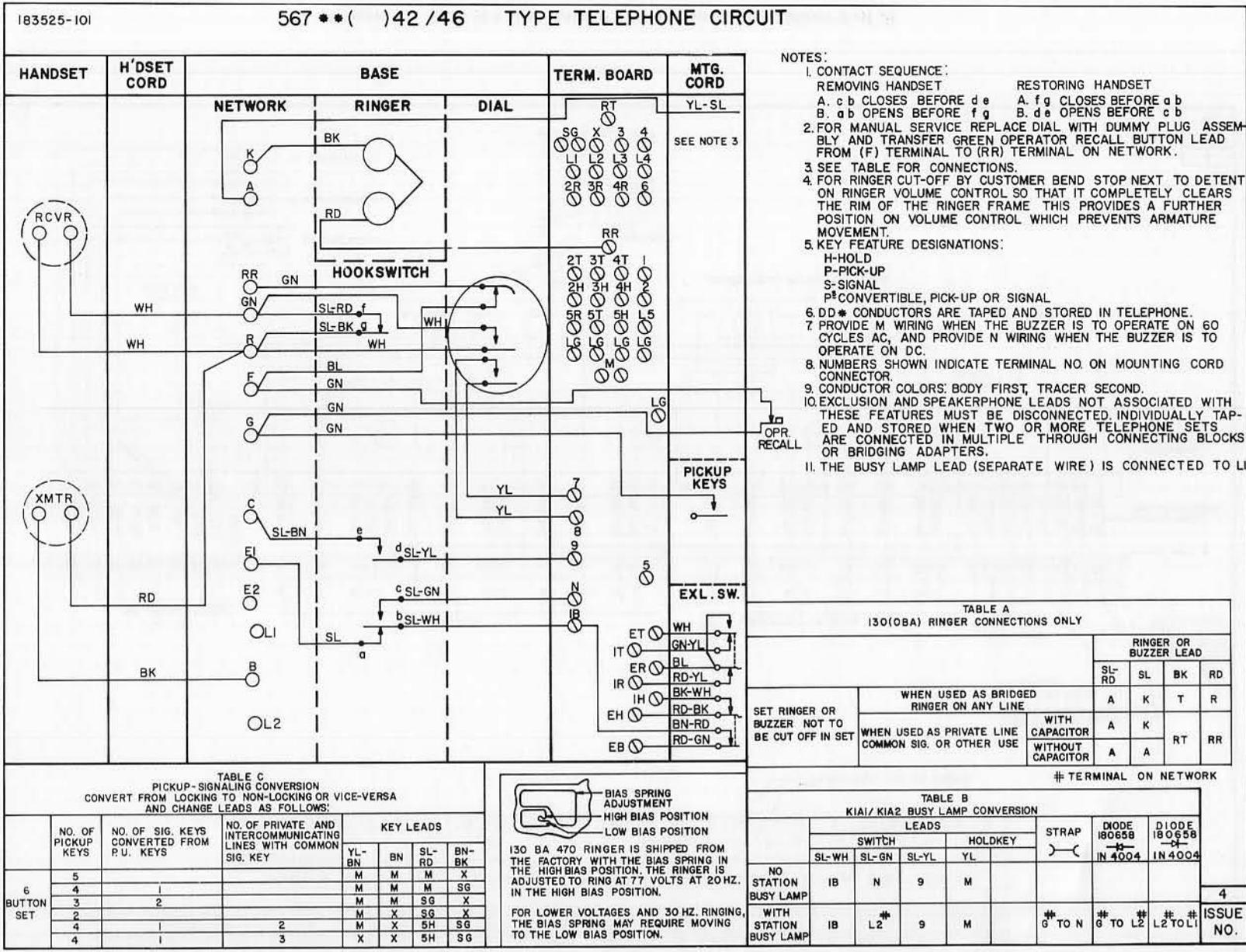


Figure 7: Circuit Label, Model 567 Type 42 (Sheet 1 of 2)

TEL CODE	KEY FEATURES	COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 9)																								
		BL-WH	WH-BL	OR-WH	WH-OR	GN-WH	WH-GN	BN-WH	WH-BN	SL-WH	WH-SL	BL-RD	RD-BL	OR-RD	RD-OR	GN-RD	RD-GN	BN-RD	RD-BN	SL-RD	RD-SL	BL-BK	BK-BL	OR-BK	BK-OR	GN-BK
567**	SEE NOTE 5	IR	IT	IB	IH	LI	LG	2R	2T	DD*	2H	L2	LG	3R	3T	DD*	3H	L3	LG	4R	4T	DD*	4H	L4	LG	5R
42/46	HPPP ⁵ P ⁵ P ⁵																									

COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 9)																												
BK-GN	GN-BK	BK-BN	BN-BK	SL-BK	BK-SL	BL-VI	VI-BL	OR-VI	VI-OR	GN-YL	YL-GN			BN-VI	VI-BN	GN-VI	VI-GN	YL-BN	BN-YL	VI-SL	SL-VI	BN-YL	YL-BN	SL-YL	YL-SL	BL-YL	YL-BL	
5T	DD*	5H	L5	LG	ER	ET	EB	EH	DD*	DD*	3	4	7	8	9	RR	L2	LI	N	SG	RR	A	5	6				

TERMINALS ON NETWORK

CONNECTING BLOCK OR MOUNTING CORD CONNECTOR (NOTE 8)

TAPE & STORE

CABLE TO KTU AND/OR OTHER TELEPHONES

STRAP ON KEY

TO LINE 4

TO LINE 5

TO EXCLUDED TELEPHONES

TO K34 SPEAKPHONE SYSTEM

TO LINE 1

TO LINE 2

TO LINE 3

TELEPHONE MOUNTING CORD

TERMINAL BOARD ON KEY

ON NETWORK

CONVERTIBLE - PICKUP OR SIGNAL

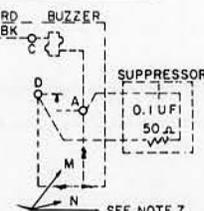
HOLD KEY

PICKUP KEYS

ON NETWORK

TO HOOKSWITCH

TO RINGERS



4
ISSUE
NO

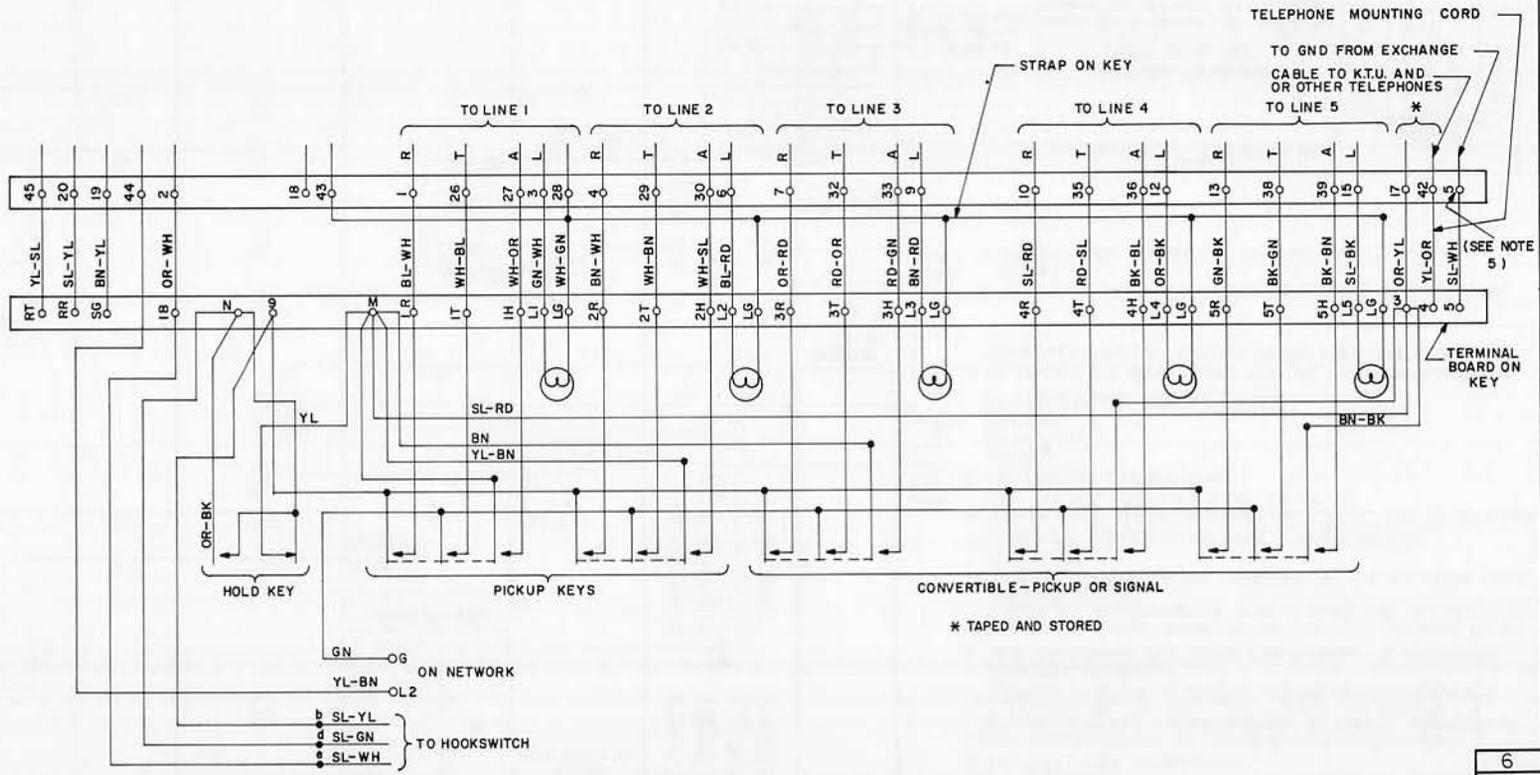
Figure 7: Circuit Label, Model 567 Type 42 (Sheet 2 of 2)

2566 (LR) 40T TYPE TELEPHONE CIRCUIT

TEL CODE	KEY FEATURES	COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 6)																											
		BL-WH	OR-WH	GN-WH	BN-WH	WH-BL	OR-RD	GN-RD	BN-RD	SL-RD	RD-SL	BL-BK	OR-BK	GN-BK	WH-BL	OR-RD	GN-RD	BN-RD	SL-RD	RD-SL	BL-BK	OR-BK	GN-BK						
2566 CL (LR) 40T	SEE NOTE 3 HPPPSPSPS	1R	1T	1B	1H	1L	1G	2R	2T	2H	2L	2G	3R	3T	DD*	3H	3L	3G	4R	4T	DD*	4H	4L	4G	5R	5T	5H	5L	5G

COLOR OF MOUNTING CORD CONDUCTORS TO TERMINALS ON KEY AND LAMP TERMINAL STRIP (NOTE 6)																													
BK-BN	GN-BK	BN-BK	SL-BK							GN-YL	YL-GN					YL-BN			BN-YL	SL-YL	YL-SL	SL-WH							
5T	DD*	5H	L5	LG	ER	ET	EB	EH	LH	LG	3	4	7	8	9	RR	L2	L1	N	SG	RR	RT	5						

TERMINAL ON NETWORK



6
ISSUE
NO.

Figure 9: Circuit Label, Model 2566 Type 40T (Sheet 2 of 2)