SHEET INDEX

CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER
		-24	(FUSE PROVIDED ON ASSOC KSU OR PANEL CKT)

BATTERY SYMBOL	VOLTAGE RANGE
-24	20-26

102.

FEATURE OR OPTION SEE NOTE 303		PROVIDE APP FIG.	PROVIDE APP OR WRG	PROVIDE QUANTITY
BASIC CO OR PBX LINE CIRCUIT		1		1 PER LINE
TIMEOUT OF INCOMING CALL SIGNALS	LONG		M	
	SHORT		Z	
VISUAL HOLD CIRCUIT	LAMP WINK		Y	
	LAMP STEADY		X	
AUDIBLE SIGNAL	STEADY RING		T	
	INTERRUPTED RING		W	
	COMMON WITH RELAY CONTROL		V	
HOLD CIRCUIT RELEASE	ALL C.O. OR PBX LINES ASSOC. WITH ESS OR MODIFIED (PERM SIGNAL TRKS) NO. 5XBAR OFFICES		K	
	ALL OTHER LINES		R	
UNIT CONNECTS TO 50A TYPE STATION			N	

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT STD	USE IN CIRCUIT A&M	USE IN CIRCUIT MD

CIRCUIT NOTES: (CONT)

104. TOTAL LOOP RESISTANCE OF THE A LEAD TO THE B GROUND THROUGH THE A1 LEAD SHALL NOT EXCEED 50Ω.

105. STATION LAMP LOOP SHALL NOT EXCEED 50Ω.

106. A MAXIMUM OF 20 STATION LAMPS MAY BE CONNECTED TO THE L LEAD.

107. IF LONG TIME OUT DELAY IS REQUIRED, MOVE OPTION Z PLUG FROM OPTION PINS B2 AND B3 TO PINS B1 AND B2.

108. OPTION R CAN BE PROVIDED (WHEN SHORT HOLD CIRCUIT RELEASE INTERVAL IS REQUIRED) BY MOVING THE R OPTION PLUG FROM PINS E1 AND E2 TO PINS E2 AND E3.

109. OPTION R SHOULD NOT BE PROVIDED WHEN OPTION N IS REQUIRED. THEREFORE, TO PROVIDE OPTION N, MOVE THE OPTION R PLUG FROM TERMINALS E1 AND E2 OR E2 AND E3 TO TERMINALS D1 AND D2.

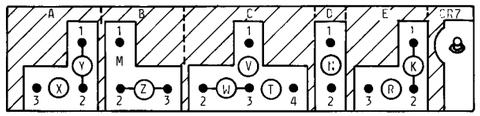
110. COMPONENT DAMAGE CAN RESULT IF OPTION N IS PROVIDED WHEN RINGING VOLTAGE IS CONNECTED THROUGH TERMINAL 10.

INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS,
CAPACITANCE VALUES ARE IN MICROFARADS,
VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS) ARE IN VOLTS.

302. THE 400G KTU SHALL BE USED WITH THE 235A AND 236A STATION LINE CONCENTRATORS ONLY WHEN THE CONCENTRATORS HAVE BEEN MODIFIED AS SHOWN ON THE APPLICABLE ISSUES OF SD-69387-01, SD-69498-01, AND SD-69499-01.

303 THE FOLLOWING FIGURE REPRESENTS A TOP VIEW OF THE OPTION BLOCK-HANDLE ASSEMBLY. THE OPTION SYMBOLS THAT ARE SHOWN CONNECTED TO TERMINALS INDICATE FACTORY PROVIDED OPTIONS.



OPTION	CONNECT OPTION PLUG TO TERMINALS	FACTORY PROVIDED
Z	B2-B3	✓
Y	A1-A2	✓
X	A2-A3	
T	C3-C4	
W	C2-C3	✓
V	C1-C3	
R	E2-E3	
N **	D1-D2	
M	B1-B2	
K	E1-E2	✓

** AN OPTION PLUG IS NOT PROVIDED FOR THIS POSITION; USE THE OPTION PLUG NORMALLY USED TO PROVIDE OPTION R.

SUPPORTING INFORMATION

CATEGORY	NO.

OPTION INDEX

APP OR WRG	RATED ON ISSUE	REF NOTES	LOCATION
Z	STD1		2C3
Y	STD1		2D5
X	STD1		2D5
W	STD1		2C5
V	STD1		2C5
T	STD1		2C5
R	STD1		2C4
N	STD1		2C4
M	STD1		2D3
K	STD1		2C4

WORKING LIMITS:

RINGING RANGES

APP FIG.	MINIMUM RINGING VOLTAGE (RMS)	MINIMUM LEAKAGE RESISTANCE	MAXIMUM NO. OF RINGERS 0	1	2	3
			MAXIMUM RINGING RANGE (OHMS)			
1	72V	10K	3100	2000	1475	1150
	80V	10K	4000	2550	1900	1500
	84V	10K	4500	3000	2125	1625
	84V	20K	5850	3500	2500	1800

DWG ISSUE	EE OR CD ISSUED	DATE ISSUE	DRAWN	APPD
1	1	8-21-75	AHS	WPS
			SHD	OFG
				JS
2A	1 APPX 1A	3-26-76	OL	PPD
				OFG
				JS
3B	1 APPX 2B	1-17-77	RT	PPD
			GF	OFG
				JS

ISSUE

1K03

STATION SYSTEMS

KEY TELEPHONE SYSTEM NO. 1A2
CO OR PBX LINE CIRCUIT

400G KTU

AT&TCO STANDARD

SD-69651-01-1

2 SHEETS

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

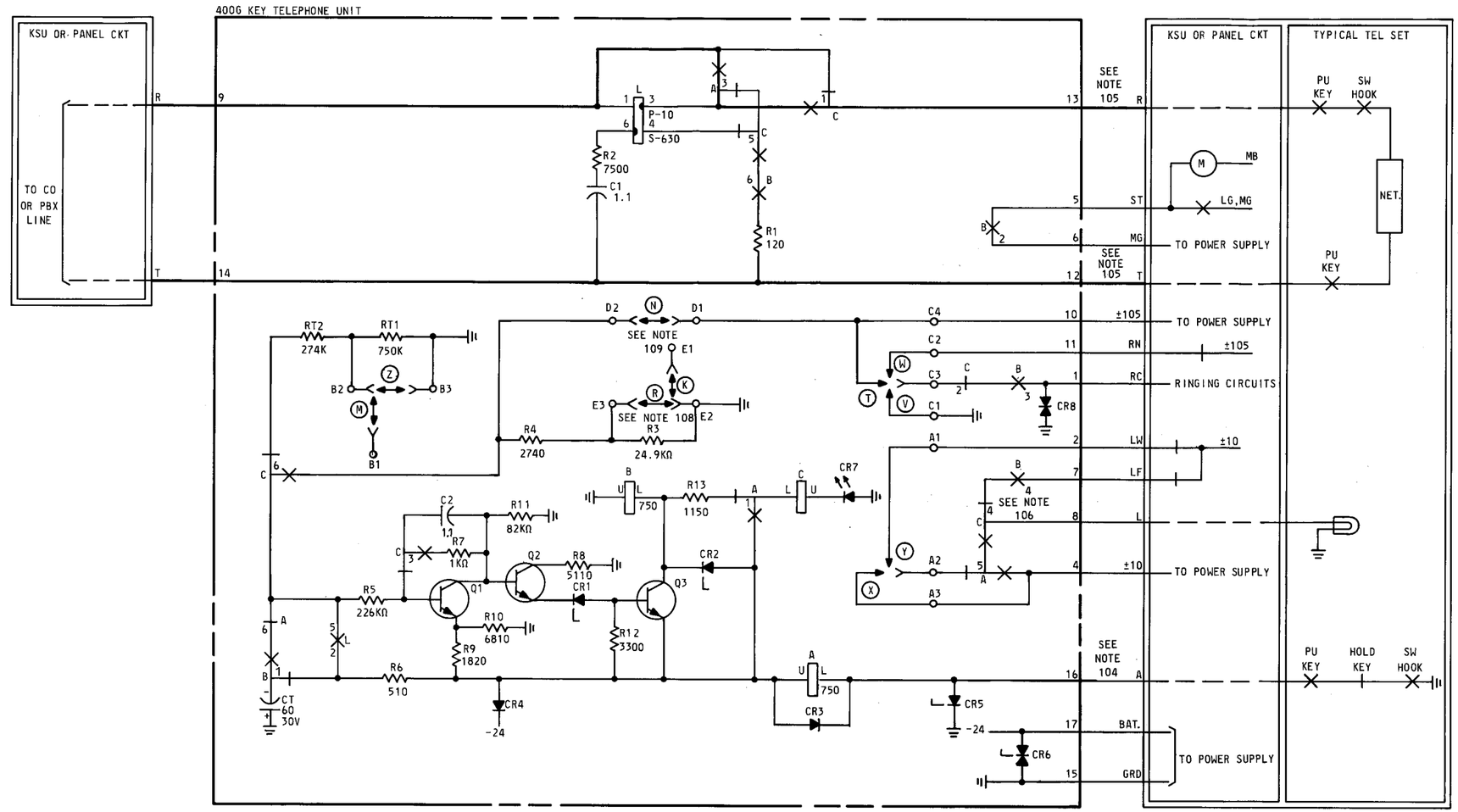
PRINTED IN U.S.A.

E-74618 (7-68)

HANDBOOK

FS 1

CO OR PBX LINE CKT



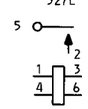
KEY TELEPHONE UNIT

DESIG	LOC	CODE
400G	2A2	400G E/W

RELAY

DESIG	A		B		C	
CODE	MB37		MB38		MB40	
OPTION						
	CONT ARR	LOC	CON. ARR	LOC	CONT ARR	LOC
6	B	2E2	M	2B5	EMB	2C2
5	EBM	2D6			EBM	2B5
4			M	2D6	EBM	2B6
3	EBM	2A4	M	2C6	EB	2D3
2	EBM		M	2B6	EBM	2C6
1	EMB	2D5	EBM	2E2	EMB	2A5
COIL		2E5		2D4		2D5

RELAY



APP FIG. 1

CAPACITOR

DESIG	LOC	CODE
CT	2E2	KS-16390,L24,60
C1	2B4	702G,1.1
C2	2D3	702G,1.1

DIODE

DESIG	LOC	CODE
CR1	2D4	459E
CR2	2D4	459AJ
CR3	2E5	456F
CR4	2E3	456F
CR5	2E6	518B
CR6	2F6	521F
CR7	2E5	538A
CR8	2C6	808CH

RESISTOR

DESIG	LOC	CODE
RT1	2C3	KS-16645 L1,750KΩ
RT2	2C2	KS-20616 L1A,274KΩ
R1	2B5	KS-20289 L4A,120
R2	2B4	KS-13490 L1,7500
R3	2C4	KS-20616 L1A,24.9KΩ
R4	2C3	KS-20616 L1A,2740
R5	2D3	KS-20616 L1A,226KΩ
R6	2E3	KS-13490 L1,510
R7	2D3	KS-13490 L1,1KΩ
R8	2D4	KS-20616 L1A,5110
R9	2E3	KS-20616 L1A,1820
R10	2E3	KS-20616 L1A,6810
R11	2D3	KS-13490 L1,82K
R12	2E4	KS-13490 L1,3300
R13	2D4	KS-20810 L1A,

TRANSISTOR

DESIG	LOC	CODE
Q1	2D3	66AH
Q2	2D3	66G
Q3	2D4	66AJ

APP FIG. 1
FS 1 CO OR PBX LINE CKT

ISSUE

CO OR PBX LINE CIRCUIT

SD-69651-01-2

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

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E-7481 (10-71)