## CONSTRUCTION AND MAINTENANCE PRACTICES OUTSIDE PLANT

CONTENTS



SECTION 55

PART 607

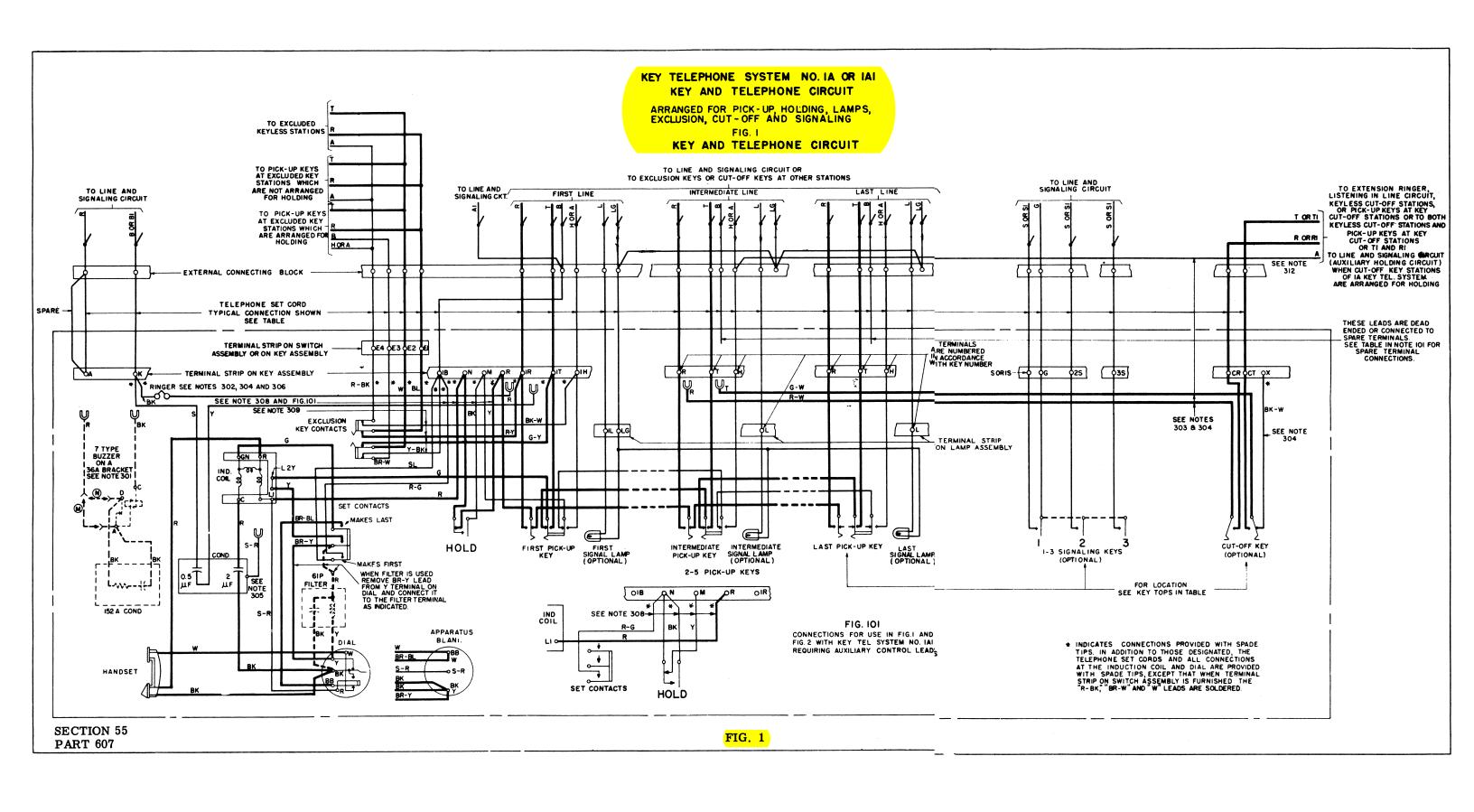
ITEM NUMBER

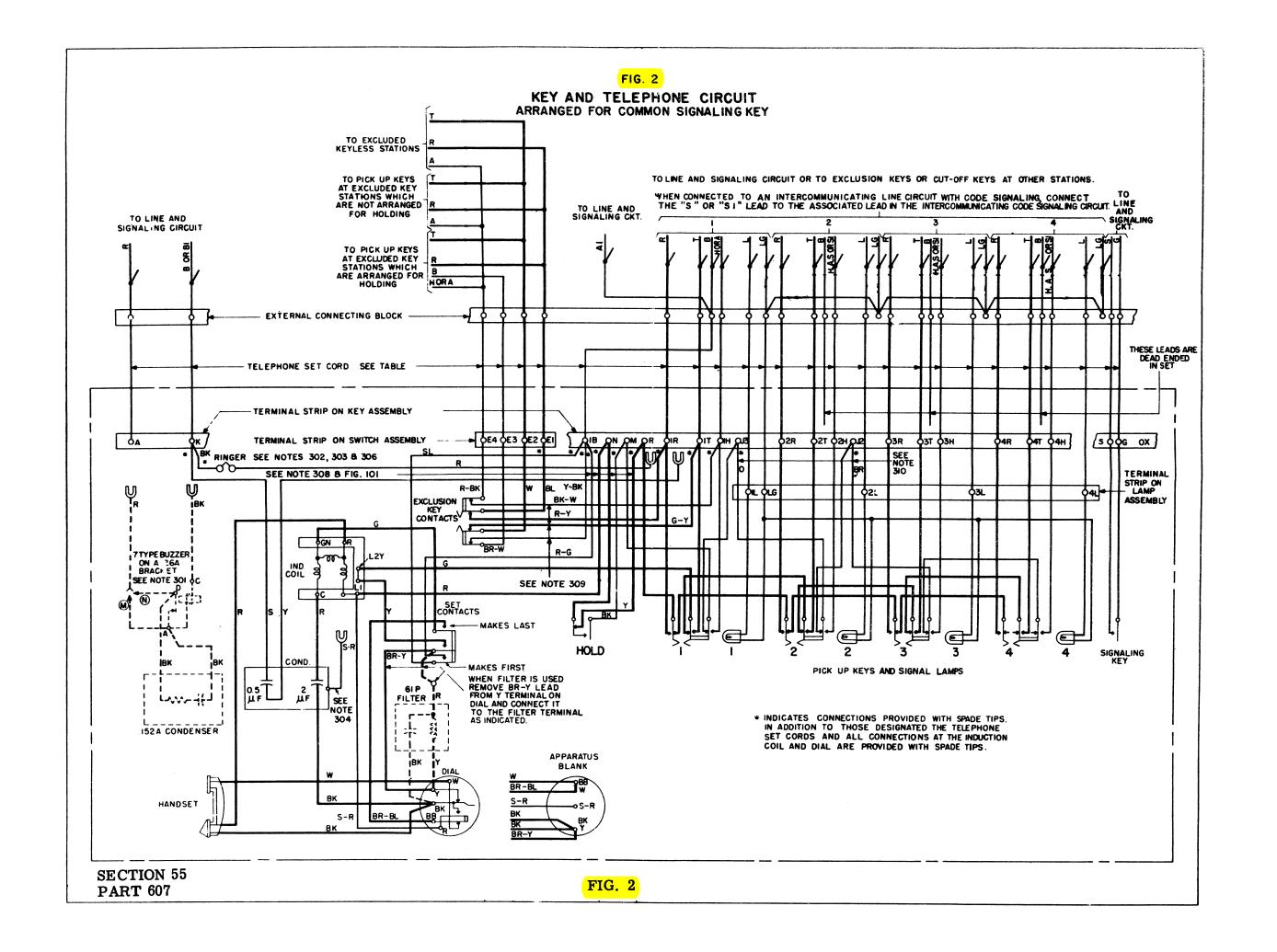
#### 1A - 1A1 KEY TELEPHONE SYSTEMS 400-TYPE TELEPHONE SETS

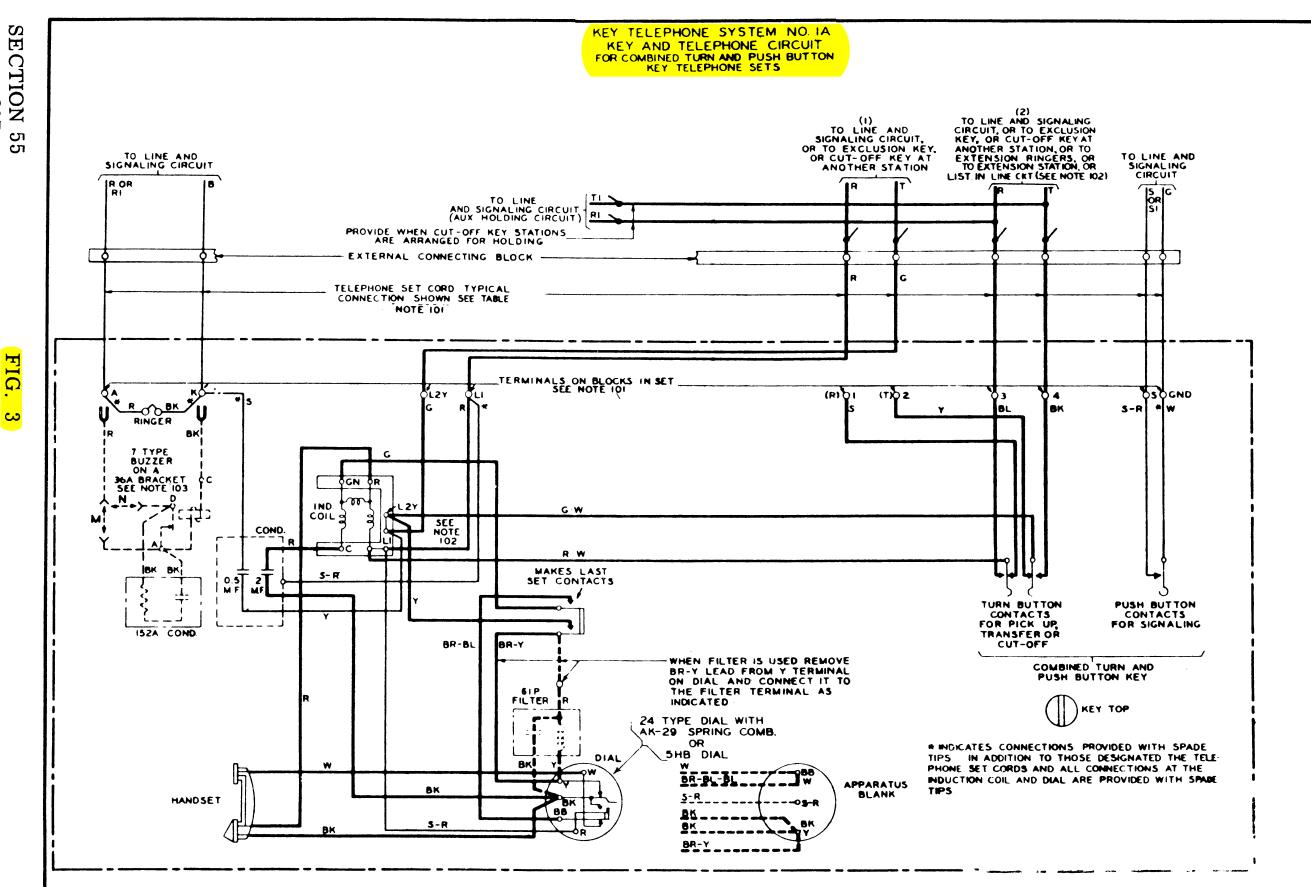
# General 607.1 Description 607.2 Use 607.3

- 607.1 GENERAL: This part is issued to provide the circuit drawings for the 400-types of key telephone sets.
- 607.2 DESCRIPTION: These circuits provide for selection of from one to a maximum of six lines or, when holding is required, a maximum of five lines in a self-contained telephone. Cutoff, exclusion and signaling keys are available in certain types of these sets.
  - 607.3 USE: The tables and circuit drawings included with this part show the key arrangements and circuit options.
- 607.3-a These sets are equipped with an antisidetone circuit using the 101-type induction coil and are for use with standard 2-wire common battery or dial PBX, PABX or central office lines, including manual or dial intercommunicating circuits.
- 607.3-b A hold key is provided which is nonlocking and is common to the pickup keys.

  This key operated, restores the pickup key and places a holding bridge across the line when holding equipment is provided.
- 607.3-c An exclusion key is provided on certain of these telephones. It consists of a plunger which is a part of the switch assembly. When this key is operated in the upper position, those stations connected through it are excluded. Should the user need to flash the operator the other plunger is used for that purpose. When the call is completed and the handset unit replaced on the cradle, it automatically restores the exclusion key and the stations are reconnected.
  - 607.3-d Certain telephone sets have a rotary cutoff key which may be used for various functions such as a ringer control, etc.
  - 607.3-e Visual signals may be externally mounted or included in the telephone, in which case the pickup keys are illuminated.
- 607.3-f A ringing bridge is supplied with each telephone. This may be connected across any single line or used as a common audible signal for all lines. The ringer may be removed and a 7-type buzzer, mounted on a 36A bracket, used in its place.







CIRCUIT NOTES:

101. PROVIDE THE KEY TELEPHONE SET IN ACCORDANCE
WITH REQUIREMENTS AS INDICATED IN THE FOLLOWING
TABLE. THE DESIGNATIONS SHOWN UNDER THE CORD
CONDUCTOR COLORS ARE THE DESIGNATIONS OF THE
TERMINALS IN THE SET.

BASIC FEATURES	WITH SIGNAL-		WITH	WITH COMMON RINGER		CODE					LINE		.INE 2		EXCL	O UDED IONS		HEAD	GER OR IING IN SET		T( SIGNA CIRC	LING		-	PRIVA	TE LI	NE CI	RELA RCUIT		0	RINGE	ENSE	R
DASIO FERIORES	ING		RINGER	OR FOR PRIVATE LINE		TELEPHON	E SET	TEL		RIN	GTIF	RING	TIP	RI	NG		IP	RING	ORD C	OL OR		GN	10.		RLEA	0	8	LEAD	<u>'</u>		SET	WIRIN	16-
					MANUAL	DIAL	DIAL	CORD		R	GN	Y	ВК	BL	R-R	w	G-G		BK	Υ.	BL	вк	w	Y-Y	R-R	BL	BK-BK	G-G	w	R			5
SINGLE LINE RINGER CUT-OFF RINGER IN SET)	YES		YES	NO	410AA	410 AY	410AC	D4AH		Li	L2								•	<u>(s)</u>		(AD)								(3	1	9	K
SINGLE LINE	YES		YES	NO	410BA	410 BY	410BC	D6P		LI	L2Y	1						3	4		5		GND						$\exists$	0	1	2)	ĸ
EXTENSION CUT-OFF WITH RINGER								ļ		1	╁	-	ļ				-												_	+	+	$\dashv$	$\dashv$
TRANSFER	NO		YES	NO	410AA	410 AY	410AC	D4AH			LS	1	<u> </u>					3	4									$\dashv$	$\dashv$	10	4	2	K
SINGLE LINE			YES .	NO	410BA	410 BY	410BC	D6P		LI	L2	,						3	4		s		GND							LI		24.8	к
EXTENSION CUT-OFF, RINGER CUT-OFF								1		SET																						1	
(EXTERNAL RINGER), OR HEAD SET CONTROL	NO		YES	NO	410AA	410 AY	410AC	D4AH	1 1	NALS IN	LZY							3	4											LI	L2	A A	к
		<del> </del>	YES	NO	410BA	410 BY	410BC	D6P		E RMIN	) (2	) 3	4								S		GND						$\Box$	+		2)	к
	YES		NO	YES	410CA	410CY	410CC	рвм	+		2	3	4								S		GND	·	A			к				40	2)
																													$\Box$		_	$\dashv$	
TWO LINE PICK UP			YES	NO	410AA	410 AY	410AC	D4AH			16	) 3	4				-						-			-			$\vdash$		3	2	K
			NO	YES	410BA	410 BY	410BC	DEP			<del>/  \</del>		4			<del> </del>	$\vdash$								<b> </b>	(A)			K	10			<u>``</u>
	NO		÷,								$\coprod$																					士	
										$\prod$																							

- 102. WHEN HEAD RECEIVERS ARE USED AS LISTENING IN SETS, CONNECT "T" AND "R" LEADS TO VARISTOR THE "G-W"&"R-W" WIRES FROM THE TURN BUTTON KEY SHOULD BE CHANGED FROM "L2Y" AND "L" TERMINAL S TO THE "GN" AND "R" TERMINALS RESPECTIVELY OF THE INDUCTION COIL.
- 103. PROVIDE "M" AWIRING WHEN THE BUZZER IS TO OPERATE ON 80 CYCLE A-C, AND PROVIDE "N" WIRING WHEN THE BUZZER IS TO OPERATE ON D-C. THE BUZZER MUST BE INSTALLED WITHOUT ITS COVER.
- IF THE CONNECTIONS SHOWN PROVIDE FOR RINGING ON LINE ONE.

  IF RINGING ON LINE TWO IS REQUIRED, CONNECT THE RED RINGER
  LEAD AND YELLOW CONDENSER LEAD TO TERMINALS 3 AND 4 RESPECTIVELY.
- ## INDICATES TERMINALS ON INDUCTION COIL. OTHER TERMINALS IN TABLE ARE ON CONNECTING BLOCK.
- CIRCLE INDICATES LEADS TO TERMINALS THAT MUST BE CHANGED FROM CONNECTIONS AS PROVIDED IN SHOP.

CIRCUIT NOTES:

101. PROVIDE THE KEY TELEPHONE SET IN ACCORDANCE WITH REQUIREMENTS AS INDICATED IN THE FOLLOWING TABLE. THE DESIGNATIONS SHOWN UNDER THE CORD CONDUCTOR COLORS ARE THE DESIGNATIONS OF THE TERMINALS IN THE SET.

BASIC FEATURES	WITH SIGNAL		WITH	WITH COMMON RINGER		CODE	5			то	LINE	TO L	INE 2		EXCL STAT			TO EX OR RIN LISTEN HE AD	GER OR	:	TO SIGNA CIRC	LING				0	NGER R NE CIF		1	co	NGER A	SER
BASIC PERIORES	ING	,	RINGER	PRIVATE	KEY	TELEPHON		TEL	1	RIN	TIP	RING	TIP	RII	NG	Т	Р	RING		BU		GN	D.	!	RLEA	0	В	LEAD	<u>'</u>			
				LINE	MANUAL	24 TYPE DIAL	5HB DIAL	SET		R	GN	TY	ВК	BL	R-R	w	G-G		ORD C	Y	BL	вк	w	Y-Y	R-R	BL	BK-BK	G-G	w	R	ET WIR	S
SINGLE LINE RINGER CUT-OFF RINGER IN SET)	YES		YES	NO	410AA	410 AY	410AC	D4AH		Li	L2Y									(S)		(30)						$\dashv$	1	3	•	К
	YES		YES	NO	4108A	410 BY	410BC	D6P		LI	L2Y							3	4		5		GND					$\exists$	<u> </u>	0	2	к
SINGLE LINE EXTENSION CUT-OFF																																
WITH RINGER TRANSFER	NO		YES	NO	410AA	410 AY	410AC	D4 AH		Li	LSA							3	4					·				_		10	2	К
SINGLE LINE	YES		YES	NO	410BA	410 BY	410BC	D6P		LI	L2Y							3	4		s		GND							LI	LZY	К
EXTENSION CUT-OFF RINGER CUT-OFF	,,,									SET																						
(EXTERNAL RINGER), OR HEAD SET CONTROL	NO		YES	NO	410AA	410 AY	410AC	D4AH	i i	N I	L2Y	<u> </u>						3	4											LI	L2Y	к
			YES	NO	410BA	410 BY	410BC	D6P		- ERMINAL	(2)	3	4								s		GND					$\dashv$		1	2	к
	YES		NO	YES	410CA	410CY	410CC	рвм			2	3	4								S		GND	·	A			к		A	L2Y	
									$\square$	<b> </b>																			$\vdash$	+	+	
TWO LINE PICK UP			YES	NO	410AA	410 AY	410AC	D4AH			2	3	4																	0	$^{\prime}$	К
	NO		NO	YES	410BA	410 BY	410BC	D6P			2	3	4													<b>(</b>			K	( <u>•</u>	) L2Y	<b>(27)</b>
	~																															
		1								$\downarrow \downarrow$																				<u>.                                    </u>		

- 102. WHEN HEAD RECEIVERS ARE USED AS LISTENING IN SETS, CONNECT 'T' AND 'R' LEADS TO VARISTOR THE "G-W"&"R-W" WIRES FROM THE TURN BUTTON KEY SHOULD BE CHANGED FROM "L2Y" AND "L" TERMINALS TO THE "GN" AND "R" TERMINALS RESPECTIVELY OF THE INDUCTION COIL.
- 103. PROVIDE "M" AWIRING WHEN THE BUZZER IS TO OPERATE ON 80 CYCLE A-C, AND PROVIDE "N" WIRING WHEN THE BUZZER IS TO OPERATE ON D-C. THE BUZZER MUST BE INSTALLED WITHOUT ITS COVER.
- THE CONNECTIONS SHOWN PROVIDE FOR RINGING ON LINE ONE.
  IF RINGING ON LINE TWO IS REQUIRED, CONNECT THE RED RINGER
  LEAD AND YELLOW CONDENSER LEAD TO TERMINALS 3 AND 4 RESPECTIVELY.
- MM INDICATES TERMINALS ON INDUCTION COIL. OTHER TERMINALS IN TABLE ARE ON CONNECTING BLOCK.
- CIRCLE INDICATES LEADS TO TERMINALS THAT MUST BE CHANGED FROM CONNECTIONS AS PROVIDED IN SHOP.

#### CIRCUIT NOTES:

IO2. MANUAL TELEPHONE SETS WITH NO RATING GIVEN MAY BE CATAINED ONLY BY TELEPHONE CO. CONVERSION OF DIAL SETS.

PROVIDE THE KEY TELEPHONE SET IN ACCORDANCE WITH REQUIREMENTS AS INDICATED IN THE FOLLOWING TABLES.
TABLE "M" SHALL BE USED FOR SETS EQUIPPED WITH BRAID COVERED CORDS AND TABLE "B" FOR SETS EQUIPPED
WITH VINYL JACKETED CORDS. THE CORD CONDUCTOR COLORS ARE SHOWN UNDER THE DESIGNATIONS OF THE
TERMINALS IN THE SET EXCEPT WHERE "D" APPEARS WHICH INDICATES THAT THE CONDUCTOR IS DEAD-ENDED IN
THE SET. AND WHERE "DD" APPEARS WHICH INDICATES THAT THE CONDUCTOR IS TAPED AND
DRESSED UNDER TERMINAL PLATE OF KEY.

#### TABLE A (FOR SETS EQUIPPED WITH BRAID COVERED CORDS)

FEATURES PROVIDE	D FOR			TEL	EPHONE	SET			LI	O NE I			TO LINE 2					O NE 3				TO LINE 4				TO LINE 5		SIG	NALING RCUITS		EXTENSIO OR HEADSE1 CUT-OFF	N	TO EXCLUDE STATION	.D IS	LINE & SIGNAL CKT.	LIF	IE AND	BUSY LAMP	5	SI
TION CONTROL KEY	EXCL	SIGNAL	MANU SEE NO	AL FEIO2	IAL (5H	CKT.	CORD	Ril	NG TIP	BAL HO	D RING	TIP	ВА	\L	HOLD F	RING TIF		BAL	но	LD SING		BAI		HOLD RI			HOLD GND	1 1		CKT CKT 2 3	RING TIE		TIP BA	L HOLD	R B	LAMP LA	MP LAMP	LAMP LAMP L	AMP 5	
RRANGEMENT	CODE KEY	LAMPS	CODE	ATING	ODE PAT	FIG.	NOTE	.l L												DESIG	NATIONS	OF THE	TERM	INALS	IN THE	SET (SEE	NOTES	302, 303	8 30	4)					*	-				
	CODE		CODE	ATING	AUE INA	1110	313	1 1	RIT	18 11	2R	21	DD i	D 28	2 H	3R 3T	DD	D	3 B 3	H 4R	41	DD D	4B	4H 5	R 5T	D 58	5 H G	S	IS	25 35	CR CT	ΕI	E2 E3	E4	AA	LG I	L 2L	3L 4L	5L /	A
	561 DE				40EG M		DI4A	F	₹ G	Y · Bi	BL	W		BR-R	BR-G	BR-Y BR-E	K	В	R-BL BR	-W		1	1												R-G R-Y		$\rightarrow$			_
יו חיוח ו	561 DE ✓				41EG M		DISC	F	٦ G	Y BI	BL.	W				BR-Y BR-E	1	В	R-BL DR	- Ah			1			1						R-G	R-Y R-B	K R-BL	R-W G-Y		+			
0 0 0	561 DE				44EG M		DISC	] F	₹ G	Y B	BL	W		BR-R	BR-G	BR-Y BR-I	3K	E	R-BL BR	- W									1					1	R-W G-Y	R-G R	Y R-BK	R-BL		$\overline{}$
	561DE V	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	45EE	M.D. 4	45EG M	. D.   1	D22B		₹ .G	Y B	BL	w	1	BR-R	BR-G I	BR-Y BR-E	зк	В	R-BL BR	-w		1						<u> </u>	1			R-W	G-Y G-B	K G-BI	G-W Y-BI	K R-G R	Y R-AK	R-BI		-
Po Po So	561DF 561DF				40FG M		DIZA	7 7	₹ G	Y BI	BL	W	-	BR-R	BR-G		1	1			<b>1</b>		1				BR-8	K BR	- <del>Y</del> i		+	1	-   -		BR-BL BR-W		<del></del>			
6 6 6	56I DF	V .	144FE	M.D. 4	44FG M	. D. 1	DIGB	] F	₹ G	Y B	BL	w	1.	BR-R	BR-G			1 1			1 1		1				R-Y		Gi		1				R-BK R-BL	1 , 1	-BI BR-W		- PAF	BR-BK
PO PO CO	561DG		40GE	M.D. 4	40GG M	D. 1	DIZA	1	₹ 6	Y BI	BL	w		BR-R	BR-G		1	1			1		+				<del>                                     </del>	<del>                                     </del>	<del>*  </del>		BR-Y BR-F	w			BR-BL BR-W		<del></del>			****
10 10 9							<b>†</b>	1 🖁 🗀						1			1	T			+-+			<u> </u>			<del>                                     </del>	+	+-+		1011	-		+	A DE DAY IN	+	$\rightarrow$		<del>-</del> i-	
	562DG		60GE	M.D. 4	60GG M	. D.   I	D22B	1217	₹ G	Y BI	BL	W	3R-R		BR-G	BR-Y BR-E	K BR-BL	İ	BR	-W R-G	R-Y	R-BK	<del></del>	R-BL R	-W G-Y	G-B	G-BL	<del> </del>	+ -		<del>1 -                                   </del>	+		+	G-W Y-B	<i>_</i>	$\rightarrow$			
6 6 6	562DG	V .	164GE	M.D. 4	64GG M	D. 1	D29A	787	3 G	Y BI		w	BR	R-R	BR-G	BR-Y BR-E	sk	BR-BLI		·W R-G		R-P		R-BL R			G-BL	<del> </del>	$\top$		1	1					-W PK-DI	SL BR-SL	G_W   V	V- DV
	562DG V	1 1	465GE	M.D. 4	65GG M	D 1	D32A		R G	Y B		w	BR			BR-Y BR-		BR-BL		-W R-G		R-B			-W G-Y		G-BL	+			1	G-W	Y-BK Y- 5					R-SL G-SL		DN
	562DH				60HG M		D20B		R G		( BL	w	R-R			BR-Y BR-		-		-W R-G	_		R-BK	-		O DIK	G-1	R-	<u> </u>		+	<del>    "  </del>	1-DK 1-E		G-BK G-B		- BUSE	N-3L G-3L	1- 3L	
Po Po Po So	562DH				64HG M		D26B			Y BI		w	BR			BR-Y BR-		BR-BLI		-W R-G			R-BK	1 1		-	G-Y				+						DK V DI	Y-W G-BL		G-BK
0 0 0 0	562DJ 🗸				65HG M		D29A			Y BI		w				BR-Y BR-I		BR-BL		-W -RG	. 1	R-B		R-BI		T .	Y-B				+	D_W	G-Y G-6					SL BR-SL		,-BK
D D D C		+ +	-		-		10000	4 5 F			1		T		-			15.1.5			+:+	1	<del>''\</del>	DE		<del></del>	1 0	1	<del>"</del>		++-	- In-W	0-1 0-6	-K G-BL	I-BL I-W	DK-M DL	M DK-DL	SL BR-SL		
<sup>P</sup> Ο <sup>P</sup> Ο <sup>P</sup> Ο <sup>C</sup> Φ	562DK V	1	165KE	M D 4	65KG M	0 1	D29A	101	3 6	Y BI	BI		BR	-R	BR-G	BR-Y BR-E	ak .	BR-BL	RR	W R-G	R-V	IR-E	IK .	R-BL			+	<del> </del>			C W V	w a w	<u> </u>	W C 51	V 60 V V			SL BR-SL		
	TOOLS IN	+ * +			00110 111		1025	┨ <b>╬</b> ┠╌			10-		1	+			-	1 7			+:`-+		+	N-BC	+		+	<del> </del>	+		U - W   1-1	W-7	G-1 G-E	N G-BL	T-BL T-W	BK-W BL	- M BK-BL	SL BR-SL		
PO PO SO CO	562DL V	1., 1	16515	M D	65LG M	n .	D268	1° F.	R G	Y BI		w	BF	D-B	BB-G	BR-Y BR-E	<u></u>	BR-BL	BR	- w	++		+	+-+			R-Y	R-	_   -		<del>  -</del>				<del></del>	+				
	JOEDC V				60MG M		D18C			Y B		- <del>,</del>	- 1			BR-Y BR-			R-BL BR		++		<del>-</del>	+			R-Y				R-BK R-E	IL R-W	G-Y G-B		BK-W BL-V		BK Y-BL	Y- W		
Po Po So So	562DM				64MG M		D22B	_					<del>i</del> -					<u> </u>				· ·				· · · · · · · · · · · · · · · · · · ·	+		R-G						R-W G-Y			11		
										Y BI		w	1			BR-Y BR-I			R-BL BR				- !				G-Y	<del></del>	R-W		<u> </u>				G-W Y-B					
	562DM ✓	1	-BOME	M. D. 4	65MG M	.D. 1	D26B	<b>┦ ├</b> .'	R G	Y B	BL		BR	R-R	BR-G	BR-Y BR-	3K	BR-BL	BR	W							R-Y		R-G	R-BK		R-W	G-Y G-E	K G-BL	BK-W BL-W	1 G-W Y-	BK Y-BL	Y-W		
PO SO SO SO	562DN V	┼┼						1 L						·			-	1 1								-								′						
	562DN ✓	1 1	165NE	M. D. 4	65NG M	.D.   1	D22B	4 1.	R G	Y BI	BL		<u> </u>	BR-R	BR-G			1			$\perp$					<u> </u>	BK-B	R	BR-Y	BR-BL BR-	N	R-W	G-Y G-E	K G-BL	G-W Y-B	( R-G R	Y R-BK		R	R-BL
				1			1	1			1 1	- 1	i	1				1 1		.	].		i						1											
				1				1				1		1				1 1		- 1		- 1	1	1 1			1		1		1 1		1	-   '		1			- 1	1

#### INFORMATION NOTES:

- 301. PROVIDE "M" WIRING WHEN THE BUZZER IS TO OPERATE ON 60 CYCLE A-C, AND PROVIDE "N" WIRING WHEN THE BUZZER IS TO OPERATE ON D-C.
- 302. SETS ARE WIRED IN THE SHOP WITH RED RINGER AND YELLOW CONDENSER LEADS CONNECTED TO "IR" AND "IT" TERMINALS RESPECTIVELY FOR SET RINGER TO BE USED AS A LINE RINGER ON LINE I. THEY MAY BE CONNECTED BY THE INSTALLER TO OTHER "R" AND "T" TERMINALS. WHEN THE RINGER IS USED FOR A PRIVATE LINE OR AS A COMMON RINGER OR WHEN A BUZZER IS USED CHANGE THE CORD CONDUCTOR SHOWN CONNECTED TO TERMINAL "A" IN THE COLUMN UNDER THE ASTERISK IN THE TABLE OF NOTE IOI TO TERMINAL "K" INSTEAD.
- 303. SETS ARE WIRED IN THE SHOP WITH THE G-W AND R-W LEADS FROM THE CUT-OFF KEY CONNECTED TO TERMINALS "2T" AND "2R" RESPECTIVELY TO CUT-OFF EXTENSION STATIONS FROM LINE 2. THESE LEADS MAY BE CONNECTED BY THE INSTALLER TO OTHER "R" AND "T" TERMINALS. THE "A" LEAD SHALL BE CONNECTED TO THE CONNECTING BLOCK "A " TERMINAL OF THE SAME LINE.
- 304. MAKE RINGER. BUZZER AND CUT-OFF CONNECTIONS AS FOLLOWS:

		RINGEI CONDE CONNE			UT-OFF	
COLOR OF WIRES IN SET		R	Y	BK-W	G - W	R-W
SET RINGER USED AS INDIVIDUAL LINE RINGER ON T & R OF ANY LINE, EXCEPT PRIVATE LINES		R	• т			
SET RINGER USED FOR A PRIVATE LINE OR AS COMMON RINGER OR BUZZER USED AS COMMON OR INTERCOMMUNICATING SIG. SEE NOTE 311	<u>+</u>	Α	K			
SET RINGER USED AS A LINE RINGER WHEN CUT-OFF KEY IS OPERATED TO SUBSTITUTE SET RINGER FOR EXTERNAL STATION OR RINGER. CONNECT S-R COND. LEAD TO R OF LINE.	S.	×	т	×	R	т
CUT-OFF KEY ON T AND R OF ANY LINE	S			X	Т	R
HEAD RECEIVERS USED AS LISTENING IN SETS	Ž	Γ		×	GN+	R٠
CUT-OFF SET RINGER OR BUZZER WHEN USED AS A SEE NOTES PRIVATE LINE, COMMON OR INTERCOMMUNICATING SIGNAL 306 & 311	TERMI	СТ	к	х	Α	CR
CUT-OFF SET RINGER WHEN USED AS A LINE RINGER	-	CR	CT	х	T	R
RINGER IN SET NOT USED		Α	Α			

- 305. CONNECT S-R CONDENSER LEAD AS FOLLOWS:
  WHEN SET RINGER IS USED FOR A COMMON RINGER OR WHEN A BUZZER IS USED, CONNECT S-R CONDENSER LEAD TO TERMINAL "LI".
  - WHEN SET RINGER IS USED FOR A LINE RINGER CONNECT S-R CONDENSER LEAD TO "R" TERMINAL OF LINE WITH WHICH THE RINGER IS ASSOCIATED.
- 306. TO EMPLOY THE EXCLUSION KEY AS MEANS TO CUT-OFF A COMMON RINGER OR BUZZER IN A TELEPHONE SET MAKE THE FOLLOWING CONNECTIONS: R-Y AND G-Y EXCLUSION KEY LEADS TO TERMINAL "A". BL EXCLUSION KEY LEAD TO TERMINAL "E2". CORD CONDUCTOR LISTED IN TABLE OF NOTE IOI AS CONNECTED TO TERMINAL "E2" CHANGE TO TERMINAL "E1" RINGER OR BUZZER LEAD TO TERMINAL "E-2". BLACK RINGER OR BUZZER LEAD, YELLOW AND SLATE CONDENSER
- 307 PROVIDE WIRING FOR METALLIC RETURN. (METALLIC RETURN SHALL ALWAYS BE PROVIDED WHEN THE BATTERY IS NOT LOCATED IN THE SAME BLDG. AS THE KEY TEL. SYSTEM OR WHEN IT IS LOCATED IN THE SAME BLDG. AND IT IS CHARGED OVER METALLIC RETURN FEEDERS. METALLIC RETURN SHALL ALSO BE USED ON A-C SUPPLY).
- 308. SETS ARE WIRED IN THE SHOP FOR USE WITH KEY TELEPHONE SYSTEM NO IA REQUIRING BALANCE AND HOLD LEADS AS SHOWN IN TABLE BELOW. CONNECTIONS MUST BE CHANGED FOR USE WITH KEY TELEPHONE SYSTEM NO. IAI REQUIRING AUXILIARY CONTROL LEADS AS SHOWN IN TABLE.

	WIRES IN TEL. SET		ONE END CONNECTING TO	SWITCH	L-1	KEY	KEY
	WINES IN TEE, SET		COLOR	R-G	R	Y	ВК
	COMMENT TO TENTINITAES	FOR I	KEY TELEPHONE SYSTEM NO. 1A	IB	N	R	М
L	IN SET	FOR I	ŒY TELEPHONE SYSTEM NO. IAI	N	R	M.	N

+ TERMINALS ON INDUCTION COIL.

- 309. WHEN THE EXCLUSION KEY IS USED WITH KEY TELEPHONE SYSTEM NO. IA THE Y-BK, BK-W, G-Y AND R-Y LEADS FROM THE EXCLUSION KEY MAY BE CONNECTED TO THE RESPECTIVE BALANCE, HOLD, TIP AND RING TERMINALS OF ANY LINE ON WHICH IT IS DESIRED TO PROVIDE EXCLUSION IF ALL FOUR TERMINALS ARE AVAILABLE, WHEN USED WITH KEY TELEPHONE SYSTEM NO IAI, THE Y-BK LEAD IS CONNECTED TO IB AND THE BK-W, G-Y AND R-Y LEADS ARE CONNECTED TO THE RESPECTIVE HOLD, TIP, AND RING TERMINALS OF ANY LINE ON WHICH IT IS DESIRED TO PROVIDE EXCLUSION.
- 310. SETS ARE WIRED IN THE SHOP FOR PICKING UP AND HOLDING FOUR LINES. TWO PRIVATE OR INTER-COMMUNICATING LINES MAY BE USED WITH A COMMON SIGNALING KEY BY LEAVING THE O LEAD CONNECTED TO "J3" AND TRANSFERING THE BR LEAD TO TERMINAL "S". THREE PRIVATE OR INTERCOMMUNICATING LINES MAY BE USED WITH A COMMON SIGNALING KEY BY LEAVING THE BR LEAD CONNECTED TO "J2" AND TRANSFERING THE O LEAD FROM J3 TO TERMINAL "S". THE "H" TERMINALS FOR THESE LINES ARE THEN CONNECTED TO THE SIGNALING LEADS "S" OR "SI" ASSOCIATED WITH THE CORRESPONDING LINES, THE AUTOMATIC CUTOFF FEATURE OF THE IAI KEY TEL. SYS. CANNOT BE USED ON LINES WITH THE COMMON SIGNALING KEY.
- WHEN A BRIDGED RINGER CIRCUIT WITH CONDENSER IS REQUIRED FOR CONNECTION EXTERNAL TO SET RE-MOVE "BK" RINGER LEAD AND "S" CONDENSER LEAD FROM TERMINAL "K" AND CONNECT AT A SPARE TERMINAL, OR BY MEANS OF A D-161488 CONNECTOR. 311.
- WHERE THE RINGER IN THIS SET IS SUBSTITUTED FOR AN EXTERNAL STATION OR RINGER BY THE OPERATION OF THE CUT-OFF KEY, REVERSE THE TIP AND RING LEADS TO THE EXTERNAL STATION OR RINGER. 312.
- 313. ALL CORDS IN TABLE "A" HAVE BEEN RATED M.D.

SECTION 55 PART 607

FIG. 5

### TABLE B (FOR SETS EQUIPPED WITH VINYL JACKETED CORDS)

FEATURES PROVID	DED FOR				TE	LEPHO	NE SE	ī				LINE		<u> </u>		T0 L INI 2	E				TO LIMI 3			<u> </u>	-1	TO INE 4			ι	TO INE 5				GNAL ING CKTS		DR H	NSION EADSET TOFF	EX S1	TO CLUDED ATIONS		TO LINE 4 SIGNA CKT				USY LAN			,	SPARE	
STATION CONTROL KEY	Y	FXCL.	SIG.	MAP (SEE N	UAL TE (02)	DIAL	( 5HB	CK1	CORD	1	RING	TIPBA	L HOL	RING	TIP		BAI	Hic	OLD RIM		B			RING		BAL			TIP	BAL	HOLD	GND	CKT I	CKT	2 CK	T 3 RING	TIP	RING TI	P BAL	HOLD	R	8 LAME	LAMP	LAMP A	AMP LAN	AP LAM	<u>'</u>			
ARRANGEMENT	CODE	KEY L		CODE	RATING	CODE	RATI	116	COCE		<u> </u>			т т							IS OF TI	IE TER	HINALS	IN THE	SET (SE	E NOTES	302, 3				_						T T	- 1		*		<del></del>	<del></del>	1 7	A. 1 W.		1 00	T 00		T 66
AKKANGEMENI						<u> </u>			1	4				2R		DD			2H 3F		DD				4T DD	I D I	B 4H	5R	51	D   5	5 <u>5</u> H	6	5   1	S 2S		S CR	СТ	EI E	2 E3				+ 11	21	31 41	1 21	00	100	100	100
	5610	t		440E:		440E	G MD	44	DI4G	4	*	6 1	+	+	W				R-G BR-		1		-BLBR-W	1		+-+		+				1					4			+ +	Y-BL Y			++			+==	<del>.   '</del>	15.6	-
"0 °0 .º0 °0	7 5610	E /		441EE	MD	4418	G MD	1	D27A	1	R	G Y	BK	BL	W		1 6		R-G BR-		1 1	₿R:	-BLBR-W	1 1		1	İ	1	1 1	1	i		ı	- 1	1	- 1	1	BK-BL BK	-ABF-A	S	Y-BL Y	-w		1 1	1		G-BI	L G-W L S-R	S-Y	S-8
0.0.00	581D	E	7	444EE		HHHE	G MD	+	D18G	1	R	G Y	BK	BL	٧		1 18	R-R B	R-G BR-	-YBR-BI	d i	BR	-BUBR-W	1	1	T			T	<u> </u>		1 1				$\neg$	1 1			1 1	Y-BL Y	'-W S-E	SK S-Y	S-BL	S-W	_	_	1	$\Box$	
	5610		7	445EE		HHRE	G MD	+-	D27A	1	R	G Y	BK	BL	W				R-G BR-			BR	-BUBR-W	1 1		TT		1	1 1		_	t						BK-BL BI	-MBL-1			-W S-E				_	R-BI	L G-W	S-G	S-R
No lo lo so	7 5610	_		HHOFE		440F	_		DITA	1	R	G Y	BK	BL	W		, B	BR-R B	R-G	1		$\neg \tau$				T			T	i		G-W 1	BR-W					-			Y-BL Y	-W	$\top$			$\top$	S-R	S-G	S-Y	S-B
0 0 0 0	5610			HHHFE		4445			DIZA	1	R	G Y	BK	BL	W		1 6	R-R B	R-G		T	T		1 1	1	TT			1 1	1	1	G-W	BR-W			1	1		1	1	Y-BL Y	-W S-I	SK S-Y	S-BL				S-G		
0°0°0°0	7 5610			HHOGE		440G			DITA	1	R	G Y	BK	BL	٧		1	BR-R B	R-G							1		1	$\top$	1			i			S-R	S-G				Y-BL Y	-W					BR-1	W G-W	S-Y	S-E
0.0.0.0	J									ا ي [																				i													T							
	_ 562D	G		460GE		460G	G MD	T	D23C	7 8	R	G Y	BK	BL	W	BR-R	1		R-G BR-			1			R-Y R-BK	1	R-B	L R-W	G-Y	G-	BK G-BL	$\Gamma$									Y-BL Y	/-W	1				G-W	T		T
0'0'0'0'	562D		1	464GE		4646	G MD	T	D28C	่ ไฮ์	R	G Y	BK	BL	٧		BR-R	8	R-G BR-	YBR-B	В	-BL	BR-W	R-G	R-Y	R-BK	R-B	L R-W	G-Y	IG-	BK G-BL								$\top$		Y-BL Y	1-W S-I			S-W S-					T
	5620	d /	1	48 5GE		465G	6 MD	1	D35A	- E	R	G Y	BK	BL	٧		BR-R	8	R-G BR-	-YBR-BI	В	R-BL	BR-W	R-G	R-Y	R-BK	R-B	L R-W	G-Y G	-BK	G-BL		T					BK-BL BM	-W BL -1	S	Y-BL Y	-W S-	SK S-Y	S-BU	S-W S-	BR BF	G-W	S-R	S-G	
	5620	н		460HE		460H	G MD	1	0230	75	R	G Y	BK	BL	<b>~</b>	BR-R		В	R-G BR-	-YBR-BI		BR	-BLBR-W	R-G	R-Y	R	-BK R-B	ί I				G-W	G-BL								Y-BL Y		$\top$					G-Y		
0 0 0 0 0	5620			HOUHE		4644			0258	7 ₹	R	G Y	BK	BL	W		BR-R	8	R-G BR-	-YBR-BI	( <b>B</b> (	R-BL	BR-W	R-G	R-Y	IR	-BK R-B	ι	T			G-W	G-BL										K S-	S-BL	S-W S-	-BR		T		Т
<del>,                                    </del>	5620		/	465HE		465H	G MD	2	035A	18	R	G Y	BK	BL	W		BR-R	В	R-G BR-	-YER-BI	( B	R-BLI	BR-W	R-G	R-Y	R-BK	R-B	L				G-W	G-BL					BK-BL BK	-W RI -						s-w s-		R-W	G-BK	S-R	S
		1	_				+	<u> </u>	-	-le	$\vdash$	_	+	-			+ +		-		-		_	++		++		+	+		_	-					+	DK OL DK	- W OC-	1		- 3-0	N 3-1	13-01	3-1 3-	-DK	G-Y	+	<u> </u>	+
0'0'0'0	5620	K /	7			11000	- 40	+.	D35A	-  3		<u> </u>	- Br	BL			BR-R	R	R-G BR-	-YRR-RI	d la	R-BL	88-4	R-G		R-BK	R-B	.+	+-+			+-+	+-							-		+	+-	+		-+	<del></del>	+	<del>                                     </del>	+
<i>,</i>	ا معمد	7 '	' l	400KE		4004	9 70		USSA	1	"	٠ ا '	"	"	"		11	1		.,	] r	1	J	"	K-1	IN-DK	N-6	1				1 1	l			S-R	S-6	BK-BL BK	-# BL-	S	1-BL	1-W S-F	JK S-Y	/ S-84	S-W   S-	-BR	6-Y	G-BK	G-BL	G
Φ' O' O' O' O'	7							1	1	٦.							! 1			1		Ī				T																					<b>T</b>			T
7.0.0.0.0	5620	L /	1	465LE		465L	G MD	1	D27A	]	R	G Y	BK	BL	٧		BR-R	В	R-G BR-	-YBR-BI	( 8	R-BL	BR-W									G-W	R-BL			S-R	S-G	BK-BL BK	-W BL-	S	Y-BL	Y-W S-B	K S-	S-BL	S-W		G-BL			Γ
	1			460ME		4604	G MD		0230	7	R	G Y	BK	BL	٧		В	BR-R B	R-G BR-	-YBR-B	T	BR	-BLBR-W			T						G-W	R-	-BL G-	BL						Y-BL Y						R-G	R-BK	R-W	G
0 0 0 0 0	7	1					1			4		<u> </u>	-	BL	u l		+	D_D B	R-G BR-	-VBD-81	,	60	-BUBR-W	1		+		+	+-+	+-		G-W		_										+		-+	<u></u>			+
	5620 5620			464ME 465ME		762H			D258					BL			BR-R		R-G BR-		1	R-BL	BR-W	11		++		-	+			G-W		-BL G-				<del>L</del> .		+	(-BL )	Y-W S-8	K S-Y	S-BL	5-W	$\rightarrow$		R-Y		JS-
	562D	<b>M</b> /	<del>-'</del> -}	400ML	MU	4000	6 m	+-	UZIA	4	<del>  " </del>	<del>-   .</del>	+-	100			+ +	- B	K-G DK-	- TOK-DI	Y P	K-DL	DK-K	1		++		┿	++	<del></del>		5-W	<del></del>	-DL 0-	BL		+	BK-BL BK	-M BT-	<b>1</b> S	<u>/-BL   '</u>	Y-W 5-8	K S-Y	T2-BT	S-V	+	15-K	13-6	┼	+
0 0 0 0 0 O	ח⊢ר	+						+.	D27A			c   v		BL			<del>i t</del> a	BR-R B	P-6		<del>                                     </del>		_+	+-+		+		<del></del>	+-+			╂─┼	<del></del>							-		-	+	+	-+	-+		.+	<del></del>	+-
<del>, , , , , , , , , , , , , , , , , , , </del>	J   562D	M /	1	465NE	MD	4658	6 MU	'	UZIA	1	"	٠,	00	1 "	•		ļĭ	- N   O	" "		1 ;	i				: 1			1 1		Ì	6-#	¦ BA	R-W R-	BL G	-BL		BK-BL BK	-W BL-	s s	/-8L   1	Y-W 5-8	K S-Y	S-BL			BR-B	S-R	S-W	S

SECTION 55 PART 607