

DATA SET 403A TYPE RECEIVER INSTALLATION AND CONNECTIONS

1. GENERAL



The interim production will be coded X403A type.

1.01 This section provides installation and connection information on Data Set 403A type. Due to the versatility of installations, utilizing Data Set 403A type, representative connection diagrams will be supplied to allow the personnel making the installation to choose the connections most applicable to his needs.

1.02 This section is reissued to add information in the form of illustrations and tables for interconnecting a data station.

- Using 8 data sets (16 receivers) in conjunction with one 630-type telephone set for maintenance only.
- Using 6 data sets (12 receivers) in conjunction with one 631-type telephone set for intercept and maintenance of 12 data lines.
- Using 14 data sets (28 receivers) in conjunction with one 631-type telephone set for intercept only.

1.03 When test or demonstration calls are made, refer to section entitled Crediting Charges On Test Calls (010-250-001) to properly credit charges.

2. INSTALLATION

2.01 Data Set 403A type shall be installed in conformance with existing practices covering installation of station sets. This includes standard dc talk, signaling, and supervision requirements.

Note: Verify that the loop has been tested and meets requirements. Use section entitled Data Systems—On Direct Distance Dialing (DDD) Network DATA-PHONE Services — Transmission Requirements DATA-PHONE Subscriber Lines (314-205-500) for switched network, and the section entitled Private Line Data Circuits Voice Bandwidth Circuits for Miscellaneous Data Overall Test and Requirements (314-410-500) for private line circuits.

2.02 For selection and installation of mounting bars, angle brackets, and shelf arrangements that apply to multiple data set installations employing Data Set 403A type, refer to the section entitled Data Sets Multiple Installation Information (590-010-201).

2.03 For selection of type of connecting blocks, electrical code requirements, temperature and humidity requirements, refer to section entitled Data Sets General Installation Information (590-010-200).

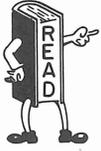
2.04 The data set must be located within range of the interface connector cords supplied by the customer. These cords should not be over 50-feet long.

2.05 To avoid interference during data transmission, the following data line instructions should be followed:

- Use only on individual lines.
- Do not connect extension telephones.

2.06 The customer must furnish a 3-wire, 60-cycle ac power outlet (two parallel blades and a U-shaped grounding pin). The outlet should not be under the control of a switch.

3. CONNECTIONS



To eliminate possible damage to electronic components in the data set, do not make power connection until all other connections have been completed.

3.01 A typical individual Data Set 403A type installation consists of a Data Set 403A type, a Data Auxiliary Set 804C (Fig. 1), which provides human interface and a 1044 type connecting block for connecting the station to the telephone line. The data set and data auxiliary set may be shelf mounted or placed on desk or table.

3.02 Service options shown in Table A should be specified on service order. The data set shall be arranged accordingly.

3.03 If 5A1 Data Unit is an integral component of Data Set 403A type, there are two options in addition to those provided in Table A. These options are provided by the data unit and are designated Z and Y which either provides the attendant function (option Y), or overrides this function (option Z). The data unit is provided with the Y option incorporated.

3.04 Fig. 2 locates TB1 on Data Set 403A type and also locates the terminal board on 5A1 Data Unit upon which the options are strapped.

3.05 Fig. 3 illustrates a data station using one data set, in conjunction with Data Auxiliary Set 804C and the connections necessary for this type of installation.

3.06 Table B illustrates the telephone line interface connections between Data Auxiliary Set 804C and Data Set 403A2 or 403A3.

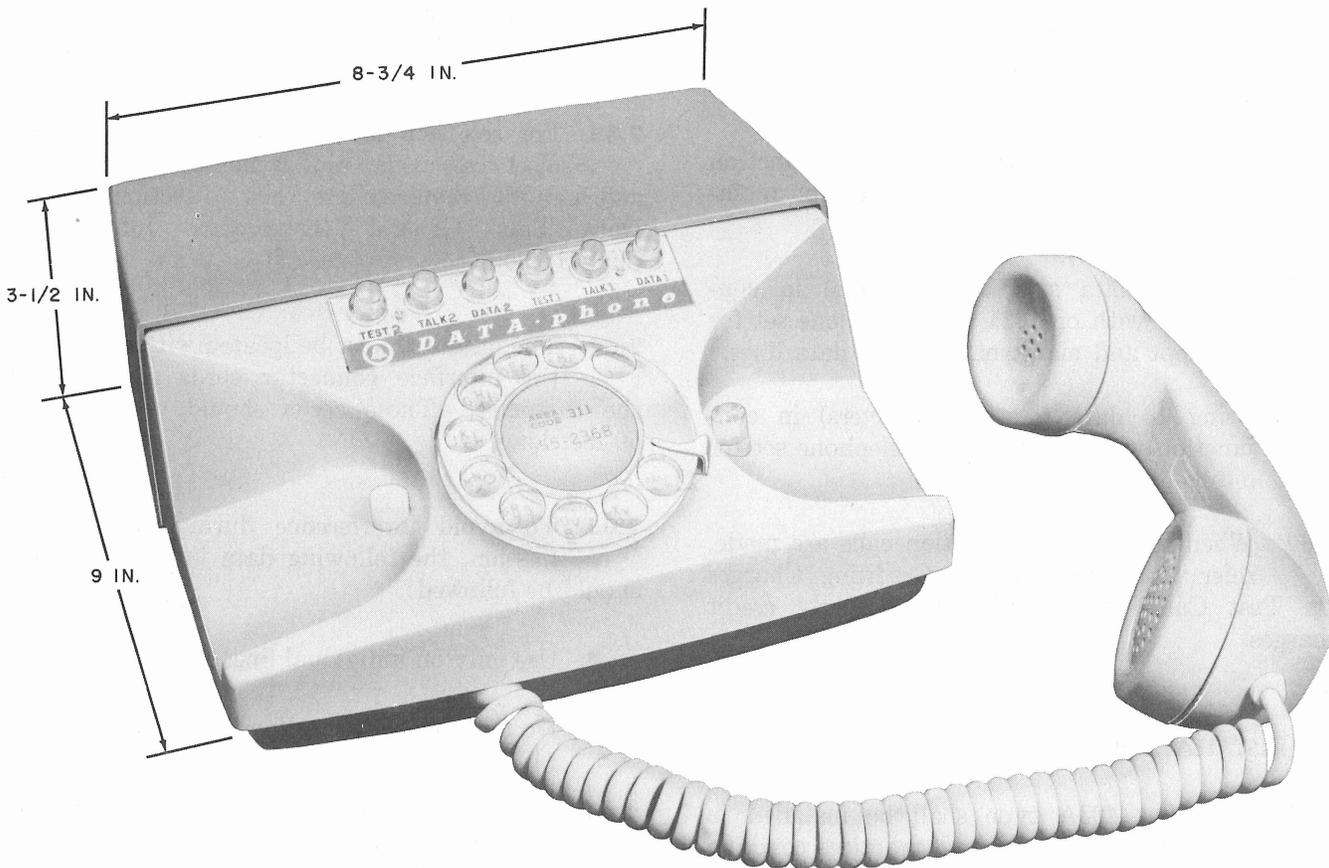


Fig. 1 — Data Auxiliary Set 804C

TABLE A
SERVICE OPTIONS

FEATURE OPERATION		WIRING OPTION	STRAP TERMINATIONS				PROVIDE
			CKT NO. 1		CKT NO. 2		
			CONNECT	TO	CONNECT	TO	
Answering	Attended	Z	38TB1	39TB1	64TB1	65TB1	1
	Unattended	Y*	37TB1	38TB1	64TB1	63TB1	
Line Termination	600Ω	X	23TB1	22TB1	49TB1	48TB1	1
	900Ω	W*	23TB1	24TB1	49TB1	50TB1	
Nominal Answer-Back Tones	-3 DBM	V	15TB1	14TB1	41TB1	40TB1	1
	-6 DBM	T*	15TB1	16TB1	41TB1	42TB1	
		20TB1	21TB1	46TB1	47TB1		
-9 DBM	S	20TB1	19TB1	46TB1	45TB1	1	
	18TB1	17TB1	44TB1	43TB1			
6 DB Input Pad	IN	R*§	28TB1	27TB1	54TB1	53TB1	1
			31TB1	30TB1	57TB1	56TB1	
Power Resistors	OUT	Q¶	28TB1	29TB1	54TB1	55TB1	†
			32TB1	31TB1	54TB1	58TB1	
Power Resistors	IN	N	12TB1	13TB1	6TB1	7TB1	‡
	OUT	M	12TB1	11TB1	6TB1	5TB1	

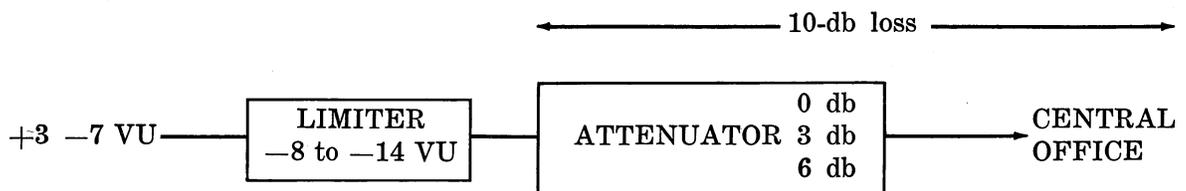
* Factory Provided

† Provided for Data Set 403A2 only.

‡ Provided on Data Sets 403A1 and 403A3.

§The R option should be used when the input driver to the Data Set 403A is TOUCH-TONE.

¶ The Q option should be used when the input to the Data Set 403A is a Data Set 401-type transmitter.



Note: Data receiving loop plus the ATTENUATOR should be 10 db ±3 db.

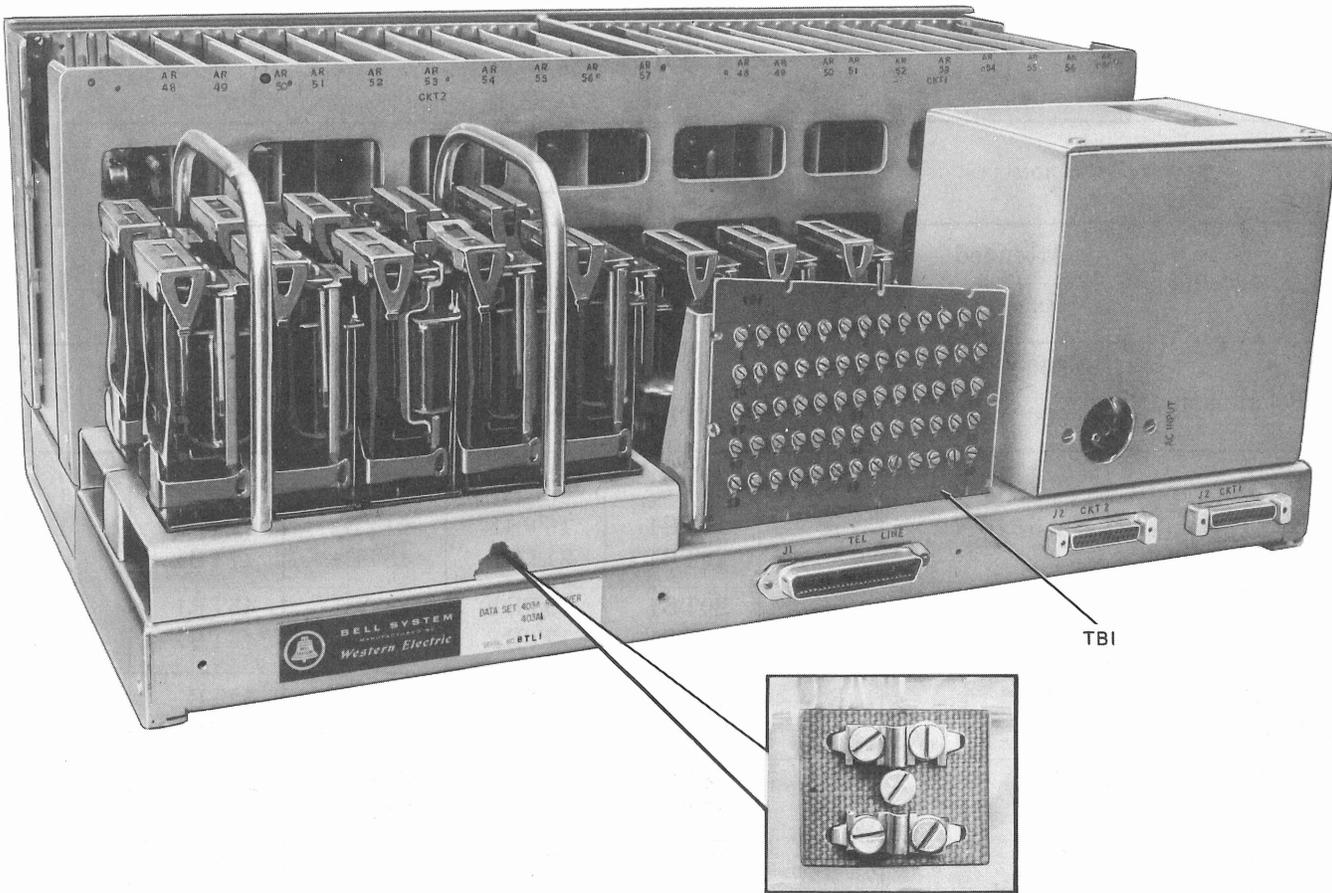


Fig. 2 — Data Set 403A Type Rear View With Cover Removed Showing Locations For Strapping Options For 5A1 Data Unit

3.07 A typical multiple Data Set 403A type installation consists of the following:

- Large Bell System Cabinet KS-19643, L2 (Refer to Section 590-010-201)
- 630- or 631-type telephone set (Refer to Section 502-630-101)
- Data Sets 403A type
- Two 202D KTU's (Refer to Section 518-114-403 or SD-69288-0154)
- A 232B KTU (Refer to Section 518-114-403 or SD-69288-0154)
- A 101G Power Supply

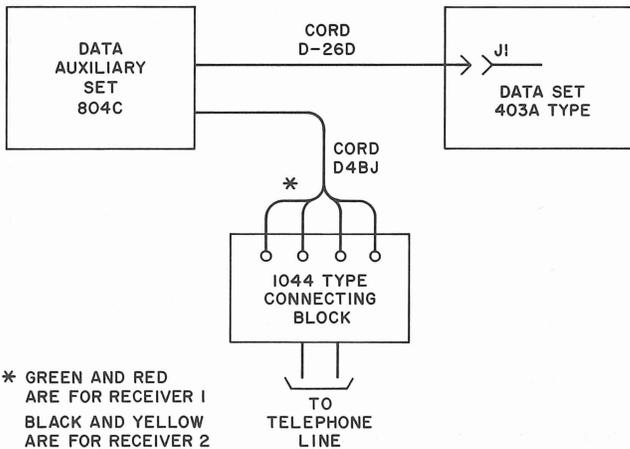
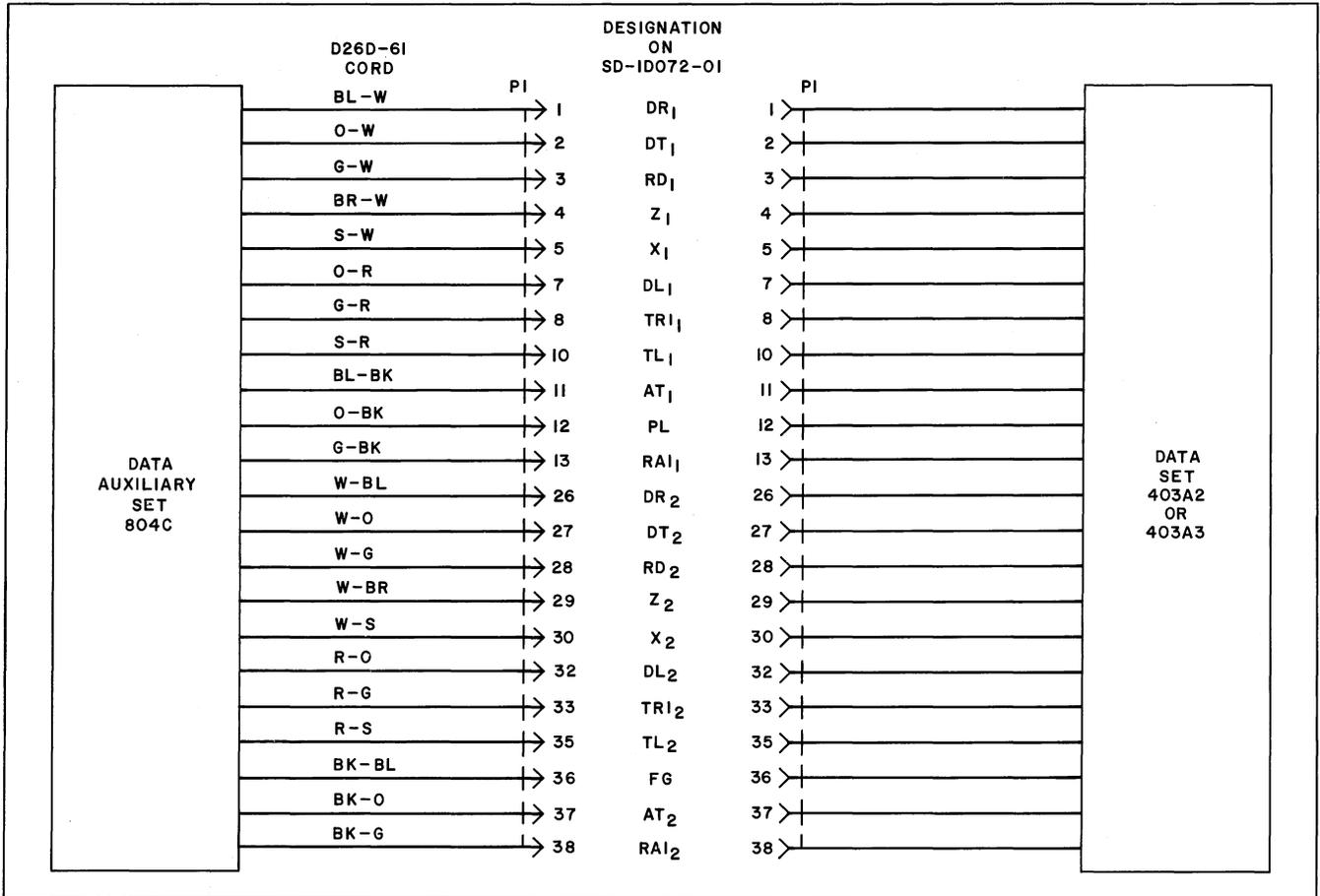


Fig. 3 — Connection Diagram Using a Single Data Set 403A Type With Data Auxiliary Set 804C

TABLE B
TEL LINE INTERFACE BETWEEN DATA AUXILIARY SET 804C
AND DATA SET 403A2 OR 403A3



NOTE:
 SUBSCRIPTS INDICATE THE RECEIVER TO WHICH EACH LEAD IS ASSOCIATED.
 NO SUBSCRIPT INDICATES LEADS COMMON TO EACH RECEIVER.

3.08 Due to the many multiple arrangements utilizing the Data Set 403A type it is suggested that the KTU's and power supply be mounted on standard 18-inch, or 23-inch mounting brackets within the cabinet, and that the 66-type mounting blocks be mounted on the top deck under cabinet lid. Table C illustrates the telephone interface connections between the A25D cord and Data Set 403A1.

3.09 All of the TEST keys of the 630- and 631-type telephone sets must be made nonlocking by removing locking pins. The 630- or 631-type telephone set may be placed near the multiple data set cabinet, or may be remotely located, but it must be located in such a manner as to allow ease in making connections at the connector blocks. The 630- or 631-type telephone set provides human interface for monitoring signals or for facilitating maintenance.

3.10 Fig. 4 illustrates a data station using three data sets (6 receivers) in conjunction with one 630-type telephone set for intercept and maintenance of six data lines. Table D illustrates the type of connections necessary for this type of installation.

Note: Fig. 5 and 6 together make a complete installation. It is necessary to have both intercept and maintenance capabilities, regardless whether these functions are provided by single call director or by several call directors.

3.11 Fig. 5 illustrates a data station using 8 data sets (16 receivers) in conjunction with one 630-type telephone set for intercept only of 16 data lines. Table E illustrates the type of connections necessary for this type of installation.

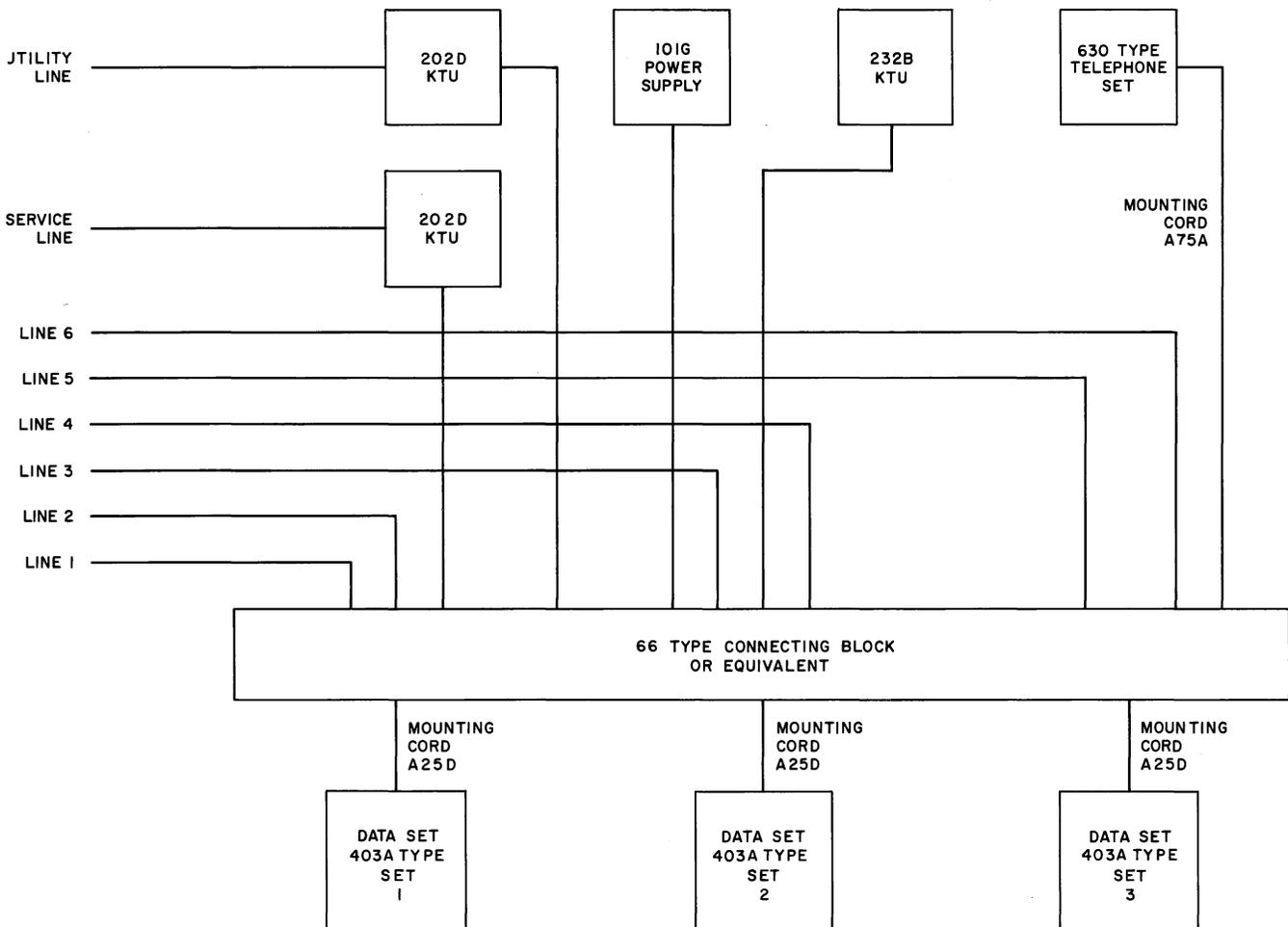


Fig. 4 — Block Diagram of a Data Installation Using a Single 18-Button 630-Type Telephone Set For Intercept and Maintenance For 6 Data Lines

TABLE C

TEL LINE INTERFACE BETWEEN A25D CORD
AND DATA SET 403A1

A25D CORD	PI	DESIGNATION ON SD-1D072-01	J1
BR-W	→ 4	Z ₁	4 >
S-W	→ 5	X ₁	5 >
BL-R	→ 6	CT ₁	6 >
BR-R	→ 9	CR ₁	9 >
S-R	→ 10	TL ₁	10 >
BL-BK	→ 11	AT ₁	11 >
S-BK	→ 15	KT ₁	15 >
BL-Y	→ 16	KR ₁	16 >
O-Y	→ 17	ST	17 >
G-Y	→ 18	SR	18 >
BR-Y	→ 19	A ₁	19 >
S-Y	→ 20	L ₁	20 >
BL-V	→ 21	HA	21 >
O-V	→ 22	TOBC	22 >
G-V	→ 23	TOMC	23 >
BR-V	→ 24	LF	24 >
S-V	→ 25	PAC	25 >
W-BR	→ 29	Z ₂	29 >
W-S	→ 30	X ₂	30 >
R-BL	→ 31	CT ₂	31 >
R-BR	→ 34	CR ₂	34 >
R-S	→ 35	TL ₂	35 >
BK-BL	→ 36	FG	36 >
BK-O	→ 37	AT ₂	37 >
BK-S	→ 40	KT ₂	40 >
Y-BL	→ 41	KR ₂	41 >
Y-O	→ 42	OS3 ₁	42 >
Y-G	→ 43	OS3 ₂	43 >
Y-BR	→ 44	A ₂	44 >
Y-S	→ 45	L ₂	45 >
V-BL	→ 46	LT ₁	46 >
V-O	→ 47	LT ₂	47 >
V-BR	→ 49	PDC	49 >

DATA SET
403A1

NOTE:
SUBSCRIPTS INDICATE TO WHICH RECEIVER EACH LEAD IS ASSOCIATED.
NO SUBSCRIPT INDICATES LEADS WHICH ARE
COMMON TO BOTH RECEIVERS.

↗ 3.12 Fig. 6 illustrates a data station using 8 data sets (16 receivers) in conjunction with one 630-type telephone set for maintenance of 16 data lines Table F illustrates the type of connections necessary for this type of installation.

3.13 Fig. 7 illustrates a data station using six data sets (12 receivers) in conjunction with one-631-type telephone set for intercept and maintenance of 12 data lines. Table G illustrates the type of connections necessary for this type of installation.

3.14 Fig. 8 illustrates a data station using 14 data sets (28 receivers) in conjunction with one 631-type telephone set for maintenance of 28 data lines. Table H illustrates the type of connections necessary for this type of installation.

Note: Fig. 8 and Tables H and J together make a complete installation. It is necessary to have both intercept and maintenance capabilities regardless whether these functions are provided by a single call director or by several call directors.

↙ 3.15 Fig. 8 illustrates a data station using 14 data sets (28 receivers) in conjunction with one 631-type telephone set for intercept of 28 data lines. Table J illustrates the type of connections necessary for this type of installation.

↗ 3.16 The 630- or 631-type telephone set is used to intercept voice signals from the calling party. This is to provide information to the calling party that is not ordinarily available from the business machines and/or provides the test positions for the data set. The modified 630-type telephone set provides a maximum of 16 or 17 lines, and the modified 631-type telephone set provides a maximum of 28 or 29 lines depending on the installation configuration. Data stations utilizing Data Set 403A type require the same number of line positions for testing as are required for data. These line positions are provided by the 630- or 631-type telephone set. An example of this is as follows: If one 630-type telephone set is to provide both intercept and test positions, then a maximum of 16 positions (8 for intercept and 8 for test) are available. The other position is used for TEST RELEASE and the eighteenth button is used for SERVICE line. Another example is an installation where two 630-type telephone sets are used, one to provide intercept function, and the other to provide the test position. In this case there will be a maximum of 17 lines available on each telephone set. The above examples also apply to the 631-type telephone set. The number of data lines then determines which of the two telephone sets will be utilized for a particular data set installation. It is also possible to use multiples of the 630- or 631-type telephone set, or to use either type telephone set exclusively for data line service as long as there is another of the same type telephone set to supply an equal ↙ number of lines for testing.

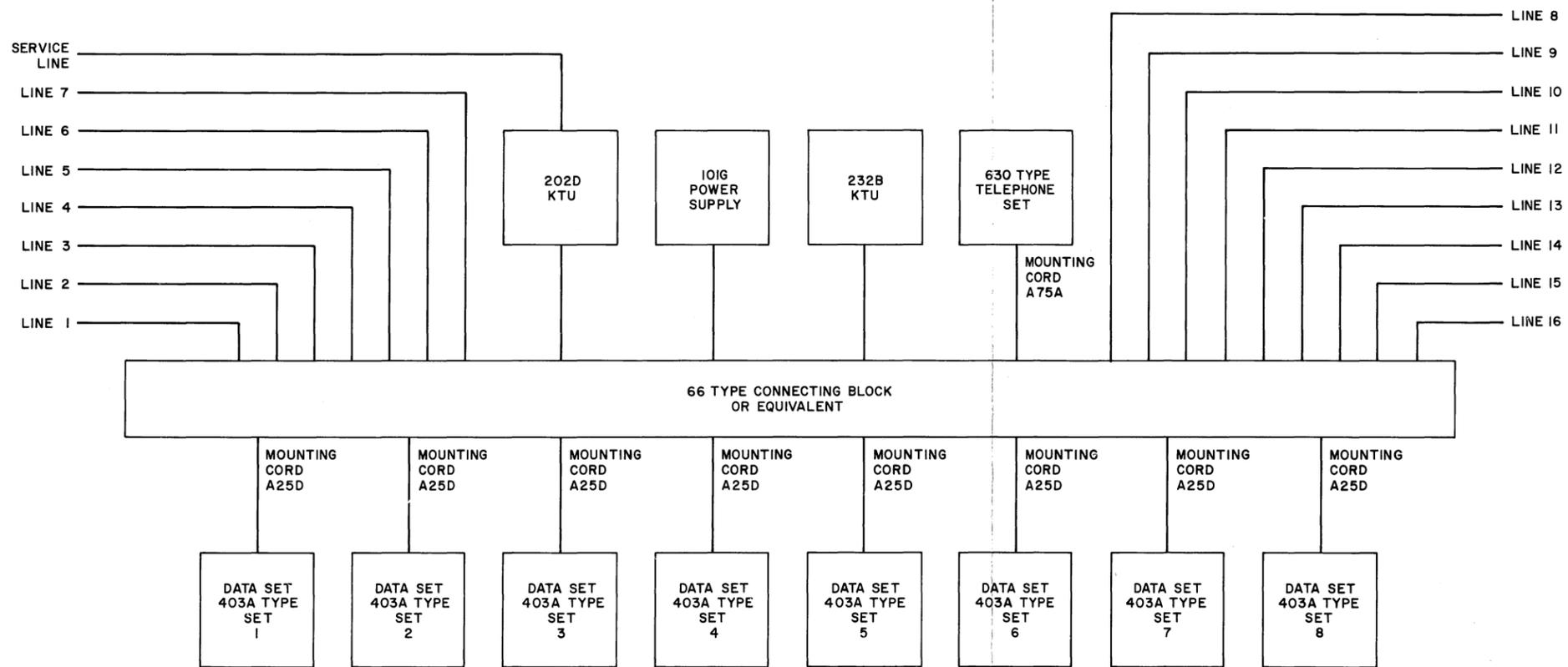


Fig. 5—Block Diagram of a Data Installation Using a Single 18-Button 630-Type Telephone Set For Intercept Only For 16 Data Lines

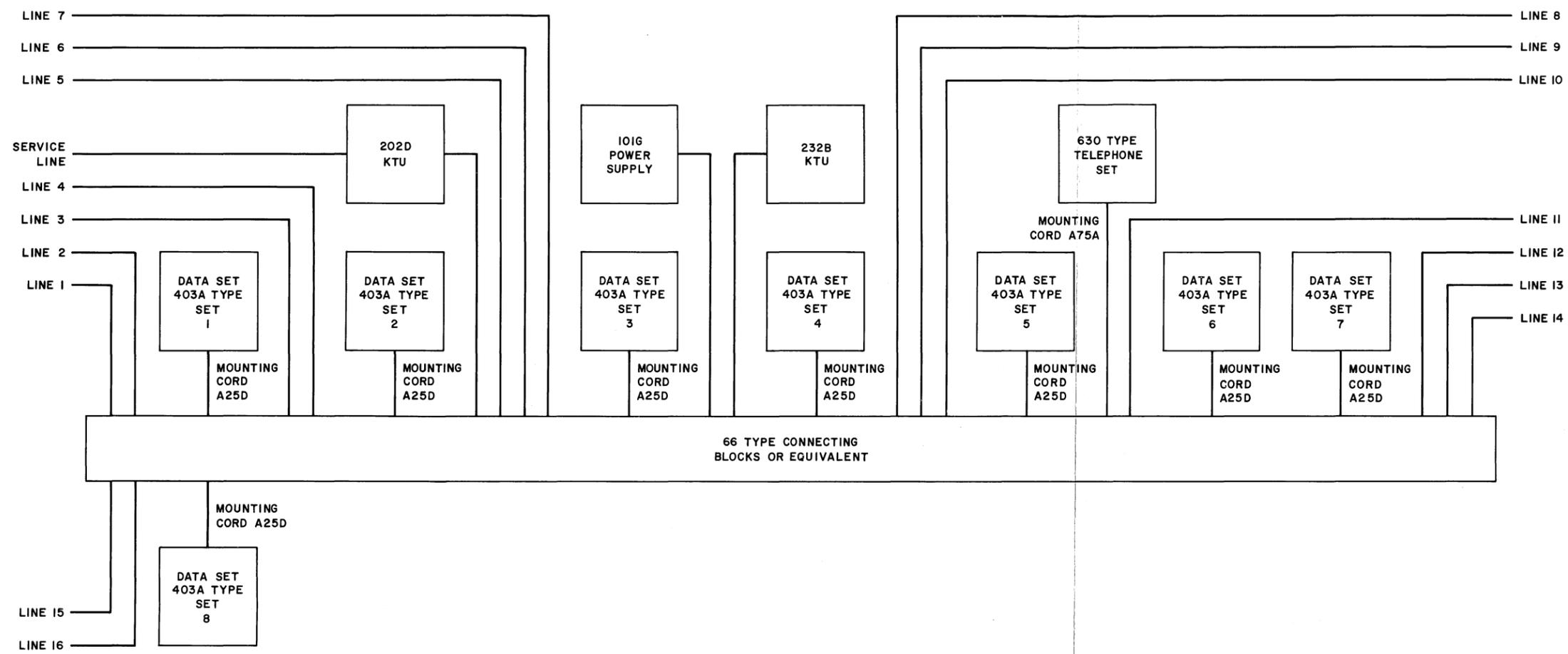


Fig. 6 — Block Diagram of a Data Installation Using a Single 18-Button 630-Type Telephone Set For Maintenance Only For 16 Data Lines

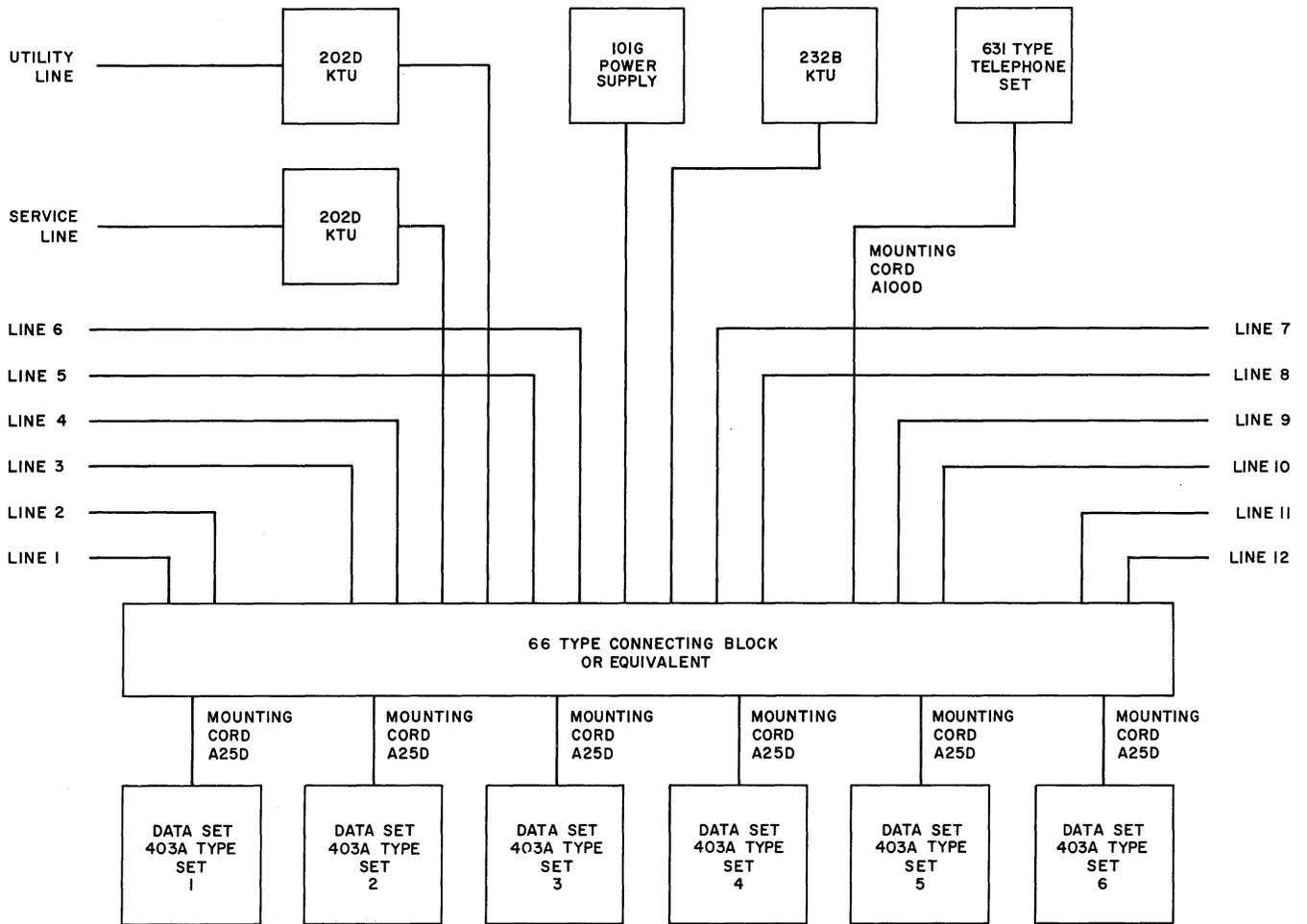


Fig. 7 — Block Diagram of a Data Installation Using a Single 30-Button 631-Type Telephone Set For Intercept and Maintenance For 12 Data Lines

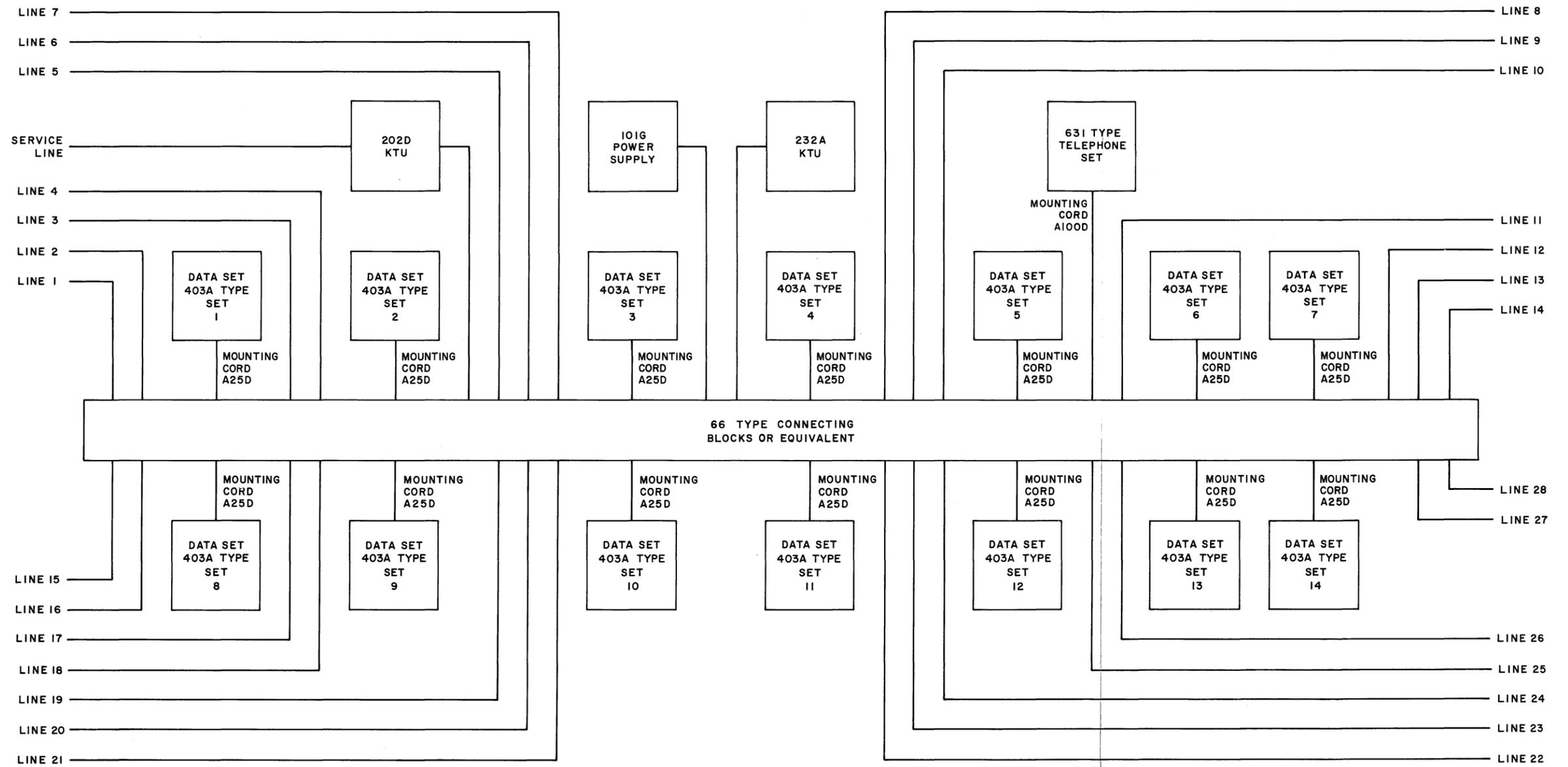


Fig. 8—Block Diagram of a Data Installation Using a Single Button 631-Type Telephone Set For Maintenance or Intercept For 28 Data Lines

TABLE D, Sheet 1

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR INTERCEPT AND MAINTENANCE FOR 6 DATA LINES

MOUNTING CORD A25D (Set 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	UTILITY 202D KTU	630-TYPE TELEPHONE SET MOUNTING CORD			SERVICE LINE 202D KTU	232B KTU	101G POWER SUPPLY
				A75A (BL-W)	A75A (O-W)	A75A (G-W)			
			2	BL-W					
			1	W-BL					
			4	O-W				Bat Gnd	
			3	W-O					
			5	G-W					
			6	W-G				±Gnd	
BL-Y				BR-W					
S-BK				W-BR					
BR-Y				W-SL					
S-Y				BL-R					
				R-BL				±Gnd	
Y-BL				O-R					
BK-S				R-O					
Y-BR				R-G					
Y-S				BR-R					
				R-BR				±Gnd	
	BL-Y			S-R					
	S-BK			R-S					
	BR-Y			BK-BL					
	S-Y			O-BK					
				BK-O				±Gnd	
				BK-G				Bat Gnd	
O-V	O-V	O-V		Y-BL					
G-V	G-V	G-V		BK-BR					
	Y-BL				BL-W				
	BK-S				W-BL				
	Y-BR				W-O				
	Y-S				G-W				
					W-G			±Gnd	
		BL-Y			BR-W				
		S-BK			W-BR				
		BR-Y			W-S				
		S-Y			BL-R				
					R-BL			±Gnd	
		Y-BL			O-R				
		BK-S			R-O				

TABLE D, Sheet 1

TABLE D, Sheet 2

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR INTERCEPT AND MAINTENANCE FOR 6 DATA LINES

MOUNTING CORD A25D (Set 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	UTILITY 202D KTU	630-TYPE TELEPHONE SET MOUNTING CORD			SERVICE LINE 202D KTU	232B KTU	101G POWER SUPPLY
				A75A (BL-W)	A75A (O-W)	A75A (G-W)			
		Y-BR			R-G				
		Y-S			BR-R				
					R-BR			±Gnd	
BL-BK					BK-BR				
S-R					S-BK				
					BK-S			±10v	
BL-O					Y-O				
R-S					G-Y				
					Y-G			±10v	
	BL-BK					W-O			
	S-R					G-W			
						Y-G		±10v	
	BL-O					W-S			
	R-S					BL-R			
						R-BL		±10v	
		BL-BK				R-G			
		S-R				BR-R			
						R-BR		±10v	
		BL-O				BK-BL			
		R-S				O-BK			
						BK-O		±10v	
						BL-Y	2		
						Y-BL	1		
						Y-O	3		
						G-Y	5		
						Y-G	6	±Gnd	
G-Y	G-Y	G-Y					8		
O-Y	O-Y	O-Y					7		
S-V	S-V	S-V					29	10,26 ±10v	
V-BR	V-BR	V-BR	26				26	24 -24v	
BK-BL	BK-BL	BK-BL	27				27	9,25, ±Gnd, Bat Gnd 27	
BR-V	BR-V	BR-V	19				19	1	
			20				20	11	
			22				22	38	

TABLE D, Sheet 2

TABLE D, Sheet 3

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR INTERCEPT AND MAINTENANCE FOR 6 DATA LINES

MOUNTING CORD A25D (Set 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	UTILITY 202D KTU	630-TYPE TELEPHONE SET MOUNTING CORD			SERVICE LINE 202D KTU	232B KTU	101G POWER SUPPLY
				A75A (BL-W)	A75A (O-W)	A75A (G-W)			
BL-V	BL-V	BL-V	21				21	35S*	
			23				23	36S*	
			24				24	37	
V-BL	V-BL	V-BL						5	
V-O	V-O	V-O						5	
BL-R BR-R			T R C. O. Line 1	<p>The connections on this table provide options on utility and service KTU H, M, X, & Y. For further information on options refer to Section 518-114-403.</p> <p>* A 400A type Diode must be placed between the terminals 35 and 36 to provide options on the 232A KTU</p> <p>Note: Replace 599A key in call Director with 599H key</p>					
R-BL R-BR			T R C. O. Line 2						
	BL-R BR-R		T R C. O. Line 3						
	R-BL R-BR		T R C. O. Line 4						
		BL-R BR-R	T R C. O. Line 5						
		R-BL R-BR	T R C. O. Line 6						
S-W W-S O-BK			} Connect together						
	S-W W-S O-BK		} Connect together						
		S-W W-S O-BK	} Connect together						

TABLE E, Sheet 1

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 16 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	MOUNTING CORD A25D (SET 7)	MOUNTING CORD A25D (SET 8)	630-TYPE TELEPHONE SET MOUNTING CORD			SERVICE LINE 202D KTU	232B KTU	101G POWER SUPPLY
								A75A (BL-W)	A75A (O-W)	A75A (G-W)			
BL-Y								BL-W					
S-BK								W-BL					
								O-W					Bat Gnd
BR-Y								W-O					
S-Y								G-W					
								W-G					±Gnd
Y-BL								BR-W					
BK-S								W-BR					
Y-BR								W-S					
Y-S								BL-R					
								R-BL					± Gnd
	BL-Y							O-R					
	S-BK							R-O					
	BR-Y							R-G					
	S-Y							BR-R					
								R-BR					± Gnd
	Y-BL							S-R					
	BK-S							R-S					
	Y-BR							BK-BL					
	Y-S							O-BK					
								BK-O					± Gnd
		BL-Y						G-BK					
		S-BK						BK-G					
		BR-Y						BK-BR					
		S-Y						S-BK					
								BK-S					± Gnd
		Y-BL							BL-W				
		BK-S							W-BL				
		Y-BR							W-O				
		Y-S							G-W				
									W-G				± Gnd
			BL-Y						BR-W				
			S-BK						W-BR				
			BR-Y						W-S				
			S-Y						BL-R				
									R-BL				± Gnd

TABLE E, Sheet 1

TABLE E, Sheet 2

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 16 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	MOUNTING CORD A25D (SET 7)	MOUNTING CORD A25D (SET 8)	630-TYPE TELEPHONE SET MOUNTING CORD			SERVICE LINE 202D KTU	232B KTU	101G POWER SUPPLY
								A75A (BL-W)	A75A (O-W)	A75A (G-W)			
			Y-BL						O-R				
			BK-S						R-O				
			Y-BR						R-G				
			Y-S						BR-R				
									R-BR				± Gnd
				BL-Y					S-R				
				S-BK					R-S				
				BR-Y					BK-BL				
				S-Y					O-BK				
									BK-O				± Gnd
				Y-BL					G-BK				
				BK-S					BK-G				
				Y-BR					BK-BR				
				Y-S					S-BK				
									BK-S				± Gnd
								BL-Y	BL-Y				
								S-BK	Y-BL				
								BR-Y	Y-O				
								S-Y	G-Y				
									Y-G				± Gnd
								Y-BL		BL-W			
								BK-S		W-BL			
								Y-BR		W-O			
								Y-S		G-W			
										W-G			± Gnd
								BL-Y		BR-W			
								S-BK		W-BR			
								BR-Y		W-S			
								S-Y		BL-R			
										R-BL			± Gnd
								Y-BL		O-R			
								BK-S		R-O			
								Y-BR		R-G			
								Y-S		BR-R			
										R-BR			± Gnd
								BL-Y		S-R			

TABLE E, Sheet 2

TABLE E, Sheet 3

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 16 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	MOUNTING CORD A25D (SET 7)	MOUNTING CORD A25D (SET 8)	630-TYPE TELEPHONE SET MOUNTING CORD			SERVICE LINE 202D KTU	232B KTU	101G POWER SUPPLY
								A75A (BL-W)	A75A (O-W)	A75A (G-W)			
							S-BK			R-S			
							BR-Y			BK-BL			
							S-Y			O-BK			
										BK-O			± Gnd
							Y-BL			G-BK			
							BK-S			BK-G			
							Y-BR			BK-BR			
							Y-S			S-BK			
										BK-S			± Gnd
										BL-Y	2		
										Y-BL	1		
										Y-O	3		
										G-Y	5		
										Y-G	6		± Gnd
V-BR	V-BR	V-BR	V-BR	V-BR	V-BR	V-BR	V-BR				26	24	-24v
S-V	S-V	S-V	S-V	S-V	S-V	S-V	S-V				29	19, 10, 26	±10v
BK-BL	BK-BL	BK-BL	BK-BL	BK-BL	BK-BL	BK-BL	BK-BL				27	9, 25, 27	±Gnd, Bat Gnd
BR-V				19	1								
BL-V	BL-V	BL-V	BL-V	BL-V	BL-V	BL-V	BL-V				21	35S*	
											23	36S*	
BL-R											24	37	
BR-R													
R-BL													
R-BR													
	BL-R												
	BR-R												
	R-BL												
	R-BR												
		BL-R											
		BR-R											
		R-BL											
		R-BR											
			BL-R										
			BR-R										
											20	11	
											22	38	

TABLE E, Sheet 4

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 16 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	MOUNTING CORD A25D (SET 7)	MOUNTING CORD A25D (SET 8)	630-TYPE TELEPHONE SET MOUNTING CORD			SERVICE LINE 202D KTU	232B KTU	101G POWER SUPPLY
								A75A (BL-W)	A75A (O-W)	A75A (G-W)			
			R-BL R-BR					T R	C. O. Line 8				
				BL-R BR-R				T R	C. O. Line 9				
				R-BL R-BR				T R	C. O. Line 10				
					BL-R BR-R			T R	C. O. Line 11				
					R-BL R-BR			T R	C. O. Line 12				
						BL-R BR-R		T R	C. O. Line 13				
						R-BL R-BR		T R	C. O. Line 14				
							BL-R BR-R	T R	C. O. Line 15				
							R-BL R-BR	T R	C. O. Line 16				
S-W													
W-S									Connect Together				
O-BK													
	S-W												
	W-S								Connect Together				
	O-BK												
		S-W											
		W-S							Connect Together				
		O-BK											
			S-W										
			W-S						Connect Together				
			O-BK										
				S-W									
				W-S					Connect Together				
				O-BK									
					S-W								
					W-S				Connect Together				
					O-BK								

TABLE F, Sheet 1

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR
MAINTENANCE ONLY FOR 16 DATA LINES

630-TYPE TELEPHONE SET MOUNTING CORD			MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A75A (BL-W)	A75A (O-W)	A75A (G-W)					
O-W							Bat Gnd
W-O			BL-BK	1			±10v
G-W			S-R				
W-G							
W-S			BK-O				
BL-R			R-S	2			±10v
R-BL							
R-G			BL-BK				
BR-R			S-R				
R-BR				3			±10v
BK-BL			BK-O				
O-BK			R-S				
BK-O							
BK-BR			BL-BK	4			±10v
S-BK			S-R				
BK-S							
	W-O		BK-O				
	G-W		R-S	5			±10v
	W-G						
	W-S		BL-BK				
	BL-R		S-R				
	R-BL			6			±10v
	R-G		BK-O				
	BR-R		R-S				
	R-BR						
	BK-BL		BL-BK	5			±10v
	O-BK		S-R				
	BK-O						
	BK-BR		BK-O				
	S-BK		R-S	6			±10v
	BK-S						
	Y-O		BL-BK				
	G-Y		S-R				
	Y-G						±10v

TABLE F, Sheet 1

TABLE F, Sheet 2

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 16 DATA LINES

630-TYPE TELEPHONE SET MOUNTING CORD			MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A75A (BL-W)	A75A (O-W)	A75A (G-W)					
	S-Y		O-V	} 1 thru 8			
	Y-S		G-V				
		W-O	BK-O	} 6			
		G-W	R-S				
		W-G					±10v
		W-S	BL-BK	} 7			
		BL-R	S-R				
		R-BL					
		R-G	BK-O				
		BR-R	R-S				
		R-BR					±10v
		BK-BL	BL-BK	} 8			
		O-BK	S-R				
		BK-O					±10v
		BK-BR	BK-O				
		S-BK	R-S				
		BK-S					±10v
		BL-Y			2		
		Y-BL			1		
		Y-O			3		
		G-Y			5		
		Y-G			6		Gnd

TABLE F, Sheet 2

TABLE F, Sheet 3

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 16 DATA LINES

	MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY		
Service T Line R	O-Y	}	7				
	G-Y		8				
	V-BR		26	24	-24v		
	BL-V		All sets	21	35Ⓢ*		
	BK-BL			27	9, 25, 27	±Gnd, Bat Gnd	
	S-V			29	10, 26, 19	±10v	
	V-BL				5		
	V-O				5		
	Line 1 T		BL-R				
	R		BR-R				
	Line 2 T		R-BL				
	R		R-BR	1			
			S-W Connect W-S together O-BK				
					19	1	
					20	11	
			22	38			

* Enclosed letter denotes options.

TABLE F, Sheet 4

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 16 DATA LINES

		MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
Line 3	T	BL-R	2			
	R	BR-R				
Line 4	T	R-BL				
	R	R-BR				
		S-W } Connect W-S } together O-BK }				
Line 5	T	BL-R	3			
	R	BR-R				
Line 6	T	R-BL				
	R	R-BR				
		S-W } Connect W-S } together O-BK }				
Line 7	T	BL-R	4			
	R	BR-R				
Line 8	T	R-BL				
	R	R-BR				
		S-W } Connect W-S } together O-BK }				
Line 9	T	BL-R	5			
	R	BR-R				
Line 10	T	R-BL				
	R	R-BR				
		S-W } Connect W-S } together O-BK }				
Line 11	T	BL-R	6			
	R	BR-R				
Line 12	T	R-BL				
	R	R-BR				
		S-W } Connect W-S } together O-BK }				

TABLE F, Sheet 4

TABLE F, Sheet 5

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 18 BUTTON, 630-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 16 DATA LINES

	MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
The 630-type telephone set requires the following modifications: (1) Disconnect (G-Y) on first module from A-H terminal on TB1 and connect it to terminal (Y) on TB6. (2) Connect (BR-V) on first module to terminal 1B on TB6. (3) Connect (V-BR) on first module to terminal R1 on TB6. (4) Connect (S-Y) from (O-W) lead to terminal R1 on TB6. (5) Connect (Y-S) from (O-W) lead to terminal Y on TB6.	Line 13 T	7			
	R				
	Line 14 T				
	R				
	S-W } Connect together				
	W-S } O-BK }				
	Line 15 T	8			
	R				
	Line 16 T				
	R				
S-W } Connect together					
W-S } O-BK }					

TABLE G, Sheet 1
WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
INTERCEPT AND MAINTENANCE FOR 12 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	631-TYPE TELEPHONE SET MOUNTING CORD					UTILITY 202D KTU	SERVICE 202D KTU	232B KTU	101G POWER SUPPLY
						A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)				
						BL-W					2			
						W-BL					1			Bat Gnd
						O-W					4			
						W-O					3			
						G-W					5			
						W-G					6			Gnd
BL-Y						BR-W								
S-BK						W-BR								
BR-Y						W-S								
S-Y						BL-R								
						R-BL								± Gnd
Y-BL						O-R								
BK-S						R-O								
Y-BR						R-G								
Y-S						BR-R								
						R-BR								± Gnd
	BL-Y					S-R								
	S-BK					R-S								
	BR-Y					BK-BL								
	S-Y					O-BK								
						BK-O								± Gnd
						BK-G								Bat Gnd
O-V	O-V	O-V	O-V	O-V	O-V	Y-BL								
G-V	G-V	G-V	G-V	G-V	G-V	BK-BR								
	Y-BL						BL-W							
	BK-S						W-BL							
	Y-BR						W-O							
Y-S							G-W							
							W-G							± Gnd
		BL-Y					BR-W							
		S-BK					W-BR							
		BR-Y					W-S							
		S-Y					BL-R							
							R-BL							± Gnd
		Y-BL					O-R							
		BK-S					R-O							
		Y-BR					R-G							

TABLE G, Sheet 2
 WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
 INTERCEPT AND MAINTENANCE FOR 12 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	631-TYPE TELEPHONE SET MOUNTING CORD					UTILITY 202D KTU	SERVICE 202D KTU	232B KTU	101G POWER SUPPLY	
						A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
		Y-S					BR-R								
							R-BR								± Gnd
			BL-Y				S-R								
			S-BK				R-S								
			BR-Y				BK-BL								
			S-Y				O-BK								
							BK-O								± Gnd
			Y-BL				G-BK								
			BK-S				BK-G								
			Y-BR				BK-BR								
			Y-S				S-BK								
							BK-S								± Gnd
				BL-Y				B-W							
				S-BK				W-BL							
				BR-Y				W-O							
				S-Y				G-W							
								W-G							± Gnd
				Y-BL				BR-W							
				BK-S				W-BR							
				Y-BR				W-S							
				Y-S				BL-R							
								R-BL							± Gnd
					BL-Y			O-R							
					S-BK			R-O							
					BR-Y			R-G							
					S-Y			BR-R							
								R-BR							± Gnd
					Y-BL			S-R							
					BK-S			R-S							
					Y-BR			BK-BL							
					Y-S			O-BK							
								BK-O							± Gnd
BL-BK								Y-O							
S-R								G-Y							
								Y-G							
BK-O									W-O						±10v

TABLE G, Sheet 3
 WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
 INTERCEPT AND MAINTENANCE FOR 12 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	631-TYPE TELEPHONE SET MOUNTING CORD					UTILITY 202D KTU	SERVICE 202D KTU	232B KTU	101G POWER SUPPLY
						A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)				
R-S									G-W					
									W-G					±10v
	BL-BK								W-S					
	S-R								BL-R					
									R-BL					±10v
	BK-O								R-G					
	R-S								BR-R					
									R-BR					±10v
		BL-BK							BK-BL					
		S-R							O-BK					
									BK-O					±10v
		BK-O							BK-BR					
		R-S							S-BK					
									BK-S					±10v
			BL-BK						Y-O					
			S-R						G-Y					
									Y-G					±10v
			BK-O							W-O				
			R-S							G-W				
										W-G				±10v
				BL-BK						W-S				
				S-R						BL-R				
										R-BL				±10v
				BK-O						R-G				
				R-S						BR-R				
										R-BR				±10v
					BL-BK					BK-BL				
					S-R					O-BK				
										BK-O				±10v
					BK-O					BK-BR				
					R-S					S-BK				
										BK-S				±10v
										BL-Y		2		
										Y-BL		1		
										Y-O		3		
										G-Y		5		

TABLE G, Sheet 4
WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
INTERCEPT AND MAINTENANCE FOR 12 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	631-TYPE TELEPHONE SET MOUNTING CORD					UTILITY 202D KTU	SERVICE 202D KTU	232B KTU	101G POWER SUPPLY	
						A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
											Y-G		6		
G-Y	G-Y	G-Y	G-Y	G-Y	G-Y								8		
O-Y	O-Y	O-Y	O-Y	O-Y	O-Y								7		
S-V	S-V	S-V	S-V	S-V	S-V							29	29	10,26,19	±10v
V-BR	V-BR	V-BR	V-BR	V-BR	V-BR							26	26	24	- 24v
BK-BL	BK-BL	BK-BL	BK-BL	BK-BL	BK-BL							4,27	4,27	9,25,27	± Gnd, Bat Gnd
BR-V	BR-V	BR-V	BR-V	BR-V	BR-V							19	19	1	
BL-V	BL-V	BL-V	BL-V	BL-V	BL-V							21	21	35Ⓢ*	
												23	23	36Ⓢ*	
												24	24	37	
V-BL	V-BL	V-BL	V-BL	V-BL	V-BL									5	
V-O	V-O	V-O	V-O	V-O	V-O									5	
BL-R												20	20	11	
BR-R												22	22	38	
R-BL															
R-BR															
	BL-R														
	BR-R														
	R-BL														
	R-BR														
		BL-R													
		BR-R													
		R-BL													
		R-BR													
			BL-R												
			BR-R												
			R-BL												
			R-BR												
				BL-R											
				BR-R											
				R-BL											
				R-BR											
					BL-R										
					BR-R										
					R-BL										
					R-BR										

T
R Line 1
T
R Line 2
T
R Line 3
T
R Line 4
T
R Line 5
T
R Line 6
T
R Line 7
T
R Line 8
T
R Line 9
T
R Line 10
T
R Line 11
T
R Line 12

The connections on this table provide options on utility and service KTU, H, M, X & Y. For further information on options refer to Section 518-114-403

* All encircled letters denote options

Note: Replace 599A key in call director with 599H key

TABLE G, Sheet 5

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
INTERCEPT AND MAINTENANCE FOR 12 DATA LINES

MOUNTING CORD A25D (SET 1)	MOUNTING CORD A25D (SET 2)	MOUNTING CORD A25D (SET 3)	MOUNTING CORD A25D (SET 4)	MOUNTING CORD A25D (SET 5)	MOUNTING CORD A25D (SET 6)	631-TYPE TELEPHONE SET MOUNTING CORD					UTILITY 202D KTU	SERVICE 202D KTU	232B KTU	101G POWER SUPPLY
						A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)				
S-W W-S O-BK						)} Connect together								
	S-W W-S O-BK					)} Connect together								
		S-W W-S O-BK				)} Connect together								
			S-W W-S O-BK			)} Connect together								
				S-W W-S O-BK		)} Connect together								
					S-W W-S O-BK	)} Connect together								

TABLE H, Sheet 1

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
O-W									Bat Gnd
W-O					BL-BK	1			
G-W					S-R				
W-G									±10v
W-S					BK-O	2			
BL-R					R-S				
R-BL									±10v
R-G					BL-BK	3			
BR-R					S-R				
R-BR									±10v
BK-BL					BK-O	4			
O-BK					R-S				
BK-O									±10v
BK-BR					BL-BK	5			
S-BK					S-R				
BK-S									±10v
	W-O				BK-O	6			
	G-W				R-S				
	W-G								±10v
	W-S				BL-BK	4			
	BL-R				S-R				
	R-BL								±10v
	R-G				BK-O	5			
	BR-R				R-S				
	R-BR								±10v
	BK-BL				BL-BK	6			
	O-BK				S-R				
	BK-O								±10v
	BK-BR				BK-O	5			
	S-BK				R-S				
	BK-S								±10v
	Y-O				BL-BK	6			
	G-Y				S-R				
	Y-G								±10v

TABLE H, Sheet 1

TABLE H, Sheet 2

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
	S-Y				O-V	1 thru 14			
	Y-S				G-V				
		W-O			BK-O	6			
		G-W			R-S				
		W-G							±10v
		W-S			BL-BK				
		BL-R			S-R				
		R-BL				7			±10v
		R-G			BK-O				
		BR-R			R-S				
		R-BR							±10v
		BK-BL			BL-BK				
		O-BK			S-R				
		BK-O				8			±10v
		BK-BR			BK-O				
		S-BK			R-S				
		BK-S							±10v
		Y-O			BL-BK				
		G-Y			S-R				
		Y-G				9			±10v
			W-O		BK-O				
			G-W		R-S				
			W-G						±10v
			W-S		BL-BK				
			BL-R		S-R				
			R-BL			10			±10v
			R-G		BK-O				
			BR-R		R-S				
			R-BR						±10v
			BK-BL		BL-BK				
			O-BK		S-R				
			BK-O			11			±10v
			BK-BR		BK-O				
			S-BK		R-S				
			BK-S						±10v

TABLE H, Sheet 2

TABLE H, Sheet 3
 WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY	
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)						
			Y-O		BL-BK	12				
			G-Y		S-R					
			Y-G							±10v
				W-O	BK-O	13				
				G-W	R-S					
				W-G						±10v
				W-S	BL-BK	14				
				BL-R	S-R					
				R-B						±10v
				R-G	BK-O	14				
				BR-R	R-S					
				R-BR						±10v
				BK-BL	BL-BK	14				
				O-BK	S-R					
				BK-O	BK-O					±10v
				S-BK	R-S	14				
				BK-S						±10v
				BL-Y				2		
				Y-BL			1			
				Y-O			3			
				G-Y			5			
				Y-G			6		Gnd	
				Service T	O-Y	All sets	7			
			Line R	R	G-Y		8			
					V-BR		26	24		-24v
					BL-V		21	35(S)*		
					BK-BL		27	9,25,27		± Gnd, Bat Gnd
					S-V		29	10,26,19		±10v
					V-BL			5		
					V-O			5		
				Line 1 T	BL-R		20	11		
				R	BR-R		22	38		
				Line 2 T	R-BL		19	1		
				R	R-BR	1				
					S-W	Connect together				
					W-S					
					O-BK					

* Enclosed letter denotes options.

TABLE H, Sheet 4

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR

MAINTENANCE ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
				Line 3 T	BL-R	2			
				R	BR-R				
				Line 4 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 5 T	BL-R	3			
				R	BR-R				
				Line 6 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 7 T	BL-R	4			
				R	BR-R				
				Line 8 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 9 T	BL-R	5			
				R	BR-R				
				Line 10 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 11 T	BL-R	6			
				R	BR-R				
				Line 12 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				

TABLE H, Sheet 5

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
MAINTENANCE ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY	
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)						
<p>The 631-type telephone set requires the following modifications:</p> <ol style="list-style-type: none"> (1) Disconnect (G-Y) on first module from A-H terminal on TB1 and connect it to terminal (Y) on TB6. (2) Connect (BR-V) on first module to terminal 1B on TB6. (3) Connect (V-BR) on first module to terminal R1 on TB6. (4) Connect (S-Y) from (O-W) lead to terminal R1 on TB6. (5) Connect (Y-S) from (O-W) lead to terminal Y on TB6. 					Line 13 T	BL-R	7			
					R	BR-R				
					Line 14 T	R-BL				
					R	R-BR				
						S-W } Connect together				
						W-S }				
						O-BK }				
					Line 15 T	BL-R	8			
					R	BR-R				
					Line 16 T	R-BL				
					R	R-BR				
						S-W } Connect together				
						W-S }				
						O-BK }				
					Line 17 T	BL-R	9			
					R	BR-R				
					Line 18 T	R-BL				
					R	R-BR				
						S-W } Connect together				
						W-S }				
	O-BK }									
Line 19 T	BL-R	10								
R	BR-R									
Line 20 T	R-BL									
R	R-BR									
	S-W } Connect together									
	W-S }									
	O-BK }									
Line 21 T	BL-K	11								
R	BR-R									
Line 22 T	S-W } Connect together									
R	W-S }									
	O-BK }									

TABLE H, Sheet 6

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
 MAINTENANCE ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
				Line 23 T	BL-R	12			
				R	BR-R				
				Line 24 T	R-BL				
				R	R-BR				
					S-W } Connect W-S } together O-BK }				
				Line 25 T	BL-R		13		
				R	BR-R				
				Line 26 T	R-BL				
				R	R-BR				
					S-W } Connect W-S } together O-BK }				
				Line 27 T	BL-R	14			
				R	BR-R				
				Line 28 T	R-BL				
				R	R-BR				
					S-W } Connect W-S } together O-BK }				
					G-V		All sets	S-Y	
					O-V	All sets	Y-S		

TABLE J, Sheet 1

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
BL-W					BL-Y	1			
W-BL					S-BK				
O-W									Bat Gnd
W-O					BR-Y				
G-W					S-Y				± Gnd
W-G						2			
BR-W					Y-BL				
W-BR					BK-S				
W-S					Y-BR				
BL-R					Y-S				± Gnd
R-BL						3			
O-R					BL-Y				
R-O					S-BK				
R-G					BR-Y				
BR-R					S-Y				± Gnd
R-BR						4			
S-R					Y-BL				
R-S					BK-S				
BK-BL					Y-BR				
O-BK					Y-S				± Gnd
BK-O									
G-BK					BL-Y				
BK-G					S-BK				
BK-BR					BR-Y				
S-BK					S-Y				± Gnd
BK-S									
	BL-W				Y-BL				
	W-BL				BK-S				
	W-O				Y-BR				
	G-W				Y-S				± Gnd
	W-G								
	BR-W				BL-Y				
	W-BR				S-BK				
	W-S				BR-Y				
	BL-R				S-Y				± Gnd
	R-BL								± Gnd

TABLE J, Sheet 1

TABLE J, Sheet 2

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY	
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)						
	O-R				Y-BL	4				
	R-O				BK-S					
	R-G				Y-BR					
	BR-R				Y-S					
	R-BR								± Gnd	
	S-R				BL-Y	5				
	R-S				S-BK					
	BK-BL				BR-Y					
	O-BK				S-Y					
	BK-O									± Gnd
	G-BK				Y-BL	6				
	BK-G				BK-S					
	BK-BR				Y-BR					
	S-BK				Y-S					
	BK-S									± Gnd
	BL-Y				BL-Y					
	Y-BL				S-BK	7				
	Y-O				BR-Y					
	G-Y				S-Y					
	Y-G									± Gnd
		BL-W			Y-BL					
		W-BL			BK-S					
		W-O			Y-BR					
		G-W			Y-S					
		W-G							± Gnd	
		BR-W			BL-Y	8				
		W-BR			S-BK					
		W-S			BR-Y					
		BL-R			S-Y					
		R-BL								± Gnd
		O-R			Y-BL					
		R-O			BK-S					
		R-G			Y-BR					
		BR-R			Y-S					
		R-BR							± Gnd	

TABLE J, Sheet 2

TABLE J, Sheet 3

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
		S-R			BL-Y	8			
		R-S			S-BK				
		BK-BL			BR-Y				
		O-BK			S-Y				
		BK-O							± Gnd
		G-BK			Y-BL				
		BK-G			BK-S				
		BK-BR			Y-BR				
		S-BK			Y-S				
		BK-S							± Gnd
		BL-Y			BL-Y	9			
		Y-BL			S-BK				
		Y-O			BR-Y				
		G-Y			S-Y				
		Y-G							
									± Gnd

TABLE J, Sheet 4
 WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
 INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
			BL-W		Y-BL	9			
			W-BL		BK-S				
			W-O		Y-BR				
			G-W		Y-S				
			W-G						± Gnd
			BR-W		BL-Y	10			
			W-BR		S-BK				
			W-S		BR-Y				
			BL-R		S-Y				
			R-BL						± Gnd
			O-R		Y-BL	11			
			R-O		BK-S				
			R-G		Y-BR				
			BR-R		Y-S				
			R-BR						± Gnd
			S-R		BL-Y	12			
			R-S		S-BK				
			BK-BL		BR-Y				
			O-BK		S-Y				
			BK-O						± Gnd
			G-BK		Y-BL	13			
			BK-G		BL-S				
			BK-BR		Y-BR				
			S-BK		Y-S				
			BK-S						± Gnd
			BL-Y		BL-Y	12			
			Y-BL		S-BK				
			Y-O		BR-Y				
			G-Y		S-Y				
			Y-G						± Gnd
				BL-W	Y-BL	12			
				W-BL	BK-S				
				W-O	Y-BR				
				G-W	Y-S				
				W-G					± Gnd
				BR-W	BL-Y	13			
				W-BR	S-BK				
				W-S	BR-Y				
				BL-R	S-Y				

TABLE J, Sheet 5

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
				R-BL					± Gnd
				O-R	Y-BL	13			
				R-O	BK-S				
				R-G	Y-BR				
				BR-R	Y-S				
				B-BR					± Gnd
				S-R	BL-Y	14			
				R-S	S-BK				
				BK-BL	BR-Y				
				O-BK	S-Y				
				BK-O					± Gnd
				G-BK	Y-BL	1			
				BK-G	BK-S				
				BK-BR	Y-BR				
				S-BK	Y-S				
				BK-S					± Gnd
				BL-Y			2		
				Y-BL			1		
				Y-O			3		
				G-Y			5		
				Y-G			6		
				Service T			7		
				Line R			8		
					V-BR	All sets	26	24	-24v
					BL-V		21	35(S)*	
					BK-BL		27	9,25,27	± Gnd, Bat Gnd
					S-V		29	19,10,26	±10v
					BL-R				
				Line 1 T	BR-R				
				R	R-BL				
				Line 2 T	R-BR	1			
				R	S-W } Connect together				
					W-S }				
					O-BK }				
							19	1	
							20	11	
							22	38	

* Enclosed letter denotes options.

TABLE J, Sheet 5

TABLE J, Sheet 6

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
				Line 3 T	BL-R	2			
				R	BR-R				
				Line 4 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 5 T	BL-R	3			
				R	BR-R				
				Line 6 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 7 T	BL-R	4			
				R	BR-R				
				Line 8 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 9 T	BL-R	5			
				R	BR-R				
				Line 10 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				
				Line 11 T	BL-R	6			
				R	BR-R				
				Line 12 T	R-BL				
				R	R-BR				
					S-W } Connect together				
					W-S } O-BK }				

TABLE J, Sheet 7

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR
INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
				Line 13 T	BL-R	7			
				R	BR-R				
				Line 14 T	R-BL				
				R	R-BR				
					S-W } Connect together W-S } O-BK }				
				Line 15 T	BL-R	8			
				R	BR-R				
				Line 16 T	R-BL				
				R	R-BR				
					S-W } Connect together W-S } O-BK }				
				Line 17 T	BL-R	9			
				R	BR-R				
				Line 18 T	R-BL				
				R	R-BR				
					S-W } Connect together W-S } O-BK }				
				Line 19 T	BL-R	10			
				R	BR-R				
				Line 20 T	R-BL				
				R	R-BR				
					S-W } Connect together W-S } O-BK }				
				Line 21 T	BL-K	11			
				R	BR-R				
				Line 22 T	S-W } Connect together W-S } O-BK }				

TABLE J, Sheet 7

TABLE J, Sheet 8

WIRING CONNECTIONS OF A DATA STATION USING A SINGLE 30 BUTTON, 631-TYPE TELEPHONE SET FOR INTERCEPT ONLY FOR 28 DATA LINES

631-TYPE TELEPHONE SET MOUNTING CORD					MOUNTING CORDS A25D FOR ALL SETS	SET NUMBER	SERVICE LINE KTU	232B KTU	101G POWER SUPPLY
A100D (BL-W)	A100D (O-W)	A100D (G-W)	A100D (BR-W)	A100D (S-W)					
				Line 23 T	BL-R	12			
				R	BR-R				
				Line 24 T	R-BL				
				R	R-BR				
					S-W } Connect together W-S } O-BK }				
				Line 25 T	BL-R	13			
				R	BR-R				
				Line 26 T	R-BL				
				R	R-BR				
					S-W } Connect together W-S } O-BK }				
				Line 27 T	BL-R	14			
				R	BR-R				
				Line 28 T	R-BL				
				R	R-BR				
					S-W } Connect together W-S } O-BK }				