

**DATA SETS—STATION ARRANGEMENTS  
FOR MIXED DATA SETS IN 40A-TYPE  
DATA MOUNTINGS**

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B. Make-Busy Option . . . . .	5	1.01 This section contains installation and connection procedures to be followed when installing data sets or automatic calling units (ACUs) in a 40A-type data mounting.	
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40A2 DATA MOUNTING . . . . .	5	1.03 <b>40A1 Data Mounting:</b> The 40A1 data mounting (Fig. 1) consists of a metal framework, backplane assembly, and a power unit. The mounting measures about 7 inches high, 13-1/2 inches deep, and 23 inches wide (including mounting brackets). The data mounting weighs about 21 pounds without data sets. The mounting fits in 23-inch framework, or can fit in 19-inch framework by rotating the right-hand mounting bracket. The 40A1 data mounting accommodates up to eight data sets 103J-L1, 113C-L1, 113D-L1, 202S-L1, 202S-L1A, and/or data auxiliary set (DAS) 801C-L1 (automatic calling unit). Every second slot is wired with low voltage alternating current, customer and telephone ne connections, and a make-busy switch and remote test relay required for use behind line hunting equipment.	
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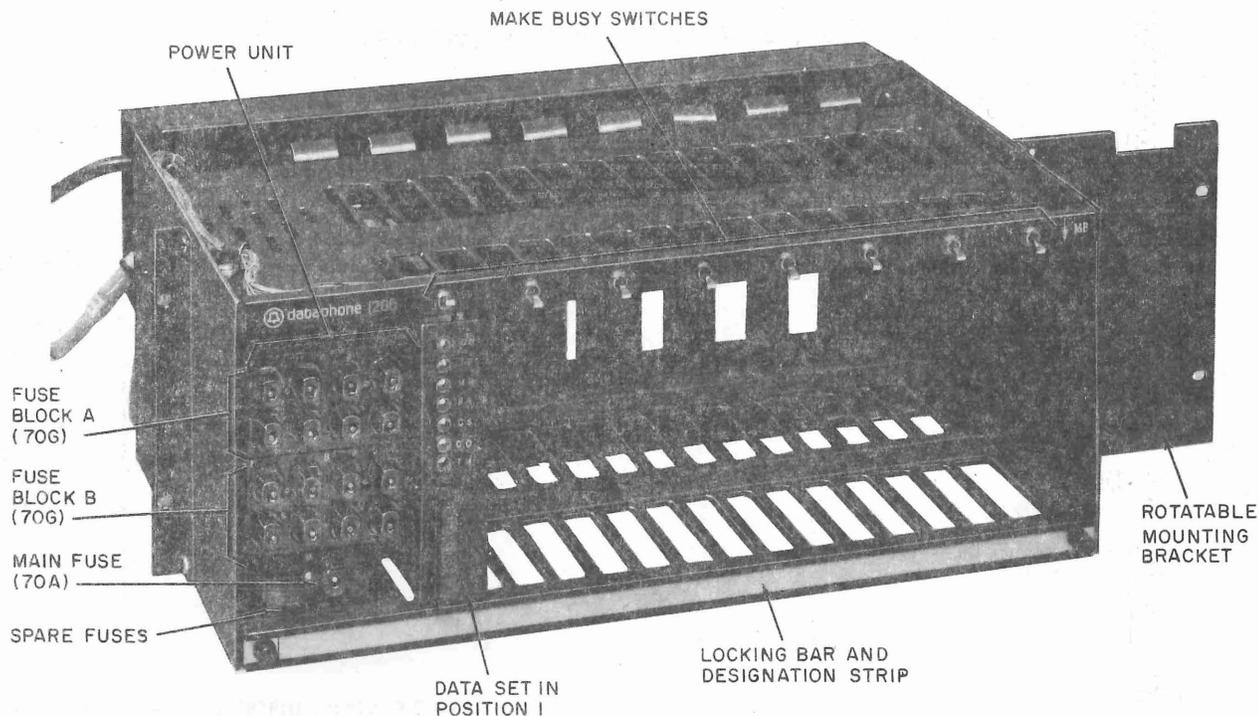


Fig. 1—40A1 Data Mounting (Shown for 23-inch Mounting)

**1.04 40A2 Data Mounting:** The 40A2 data mounting (Fig. 2) is physically similar to the 40A1 data mounting and can be identified by the designation DATAPHONE® 300/1200 located on the front. The 40A2 data mounting is electrically similar to the 40A1 data mounting except for additional interface connections for data set (DS) 212A and for an improved service line exclusion feature. All arrangements described in this section can be similarly employed with the 40A1 data mounting except for those using DS 212A. Service line connections and options listed in this section have to be appropriately modified.

**1.05 40A3 Data Mounting:** The 40A3 data mounting (Fig. 3) also can be identified by the designation DATAPHONE 300/1200 located on the front. Physically, the 40A3 data mounting differs from the 40A2 in that the 40A3 has twice as many switches (16) on the front and has no backplane. The backplane on the 40A2 holds option switches and associated relays. Electrically, the 40A3 and 40A2 data mountings are similar. The differences are that the 40A3 provides a different service line exclusion feature and provides additional interface connections for DS 212A-L1A.

**Note:** Customer interface terminals 11 and 19 are connected together for the 40A-type data mounting.

**1.06** The information in this section covers installation and connections for the following station arrangements:

(a) **Up to Eight Data Sets Without ACUs:**

This arrangement is for a maximum of eight data sets in a single 40A-type data mounting. The 830CM or 2830CM telephone set can be used with this arrangement. For up to five data sets without a service line, a 565HKM or 2565HKM telephone set can be used with this arrangement.

(b) **Up to Four Data Sets and up to Four ACUs:**

This arrangement is for a maximum of four data sets and four associated ACUs in a single 40A-type data mounting. A 565HKM or 2565HKM telephone set is used with this arrangement when required.

(c) **Up to Eight Data Sets and up to Eight ACUs:**

This arrangement is for a maximum of eight data sets in one 40A-type

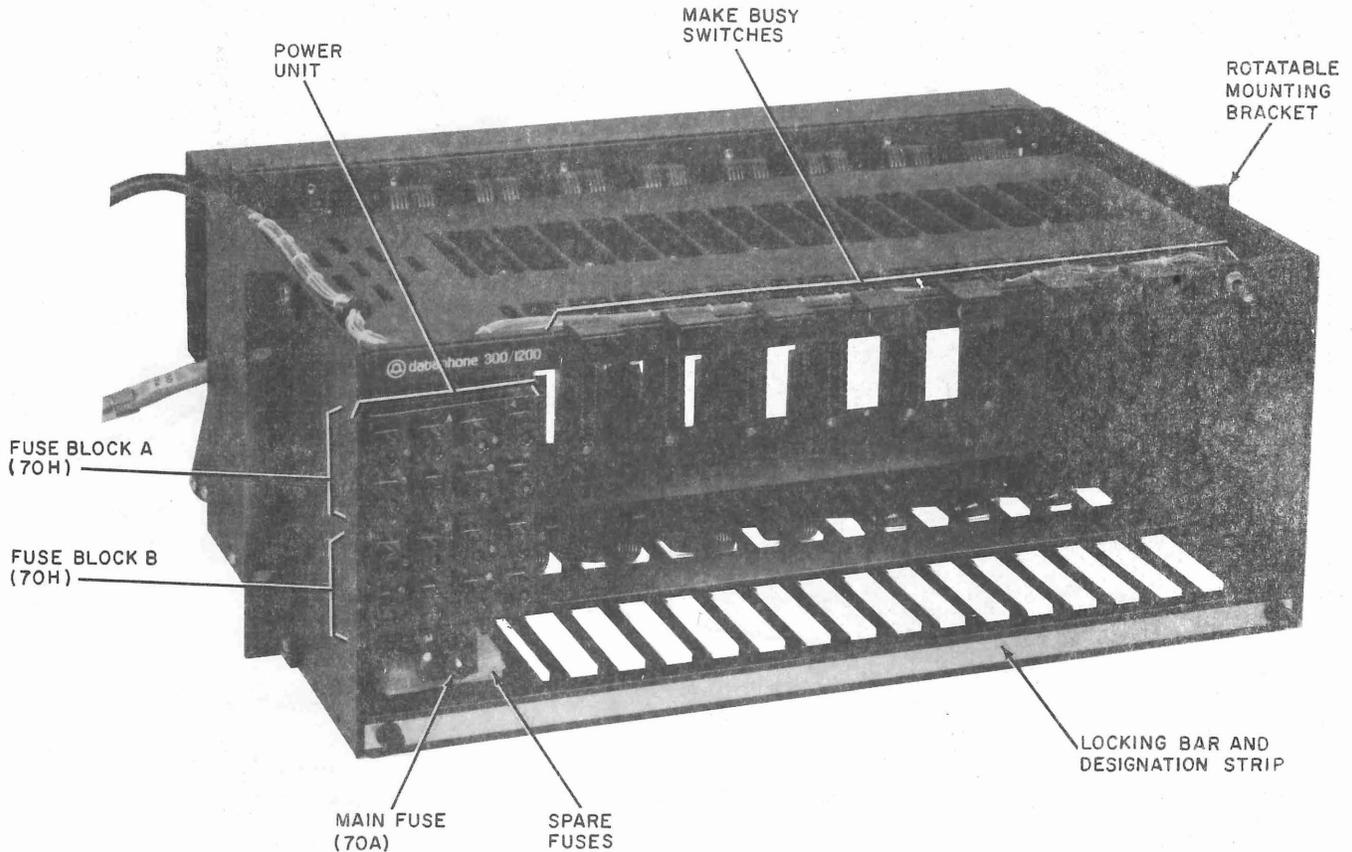


Fig. 2—40A2 Data Mounting (Shown for 19-Inch Mounting)

data mounting and a maximum of eight ACUs in a separate data mounting. An 830CM or 2830CM telephone set is used with this arrangement when required.

(d) **9 to 16 Data Sets Without ACUs:**

This arrangement is for a maximum of 16 data sets in two 40A-type data mountings. An 831CM or 2831CM telephone set is used with this arrangement when required.

(e) **9 to 16 Data Sets With 9 to 16 ACUs:**

This arrangement is for a maximum of 16 data sets in two 40A-type data mountings and a maximum of 16 ACUs in two 40A-type data mountings. An 831CM or 2831CM telephone set is used with this arrangement when required.

(f) For installations requiring more than 16 data sets, combinations of the above arrangements should be used.

**1.07** Telephone sets are not required at installations equipped for automatic calling and/or automatic answering if manual operation or voice communication is not required. In this case, the adapters to interconnect the telephone set with the 40A-type data mounting are not needed. For the 40A1 and 40A3 data mountings if a service line is provided a line ringer or a nonkey telephone set is required.

**1.08** The data sets which can be used in the 40A-type data mounting are the 103J, 113C, 113D, and 202S. In addition, the 212A-L1 and -L1A data sets can be used in the 40A2 or 40A3 data mountings (to obtain full features with the DS 212A-L1A it must be used in the 40A3 data mounting). The ACU which can be used in the 40A-type data mounting is the DAS 801C-L1.

**1.09** The 40A-type data mounting requires a standard 3-wire grounding-type ac power receptacle. The power supplied must be 105 to

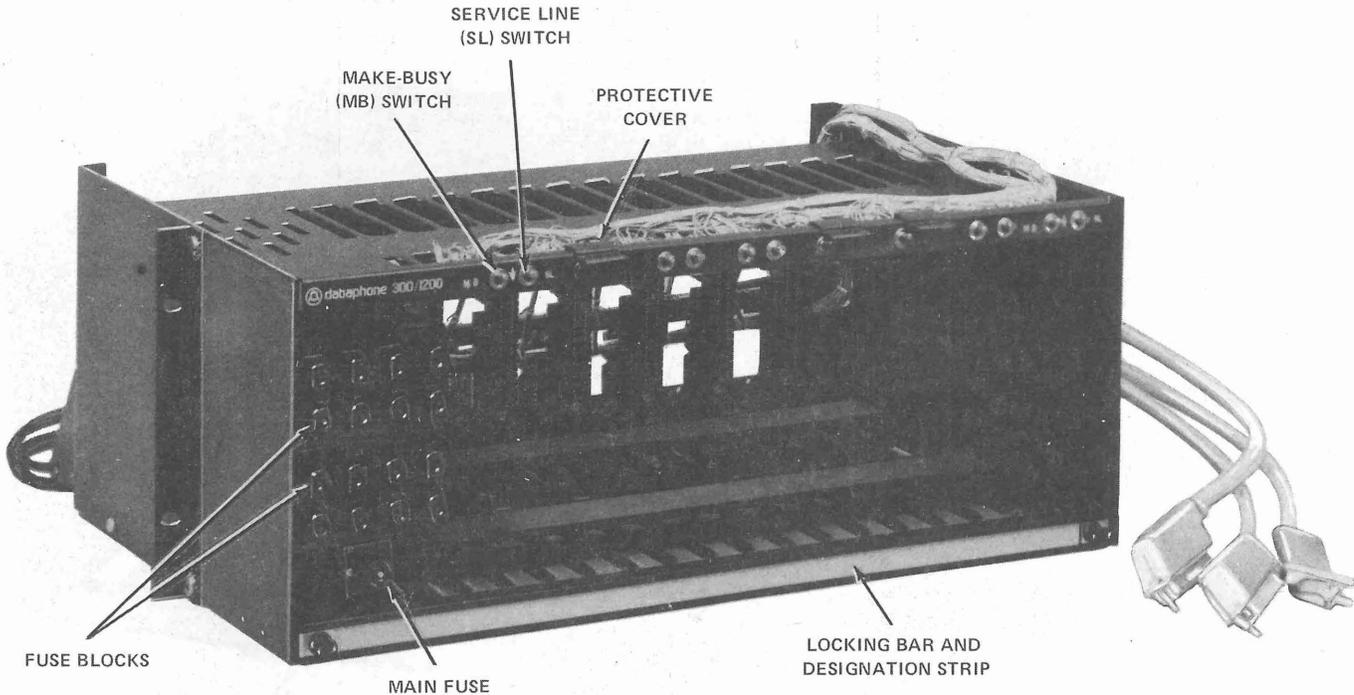


Fig. 3—40A3 Data Mounting

129 volts at 57 to 63 Hz. The ac power receptacle must not be under control of a switch.

1.10 The power supplies in the 40A-type data mounting use one 70A input fuse (1-1/3 amp—white) and sixteen 70G output fuses (40A1)—1/2-amp—red or 70H output fuses (40A2 or 40A3)—3/4-amp—brown which can be easily replaced from the front. A blown fuse can be recognized by a protruding colored pin in the center of the fuse holder. Remove the fuses by rotating them counterclockwise and pulling out. Spare fuses are stored beneath the main power unit of the 40A-type data mounting.



***Each data set uses two 70G or 70H fuses. If only one fuse is blown, the data set continues to function, but with degraded performance. It is therefore important to check carefully for blown fuses.***

1.11 In order to minimize the possibility of data errors due to potential differences between the data terminal ground and the data set ground, the receptacle supplying power to the data station

should be served by the same distribution panel as the receptacle(s) powering the data terminal(s). If this arrangement is not possible, use a 6-type impulse counter to determine if excessive noise is present. The procedures for this test are given in Section 592-860-500. If the test requirements are not met, bond the data station frame ground and the terminal equipment frame ground together. In addition, noise problems are often reduced by connecting frame ground to signal ground in the data mounting.



***The method of providing the bond should be in accordance with local engineering instructions.***

1.12 Verify with the plant service center that the overall facilities meet the applicable requirements given in Section 314-205-501 for a DATAPHONE loop.

1.13 Verify that the location selected by the customer for the data station has adequate space for access to the front and rear of the cabinet. The data station should be located near

the customer-provided equipment (CPE), since the customer-provided interface cord should not exceed 50 feet in length (as recommended by Electronics Industries Association [EIA] standards). In order to minimize interference with data signals, the telephone lines should not be carried in the same cable run as high voltage dc lines connected to telegraph services. If this condition cannot be met, the telephone lines should be run in type SK (shielded) station wire from the building entrance. The shield should be grounded at one end only, preferably the distribution terminal end.

**1.14** These data stations (103J, 113C, 113D, 202S, 212A, and DAS 801C) operate in an ambient temperature between 40 and 120°F. The relative humidity should be 20 to 95 percent at 70°F or 20 to 40 percent at 120°F.

**Note:** These environmental working limits apply only under the condition that no condensation occurs.

**1.15** Table A lists the smallest KS-20018-type cabinets that can be used for various arrangements of 40A-type data mountings.

**1.16** If the ambient temperature is expected to exceed 100°F, remove the rear panel of the KS-20018-L7 cabinet.

## 2. OPTIONS AND FEATURES

### 40A1 DATA MOUNTING

**2.01** The 40A1 data mounting has three groups of options:

- Remote test option
- Make-busy option
- Grounding option.

#### A. Remote Test Option

**2.02** Remote test on the service line (option ZY IN) in installations with line-hunting equipment is installed by inserting a black strapping plug into the terminals designated ZY above the relay on the backplane. Spare strapping plugs are stored in the space designated SPARES on the lower left side of the backplane. Remote test on the assigned telephone line (option ZY OUT) is installed by

removing the black strapping plug from the terminals designated ZY. Store the strapping plug in the SPARE field. Refer to Table B for a summary of 40A1 data mounting options.

#### B. Make-Busy Option

**2.03** Make-busy option ZX connects a shunt on the line when the make-busy toggle switch is operated. This option is installed by inserting two red strapping plugs into the terminals designated ZX above the relay on the backplane. The data mounting is provided from the factory with the straps in the option strap storage field.

**Note 1:** Use only on terminate-only lines.

**Note 2:** For other than terminate-only lines, third wire (sleeve) make-busy is accomplished without option ZX by connecting lead MB2 to frame ground and connecting lead MB1 to the proper central office equipment.

#### C. Grounding Option

**2.04** The 40A1 data mounting is shipped from the factory with frame ground connected to signal ground (option ZI). Frame ground of the 40A1 data mounting may be disconnected from signal ground (option ZJ) by removing the strap from the screw terminals of TS2 located on the rear of the power unit. It may be necessary to loosen the EIA interface connector bracket on the backplane to access this option strap.

### 40A2 DATA MOUNTING

**2.05** The 40A2 data mounting has three groups of options:

- Service line options
- Make-busy option
- Grounding option.

**2.06** Options are installed and removed by means of the option switches above the relays on the backplane, by a strapping plug near J1 on the backplane, and by inserting a strap between terminals A and B of PWR OUT. Refer to Fig. 4 for details of one of these option switches. Refer to Table C for a summary of 40A2 data mounting options.

**TABLE A**  
**SOME TYPICAL ARRANGEMENTS FOR 40A-TYPE DATA MOUNTINGS**

QTY OF DATA SETS	QTY OF DATA MTGS	SMALLEST KS-20018 CABINET WHEN EIA CONNECTOR IS ARRANGED FOR:		TELEPHONE SET CODE		TELEPHONE SET QUANTITY
				DIAL		
		REAR ACCESS	FRONT ACCESS	ROTARY	TOUCH-TONE	
Up to 5	1	L12A	L1 (Note 1) L12A	565HKM	2565HKM	1
Up to 8	1	L12A	L1 (Note 2)	830CM	2830CM	1
Up to 16	2	L12A	L3 (Note 2) L7 (Note 3)	831CM	2831CM	1
Up to 24	3	L7 (Note 3)	----	830CM 831CM	2830CM 2831CM	1 1
Up to 72	9	L15A	----	830CM 831CM	2830CM 2831CM	1 4
Up to 112	14	----	L15C (Mounted Back-to-Back) (Note 4)	831CM	2831CM	7

**Note 1:** (40A3 only) If a transparent door is required to permit viewing of data set indicators, substitute a KS-20018-L2 cabinet with a KS-20018-L13A door.

**Note 2:** (40A3 only) If a transparent door is required to permit viewing of data set indicators, substitute a KS-20018-L4 cabinet with a KS-20018-L13B door.

**Note 3:** (40A1 and 40A2 only) If a transparent door is required to permit viewing of data set indicators, add a KS-20018-L13B door to this cabinet.

**Note 4:** (40A3 only) Requires two additional uprights (order L163527).

#### A. Service Line Options

**2.07** There are eight option switches, one for each data set slot. Each ZY option allows the associated data set to be switched to a separate service line when the DL (or RT) button on the data set is depressed. Data sets in line hunting groups require the service line for remote testing. The option for each data set is independent of the options used with the other data sets.

**2.08** The 40A2 data mounting is provided with a power exclusion feature for use when two or more data sets share a common service line. This feature ensures that once a data set has been transferred to the service line, all other data sets are excluded; that is, pressing the DL (or RT)

button does not transfer it to the service line, but puts it in the digital loop or remote test mode on its associated line.

**2.09** If no data set in a 40A2 data mounting uses the service line, equip the data mounting with option Y. If one or more data sets in a 40A2 data mounting uses the service line, and if the service line is not shared with other 40A2 data mountings, use option Z and assure that there is a strap between terminals A and B of PWR OUT. Use option ZY only for data sets using the service line.

**2.10** If two or more 40A2 data mountings share a service line, use option Z on the first data mounting and option Y on all others. Strap the

TABLE B

## 40A1 DATA MOUNTING OPTIONS

OPTION		CODE	REMARKS
Remote Test	Used	ZY	Insert black strapping plug into terminal ZY.
	Not Used	Not ZY	Remove black strapping plug (if inserted) from terminal ZY.
Make-Busy	Tip to ring	ZX*	Insert two red strapping plugs into ZX terminals.
	Third-Wire	Not ZX	Remove red strapping plugs (if inserted) from ZX terminals. Connect MB2 to frame ground and MB1 to central office.
	Not Used	Not ZX	Remove red strapping plugs (if inserted) from ZX terminals.
Grounding (Frame and Signal)	Common	ZI	Install strap on TS2 on power supply.
	Separate	ZJ	Remove TS2 strap if installed.

\* Use only on terminate-only lines.

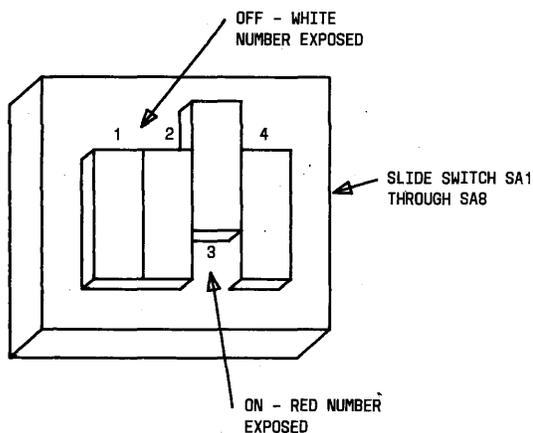


Fig. 4—Details of Option Switch

PWR OUT A and B terminals together on the last data mounting and ensure that there is no strap on all other data mountings. Strap from A and B terminals of PWR OUT on all data mountings to PWR IN of the following data mounting. Also, parallel the SERV LINE terminals of all data mountings containing data sets.

**2.11** If 40A2 data mountings are added to an installation equipped with 40A1 data mountings, refer to Fig. 5 for interconnecting service lines. To obtain proper exclusion when 40A2 data mountings

are used in combination with 40A1 data mountings, the 40A2 data mountings should be grouped together and connected after the last 40A1 data mounting. Connect the SERVICE LINE OUT terminals of the last 40A1 data mounting to the SERV LINE terminals of the added 40A2 data mounting(s). With the 40A1 data mounting, the service line is excluded when a data set in position 1 through 8 is connected to the service line. Access to the service line by the telephone set is excluded when a data set in position 1 through 8 in a 40A1 data mounting is connected to the service line. Data sets in positions 9 to 16 and all sets in the 40A2 data mounting do not exclude the telephone set.

### B. Make-Busy Option

**2.12** Make-busy options are provided to cause incoming calls to skip a data set in line hunting arrangements. To provide tip-ring make-busy, install option ZX. This connects a resistor between tip and ring when the proper make-busy switch or RT relay is operated. If no make-busy arrangement is to be provided, or to provide second-pair or third-wire make-busy, do not install option ZX for that data set position. For third-wire make-busy, provide a frame ground connection to MB1 on the 66E connecting block. For DS 103J using second-pair or third-wire make-busy feature, straps must be added at the 66E connecting block as directed in Table D.

TABLE C

## SUMMARY OF 40A2 DATA MOUNTING OPTIONS

OPTION OR FEATURE		JUMPER IN POS	TERMINALS			SA(*) SWITCHES				REMARKS		
			PWR IN	PWR OUT	SERV LINE	OPTION	1	2	3		4	
Not used by any DS in mtg		Y	No connection				E	E	—	—		
Service Line	Used by 1 or more data sets in a mounting not shared with other mountings	Z	No connection	Strap A to B	No connection	ZY	C	E	—	—	Provide for each data set on SL	
						Not ZY	O	E	—	—	Provide for each data set not on SL	
	Used by 1 or more data sets in mtg; SL is shared with other mountings	First Mounting	Z	No connection	Conn to next mtg	Parallel all mountings	ZY	C	E	—	—	Provide for each data set on SL
		Middle Mounting	Y	Conn to prev mtg	Conn to next mtg							
Last Mounting		Y	Conn to prev mtg	Strap A to B	Not ZY		O	E	—	—	Provide for each data set not on SL	
Make-Busy	Not used by data set		Not Applicable			Not ZY	—	E	O	O	Set switch for each data set	
	Tip to ring		Not Applicable			ZX	—	E	C	C		
	Second-pair or third-wire†		Not Applicable			Not ZX	—	E	O	O		
Signal and frame ground		Common Separate	Option ZI Option ZJ			Install strap on TS2 on power supply Remove strap on TS2 on power supply						

\* SA1 through SA8 affect data sets 1 through 8, respectively.

E means switch can be in either position.

— means switch not applicable to options listed.

C means switch closed.

O means switch open.

† When second-pair or third-wire make-busy is used with data set 103J, straps must be added on the 66E connecting block as directed in Table C.

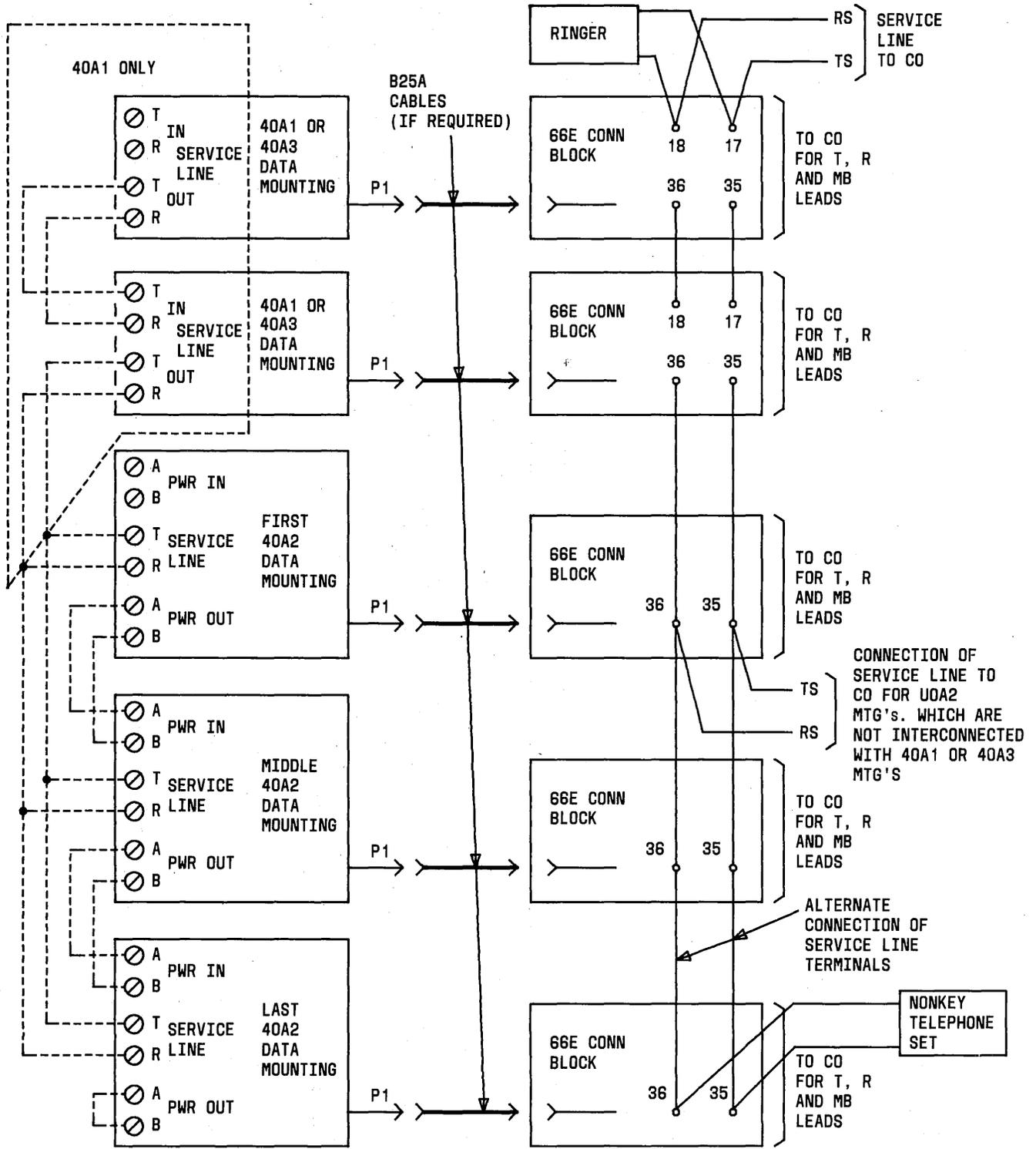


Fig. 5—Interconnection for Shared Service Line for Mixed 40A1, 40A2, and 40A3 Data Mountings

**TABLE D**  
**STRAPS FOR SECOND-PAIR OR**  
**THIRD-WIRE MAKE-BUSY FOR**  
**DATA SET 103J**

DATA SET IN SLOT NO.	STRAP TERMINALS ON 66E BLOCK
1	20-42
2	22-44
3	24-46
4	26-48
5	28-41
6	30-43
7	32-45
8	34-47

### C. Grounding Option

**2.13** The 40A2 data mounting is shipped from the factory with frame ground connected to signal ground (option ZI), affecting all data sets in the mounting. Frame ground of the 40A2 data mounting may be disconnected from signal ground (option ZJ) by removing the strap from the screw terminals of TS2 located on the rear of the power unit. It may be necessary to loosen the EIA interface connector bracket on the backplane to access this option strap. Mountings which share the same telephone set must use the same grounding options, and signal grounds must be connected together as directed in the note of the affected figures.

### 40A3 DATA MOUNTING

#### A. Option

**2.14** The 40A3 data mounting has only one option. A link arranges it to operate either with frame ground connected to signal ground (option ZI) or with floating signal ground (option ZJ).

**2.15** The 40A3 data mounting is shipped from the factory with frame ground connected to signal ground (option ZI), affecting all data sets in the mounting. Frame ground of the 40A3 data mounting may be disconnected from signal ground

(option ZJ) by removing the link from the screw terminals of TS2 located on the rear of the power unit. It may be necessary to loosen the EIA interface connector bracket (if mounted on the back) to access this option link. Mountings which share an 831 or 2831 telephone set must use the same grounding options, and signal grounds must be connected together as directed in the note of the affected figures.

#### B. Features

**2.16** The 40A3 data mounting has three features:

- Make-busy feature
- Service line feature
- Mounting feature.

**2.17** Two toggle switches are associated with each data set position, MB (make-busy) and SL (service line). If the make-busy feature is not installed for a data set position, then the two switches for that position should not be operated (up position). A protective cover prevents accidental operation.

#### Make-Busy Feature

**2.18** With the make-busy feature installed, operating the MB switch makes the associated data set line busy and disconnects that data set from the line. Any number of MB switches may be operated at the same time.

#### Service Line Feature

**2.19** With the service line feature installed in addition to the make-busy feature, the MB switch is used as above. Operating both the MB and SL switches makes the data line busy and transfers the data set to the service line. (The data set will not transfer to the service line if any other SL switch to the left in that mounting or on a preceding mounting in that series string of service line connections is operated.)

**2.20** With this feature, operating the data set DL or RT switch does not cause a transfer of that set to the service line. This makes it possible to conduct a digital loopback or remote test on the normal line. The independent action of the SL switch permits transmission of data or

the performance of an end-to-end self test on the service line.

**2.21** If 40A3 data mountings are added to an installation equipped with 40A1 and/or 40A2 data mountings, refer to Fig. 5 for interconnecting service lines. To obtain proper exclusion when 40A2 data mountings are used in combination with 40A1 and 40A3 data mountings, the 40A2 data mountings should be grouped together and connected after the last 40A1 or 40A3 data mounting. With the 40A1 or 40A3 data mounting, telephone access to the service line is excluded when any data set is connected to the service line. With the 40A2 data mounting, data sets in any position in the 40A2 data mounting do not exclude telephone access to the service line.

### Mounting Features

**2.22** The EIA connector panel of the 40A3 data mounting may be arranged for either front or rear access.

**2.23** With the EIA connector panel arranged for rear access, the 40A3 data mounting measures 6.9 inches high by 13.2 inches deep by 18.9 inches long. When the right-hand mounting bracket is rotated to permit mounting on 23-inch frameworks, the length increases by four inches. It occupies a 7 by 19- or 23-inch mounting plate space. The panel holding the eight EIA connectors can be swung around from the rear to the front of the mounting, allowing front access for the customer's EIA plugs. In this arrangement, the mounting measures 9 inches high by 11.5 inches deep by 18.9 (or 22.9) inches long.

**2.24** When mounted in a cabinet with EIA connectors in the rear, a 5-inch clearance is required in front of and 8.2-inch clearance behind the mounting surface. When mounted in a cabinet with EIA front connections, 5-inch clearance is required in front of and 6.5-inch clearance behind the mounting surface.

**2.25** When the mounting is arranged for 23-inch frameworks, holes on the right-hand bracket can be used to attach a KS-19252-L5 adapter, if required. Additional holes are provided for two new brackets to hold a 66E connecting block. This pair of brackets is coded 111A apparatus mounting.

**2.26** The 40A3 data mounting can be mounted back-to-back in a KS-20018-L15 cabinet (Fig. 6). In this configuration, the EIA connector panel must be arranged for front access. In this configuration an additional two L-163527 uprights (ordered separately) are required. Because of restricted access, it is recommended that the power cord of each 40A3 be plugged into the outlet strip as the 40A3 is installed in the cabinet.

**2.27** With the 40A3 data mounting in the KS-20018-L15 cabinet, some interference may be encountered between the cabinet door and the 66E3 connecting block. If this occurs, it may be necessary to relocate the door hinge to the left side of the cabinet.

## 3. INSTALLATION

### A. Common Equipment

**3.01** This part gives general installation procedures for the equipment that may be used in an installation. Detailed procedures for installing the various configurations are given in 3B through 3F.

**3.02** *KS-20018 Cabinet:* Position the cabinet in its permanent location and adjust the four leveling bolts until the cabinet is level, then tighten the locking nuts on the bolts. The approximate outside dimensions of the cabinets are as follows:

- KS-20018-L1: 12 inches high, 24 inches wide, and 12 inches deep
- KS-20018-L3: 24 inches high, 24 inches wide, and 12 inches deep
- KS-20018-L7: 30 inches high, 24 inches wide, and 17 inches deep
- KS-20018-L11A: 30 inches high, 24 inches wide, and 19 inches deep
- KS-20018-L12A: 17 inches high, 24 inches wide, and 19 inches deep
- KS-20018-L15A or C: 72 inches high, 29 inches wide, and 26 inches deep.

For more information on the KS-20018 cabinets, refer to the section entitled Data Sets, Multiple Installation Information (590-010-201).

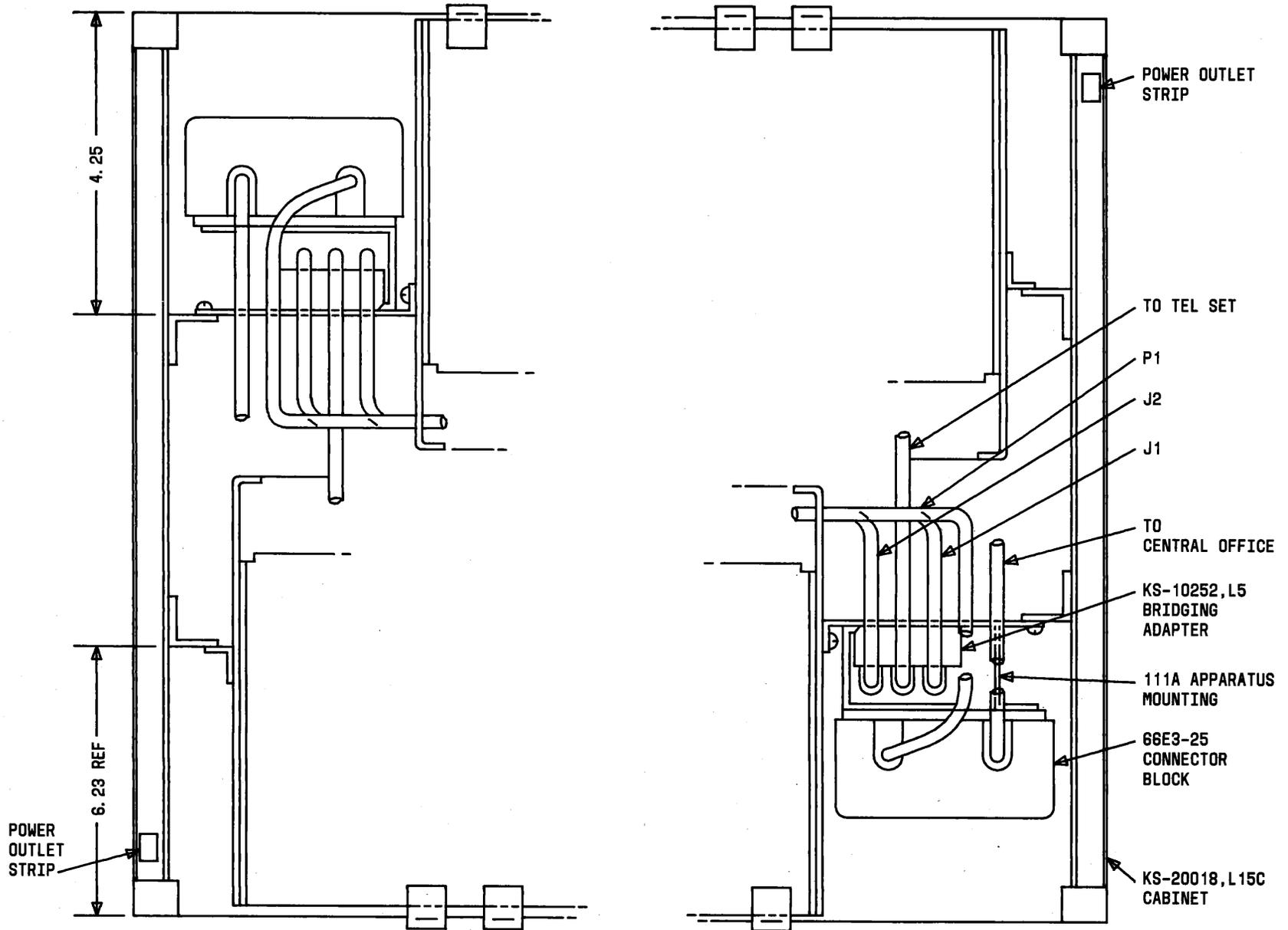


Fig. 6—Top View of KS-20018-L15C Cabinet Equipped With Back-to-Back Mounted 40A3 Data Mountings

**3.03** If the cabinet must be secured to the floor, remove the leveling bolts. Insert four 1/4-inch appropriate bolts or screws through the leveling holes and into the floor.

**3.04 79 Backboard:** These backboards are used (in the 40A1 and 40A2 only) to mount the KS-19252 adapters and the power outlet strip (Fig. 7).

**3.05 111A Apparatus Mounting:** The 111A apparatus mounting is used (in the 40A3 only) to mount the KS-19252 adapters and 66E-type connecting blocks (Fig. 8).

**3.06 40A-Type Data Mounting:** Rotate the right-hand mounting flange of the data mounting for 23-inch mounting if this has not been done. Secure the data mounting to the front flange of both uprights with four 12-24 by 1/2-inch screws (supplied with the data mounting). A long screw starter will facilitate the installation of the mounting in the cabinet. For the 40A1 or 40A2 data mounting, it is recommended that a 1-inch separation be provided between data mountings. The exception to this is when two mountings are installed in a KS-20018-L12A cabinet where there is insufficient space to allow the 1-inch separation. This 1-inch separation is not required with the 40A3 data mounting.

**3.07 Data Set:** Before inserting the data set into the mounting, install options specified on the service order. To insert the data set into the mounting, first release the designation/retainer strip from the 40A-type data mounting. Release the strip by pulling out on the black knob at each end. After the strip is moved out of the way, insert the data set into the appropriate slot and press firmly into place. Replace the designation/retainer strip.

**Note:** The data set positions are numbered from left to right from the front, that is, position 1 is nearest to the power unit.

**3.08 KS-19252-L5 Adapters:** Fasten the adapters on the 79 backboard (40A1 or 40A2) or on the right-hand bracket (40A3 23-inch) with two 8 by 1/2-inch round-head screws.

**3.09 565HKM or 2565HKM Telephone Set:** If a 565HKM or 2565HKM telephone set is

used, insert the telephone plug into the J1 connector of the 40A-type data mounting.

**3.10 830CM or 2830CM Telephone Set:** If an 830CM or 2830CM telephone set is used, plug it into J1 of the KS-19252-L5 adapter. Plug J1 and J2 of the 40A-type data mountings into P1 and P2 of each KS-19252-L5 adapter.

**3.11 831CM or 2831CM Telephone Set:** If an 831CM or 2831CM telephone set is used, insert plug number 2 of the telephone set into the J1 connector of the KS-19252-L5 adapter of the first 40A-type data mounting (for data sets 1 through 8) using B25A cables as required. Insert plug number 1 of the telephone set into the J1 connector of the KS-19252-L5 adapter of the second 40A-type data mounting using a B25A cable (for data sets 9 through 16). Plug J1 and J2 of the 40A-type data mountings into P1 and P2 of each KS-19252-L5 adapter using B25A cables. Block positions and remove the lamps on the telephone set as indicated in the appropriate figures. If the M100G cords are used, connect between the telephone set and one M100G cord with B25A cable.

**3.12 Automatic Calling Units:** DAS 801C-L1 plugs into the 40A-type data mounting but requires an M14G cord (ordered separately) to the customer interface leads for an RS-366 interface. Install the proper options in the ACU before inserting it into the data mounting. To insert the ACUs into the data mounting, first release the retainer/designation strip from the 40A-type data mounting. Release the strip by pulling out the black knob at each end. After the strip is moved out of the way, insert the ACU into its appropriate slot and press firmly into place. Replace the retainer/designation strip.

**Note:** The ACU positions are numbered from left to right from the front; that is, position 1 is nearest the power unit.

## B. Up to Eight Data Sets Without ACUs

**3.13** The following equipment is normally required for this arrangement:

- One KS-20018-type cabinet (per Table A)
- One 40A-type data mounting

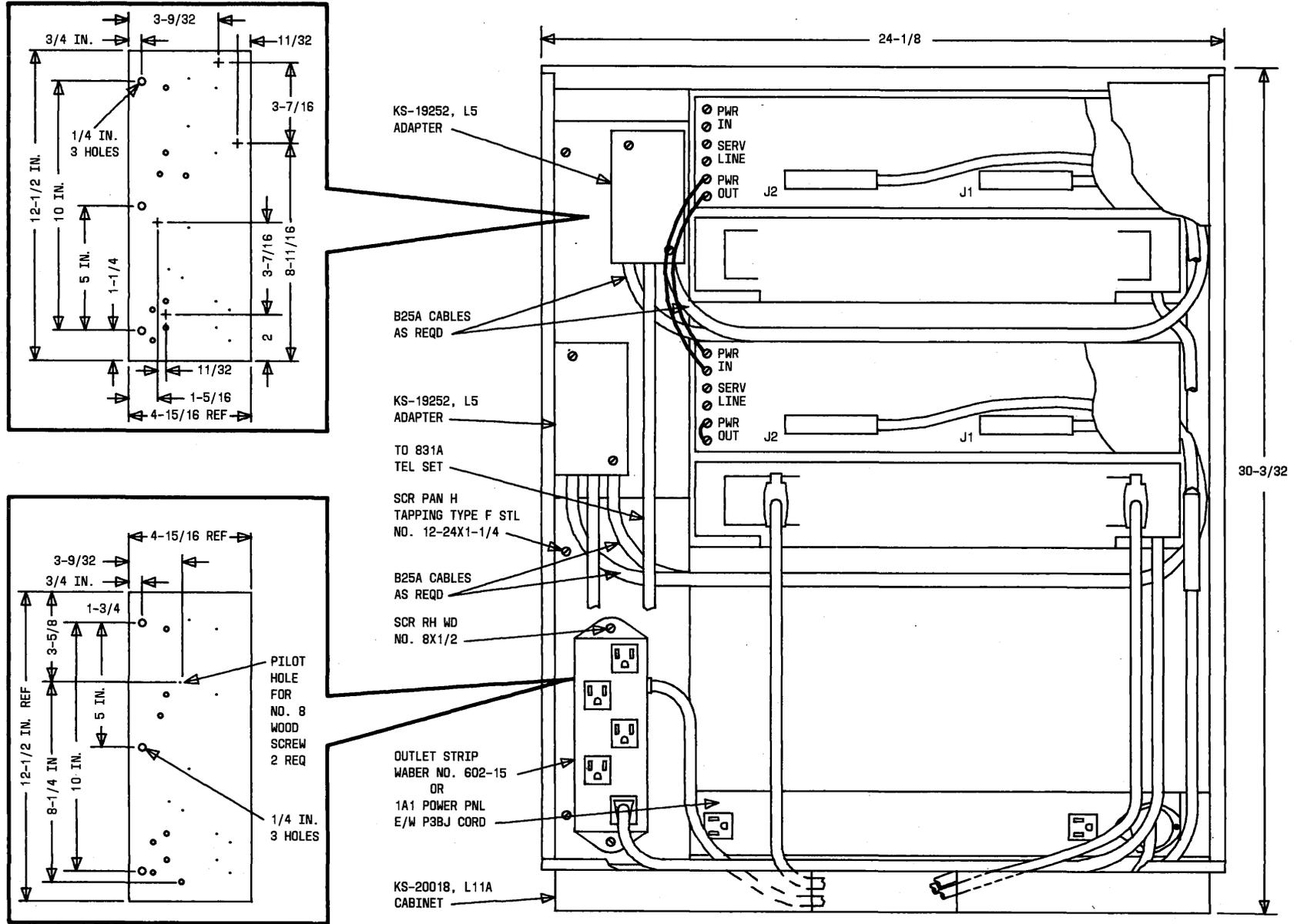


Fig. 7—Rear View of Data Station Equipped With 40A1 or 40A2 Data Mountings

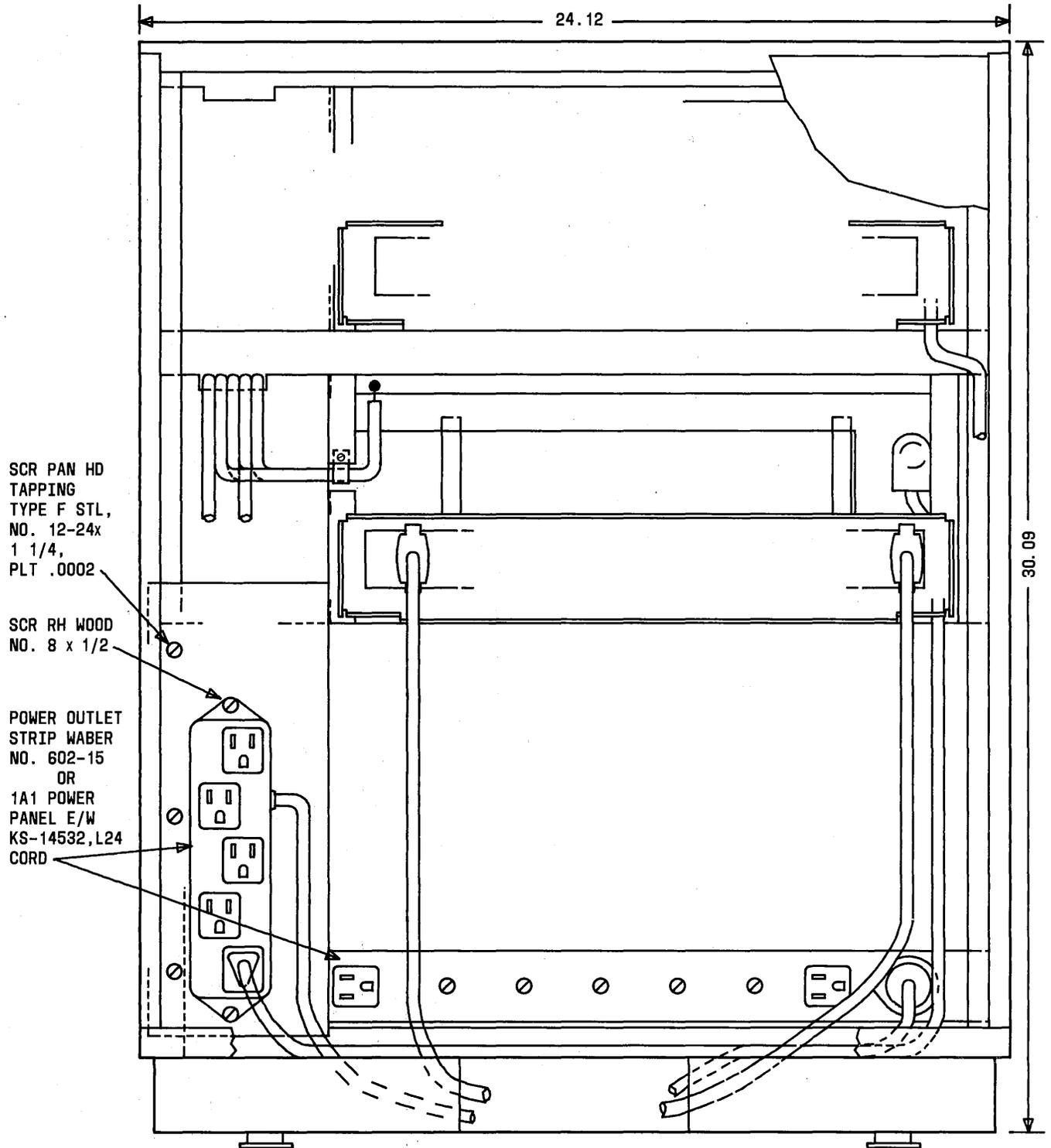


Fig. 8—Rear View of Data Station Equipped With 40A3 Data Mountings

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- One 565HKM or 2565HKM telephone set (for up to five data sets without a service line)
- One 830CM or 2830CM telephone set (for up to eight data sets with or without a service line)
- One KS-19252-L5 adapter
- B25A cables (length to be determined locally) as required
- One 66E3 connector block
- One 79 backboard (40A1 and 40A2 only)
- One 111A apparatus mounting (40A3 only).

This arrangement is interconnected as shown in Fig. 9 and 10.

### C. Up to Four Data Sets and up to Four ACUs in a Single Mounting

**3.14** The following equipment is required for this arrangement:

- One KS-20018-type cabinet (per Table A)
- One 40A-type data mounting
- One 565HKM or 2565HKM telephone set
- One 66E3 connector block
- One 79 backboard (40A1 and 40A2 only)
- One 111A apparatus mounting (40A3 only)
- One M23C cord
- B25A cables (length to be determined locally) as required
- One M14G cord for each ACU.

This arrangement is interconnected as shown in Fig. 11 and 12. Connect the telephone lines to T and R for positions 1 through 4 as shown on appropriate figure. Connect MB pairs to positions 5 through 8, if required. Make-busy switches S5 through S8 are functional if used. If second-pair or third-wire make-busy is used with a 40A-type data mounting and DS 103J, add straps to 66E3

connecting block as directed in Table D for slots 5 through 8. If a service line is used, the telephone ringer leads may be moved from RR and RT to 5R and 5T to respond to ringing on the service line. Alternatively, the ringer may be arranged to respond to ringing on any of the data lines by straps on the 66E3 connector block.

### D. Up to Eight Data Sets and up to Eight ACUs

**3.15** The following equipment is normally required for this arrangement:

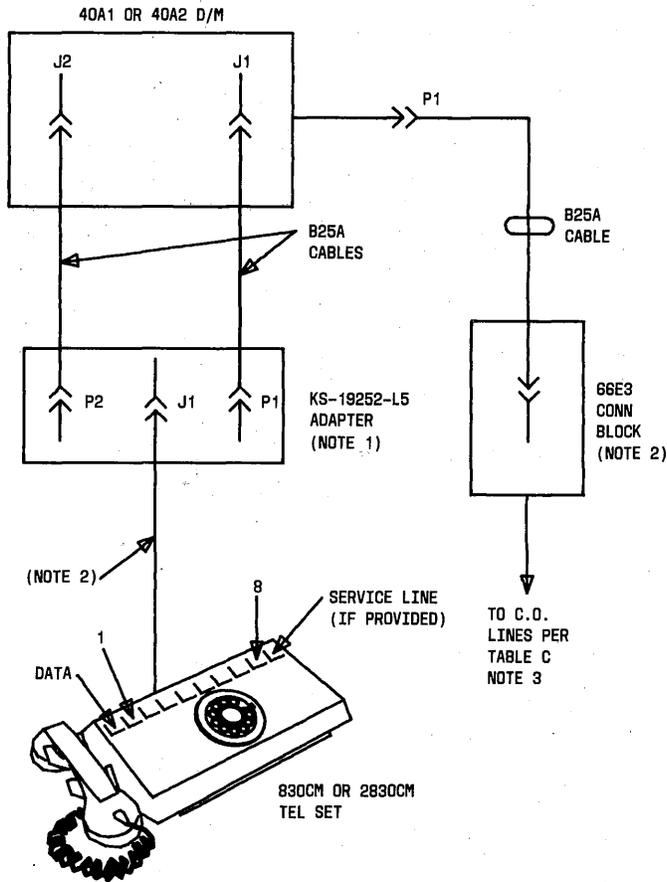
- One KS-20018-L11A cabinet
- Two 40A-type data mountings
- One 830CM or 2830CM telephone set
- One 66E3 connector block
- One 79 backboard (40A1 and 40A2 only)
- One 111A apparatus mounting (40A3 only)
- One outlet strip (Waber No. 602-15 or a 1A2 power panel, or equivalent)
- One M100G cord
- One M14G cord for each ACU
- B25A cables (length to be determined locally) as required.

This arrangement is interconnected as shown in Fig. 13 and 14.

### E. 9 to 16 Data Sets Without ACUs

**3.16** The following equipment is normally required for this arrangement:

- One KS-20018-L11A cabinet
- Two 40A-type data mountings
- One 831CM or 2831CM telephone set
- Two KS-19252-L5 adapters
- B25A cables (length to be determined locally) as required



- NOTES:
1. IF FIVE OR LESS DATA SETS ARE USED AND A SERVICE LINE IS NOT REQUIRED, A 565HK OR 2565HK TELEPHONE SET MAY BE USED. PLUG THE TELEPHONE SET INTO J1 OF THE DATA MOUNTING AND OMIT KS-19252-L5 ADAPTER.
  2. EXTEND WITH B25A CABLE IF NECESSARY.

3. MAKE CONNECTIONS TO C.O. LINES PER TABLE:

DATA SET POSITION	DATA LINE CONNECTIONS		MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS (NOTE 5)	
	T	R	MB2	MB1	RD	T	R
1	1	2	19	20	42	IN	18
2	3	4	21	22	44		
3	5	6	23	24	46		
4	7	8	25	26	48		
5	9	10	27	28	41	OUT	36
6	11	12	29	30	43		
7	13	14	31	32	45		
8	15	16	33	34	47		

4. IF MAKE-BUSY FEATURE IS SPECIFIED, ADD CONNECTIONS AND STRAPS AS FOLLOWS:

- TIP-RING MAKE BUSY (OPTION ZX): SEE OPTION TABLES
- SECOND-PAIR MAKE BUSY: (OPTION NOT ZX) SEE OPTION TABLES
- 3RD-WIRE MAKE BUSY: (OPTION NOT ZX) SEE OPTION TABLES

5. CONNECTIONS SHOWN ARE FOR 40A1 DATA MOUNTING. THE 40A2 SERVICE LINE CONNECTS TO TERMINALS 35 AND 36 ONLY.

Fig. 9—40A1 or 40A2 Data Mounting With up to Eight Data Sets Without ACUs

- Two 66E3 connector blocks
- Two 79 backboards (40A1 and 40A2 only)
- One outlet strip (Waber No. 602-15 or a 1A2 power panel, or equivalent).

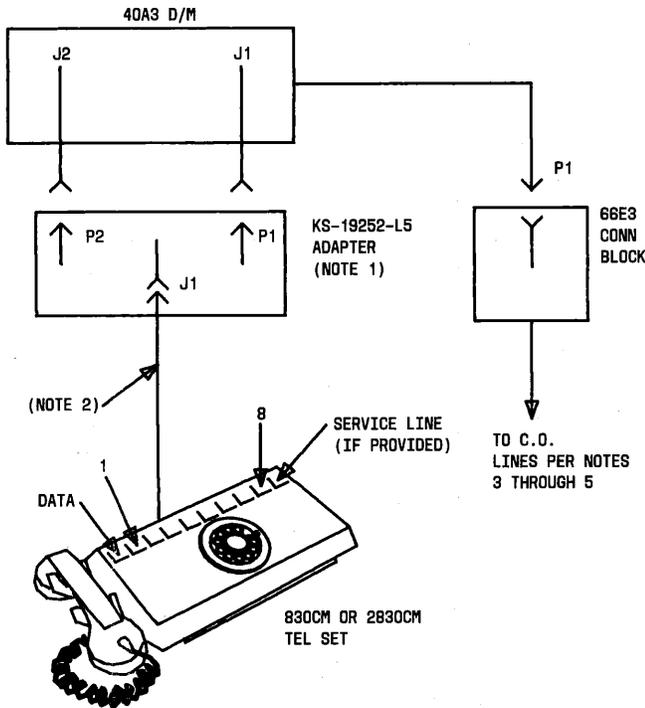
This arrangement is interconnected as shown in Fig. 15 and 16.

F. 9 to 16 Data Sets With 9 to 16 ACUs

3.17 The following equipment is normally required for this arrangement:

- Two KS-20018-L11A cabinets or one KS-20018-L15A cabinet

- Four 40A-type data mountings
- One 831CM or 2831CM telephone set
- Two M100G cords
- Two 66E3 connector blocks
- B25A cables as required
- One M14G cord for each ACU
- Four 79 backboards (40A1 and 40A2 only)
- Two outlet strips (Waber No. 602-15, or a 1A2 power panel, or equivalent).



NOTES:

1. IF FIVE OR LESS DATA SETS ARE USED AND A SERVICE LINE IS NOT REQUIRED, A 565HK OR 2565HK TELEPHONE SET MAY BE USED. PLUG THE TELEPHONE SET INTO J1 OF THE DATA MOUNTING AND OMIT KS-19252-L5 ADAPTER.
2. EXTEND WITH B25A CABLE, IF NECESSARY.

3. MAKE CONNECTIONS TO C.O. LINES PER TABLE:

DATA SET POSITION	DATA LINE CONNECTIONS		MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS	
	T	R	MB2	MB1	RD	T	R
1	1	2	19	20	42	IN	17
2	3	4	21	22	44		
3	5	6	23	24	46		
4	7	8	25	26	48		
5	9	10	27	28	41	OUT	35
6	11	12	29	30	43		
7	13	14	31	32	45		
8	15	16	33	34	47		

TO C.O. LINES PER NOTES 3 THROUGH 5

4. IF MAKE-BUSY FEATURE IS SPECIFIED, ADD CONNECTIONS AND STRAPS AS FOLLOWS:

- TIP-RING MAKE BUSY: STRAP T TO MB1  
STRAP R TO MB2
- SECOND-PAIR MAKE BUSY: CONNECT MAKE-BUSY LINE TO MB1 AND MB2. ALSO, FOR 103J ONLY, STRAP MB1 TO RD
- 3RD-WIRE MAKE BUSY: CONNECT MAKE-BUSY WIRE TO MB2  
CONNECT FRAME GROUND TO MB1  
ALSO, FOR 103J ONLY, STRAP MB1 TO RD

Fig. 10—40A3 Data Mounting With up to Eight Data Sets Without ACUs

This arrangement is interconnected as shown in Fig. 17 and 18.

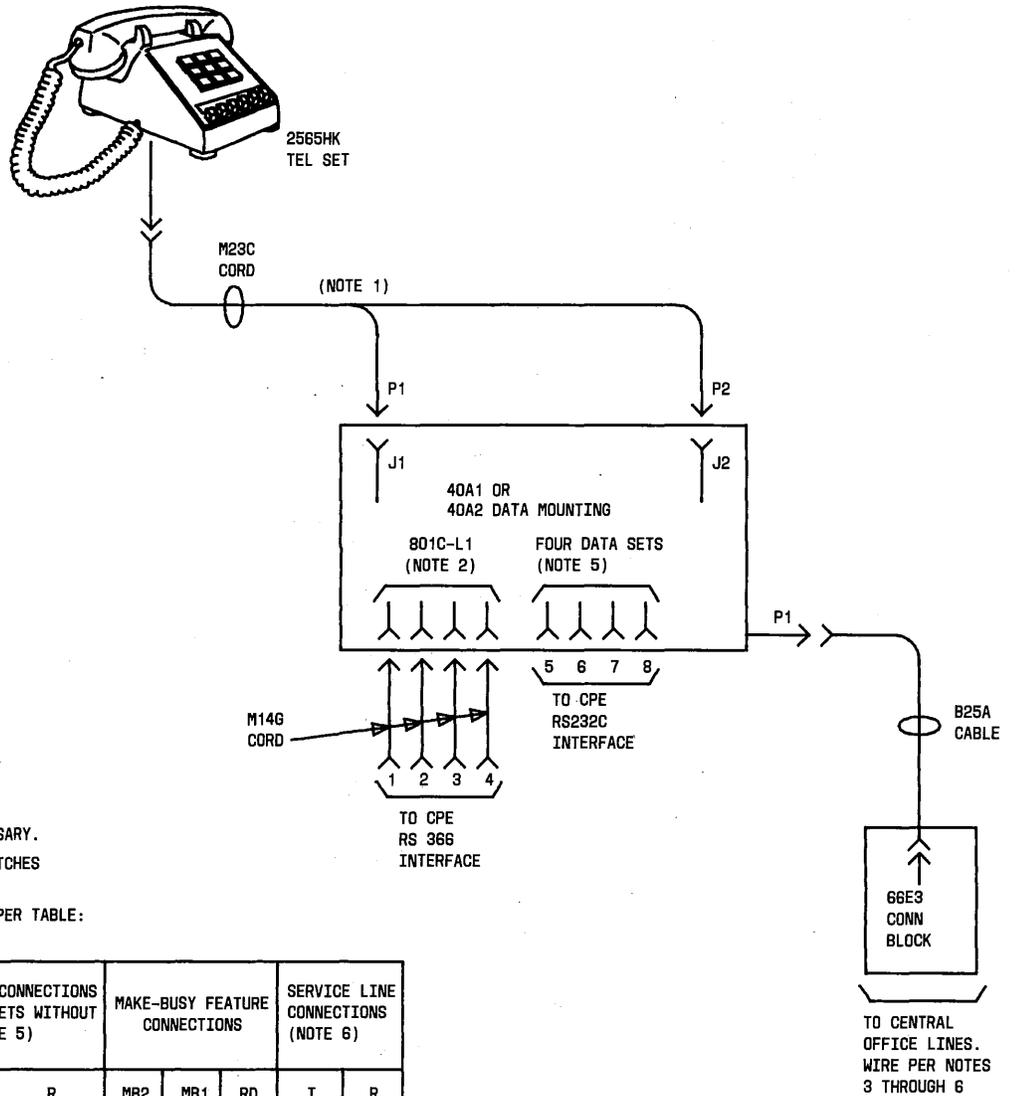
**3.18** In each arrangement, for which a service line is provided, the telephone set ringer and a line key are used for the service line. If a service line is not provided, the ringer may be connected to respond to ringing on a particular data line by strapping service line terminals 35 and 36 on the 66E3 connecting block to the T and R terminals for the desired data set position per the appropriate figure. If the installation uses more than one 66E3 connecting block used to connect the data line and in all arrangements where the ringer has been connected to respond to ringing on a data line, the telephone line key normally used to pick up the service line must be blocked

by using the appropriate blocking ring for the telephone set provided.

**3.19** An overview of data mounting connections to the central office is shown in Table E.

**INTERCONNECTION OF 40A1, 40A2, AND 40A3 DATA MOUNTINGS**

**3.20** Refer to Fig. 5 for interconnection of service lines for an installation equipped with mixed 40A-type data mountings. To obtain proper exclusion when 40A2 data mountings are used in combination with 40A1 and 40A3 data mountings, the 40A2 data mountings should be grouped together and connected after the last 40A1 or 40A3 data mounting. With the 40A1 or 40A3 data mounting,



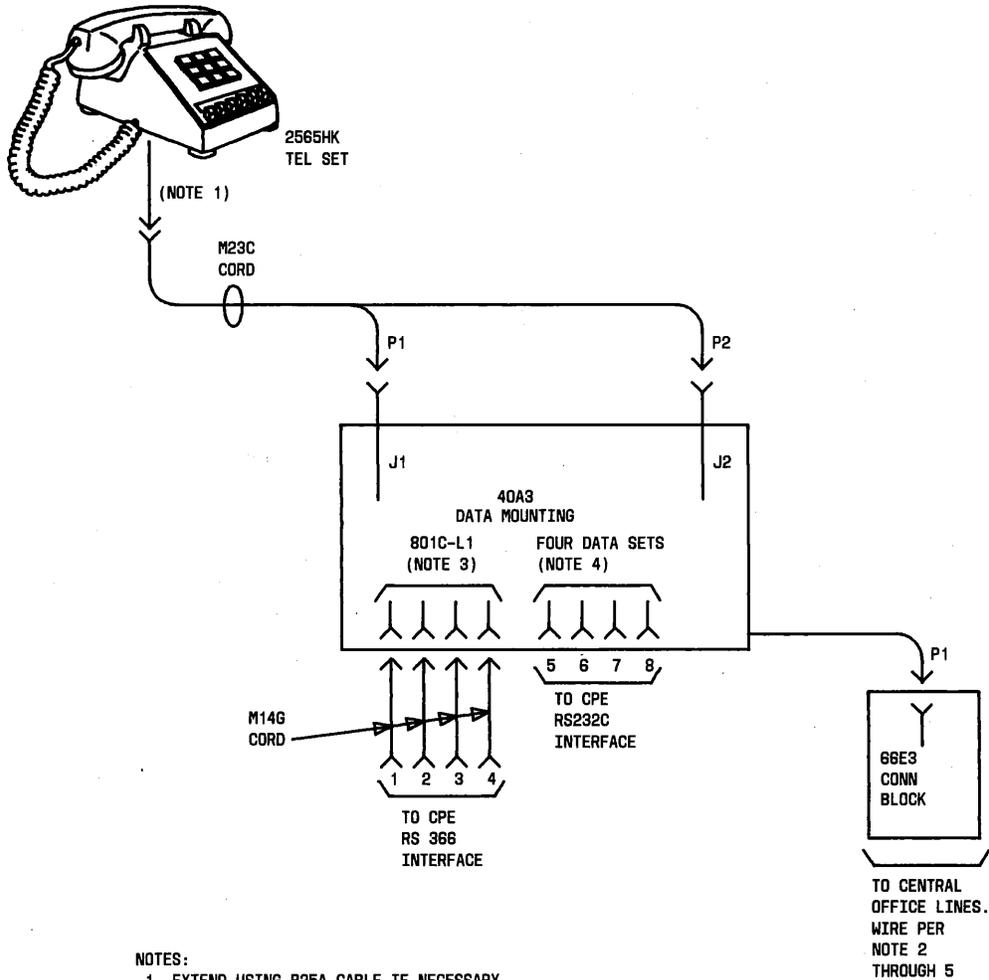
NOTES:

1. EXTEND USING B25A CABLE IF NECESSARY.
2. ALWAYS USE NOT ZX OPTION FOR SWITCHES SA1, SA2, SA3, AND SA4.
3. MAKE CONNECTIONS TO C. O. LINES PER TABLE:

POSITION		DATA LINE CONNECTIONS		DATA LINE CONNECTIONS FOR DATA SETS WITHOUT ACU'S (NOTE 5)		MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS (NOTE 6)	
ACU	DATA SET	T	R	T	R	MB2	MB1	RD	T	R
1	5	1	2	9	10	27	28	41	IN	
2	6	3	4	11	12	29	30	43	17	18
3	7	5	6	13	14	31	32	45		OUT
4	8	7	8	15	16	33	34	47	35	36

4. TIP-RING MAKE-BUSY OPTION IS NOT RECOMMENDED.
5. ANY OF THE DATA SETS IN THE MOUNTING CAN BE OPERATED WITHOUT AN ACU BY LEAVING THE ASSOCIATED ACU POSITION VACANT. FOR SUCH DATA SETS, CONNECTIONS TO THE 66E3 CONNECTING BLOCK MUST BE MADE AS INDICATED IN NOTE 3 TABLE.
6. CONNECTIONS SHOWN ARE FOR 40A1 DATA MOUNTING. THE 40A2 SERVICE LINE CONNECTS TO TERMINALS 35 AND 36 ONLY.

Fig. 11—40A1 or 40A2 Data Mounting With up to Four Data Sets and up to Four ACUs in a Single Mounting

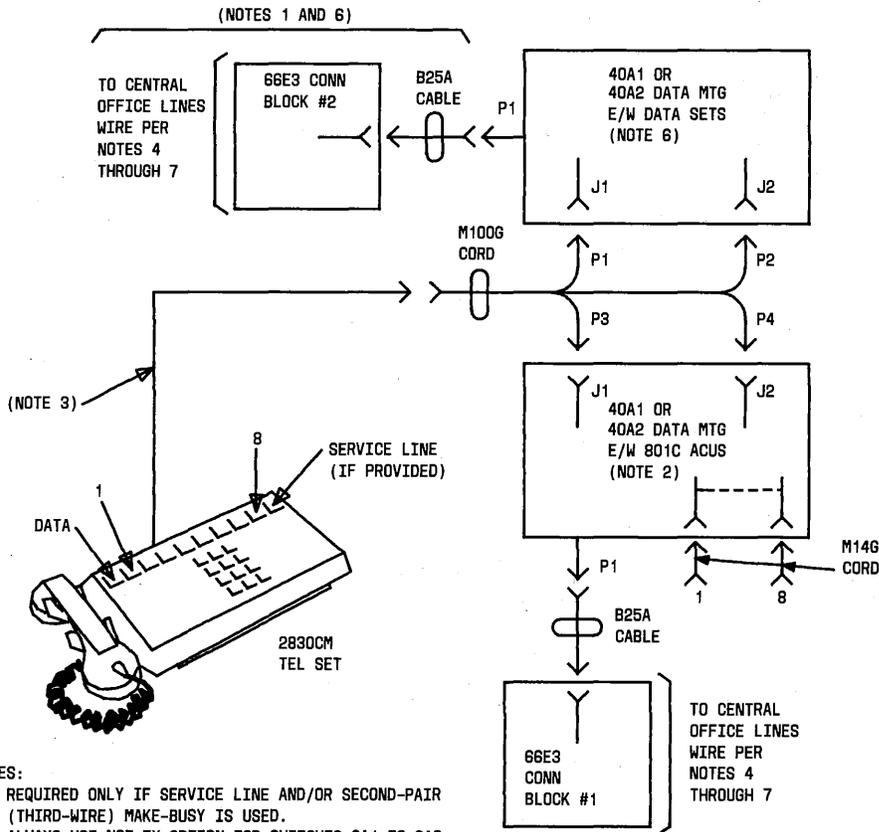


- NOTES:  
 1. EXTEND USING B25A CABLE IF NECESSARY.  
 2. MAKE CONNECTIONS TO C. O. LINES PER TABLE:

POSITION	DATA SET	DATA LINE CONNECTIONS		DATA LINE CONNECTIONS FOR DATA SETS WITHOUT (NOTE 4) ACU'S		MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS	
		T	R	T	R	MB2	MB1	RD	T	R
1	5	1	2	9	10	27	28	41	IN	
2	6	3	4	11	12	29	30	43	17	18
3	7	5	6	13	14	31	32	45		OUT
4	8	7	8	15	16	33	34	47	35	36

3. IF MAKE-BUSY FEATURE IS SPECIFIED, ADD CONNECTIONS AND STRAPS AS FOLLOWS:
- TIP-RING MAKE BUSY: NOT RECOMMENDED
  - SECOND-PAIR MAKE BUSY: CONNECT MAKE-BUSY LINE TO MB1 AND MB2.  
ALSO, FOR 103J ONLY, STRAP MB1 TO RD
  - 3RD-WIRE MAKE BUSY: CONNECT MAKE-BUSY WIRE TO MB2.  
CONNECT FRAME GROUND TO MB1.  
ALSO, FOR 103J ONLY, STRAP MB1 TO RD
4. ANY OF THE DATA SETS IN THE MOUNTING CAN BE OPERATED WITHOUT AN ACU BY LEAVING THE ASSOCIATED ACU POSITION VACANT. FOR SUCH DATA SETS, CONNECTIONS TO THE 66E3 CONNECTING BLOCK MUST BE MADE AS INDICATED IN NOTE 2 TABLE.

Fig. 12—40A3 Data Mounting With up to Four Data Sets and up to Four ACUs in a Single Mounting

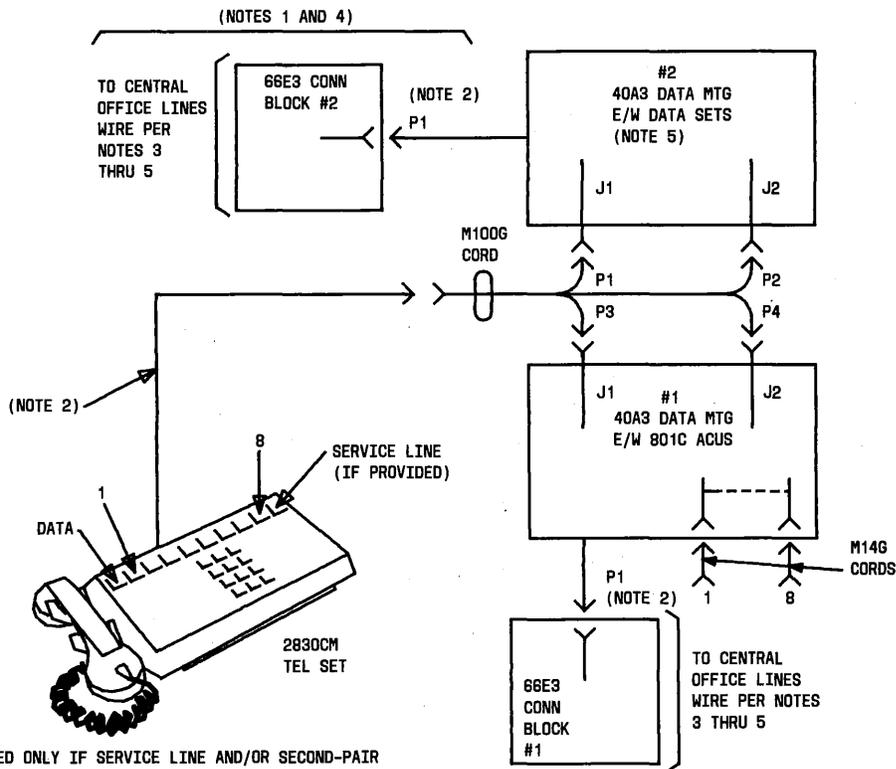


- NOTES:
1. REQUIRED ONLY IF SERVICE LINE AND/OR SECOND-PAIR (THIRD-WIRE) MAKE-BUSY IS USED.
  2. ALWAYS USE NOT ZX OPTION FOR SWITCHES SA1 TO SA8.
  3. EXTEND USING B25A CABLE, IF NECESSARY.
  4. MAKE CONNECTIONS TO C.O. LINES PER TABLE:
  5. TIP-RING MAKE-BUSY OPTION IS NOT RECOMMENDED.
  6. ANY OF THE DATA SETS IN THE MOUNTING CAN BE OPERATED WITHOUT AN ACU BY LEAVING THE ASSOCIATED ACU POSITION VACANT. FOR SUCH DATA SETS, CONNECTIONS TO THE 66E CONNECTING BLOCK #2 MUST BE MADE TO TERMINALS OUTLINED.
  7. CONNECTIONS SHOWN ARE FOR 40A1 DATA MOUNTING. THE 40A2 SERVICE LINE CONNECTS TO TERMINALS 35 AND 36 ONLY.

MTG NO.	DATA SET OR ACU POSITION	DATA LINE CONNECTIONS		MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS (NOTE 7)		CONN BLK NO.
		T	R	MB2	MB1	RD	T	R	
1 (ACU)	1	1	2						1
	2	3	4						
	3	5	6						
	4	7	8						
	5	9	10						
	6	11	12						
	7	13	14						
	8	15	16						
2 (DS)	1	1	2	19	20	42	17	18	2
	2	3	4	21	22	44			
	3	5	6	23	24	46			
	4	7	8	25	26	48			
	5	9	10	27	28	41			
	6	11	12	29	30	43			
	7	13	14	31	32	45			
	8	15	16	33	34	47			

NOTE 6

Fig. 13—40A1 or 40A2 Data Mounting With up to Eight Data Sets and up to Eight ACUs



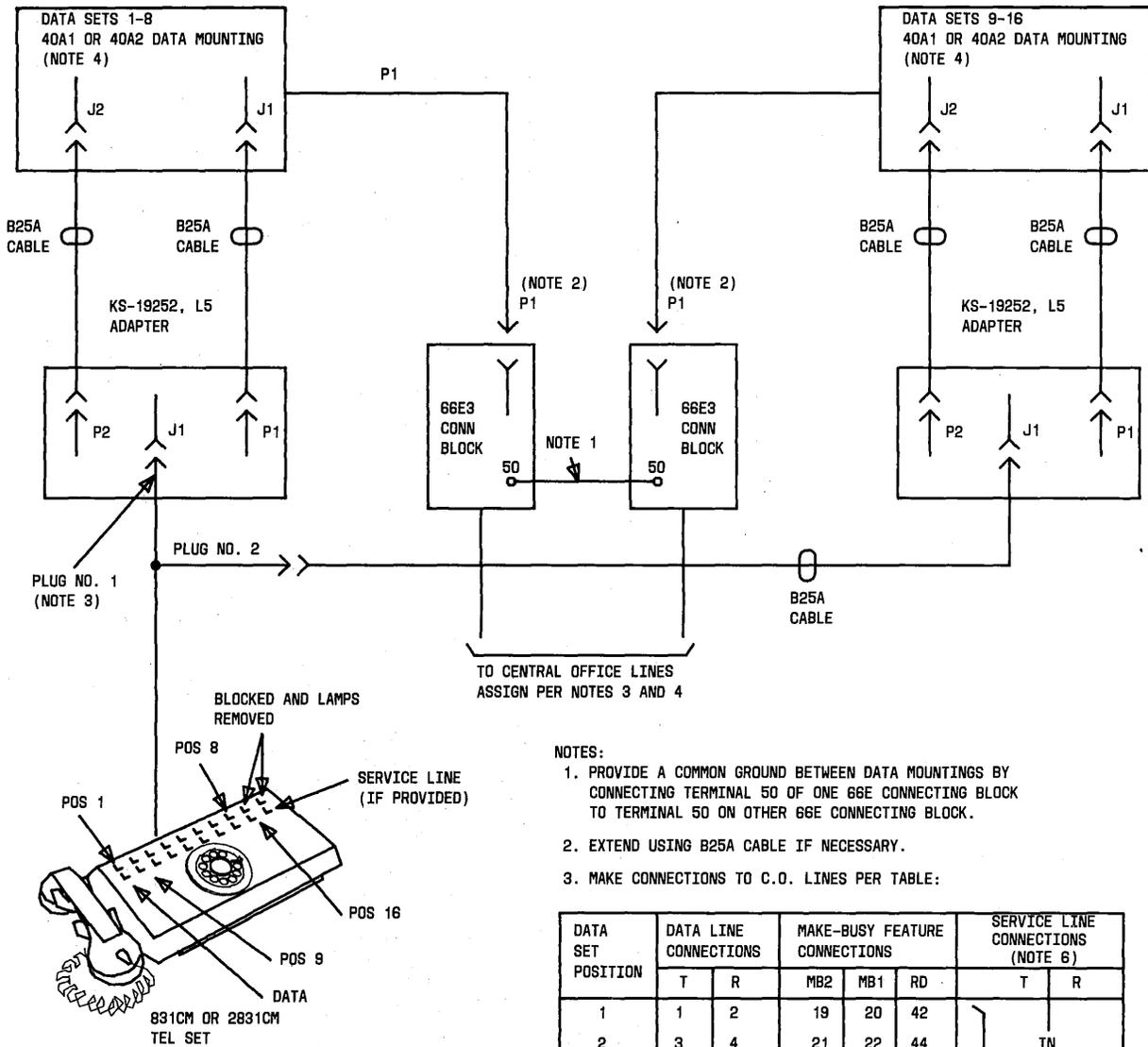
- NOTES:
1. REQUIRED ONLY IF SERVICE LINE AND/OR SECOND-PAIR (THIRD-WIRE) MAKE-BUSY IS USED.
  2. EXTEND USING B25A CABLE, IF NECESSARY.
  3. MAKE CONNECTION TO C.O. LINES PER TABLE:

4. IF MAKE-BUSY FEATURE IS SPECIFIED, ADD CONNECTIONS AND STRAPS AS FOLLOWS:
  - TIP-RING MAKE BUSY: NOT RECOMMENDED
  - SECOND-PAIR MAKE BUSY: CONNECT MAKE-BUSY LINE TO MB1 AND MB2. ALSO, FOR 103J ONLY, STRAP MB1 TO RD
  - 3RD-WIRE MAKE BUSY: CONNECT MAKE-BUSY WIRE TO MB2. CONNECT FRAME GROUND TO MB1. ALSO, FOR 103J ONLY, STRAP MB1 TO RD
5. ANY OF THE DATA SETS IN THE MOUNTING CAN BE OPERATED WITHOUT AN ACU BY LEAVING THE ASSOCIATED ACU POSITION VACANT. FOR SUCH DATA SETS, CONNECTIONS TO THE 68E CONNECTING BLOCK #2 MUST BE MADE TO TERMINALS OUTLINED.

MTG. NO.	DATA SET OR ACU POSITION	DATA LINE CONNECTIONS		MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS		CONN BLK NO.
		T	R	MB2	MB1	RD	T	R	
1 (ACU)	1	1	2	NO CONNECTIONS					1
	2	3	4						
	3	5	6						
	4	7	8						
	5	9	10						
	6	11	12						
	7	13	14						
	8	15	16						
2 (DS)	1	1	2	19	20	42	IN OUT		2
	2	3	4	21	22	44			
	3	5	6	23	24	46			
	4	7	8	25	26	48			
	5	9	10	27	28	41			
	6	11	12	29	30	43			
	7	13	14	31	32	45			
	8	15	16	33	34	47			

NOTE 5

Fig. 14—40A3 Data Mounting With up to Eight Data Sets and up to Eight ACUs



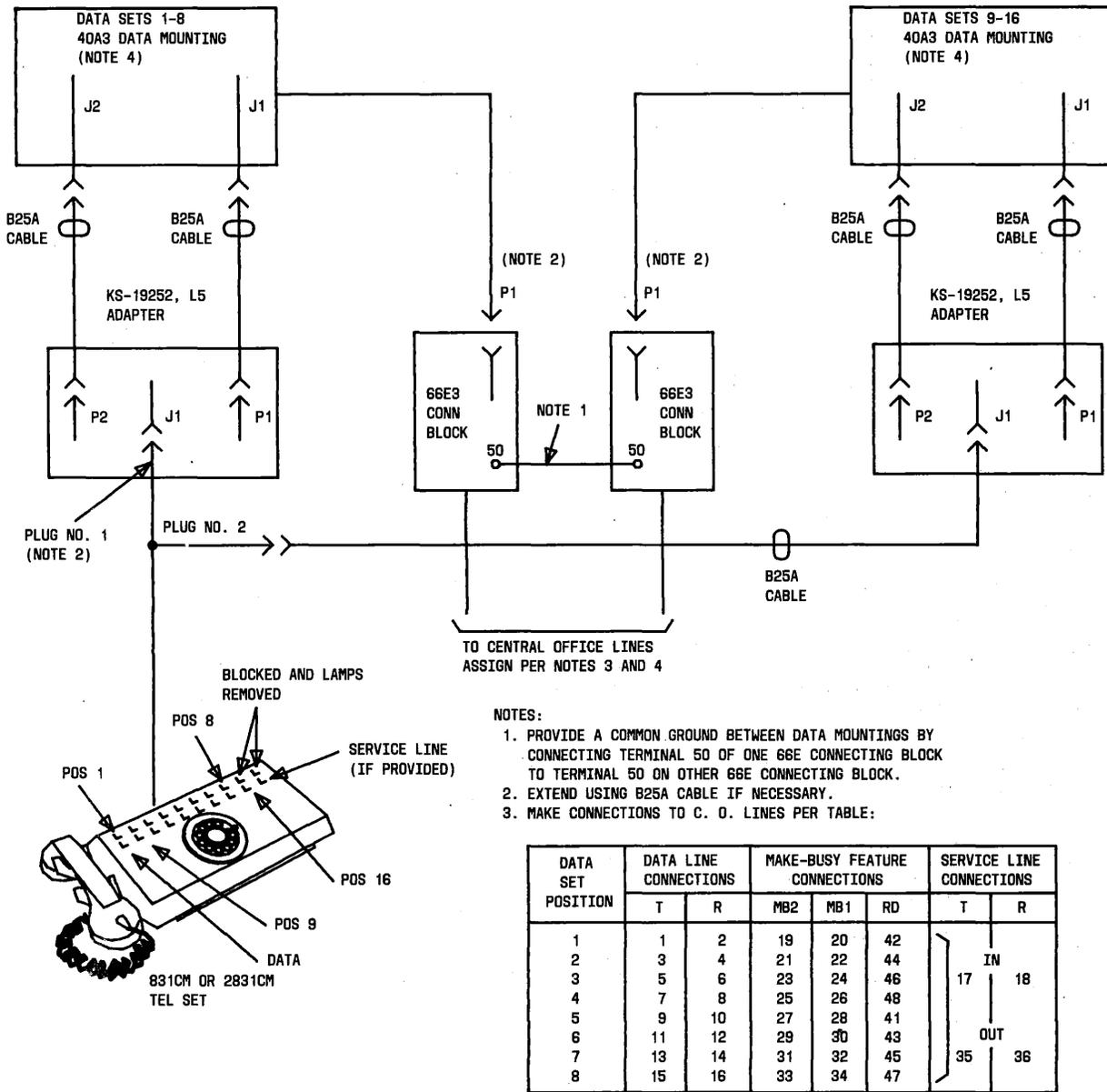
NOTES:

1. PROVIDE A COMMON GROUND BETWEEN DATA MOUNTINGS BY CONNECTING TERMINAL 50 OF ONE 66E CONNECTING BLOCK TO TERMINAL 50 ON OTHER 66E CONNECTING BLOCK.
2. EXTEND USING B25A CABLE IF NECESSARY.
3. MAKE CONNECTIONS TO C.O. LINES PER TABLE:

DATA SET POSITION	DATA LINE CONNECTIONS		MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS (NOTE 6)			
	T	R	MB2	MB1	RD	T	R		
1	1	2	19	20	42	}	IN		
2	3	4	21	22	44				
3	5	6	23	24	46			17	18
4	7	8	25	26	48				
5	9	10	27	28	41	}	OUT		
6	11	12	29	30	43				
7	13	14	31	32	45			35	36
8	15	16	33	34	47				

4. IF MAKE-BUSY FEATURE IS SPECIFIED, ADD CONNECTIONS AND STRAPS AS FOLLOWS:
  - TIP-RING MAKE BUSY (OPTION ZX): SEE OPTIONS TABLES
  - SECOND-PAIR MAKE BUSY: } (OPTION NOT ZX)
  - 3RD-WIRE MAKE BUSY: } SEE OPTION TABLES
5. CONNECTIONS SHOWN ARE FOR 40A1 DATA MOUNTING. THE 40A2 DATA MOUNTING CONNECTS TO TERMINALS 35 AND 36 ONLY.

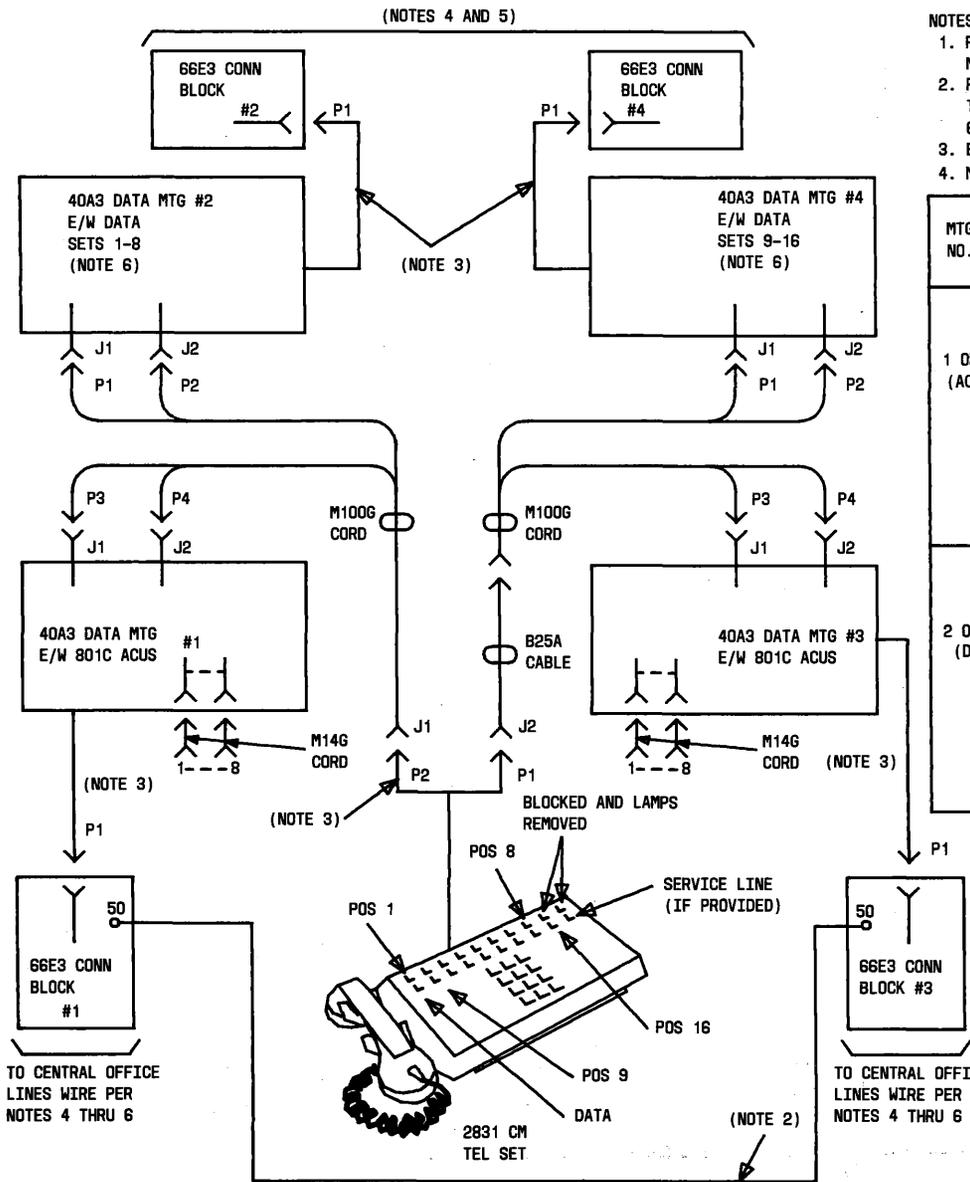
Fig. 15—40A1 or 40A2 Data Mounting With 9 to 16 Data Sets Without ACUs



4. IF MAKE-BUSY FEATURE IS SPECIFIED, ADD CONNECTIONS AND STRAPS AS FOLLOWS:
  - TIP-RING MAKE BUSY: STRAP T TO MB1  
STRAP R TO MB2
  - SECOND-PAIR MAKE BUSY: CONNECT MAKE-BUSY LINE TO MB1 AND MB2.  
ALSO, FOR 103J ONLY, STRAP MB1 TO RD
  - 3RD-WIRE MAKE BUSY: CONNECT MAKE-BUSY WIRE TO MB2.  
CONNECT FRAME GROUND TO MB1.  
ALSO, FOR 103J ONLY, STRAP MB1 TO RD

Fig. 16—40A3 Data Mounting With 9 to 16 Data Sets Without ACUs





NOTES:

1. REQUIRED ONLY IF SERVICE LINE AND/OR SECOND-PAIR (THIRD-WIRE) MAKE-BUSY IS USED.
2. PROVIDE A COMMON GROUND BETWEEN DATA MOUNTINGS BY CONNECTING TERMINAL 50 OF ONE 66E CONNECTING BLOCK TO TERMINAL 50 OF OTHER 66E CONNECTING BLOCK.
3. EXTEND USING B25A CABLE IF NECESSARY.
4. MAKE CONNECTIONS TO C.O. PER TABLE:

MTG NO.	DATA SET OR ACU POSITION	DATA LINE CONNECTIONS			MAKE-BUSY FEATURE CONNECTIONS			SERVICE LINE CONNECTIONS		CONN BLK NO.
		T	R		MB2	MB1	RD	T	R	
1 OR 3 (ACU)	1	1	2							1 OR 3
	2	3	4							
	3	5	6							
	4	7	8							
	5	9	10							
	6	11	12							
	7	13	14							
	8	15	16							
2 OR 4 (DS)	1	1	2	19	20	42				2 OR 4
	2	3	4	21	22	44				
	3	5	6	23	24	46				
	4	7	8	25	26	48				
	5	9	10	27	28	41				
	6	11	12	29	30	43				
	7	13	14	31	32	45				
	8	15	16	33	34	47				

NOTE 6

5. IF MAKE-BUSY FEATURE IS SPECIFIED, ADD CONNECTIONS AND STRAPS AS FOLLOWS:

TIP-RING MAKE BUSY: NOT RECOMMENDED

SECOND-PAIR MAKE BUSY: CONNECT MAKE-BUSY LINE TO MB1 AND MB2. ALSO, FOR 103J ONLY, STRAP MB1 TO RD.

3RD-WIRE MAKE BUSY: CONNECT MAKE-BUSY WIRE TO MB2  
CONNECT FRAME GROUND TO MB1  
ALSO, FOR 103J ONLY, STRAP MB1 TO RD

6. ANY OF THE DATA SETS IN THIS MOUNTING CAN BE OPERATED WITHOUT AN ACU BY LEAVING THE ASSOCIATED ACU POSITION VACANT. FOR SUCH DATA SETS, CONNECTIONS TO THE 66F CONNECTING BLOCK #2 OR #4 MUST BE MADE TO TERMINALS OUTLINED.

Fig. 18—40A3 Data Mounting With 9 to 16 Data Sets With 9 to 16 ACUs

TABLE E

## CONNECTIONS FROM DATA MOUNTING TO CENTRAL OFFICE

TERMINAL ON 66E3 CONN BLOCK*	PIN NUMBER ON 825A CABLE † TO DATA MOUNTING	DATA SET POSITION NUMBER ‡	LEAD DESIG- NATION §	TERMINAL ON 66E3 CONN BLOCK*	PIN NUMBER ON 825A CABLE † TO DATA MOUNTING	DATA SET POSITION NUMBER ‡	LEAD DESIG- NATION §
1	26	1	T	26	13	4	MB1
2	1	1	R	27	39	5	MB2
3	27	2	T	28	14	5	MB1
4	2	2	R	29	40	6	MB2
5	28	3	T	30	15	6	MB1
6	3	3	R	31	41	7	MB2
7	29	4	T	32	16	7	MB1
8	4	4	R	33	42	8	MB2
9	30	5	T	34	17	8	MB1
10	5	5	R	35	43	—	T <sub>s</sub> out**
11	31	6	T	36	18	—	R <sub>s</sub> out**
12	6	6	R	37	44	—	—
13	32	7	T	38	19	—	—
14	7	7	R	39	45	—	—
15	33	8	T	40	20	—	—
16	8	8	R	41	46	5	RD
17	34	—	T <sub>s</sub> in ¶	42	21	1	RD
18	9	—	R <sub>s</sub> in ¶	43	47	6	RD
19	35	1	MB2	44	22	2	RD
20	10	1	MB1	45	48	7	RD
21	36	2	MB2	46	23	3	RD
22	11	2	MB1	47	49	8	RD
23	37	3	MB2	48	24	4	RD
24	12	3	MB1	49	50	—	FG
25	38	4	MB2	50	25	—	SG

\* Refer to Section 461-604-101 for information on 66E3 connecting blocks.

† For some station installations, it will be more convenient to substitute an A25D (single-ended) cable for the B25A connected to P1 of the data mounting to interface with the central office via a local distribution terminal instead of the 66E3 connecting block specified.

‡ For lead designation assignments for data sets in a second data mounting (data sets 9 through 16), add 8 to DATA SET POSITION NUMBER column.

§ T, R—Tip, Ring; MB—Make-busy; T<sub>s</sub>, R<sub>s</sub>—Tip, Ring of Service Line; RD—Ring Detector contact; FG, SG—Frame Signal Ground.

¶ 40A1 and 40A3 only.

\*\* These leads are designated T<sub>s</sub> and R<sub>s</sub>, respectively, in the 40A2 data mounting.

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telephone access to the service line is excluded when any data set is connected to the service line. With the 40A2 data mounting, data sets in any position in the 40A2 data mounting do not exclude telephone access to the service line.

**4. REFERENCES**

**4.01** The following Bell System Practices provide information pertaining to installation of data sets and ACUs.

<b>SECTION</b>	<b>TITLE</b>
314-205-501	Data Systems—"DATA-PHONE®" Service and Data Access Arrangements on Direct Distance Dialing Network-Test Requirements
461-604-101	Connecting Blocks, 66-Type—Numbering and Wiring Plan
501-251-100	E1-Type Ringers
502-541-415	565HK and 565HKM Telephone Sets
502-543-405	2565HK and 2565HKM Telephone Sets
503-701-101	830- and 2830-Type Telephone Sets
503-702-101	831- and 2831-Type Telephone Sets

<b>SECTION</b>	<b>TITLE</b>
590-010-201	Data Sets—Multiple Installation Information
591-039-200	Data Set 103J-L1/2 Transmitter-Receiver—Installation and Connections
591-040-200	Data Set 113D-11/2 Transmitter-Receiver—Installation and Connections
591-041-200	Data Set 113C-L1/2 Transmitter-Receiver—Installation and Connections
592-028-200	Data Set 202S Transmitter-Receiver—Installation and Connections
592-034-200	Data Set 212A-L1/2 Transmitter-Receiver—Installation and Connections
592-860-500	202S Data Station—Test Procedures
598-012-202	Data Auxiliary Set 801C-L1/2—Installation and Connections

**4.02** The following schematic drawing (SD) and circuit description (CD) contain information on 40-type data mountings.

<b>NUMBER</b>	<b>TITLE</b>
SD-&CD-1D269-01	40-Type Data Mounting