

STATION LINE CONCENTRATORS
235A AND 236A KEY TELEPHONE UNITS
IDENTIFICATION AND CONNECTIONS

1.00 INTRODUCTION

1.01 This section covers the identification and connection of 235A and 236A key telephone units which are referred to as *station line concentrators*.

1.02 This section is reissued to add:

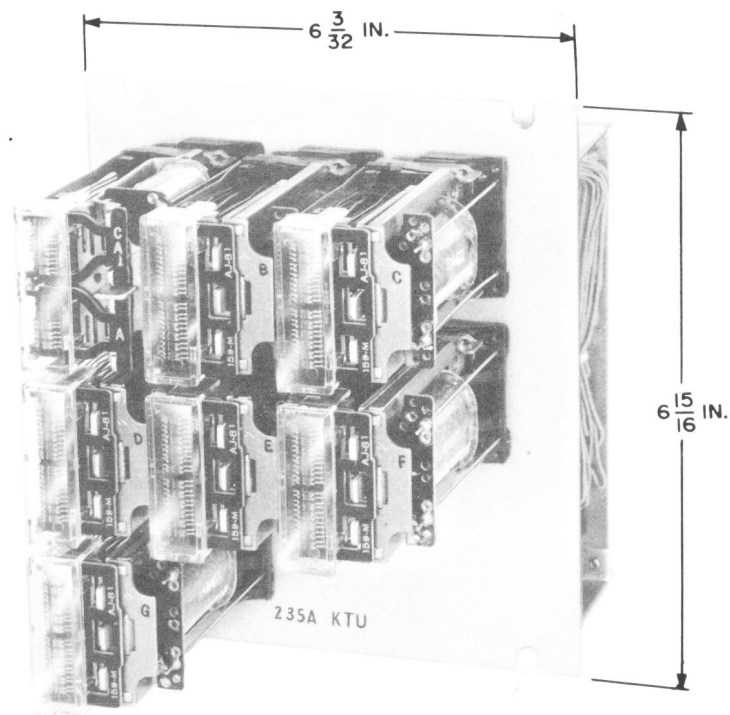
- Tables A and B.
- Note 2 to Fig. 5.
- Note 3 to Fig. 6.

1.03 Due to extensive changes, marginal arrows have been omitted.

2.00 IDENTIFICATION

2.01 Station line concentrators are used as a means for reducing the number of conductors required between key telephone system line circuit units and associated THE CALL DIRECTOR sets or 400-type mounting and associated modular-type key positions.

2.02 The 235A KTU is a station line concentrator for a maximum of 18 lines and is designed for use with 18-button THE CALL DIRECTOR sets (see Fig. 1 and 2).



GOOD FOR ONLY 18 LINES
Fig. 1 — 235A KTU, Front View

2.03 The 236A KTU is a station line concentrator for a maximum of 30 lines when used with a 30-button THE CALL DIRECTOR set or 400-type key mounting position (see Fig. 3 and 4).

3.00 CONNECTIONS

3.01 One transmission pair (TT and TR) and control leads *TA, CA, CA1, CB, CC, CD, CE,* and *CF* are required between line concentrator units and 18-button THE CALL DIRECTOR sets. All these leads, plus control leads *CG, CH,*



Fig. 2 — 235A KTU, Rear View

and *CJ*, are required between line concentrator units and 30-button THE CALL DIRECTOR sets or 400-type key mountings. Depressing a pickup key grounds selected control leads, operating a combination of relays on the 235A or 236A KTU. Operation of these relays connects a selected 1A1 or 6A line circuit to the common transmission pair of the telephone set. See Table A or B.

3.02 Lamp control leads and the *A1* lead bypass line concentrator units. These leads connect directly between line circuit equipments and THE CALL DIRECTOR sets or 400-type key mountings.

3.03 Station line concentrators must be furnished on a *per station* basis. Also, stations cannot share line concentrator units.

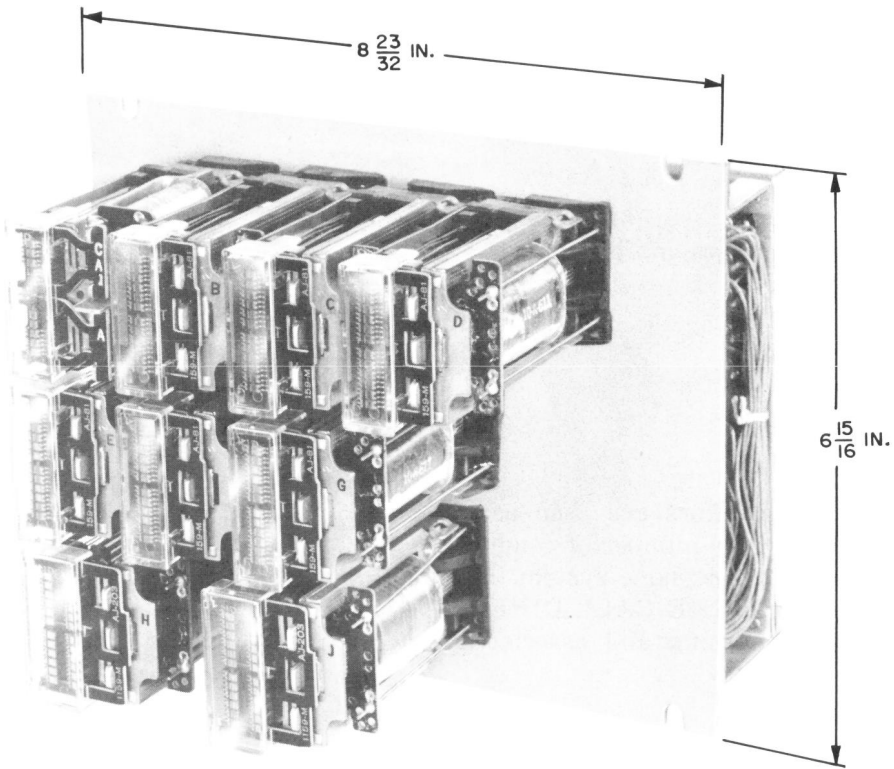


Fig. 3 — 236A KTU, Front View
GOOD FOR ONLY 30 LINES

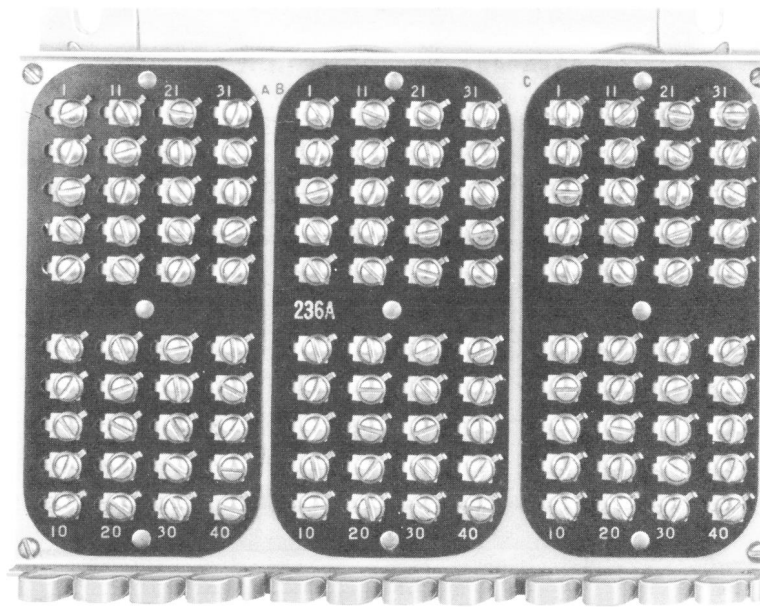


Fig. 4 – 236A KTU, Rear View

- 3.04** Each 400-series key mounting position may require more than one 236A KTU per position, depending on the number of lines picked up. One 236A KTU is required for each group of 30 lines picked up by the position.
- 3.05** Fig. 5 shows connections for a 235A KTU ; Fig. 6 shows connections for a 236A KTU.
- 3.06** Connections of various telephone set circuits to station line concentrators are to be found in appropriate connection sections pertaining to:
- Telephone Sets, THE CALL DIRECTOR
 - 400-Type Mountings and Associated Modular-Type Keys
 - 1A1 Telephone Systems, List of Sections
 - 6A Key Telephone System.

TABLE A
235A KEY TELEPHONE UNIT

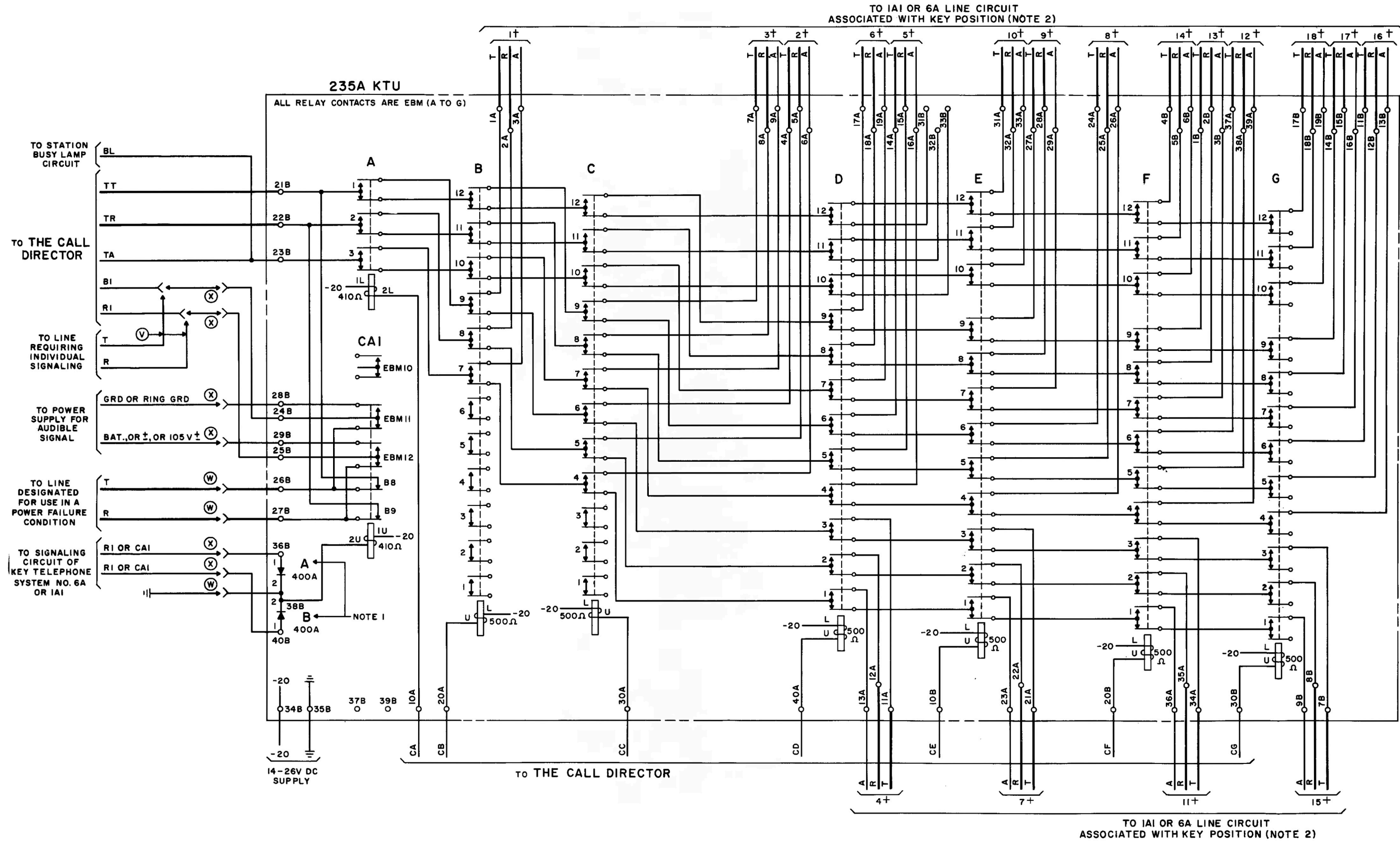
Key Unit Position	Key Unit Type	Pickup Key Position	Control Leads*						
			CA	CB	CC	CD	CE	CF	CG
1	598A Key 599A Key 599B Key	1	A	B					
		2	A		C				
		3		B	C				
		4	A			D			
		5		B		D			
		6			C	D			
2	598A Key	7	A				E		
		8		B			E		
		9			C		E		
		10				D	E		
		11	A					F	
		12		B				F	
3	598A Key	13			C			F	
		14				D		F	
		15		A				G	
		16			B			G	
		17				C		G	
		18					D	G	

* Letters opposite key position numbers denote combination of relays that operate on 235A KTU when associated control leads are grounded by an operated pickup key.

TABLE B
236A KEY TELEPHONE UNIT

Key Unit Position	Key Unit Type	Pickup Key Position	Control Leads*									
			CA	CA1	CB	CC	CD	CE	CF	CG	CH	CJ
1	598A Key 599A Key 599B Key	1	A		B							
		2	A			C						
		3			B	C						
		4	A				D					
		5			B		D					
		6		CA1							H	
2	598A Key	7				C	D					
		8			B			E				
		9				C		E				
		10					D	E				
		11				C			F			
		12					D		F			
3	598A Key	13						E	F			
		14					D			G		
		15						E		G		
		16							F	G		
		17	A								H	
		18			B						H	
4	598A Key	19				C					H	
		20					D				H	
		21						E			H	
		22							F		H	
		23								G	H	
		24	A									J
5	598A Key	25			B							J
		26				C						J
		27					D					J
		28						E				J
		29							F			J
		30								G		J

* Letters opposite key position numbers denote combination of relays that operate on 236A KTU when the associated control leads are grounded by an operated pickup key.



Option	Feature Provided
V	Individual Signaling
W	Power Failure*
X	Common Audible Signaling*

* Power failure feature may be provided when common audible signaling is not required.

† Denotes key position on telephone set not line circuit number.

Note 1: ^{Accd} Diodes permit common audible signaling to be divided between two or more stations that have access to the same line or group of lines.

Note 2: When using 599A key in first key unit position, do not connect 1A1 or 6A line circuit to key position 6. When using 599B key in first key unit position, do not connect 1A1 or 6A line circuit to key positions 5 and 6.

Fig. 5 - Station Line Concentrator for 18 Lines

