

STATION SYSTEMS  
NO. 6A KEY EQUIPMENT  
KEY SELECTING OBSERVING  
FOR USE WITH OR WITHOUT LOUDSPEAKER

SECTION I - GENERAL DESCRIPTION1. PURPOSE OF CIRCUIT

1.01 This circuit provides service observing on a central office subscriber line, PBX station line, PBX trunk, or PBX attendant.

SECTION II - DETAILED DESCRIPTION1. SERVICE OBSERVING

1.01 When the OBS key is operated in either direction, the observing circuit is connected to a central office subscriber line, PBX station line, PBX trunk, or PBX attendant telephone circuit. This permits service observing either with the head receiver or the loudspeaker set. The operation of the loudspeaker key disconnects the head receiver and connects the loudspeaker set to the observing circuit.

2. CLICK REDUCTION

2.01 The varistor is provided to reduce the intensity of clicks in the receive. With normal voltages, the resistance of the varistor is very high, but on an increase of voltage the resistance is reduced to a very low value which reduces the intensity of the clicks heard in the receiver.

3. ADJUSTMENTS

3.01 When using a 106A loudspeaker set, adjust inside potentiometer at bottom of unit to eliminate excessive volume at maximum setting of volume control on front of unit.

3.02 When using a 106B loudspeaker set, adjust inside potentiometer on side of unit, which controls the automatic volume control, to give equal output level to all voices; then adjust inside potentiometer at bottom of unit to eliminate excessive volume at maximum setting of volume control on front of unit.

3.03 If 106-type loudspeaker set is powered by 24 volts dc, replace the 2Y pilot light lamp with a 2U lamp. If 106-type loudspeaker set is powered by J87202 power supply, replace the 2Y pilot light lamp with a 2T lamp.

SECTION III - REFERENCE DATA1. WORKING LIMITS

None.

2. FUNCTIONAL DESIGNATIONS

None.

3. FUNCTIONS

3.01 Service observing on a central office subscriber line, PBX station line, PBX trunk, or PBX attendant.

4. CONNECTING CIRCUITS

4.01 When this circuit is listed on a key-sheet, the connecting information thereon is to be followed. The following are typical connecting circuits:

- (a) Standard PBX trunk circuits.
- (b) Standard PBX station line circuits.
- (c) Standard PBX attendant telephone circuits.
- (d) Standard central office subscriber line circuits.

SECTION IV - REASONS FOR REISSUEB. Changes in ApparatusB.1 SUPERSEDEDSUPERSEDED BY

EQPT UNIT ED-91929-01,	0.5- $\mu$ f Capacitor
G30 - Fig. 10	(C1) - Fig. 22
EQPT UNIT ED-91929-01,	100D Varistor
G26 - Fig. 10	(RV1) - Fig. 22

D. Description of Changes

D.1 Fig. 10 is rated Mfr Disc. and is replaced by Fig. 22, which is added.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT 5335-FD-PBF

## CIRCUIT NOTES:

DESIG	AMP	POTENTIAL FUSED	ONE PER

FEATURE OR OPTION	PROVIDE		
	FIG.	APP OR WIR	QUANTITY
J87202 POWER SUPPLY CONNECTION & STRAPPING OF 106-TYPE LOUDSPEAKER	11		1 PER STA AS REQD
SWITCHING KEY	12		1 PER 2 LINES
REP COIL	13		1 PER LINE
CORD-ENDED HEADSET	14		
LS KEY ARR	CONNECTION TO 100-TYPE LS SET (MD)	15	X
	CONNECTION TO 106A LS SET		Y
	CONNECTION TO 106B LS SET		Z
	CONNECTION TO 107-TYPE LS SET		W
OPERATOR JACK	16		1 PER STA AS REQD
PLUG-ENDED DOUBLE HEADSET	17		
PLUG-ENDED SINGLE HEADSET	18		
24V DC POWER CONNECTIONS AND STRAPPING OF 106-TYPE LOUDSPEAKER	19		
48V DC POWER CONNECTIONS AND STRAPPING OF 106-TYPE LOUDSPEAKER	20		
CONNECTIONS FOR 107-TYPE LOUDSPEAKER	21		
CONNECTING CKT FOR MONITORING	22		

NETWORK VALUES			
NO.	NETWORK CODE	RESISTANCE IN OHMS	CAPACITANCE IN UF

RECORD OF FIGURES, WIRING, AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
8D	Y OR Z	X		Y,Z		X
				12		1
				13		2
			110	10		3
				14		4
				15		5
			110	10		6
				16		7
				17		8
				18		9
11D			110	22		10

## CIRCUIT NOTES: (CONT)

105. ALL NORMALLY CLOSED CONTACTS OPERATED BY A LEVER SHALL BREAK BEFORE ANY OF THE NORMALLY OPEN CONTACTS MAKE.
106. THE REPEATING COIL SHALL BE MOUNTED IN THE SWITCHBOARD SECTION WITH THE ATTENDANT TEL CIRCUIT.
107. PRIOR TO ISSUE 4D, THE D-96231 SUBSCRIBER SET WAS NOT EQUIPPED WITH A VARISTOR.
108. FIG. 3 IS RATED MFR DISC AND SUPERSEDED BY FIG. 6 ON ISSUE 5D.
109. PRIOR TO ISSUE 6D, LEAD DESIGNATED T TO INDUCTION COIL OF PBX ATTENDANT TELEPHONE SET WAS DESIGNATED L.
110. FIG. 10 (MFR DISC.) OR FIG. 22 ARE MOUNTED IN A 105 APPARATUS BOX.
111. POWER CONNECTIONS FOR FIG. 19 AND 20 SHALL BE FUSED FOR 1/2 AMP IN THE NEGATIVE LEAD.

## INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED:  
RESISTANCE VALUES ARE IN OHMS,  
CAPACITANCE VALUES ARE IN MICROFARADS.

FIGURES AND OPTIONS ON THIS DWG		
CKT FIG.	APP OR WIRING	
10 21	Z	
11 22	Y	
12	X	
13	W	
14		
15		
16		
17		
18		
19		
20		

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STATION SYSTEMS  
NO. 6A KEY EQUIPMENT

KEY SELECTING OBSERVING  
FOR USE WITH OR WITHOUT  
LOUDSPEAKER

AT&T CO  
STANDARD

SD-69068-011

3 SHEETS

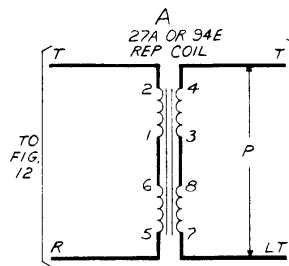
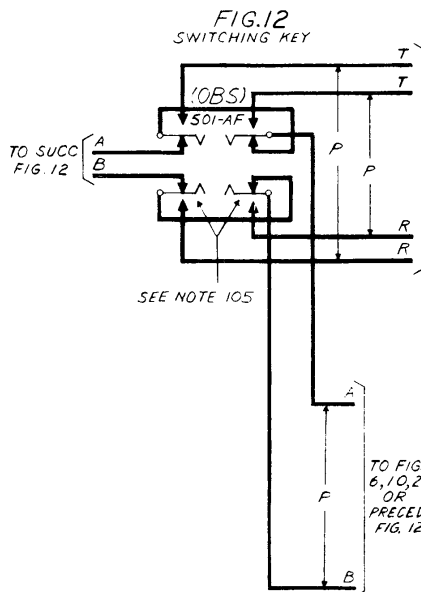
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DWG SIZE  
3S

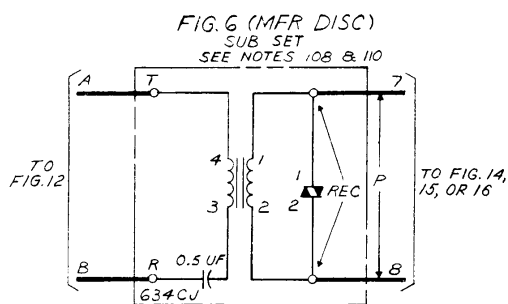
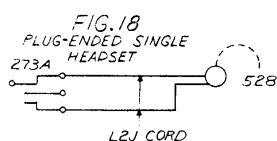
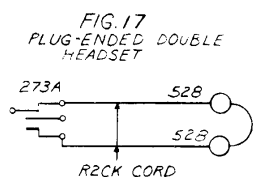
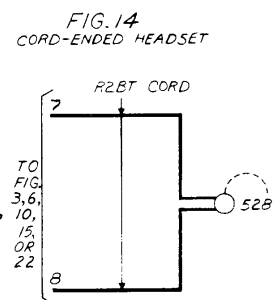
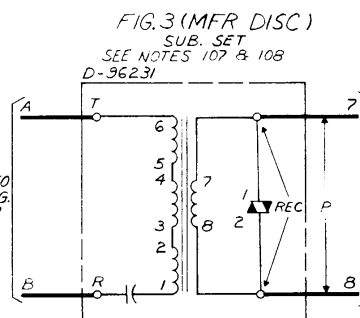
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DWG ISS	CD ISS	DWG ISS	CD ISS	DWG ISS	CD ISS
1	1	2D	2D	3D	3D
4D	4D	5D	5D	6D	6D
7D	6D	APPRO			
DWG ISS	CD ISS	DATE ISSUED	DWN	APP'D	
8D	8D	11-16-61	DIR	FD	
				LHA	
9D	9D	6-7-62	GMB	FD	
			DHC	LHA	
10D	10D	9-24-63	PG	FD	
			DHC	LHA	
11D	11D	2-23-65	RS	FD	
			DHC	PBF	
				ARM	

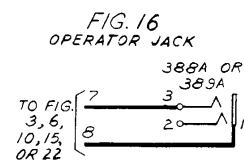
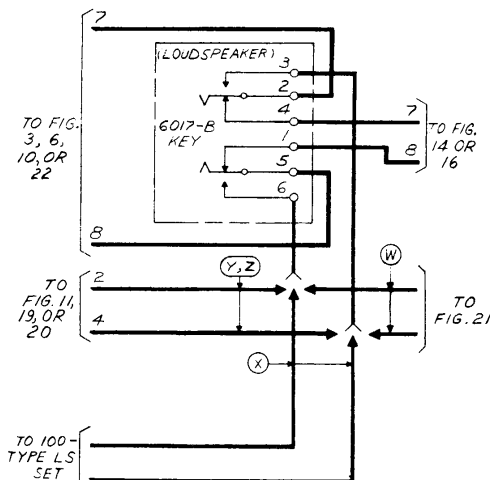
DRAWING	ISSUE
8D	DIR
9D	G78 DMC DLY
10D	PG DMC ARM
11D	RS DMC ARM



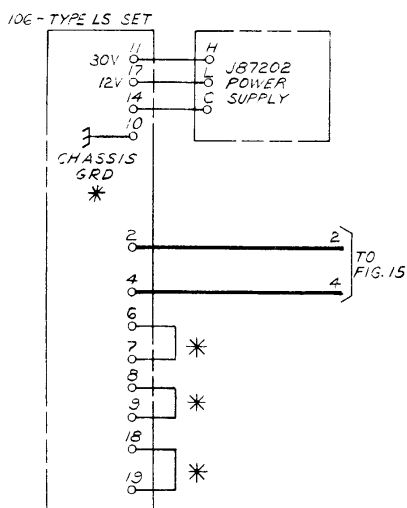
PROVIDE FIG.13 WHEN OBSERVING ON PBX ATT WHEN THE PBX ATT TEL SET IS NOT PROVIDED WITH MONITORING TAPS, SEE NOTE 106



**FIG.15**  
LOUDSPEAKER KEY ARRANGEMENT  
PROVIDE FIG.15  
WHEN LOUDSPEAKER  
SET IS REQD



**FIG.11**  
J87202 POWER SUPPLY CONNECTION  
AND STRAPPING OF 106-TYPE LOUDSPEAKER



\* CHASSIS GROUND AND STRAPS RUN BY INSTALLER.

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DRAWING	ISSUE
8D	D/A
9D	G/MR D/C D/LV
10D	P/G D/H A/R
11D	R/S D/H A/R

FIG. 10 (MFR DISC.)  
CONNECTING CKT FOR MONITORING  
SEE NOTE 110

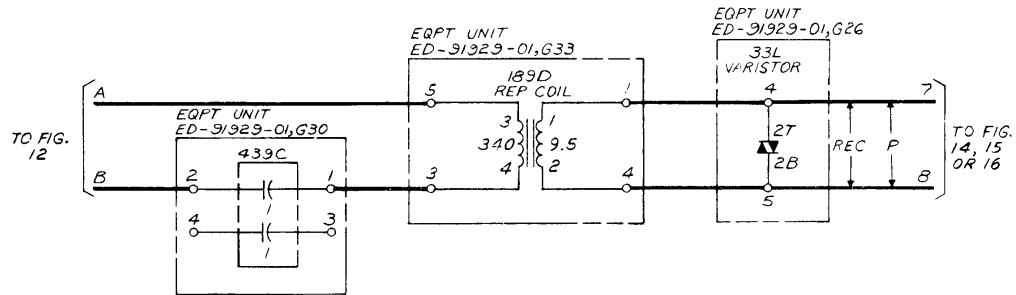
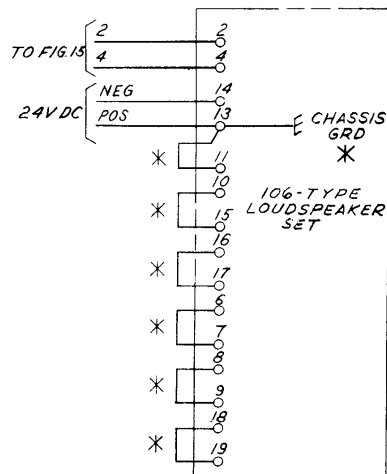
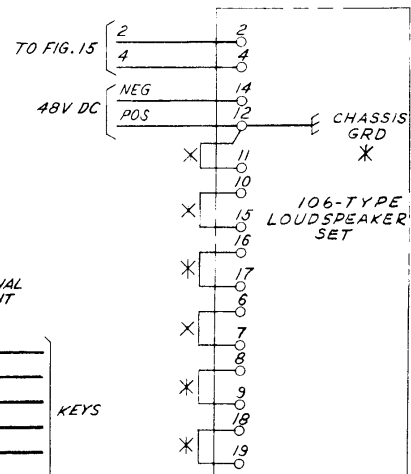


FIG. 19  
24V DC POWER CONNECTIONS  
AND STRAPPING OF 106-TYPE LOUDSPEAKER  
SEE NOTE 111



\* CHASSIS GROUND AND STRAPS  
RUN BY INSTALLER

FIG. 20  
48V DC POWER CONNECTIONS  
AND STRAPPING OF 106-TYPE LOUDSPEAKER  
SEE NOTE 111



\* CHASSIS GROUND AND STRAPS  
RUN BY INSTALLER

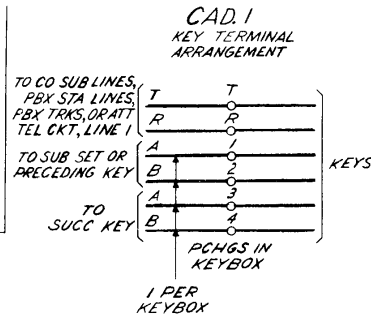


FIG. 22  
CONNECTING CKT FOR MONITORING  
SEE NOTE 110

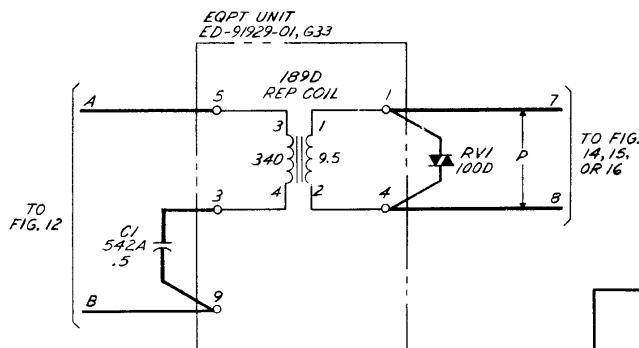
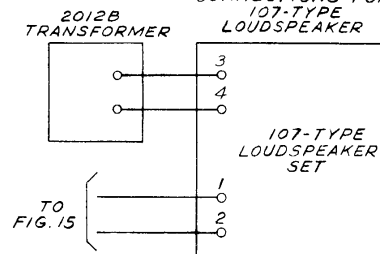


FIG. 21  
CONNECTIONS FOR  
107-TYPE LOUDSPEAKER



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NO. 6A KEY EQUIPMENT

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OWS SIZE  
35

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