BELL SYSTEM PRACTICES
Stations Operation Manual
Station Sets

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TELEPHONE CONSOLES 1A AND 2A TYPES

IDENTIFICATION AND ASSEMBLY OF PARTS
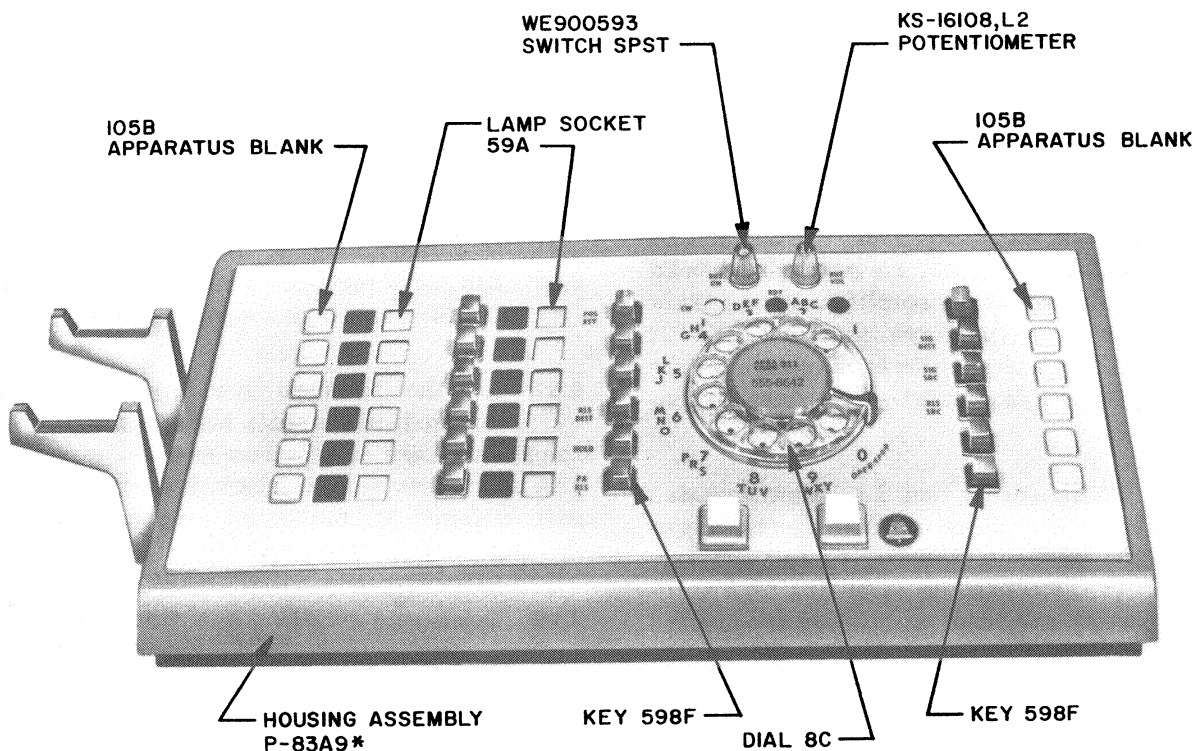
1.00 GENERAL

This section covers the identification and assembly of parts, mounting cord, and connector cables for the 1A- and 2A-type telephone consoles.

2.00 IDENTIFICATION

2.01 The 1A- and 2A-type telephone consoles have been developed for universal use in the 701B, 757A, ESS 101, and No. 5 crossbar PBX systems (see Fig. 1 and 2). The telephone console provides trunk and loop pickup and attendant dialing from a cordless telephone console.
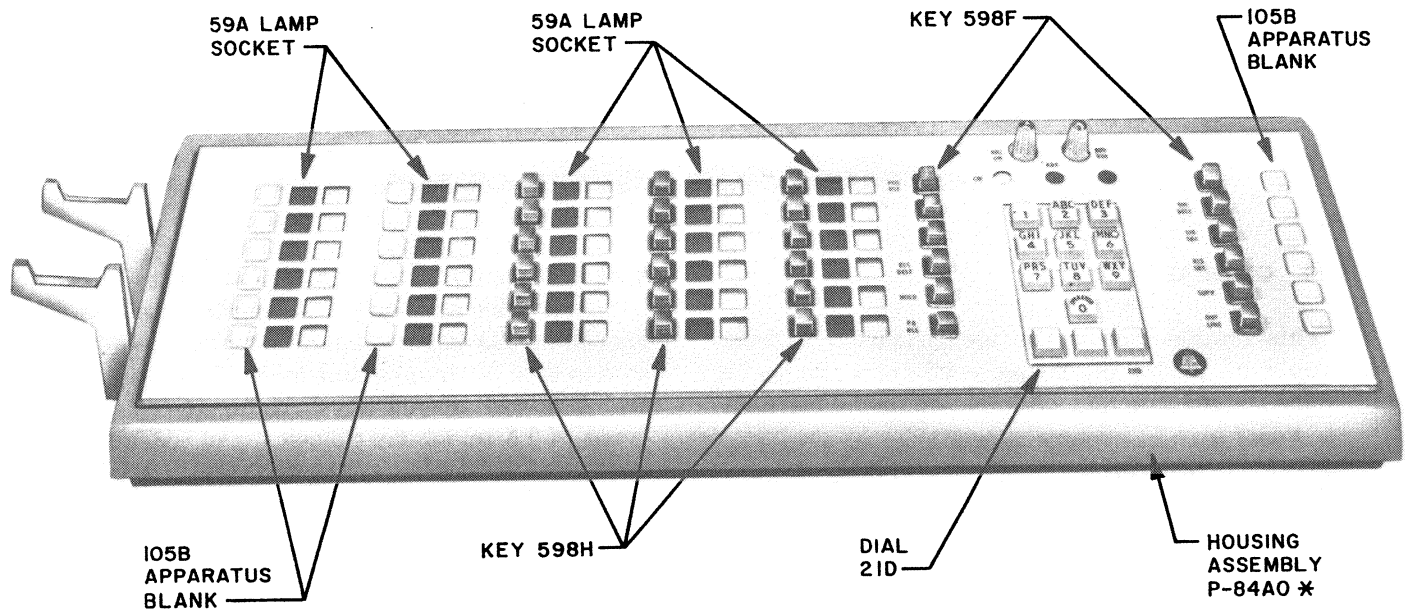
2.02 Capacity of the 1A-type console is 6 to 12 trunks and loops, 12 control keys, and 6 miscellaneous keys. Capacity of the 2A-type console is 6 to 30 trunks and loops, 12 controls keys, and 6 miscellaneous keys. Refer to Table A for types of 1A telephone consoles, and to Table B for types of 2A telephone consoles, also the PBX systems that they can be used with.

2.03 Tranmission from the handset or head telephone set used in the console to the PBX system is by means of a transistorized amplifier, which is equivalent to a 151E-type on a printed wiring board and a 425E network.

WE900593 SWITCH SPST

KS-16108,L2 POTENTIOMETER

105B APPARATUS BLANK

LAMP SOCKET 59A

105B APPARATUS BLANK

HOUSING ASSEMBLY P-83A9*

KEY 598F

DIAL 8C

KEY 598F

* IVORY-50
GREEN-51
LIGHT BEIGE-60
LIGHT GRAY-61

Fig. 1 — 1A-Type Telephone Console

59A LAMP SOCKET
59A LAMP SOCKET
KEY 598F
105B APPARATUS BLANK
105B APPARATUS BLANK
KEY 598H
DIAL 21D
HOUSING ASSEMBLY P-84AO *

* IVORY-50
  GREEN-51
  LIGHT BEIGE-60
  LIGHT GRAY-61

Fig. 2 — 2A-Type Telephone Console

2.04 A G3CR hand set or a 52-type head telephone set, both of which are equipped with a cord terminating in a 289- or 396-type double plug, may be plugged into one of the double jacks located at both ends of the console. The handset or head telephone set is not specified as part of the console. The output of the handset or head telephone set transmitter is amplified by the transistorized printed circuit type amplifier. G3CR hand sets are available in the same colors as the telephone consoles and must be ordered separately.

2.05 A small KS-16107, List 2 speaker mounted inside the console is used for audible signaling. A low intensity interrupted 540-cps tone signal input to the console is amplified by a transistorized signal amplifier on the same printed wiring board as the voice amplifier. The amplified signal is applied to the small speaker through a volume controlling potentiometer.

2.06 The signal volume control which can reduce the signal to near off and a signal on-off switch are located on the dial panel.

2.07 A separate dial assembly permits the use of an 8C rotary, 25A3 TOUCH-TONE, or 21D dc pushbutton dial. It includes the plate-mounted dial, signal volume control, signal on-off switch, and three lamps. This assembly is plugged into place before the housing is assembled to the console and is replaceable on the same basis

2.08 Each 598-type key and each 15B apparatus blank is replaceable on a plug-in basis.

2.09 All the 598-type keys are automatically plugged into circuit when assembled in the console and are readily removed for replacement. The keys are not interlocked mechanically and each plunger is nonlocking except for the 598F key which has one turnbutton.

2.10 Telephone consoles are furnished without mounting cord so that they can be adapted to any of four PBX systems without modification. This is accomplished by means of a plug-in type mounting cord selected for the PBX system to be served. Refer to Table C for mounting cord and connector cables used with each system.

2.11 Function designations for keys and lamps are supplied with each console as clear plastic labels which have adhesive backing for at-

taching to the mat as required. Consoles used with No. 5 crossbar or 701 CENTREX should position CENTREX label next to the Bell System symbol which is shown in Fig. 1 and 2. For additional information on face plates and bezels, refer to Tables D and E.

3.00 DISASSEMBLY OF PARTS

3.01 To remove front plate assembly:

- Grasp top of front plate assembly and lift up.

- Grasp bottom of front plate assembly and lift up.

- Lift front plate assembly from housing being careful not to bend the spring clips which hold assembly to the housing.

3.02 To raise frame mounting assembly:

- Remove front plate assembly.

- Loosen frame mounting screws, shown in Fig. 3 for 1A-type consoles and Fig. 4 for 2A-type consoles.

3.03 With frame mounting raised as in Fig. 3 and 4, access can now be gained for clearing of trouble or replacement of parts. Console must also be in this position when installing mounting cord.
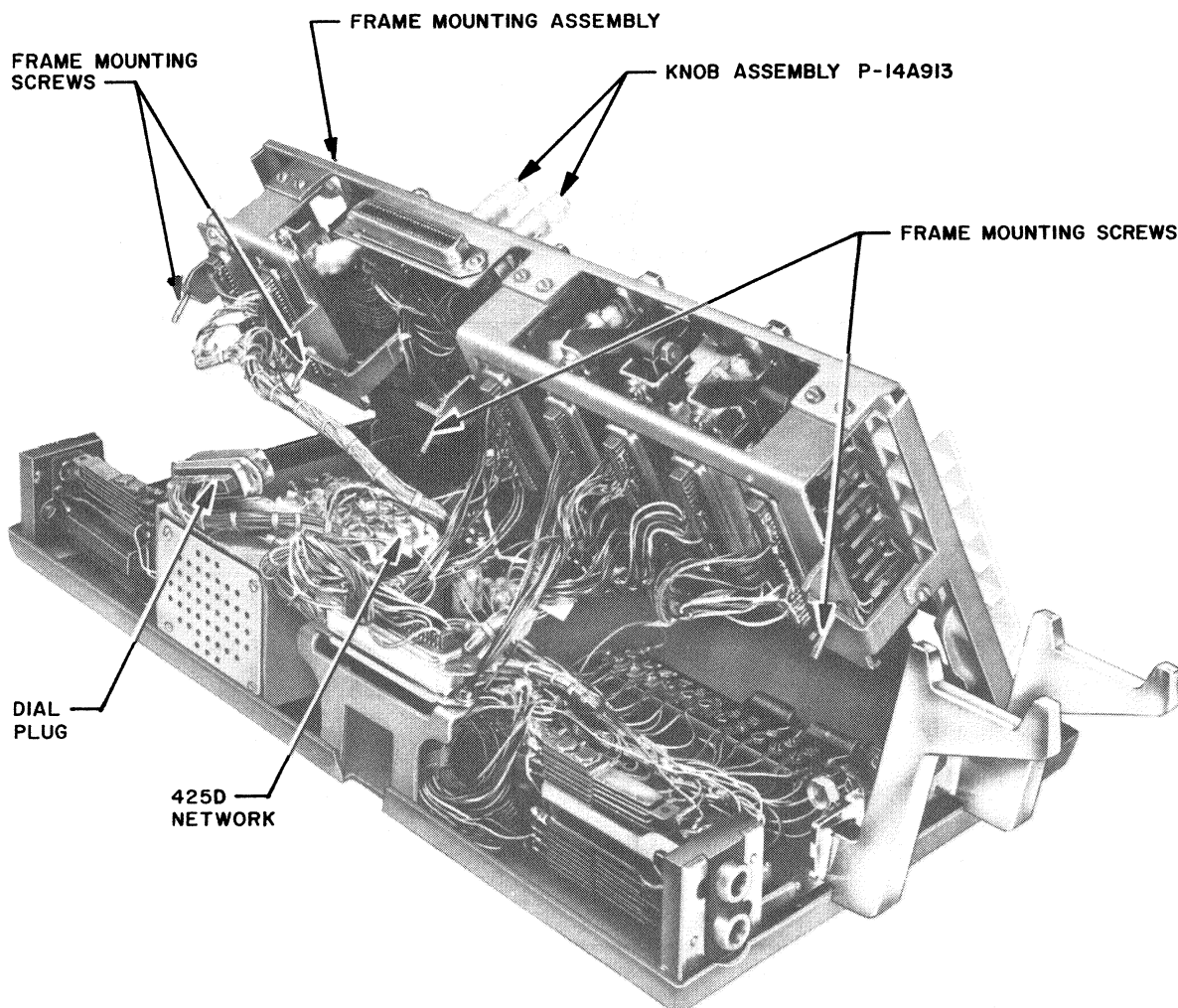

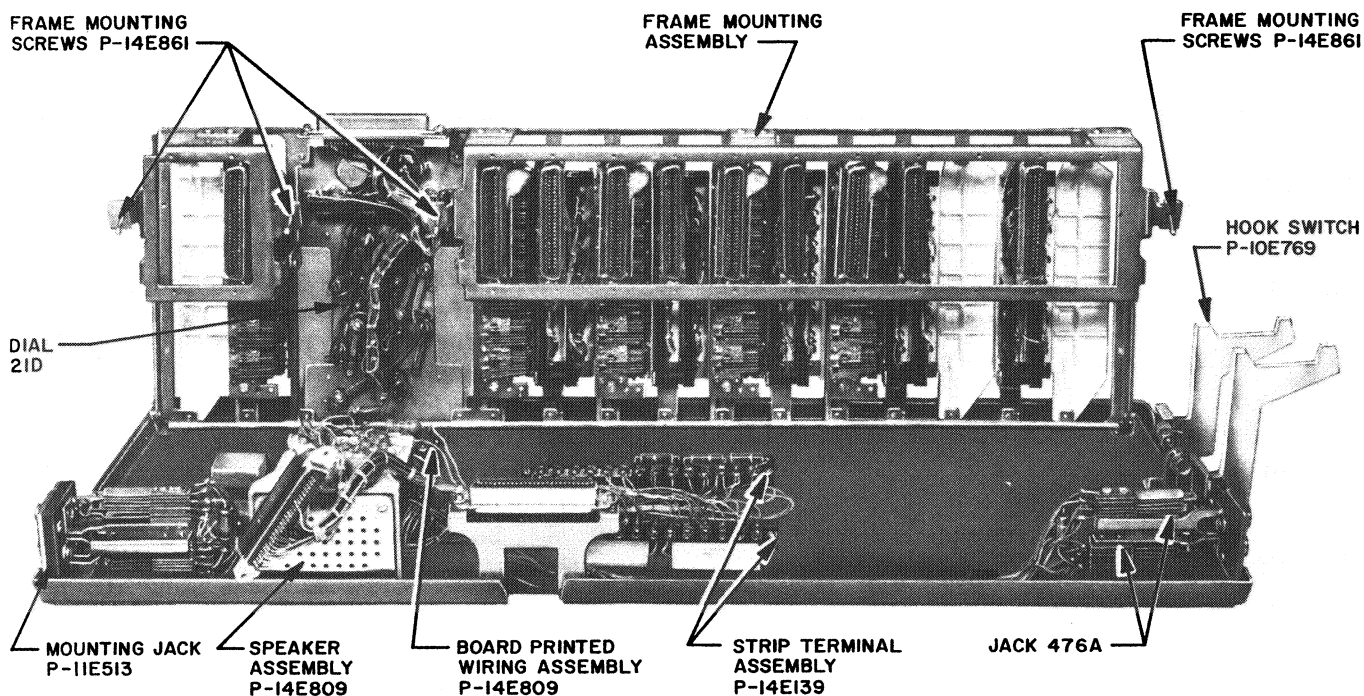Fig. 3 — 1A-Type Telephone Console, Frame Mounting Assembly Raised

FRAME MOUNTING SCREWS P-14E861

FRAME MOUNTING ASSEMBLY

FRAME MOUNTING SCREWS P-14E861

HOOK SWITCH P-10E769

DIAL 21D

MOUNTING JACK P-11E513 — SPEAKER ASSEMBLY P-14E809 — BOARD PRINTED WIRING ASSEMBLY P-14E809 — STRIP TERMINAL ASSEMBLY P-14E139 — JACK 476A

Fig. 4 — 2A-Type Telephone Console, Frame Mounting Assembly Raised

TABLE A

1A-TYPE TELEPHONE CONSOLE

Console Code	Key Pos			Dial Type	Key Pos		Trunk and Loop Pickups	PBX Served
	No. 1 Left	No. 2	No. 3		No. 4	No. 5		
1A1-*	105B + 59A					105B	6	
1A2-*	598H + 59A	598H + 59A	598F	8C	598F	105B	12	701, 757
1A3-*	105B + 59A					598E	6	
1A4-*	598H + 59A					598E	12	
1A5-*	105B + 59A					105B	6	
1A6-*	598H + 59A	598H + 59A	598F	25A3	598F	105B	12	701, 757, ESS 101
1A7-*	105B + 59A					598E	6	
1A8-*	598H + 59A					598E	12	
1A9-*	105B + 59A					105B	6	
1A10-*	598H + 59A	598H + 59A	598F	21D	598F	105B	12	701, No. 5
1A11-*	105B + 59A					598E	6	
1A12-*	598H + 59A					598E	12	

Note 1: 59A — socket for 12 lamps associated with each pickup position.
Note 2: 105B — apparatus blank — replaceable by 598-type key.
Note 3: 598E — miscellaneous use key — 6-button, nonlocking, 3 make contacts at each plunger.
Note 4: 598F — control key — 6-button, nonlocking, 3 make contacts at each plunger, top button turns for cutoff.
Note 5: 598H — line pickup key — 6-button, nonlocking, 2 sets of transfer contacts at each plunger.
Note 6: 8C — Rotary type — on a plug-in assembly, P-14E296.
Note 7: 25A3 — TOUCH-TONE type — on a plug-in assembly, P-14E297.
Note 8: 21D — DC pushbutton type includes plug-in assembly.
* Code is completed by color suffix: -51 green, -58 white, -60 light beige, -61 light gray.

TABLE B

2A-TYPE TELEPHONE CONSOLE

Console Code	Key Pos				Dial Type	Key Pos		Trunk and Loop Pick-ups	PBX Served
	No. 1 Left	No. 2	No. 3, 4, 5	No. 6		No. 7	No. 8		
2A1-*	105B + 59A	105B + 59A					105B	18	
2A2-*	105B + 59A	598H + 59A					105B	24	
2A3-*	598H + 59A	598H + 59A	598H + 59A	598F	8C	598F	105B	30	701, 757
2A4-*	105B + 59A	105B + 59A					598E	18	
2A5-*	105B + 59A	598H + 59A					598E	24	
2A6-*	598H + 59A	598H + 59A					598E	30	
2A7-*	105B + 59A	105B + 59A					105B	18	
2A8-*	105B + 59A	598H + 59A					105B	24	
2A9-*	598H + 59A	598H + 59A	598H + 59A	598F	25A3	598F	105B	30	701, 757
2A10-*	105B + 59A	105B + 59A					598E	18	
2A11-*	105B + 59A	598H + 59A					598E	24	
2A12-*	598H + 59A	598H + 59A					598E	30	
2A13-*	105B + 59A	105B + 59A					105B	18	
2A14-*	105B + 59A	598H + 59A					105B	24	
2A15-*	598H + 59A	598H + 59A	598H + 59A	598F	21D	598F	105B	30	701, No. 5
2A16-*	105B + 59A	105B + 59A					598E	18	
2A17-*	105B + 59A	598H + 59A					598E	24	
2A18-*	598H + 59A	598H + 59A					598E	30	

Note: 59A, 105B, 598E, 598F, 598H, 8C, 25A, and 21D are described in notes under Table A.
* Code is completed by color suffix: -51 green, -58 white, -60 light beige, -61 light gray.

TABLE C

MOUNTING CORD AND CONNECTOR CABLE FOR

1A- AND 2A-TYPE TELEPHONE CONSOLES

PBX System	Mounting Cord		Connector Cable	
	Tel Console		1A-Type	2A-Type
	1A-Type	2A-Type		
No. 5 Crossbar (Pre-Standard)	D150L-*	D250D-*		
No. 5 Crossbar (Standard)	D150G-*	D250A-*	A75A	A75A plus A50B
701B PBX	D150H-*	D250B-*		
757A PBX	D150J-*	D250C-*		
ESS 101	D100B-*	None Mfd	A50B	

* Each cord is available in green -51, white -58, light beige -60, and light gray -61.

TABLE D

1A-TYPE TELEPHONE CONSOLE FACEPLATE AND BEZEL ASSEMBLY

Type of Console	Face-plate Assembly	Face-plate*	Mat * Includes Five Colored Mats	Bezel Assembly
1A1	38A	P-14E319	P-14E348	P-14E941
1A2				
1A3				
1A4				
1A5	38B	P-14E321	P-14E338	P-14E942
1A6				
1A7				
1A8				
1A9	38C	P-14E320	P-14E332	P-14E943
1A10				
1A11				
1A12				

* Included in faceplate assembly.

TABLE E
2A-TYPE TELEPHONE CONSOLE FACEPLATE AND BEZEL ASSEMBLY

Type of Console	Face-plate Assembly	Face-plate*	Mat * Includes Five Colored Mats	Bezel Assembly
2A1	39A	P-14E819	P-14E825	P-15E034
2A2				
2A3				
2A4				
2A5				
2A6				
2A7	39B	P-14E827	P-14E833	P-15E035
2A8				
2A9				
2A10				
2A11				
2A12				
2A13	39C	P-14E834	P-14E840	P-15E036
2A14				
2A15				
2A16				
2A17				
2A18				

* Included in faceplate assembly.