

TELEPHONE CONSOLE 120-TYPE IDENTIFICATION

1. GENERAL

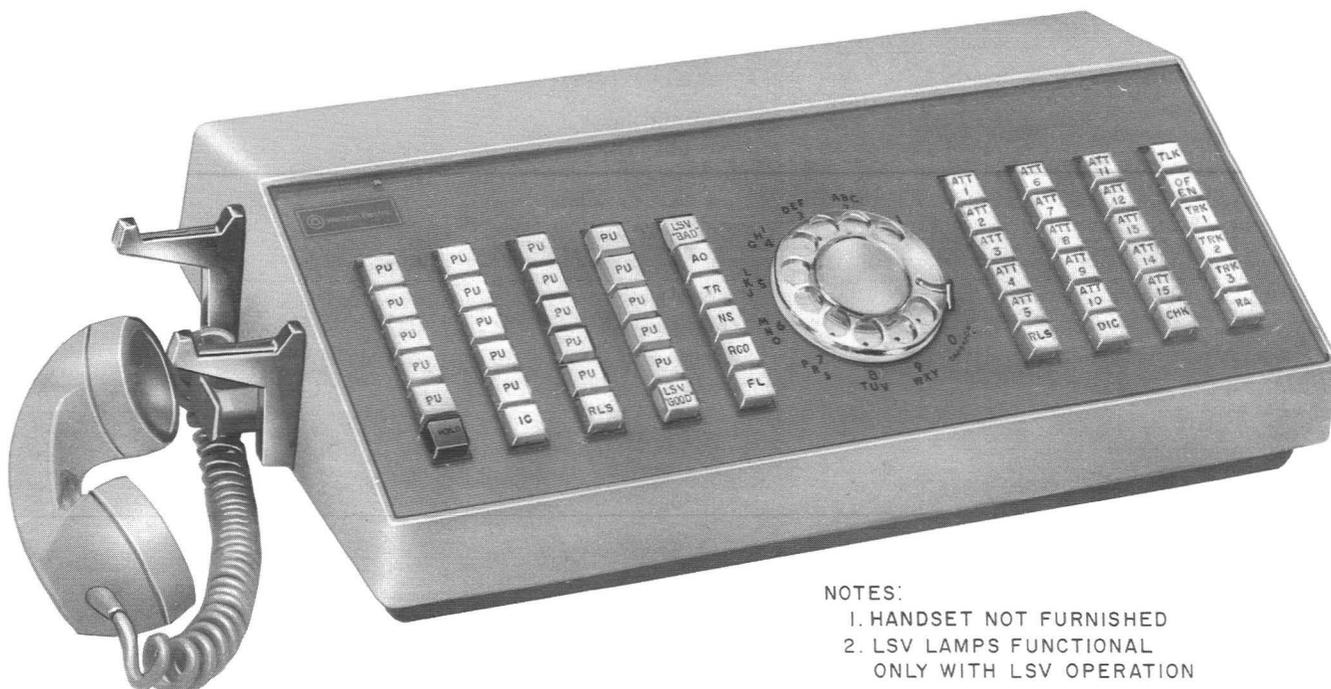
1.01 This section describes the 120A4T (MD), 120A4R (MD), 120B4T, and the 120B4R telephone consoles and associated apparatus (Fig. 1 and 2).

1.02 This section is reissued to:

- Change rating of 120A4R and 120A4T from AT&T Standard to MD
- Add information on 120B4R and 120B4T telephone consoles

- Add information on D-180583 kit of parts to optional apparatus ordering guide
- Revise Tables B and C
- Revise Fig. 5 to add "GOOD" and "BAD" buttons
- Add Fig. 4.

1.03 This issue of the practice is based on SD-66935-01, Issue 1. If this section is to be used with equipment or apparatus reflecting a later issue of the drawing, reference should be made to the SD to determine the extent of the



- NOTES:
1. HANDSET NOT FURNISHED
 2. LSV LAMPS FUNCTIONAL ONLY WITH LSV OPERATION

Fig. 1—120A4R (MD) or 120B4R Telephone Console

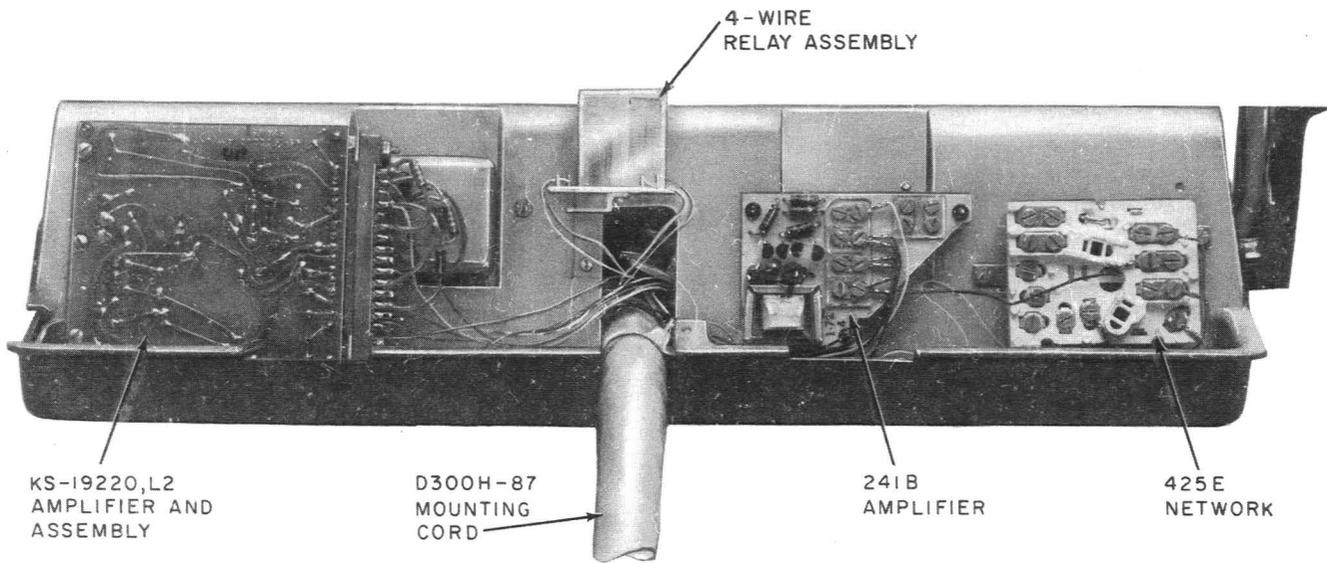


Fig. 2—120-Type Telephone Console, Cover Removed (Rear View)

change and the manner in which the section may be affected.

2. IDENTIFICATION

PURPOSE

- Answers incoming calls, originates outgoing calls, and transfers calls to PBX, CO, tie trunks, or other stations within the Call Distributing System
- Provides for pickup and monitoring of associated attendant stations
- Controls 4A Call Distributing (4ACD) System features: recorded announcement, night service, overflow, and ringer cut-off.

APPLICATION

- Intended for use as the supervisory position in the 4ACD System, centralized attendant service (CAS), and line status verifier (LSV).

ORDERING GUIDE

- Console, Telephone, 120B4R-* (rotary dial)
- Console, Telephone, 120B4T-* (TOUCH-TONE® dial).

*Add color suffix (Table A)

Replaceable Components

(See Tables B and C.)

Optional Apparatus (Order Separately)

Note: See Transmitting Limitations, 2.04.

- Set, Telephone, Head, 52-, 53-, 60-, 61-type, or equivalent
- Set, Telephone, Hand, G3CR-* (2-wire system)
- Set, Telephone, Hand, G5JR-* (4-wire system) (Modified—see 2.09.)
- Kit of Parts, D-180583.

*Add color suffix (Table A)

2.01 An example of telephone console ordering code is 120B4T-3W, indicating the following:

- Console identity—120B4
- Dial type—T (TOUCH-TONE dial)
- Housing color—3 (Black)
- Faceplate color—W (Walnut Grain)

COLOR

(See Table A.)

TABLE A
COLOR ORDERING GUIDE

APPARATUS	COLOR	SUFFIX
Telephone Console and Handsets	Black	3
	Ivory	50
	White	58
Mounting Cords	Satin-Silver	87

DESIGN FEATURES

- Dimensions: 17.5 inches wide, 10.5 inches deep, 3.6 inches high.
- Modular mounting of lamps, dials, and keys (Fig. 5).
- Modified 635-type keys with easily removed tops (Fig. 6).
- Molded base of dark gray plastic.
- One-piece molded plastic housing.
- Nonglare plastic faceplate recessed in housing.
- Rotary or TOUCH-TONE dial.
- D-type mounting cord, satin-silver (-87) color, 8-foot long.
- Base of console may be recessed in mounting surface to conceal mounting cord.
- KS-8109, L2 buzzer as dial intercom audible device. (Tone ringer NOT provided.)

OPERATING FEATURES**A. Attendant Telephone Circuit**

2.02 The consoles are equipped with four jacks designated A to D. The A and B supervisory jacks are on the right side of the console, and the C and D attendant operating jacks are on the left side beneath the handset cradle.

2.03 The consoles may be operated by using a G3CR handset (modified G5JR handset in a 4-wire system) or an optional head telephone set (52-, 53-, 60-, 61-type, or equivalent). Handsets and headsets are not furnished and must be ordered separately. (See Table B.)

Transmitting Limitations

2.04 Caution is advised in selecting headsets and handsets and their combined use (in attendant operating and supervisory jacks) on any one telephone console. A preferential order for their use is given as follows:

- (1) A single head telephone set in either set of jacks.
- (2) A single handset in either set of jacks.
- (3) Like-instruments in both sets of jacks. (Receiving dB loss may occur while transmission losses increase.)
- (4) Unlike-instruments in both sets of jacks of same console. (Possibility of 60-, 61-type, or KS-20778, L16 headset not transmitting at all.)

Amplifier and Bracket Assembly (Fig. 3)

2.05 A KS-19220, L2 plug-in type amplifier is provided in the 120-type console for high impedance monitoring. It is mounted in an associated bracket assembly on the rear of the console framework.

2.06 This amplifier is preset at the factory and controls the gain of the supervisor monitor circuit. It may be field-adjusted by rotating the adjusting screw to the desired level.

2.07 The amplifier is held in place in the bracket assembly by a latching device and must be removed to gain access to the console (intercom) audible signal device, a KS-8109, L2 buzzer. (A tone ringer is not provided.) The buzzer is equipped with a level-adjusting screw and may be set as desired.



When high impedance monitoring is prohibited or not desired, option V straps (10 to 16 and 11 to 17) must be removed and option U straps (8 to

TABLE B
120-TYPE TELEPHONE CONSOLE
REPLACEABLE COMPONENTS

COMPONENTS			CONSOLES			
DESCRIPTION	ORDERING CODE	TT 120A4T(MD)	ROT. 120A4R(MD)	TT 120B4T	ROT. 120B4R	
Mounting Cord	D300H-87	1				
Mounting Cord	D300N-87			1		
Dial	8C		1		1	
	35C3A	1		1		
Polarity Guard	P90D012	1		1		
Keys	635 A5C	1		1		
	635 AL5C	1		1		
	635 BB5C	1		1		
	635 G5C	4		4		
Collar	P23F503	9		9		
Key Caps	Red	P23F428	2		2	
	Clear	P23F427	Order Per Job Requirements		Order Per Job Requirements	
	Amber	P23F429				
	Green	P23F430				
Faceplates		See Table C		See Table C		
Housings		See Table C		See Table C		
Handsets†	2-W Sys	G3CR-(*)	1		1	
	4-W Sys	G5JR-(*)	1		1	
Receiver†		LB1	1		1	
Adapter (For Above)†		840358048	1		1	
Footswitch†		KS-16821, L2	1		1	
Relay Assembly†		840154645	1		1	
Amplifier		241B	1		1	
		KS-19220, L2	1		1	
Jacks	241A	4		4		
Varistor	104A	2		2		
Network	425F	1		1		
Buzzer	KS-8109, L2	1		1		
Connector Cable†		A50B	3		3	
		or A75A	2		2	
		or A150A	1		1	

* Add color suffix (Table A).

† Not furnished; to be ordered separately.

TABLE C
ORDERING CODES
HOUSINGS AND FACEPLATES

		COLOR	SUFFIX	120A4T/120B4T	120A4R/120B4R
Housings		Black	3	840493035	
		Ivory	50	840493506	
		White	58	840493589	
Faceplates		Brown	B	840990204	840990287
		Green	G	840990212	840990295
		Blue	L	840990220	840990303
		Orange	N	840990238	840990311
		Red	R	840990246	840990329
		Teakwood Grain	T	840990253	840990337
		Walnut Grain	W	840990261	840990345

10 and 9 to 11) installed on the console terminal board. The amplifier may be removed or left in place.

D-180583 Kit of Parts

2.08 A printed wiring board with one miniaturized relay is required when the CAS feature is requested. This board mounts in the 120-type console as shown in Fig. 4.

4-Wire Application

2.09 Use of the 120-type console in a 4-wire system requires the following:

- Removal of factory-furnished 2-wire option straps (Z). The two (black) straps are located between terminals 41 and 47, and 42 and 46, beneath the dial assembly.
- Substitution of a G5JR handset for the standard G3-type handset. The G5JR handset must be ordered separately and modified,

replacing the U3 receiver with a LB1 receiver and adapter.

2.10 When a 4-wire console is to be operated with a head telephone set, and push-to-talk control is required, a KS-16821, L2 or equivalent footswitch must be installed and the 4-wire system PT and PT1 leads utilized.

2.11 A 4-wire relay assembly is mounted on the rear of the console framework above the mounting cord entrance opening (Fig. 2).

B. Line Pickup Keys and Lamps (Fig. 5)

2.12 Line pickup keys are locking, releasing, illuminating and self-designating type keys appearing in the left key field of the console. Console keys connect through the mounting cord and connector cable to CO, PBX, intercom, WATS lines, etc, permitting a flexible assignment of circuits to keys.

SECTION 504-220-150

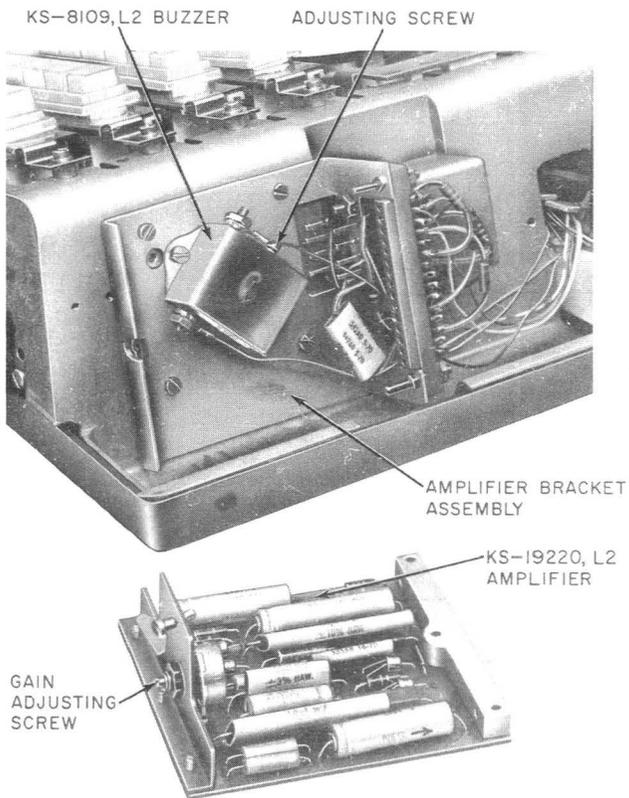


Fig. 3—120-Type Telephone Console, Amplifier and Bracket Assembly

2.13 A lamp beneath the pickup button illuminates when the console attendant is connected to the line circuit and indicates the following conditions:

- Dark—idle line
- Steady—line busy
- Winking—line on hold
- Fluttering—priority call to be answered first
- Flashing—call waiting.

C. Control and Miscellaneous Keys (Fig. 5)

2.14 Control and miscellaneous keys are located in both the right and left key fields of the supervisory console.

2.15 The transfer, add-on, overflow, and night service buttons control the transfer trunk circuits to provide the following:

- Transfer links between any two lines in the system
- Connections to overflow locations
- Night service trunk paths.

2.16 Control and miscellaneous button designations and functions are as follows:

(a) **TRK (Transfer Trunk):** Nonlocking, nonreleasing, illuminating, and self-designating type buttons which permit the supervisor to release transfer trunk connections. The TRK buttons provide the following lamp indications:

- Dark—transfer trunk idle (available)
- Steady—indicates an attendant or the supervisor has seized a transfer trunk for transfer use
- Winking—indicates trunk has been seized for overflow or night service use
- Flashing—indicates trunk has been disabled by an overflow or night service station.

(b) **TR (Transfer):** A nonlocking, nonreleasing, and illuminating type button used in conjunction with the add-on (AO) button to complete a transfer call. TR button must be converted for nonlocking operation. (TRK lamps illuminate as trunks are seized for transfer use.) The TR button provides the following lamp indications:

- Dark—transfer circuit idle (available)
- Steady—indicates an attendant or the supervisor has seized the transfer circuit and is in the process of transferring an incoming call
- Flashing—indicates all transfer links are busy.

(c) **AO (Add-On):** A nonlocking, nonreleasing, nonilluminating type button used in conjunction with the transfer (TR) button to complete a

NOTE:

REMOVE FOUR-WIRE RELAY ASSEMBLY 840154645.
INSULATE AND STORE FOUR-WIRE RELAY SPADE TIP
LEADS UNLESS SYSTEM IS FOUR WIRE. MOUNT
D180583 KIT IN EXISTING HOLES AS SHOWN.
REMOUNT FOUR-WIRE RELAY ASSEMBLY
ON BRACKET AS SHOWN.

REAR VIEW OF CONSOLE
(SEE NOTE)

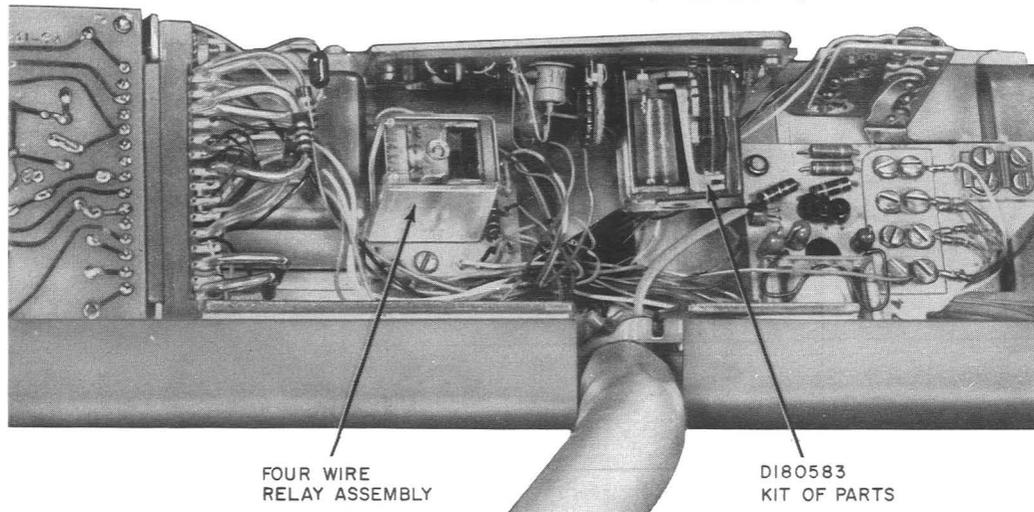


Fig. 4—Addition of Time Flash Unit (D180583 Kit of Parts) to 120-Type Supervisory Console

transfer call. AO button must be converted for nonlocking operation.

(d) **OF EN (Overflow Enable):** A push-to-operate, push-to-release, illuminating type button used to enable or disable the overflow paths. TRK lamps illuminate steadily when OF circuits are in use. (Overflow position may busy-out the trunk circuit, placing the TRK lamp in a flashing condition.)

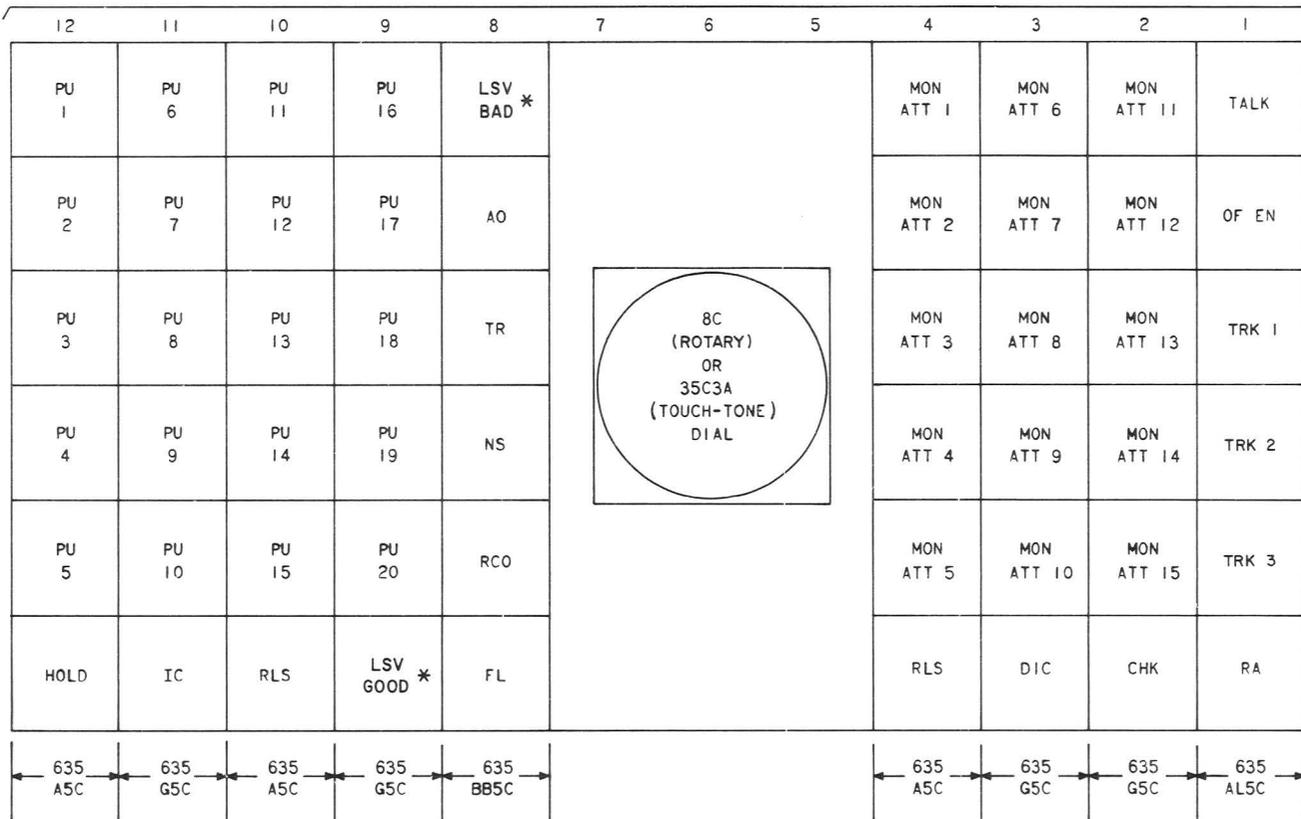
(e) **NS (Night Service):** A push-to-operate, push-to-release button used to route incoming calls to a night service answering location. Illuminates steadily when operated. TRK lamps illuminate when NS circuits are in use.

(f) **ATT MON (Attendant Monitor):** Locking, illuminating type buttons provided in the right key field of the supervisory console for monitoring the attendant position to which it is associated. Lamps beneath these buttons are controlled by the attendant position IN button and operate independently of the supervisor

ATT MON button operation. ATT MON lamp indications and their significance are as follows:

- Dark—attendant position IN button unoperated, indicating position unattended or otherwise unavailable to handle incoming calls
 - Flashing—indicates attendant position is attended (IN button operated or headset plugged in with no button depressed) and available to accept incoming calls
 - Steady—indicates the attendant has a line or intercom pickup button operated
 - Winking—indicates attendant is processing a transfer call.
- (g) **TALK:** A nonlocking, nonreleasing, nonilluminating type button used to talk to an attendant while the ATT MON pickup button is operated. TALK button must be held operated while talking except when V option is applied. (See 2.07.)

KEY
POSITIONS



NOTE:
CONTROL AND PICKUP KEYS ARE TO BE DESIGNATED PER JOB REQUIREMENTS. DESIGNATIONS SHOWN ARE FOR IDENTIFICATION PURPOSES ONLY.

* LSV OPERATION ONLY

Fig. 5—Typical 120B4 Telephone Console, Key and Dial Identification

(h) **FL (Flash):** A nonlocking, nonreleasing, nonilluminating type button used for the following:

- To reoriginate an outgoing call, or otherwise summon (recall) the originating operator on an incoming call
- A momentary operation is required following the operation of the DIC button when a recorded announcement is to be dictated.

(i) **RLS (Release):** Two red, nonlocking, releasing, and nonilluminating type buttons

used in their appropriate key fields to release the following:

- Left key field—line pickup (1 through 20) and intercom circuits
- Right key field—attendant monitor (1 through 15), dictate, and check circuits.

(j) **HOLD:** A red, nonlocking, release-on-the-upstroke, nonilluminating type button used to hold a PBX or CO line.

(k) **IC (Intercom):** A locking, illuminating type button used to gain access to either a manual

or dial intercom circuit. Lights steadily when (any) intercom button is operated.

(l) **RCO (Ringer Cut-Off):** A push-to-operate, push-to-release, illuminating type button to turn the common audible signal on or off. Audible signal is disabled when button is operated.

(m) **RA (Recorded Announcement):** A push-to-operate, push-to-release, illuminating type button used to enable the announcement unit for answering incoming calls. Announcement unit enabled when key is operated. Button is illuminated when the announcement unit is connected to an incoming call, and during dictating or checking operations.

(n) **DIC (Dictate):** A locking, releasing type button used prior to a momentary operation of the FL button for dictating a message into the announcement unit. Lights steadily when operated. (RA button also lights.)

(o) **CHK (Check):** A locking, releasing type button used to listen to the recorded announcement. Lights steadily when operated. (RA button also lights.)

(p) **GOOD:** The GOOD lamp on the supervisory console lights when the repair service supervisor operates the LSV to confirm a test and the test is good.

(q) **BAD:** The BAD lamp lights when the supervisor operates the LSV feature and the test is unsatisfactory.

D. 635-Type Keys (Fig. 6)

2.18 All keys are 635-type (modified) designed for easy access to internal lamps. Key caps may be removed individually to allow insertion of a 553C lamp extracting tool. Previous model 635-type keys are MD.

2.19 All key caps will be shipped in envelopes according to the key codes provided in a given console. The following are keys used in the 120A4R (MD), 120A4T (MD), 120B4R, and 120B4T consoles and the caps supplied with these keys:

<u>KEY</u>	<u>KEY CAP NO.</u>	<u>COLOR</u>	<u>QUANTITY</u>
635 A5C	P23F427	Clear	6
	P23F428	Red	1
635 AL5C	P23F427	Clear	6
635 BB5C	P23F427	Clear	6
635 G5C	P23F427	Clear	6

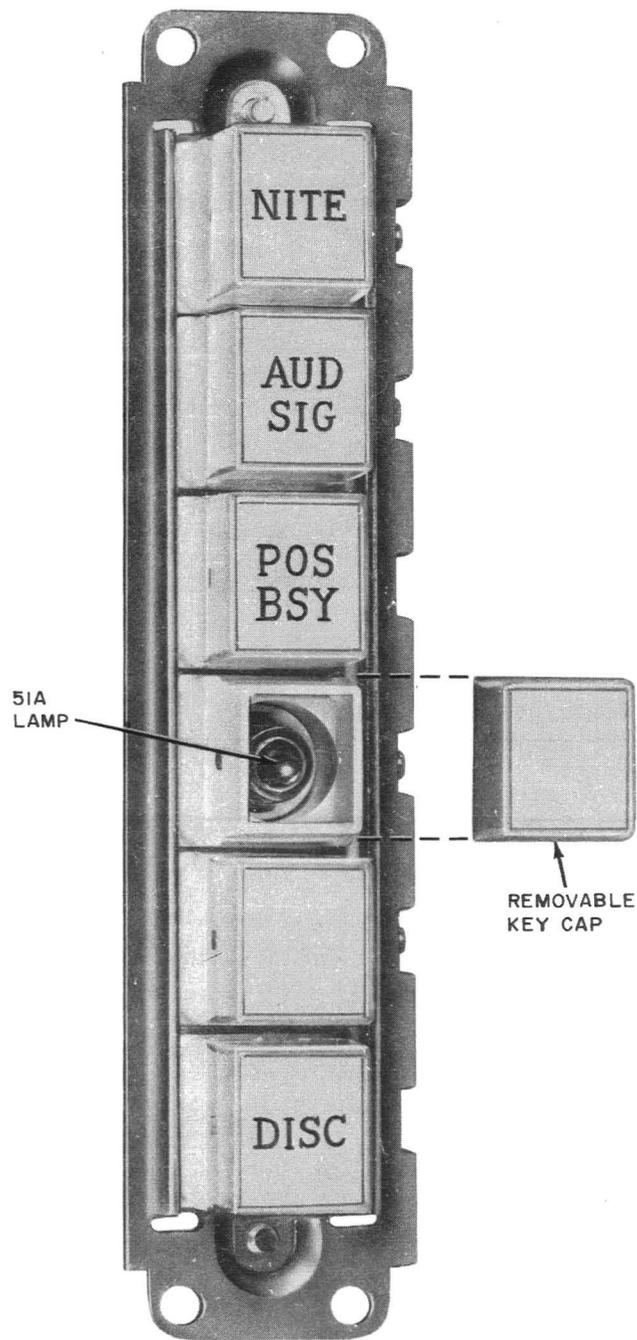


Fig. 6—635-Type Key (Modified)