

702B, 702BM, 2702B, AND 2702BM TELEPHONE SETS  
CONNECTIONS  
SPEAKERPHONE SYSTEM—4A

1. GENERAL

1.01 Refer to Section 512-700-100 for detailed information on components of the 4A speakerphone system.

1.02 This section is reissued to:

- Add information to identify registered and typical grandfathered arrangements
- Add safety information for installing or removing the 85B1 power unit
- Add information to provide 4A speakerphone connections for 702BM and 2702BM telephone sets
- Add information on 2012C transformer
- Add 223D adapter and M16H mounting cord
- Show 223A adapter and M16C mounting cord MD

1.03 To provide 4A speakerphone feature at these telephone sets, refer to (Fig. 1 and 2) for layout arrangement of the components required for the system and (Fig. 3, 4, and 5) for individual lead connections.

1.04 These sets are factory-wired for non-KTS use. ♦If used with speakerphone and KTS, refer to Tables A and C for modification and connections of the 702-type sets and Tables B and D for the 2702-type sets.♦

2. CONNECTIONS

A. 223-Type Adapter

2.01 The cords from the 108-type loudspeaker set, 680-type transmitter, and 85B1 power unit are installed in the proper receptacle of the 223A (MD) or 223D adapter. The cover must be fastened securely to assure proper mating of connectors.

B. 108-Type Loudspeaker Set

2.02 The loudspeaker set and transmitter must be placed a minimum of one foot apart.

C. 680-Type Transmitter

2.03 The transmitter must be at least two feet from transformer or any ac power device.

D. 85B1 Power Unit

2.04 Power shall be supplied by connecting 85B1 power unit as shown in Fig. 1 through 5.

2.05 Use an ac power outlet (not under control of a switch) located as close as possible to the system being installed. A retaining clamp will be shipped with the power unit and should be mounted to the ac receptacle to hold power unit securely and prevent accidental loss of power.

***Danger: ♦For safety, securely attach retaining clamp to ac outlet using outlet cover screw BEFORE attempting to install 85B1 power unit. When removing 85B1 power unit, always unplug the power unit completely from the outlet BEFORE attempting to remove the retaining clamp. This will prevent the possibility of a loosened***

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Bell System except under written agreement

*retainer clamp or metallic outlet cover making contact with the ac prongs of the 85B1 power unit when partially withdrawn from outlet. Do not use retaining clamp on outlets where the cover mounting screw holds the duplex outlet in the box.*

**Warning:** *Care should be taken to trim and dress leads connecting to low voltage output terminals of 85B1 power unit to assure that inadvertent connection to conducting surfaces or other power sources does not occur. If more than one power unit is plugged into a multiple receptacle power strip, there must be at least one inch separation between power*

*units. Only UL listed receptacle power strips with adequate power rating shall be used. Use of a continuous terminal power strip that allows the secondary output terminals of the power unit to be in close proximity to the ac line source is not recommended.*

**2.06** The M2FG cord is furnished as part of the 223-type adapter for connecting the 85B1 power unit.

**2.07** The 85B1 power unit should be located less than 125 feet from 108-type loudspeaker set when using 24 gauge wire or 85 feet when using 26 gauge wire. Refer to Section 512-700-100 for detailed information on power supply applications.

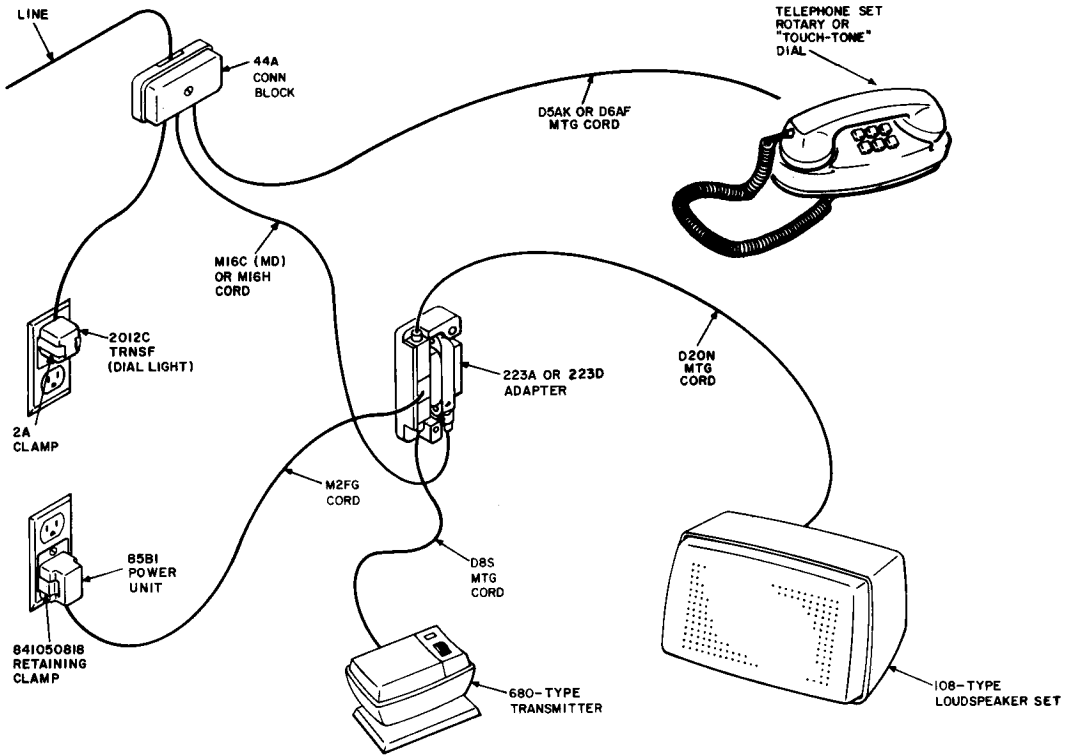


Fig. 1—Typical Grandfathered 4A Speakerphone System Arrangement, 702B (MD) and 2702B (MD) Telephone Set Using 223A (MD) or 223D Adapter

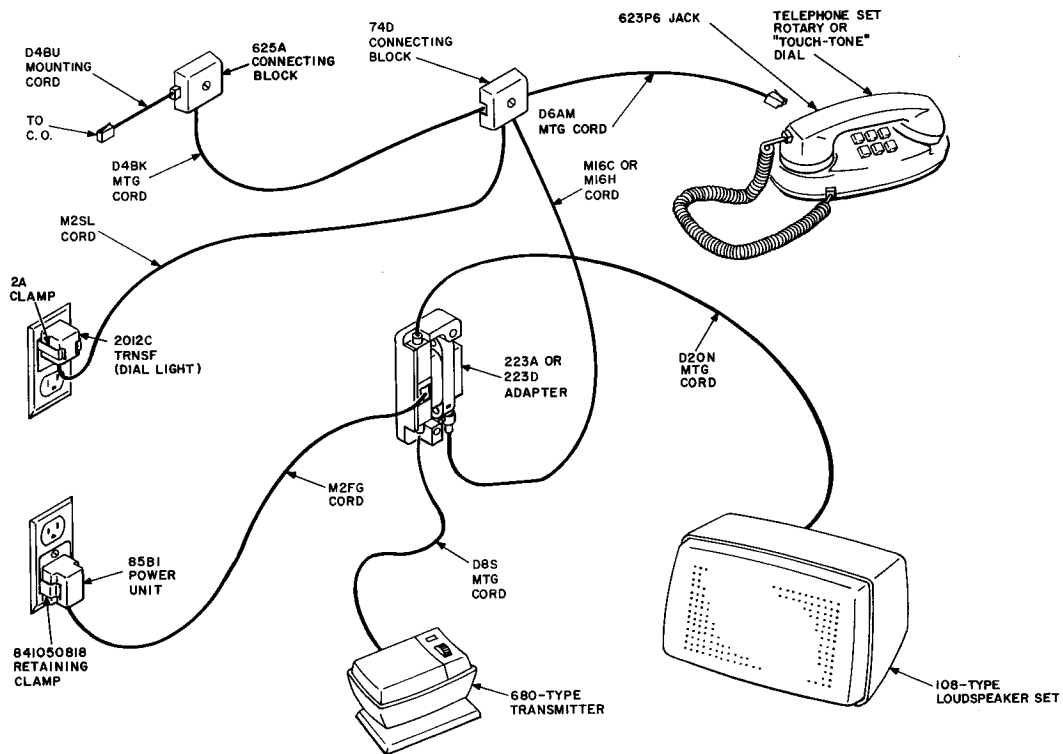
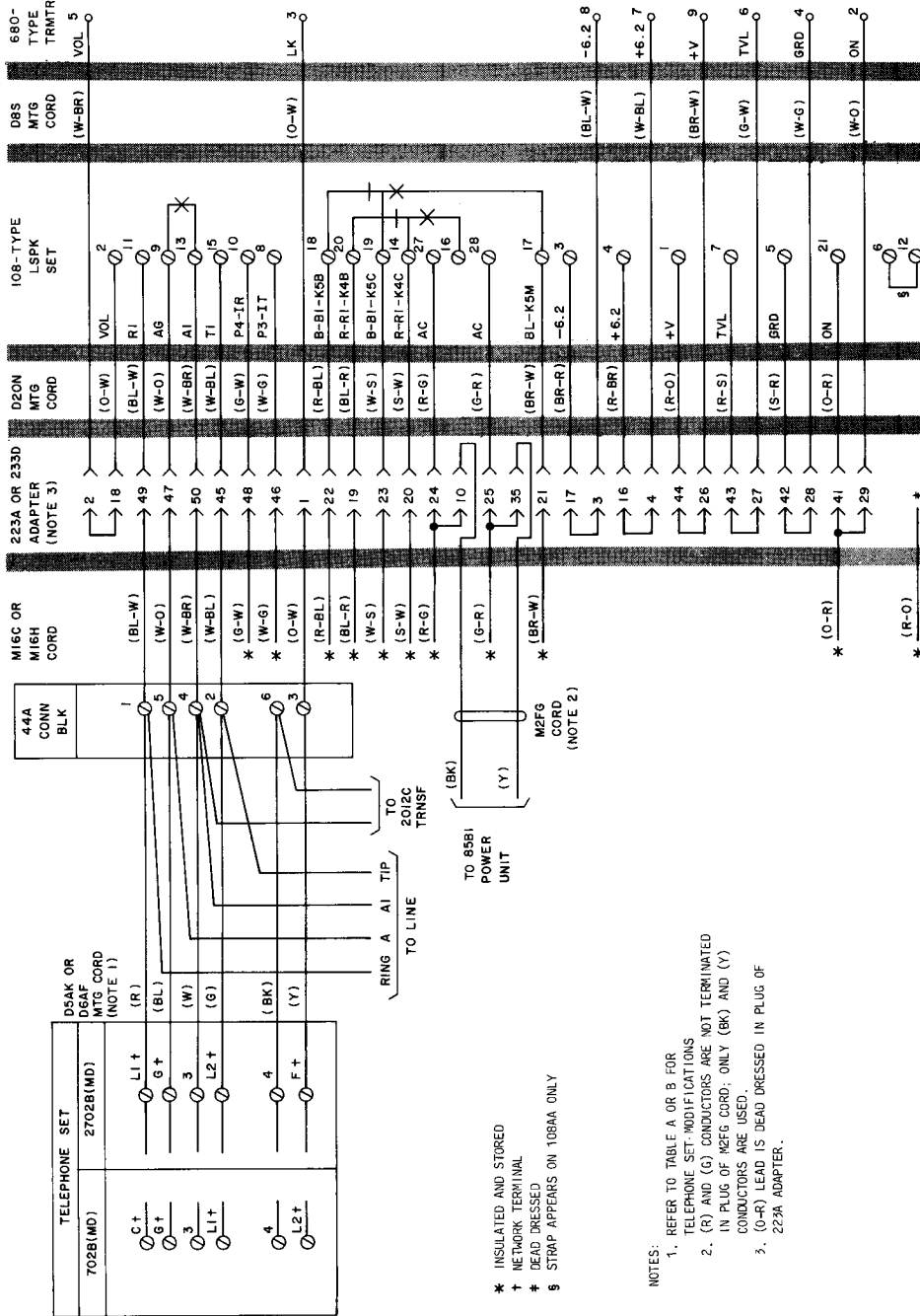


Fig. 2—Registered or Typical Grandfathered 4A Speakerphone System Arrangement 702BM and 2702BM Telephone Set Using 223A or 223D Adapter



\* INSULATED AND STORED  
 † NETWORK TERMINAL  
 ‡ DEAD DRESSED  
 § STRAP APPEARS ON 108AM ONLY

- NOTES:
1. REFER TO TABLE A OR B FOR TELEPHONE SET MODIFICATIONS
  2. (R) AND (G) CONDUCTORS ARE NOT TERMINATED IN PLUG OF M2FG CORD; ONLY (BK) AND (Y) CONDUCTORS ARE USED.
  3. (O-R) LEAD IS DEAD DRESSED IN PLUG OF 223A ADAPTER.

Fig. 3—Typical Grandfathered 4A Speakerphone System Arrangement, Connections to 702B (MD) and 2702B (MD) Telephone Sets

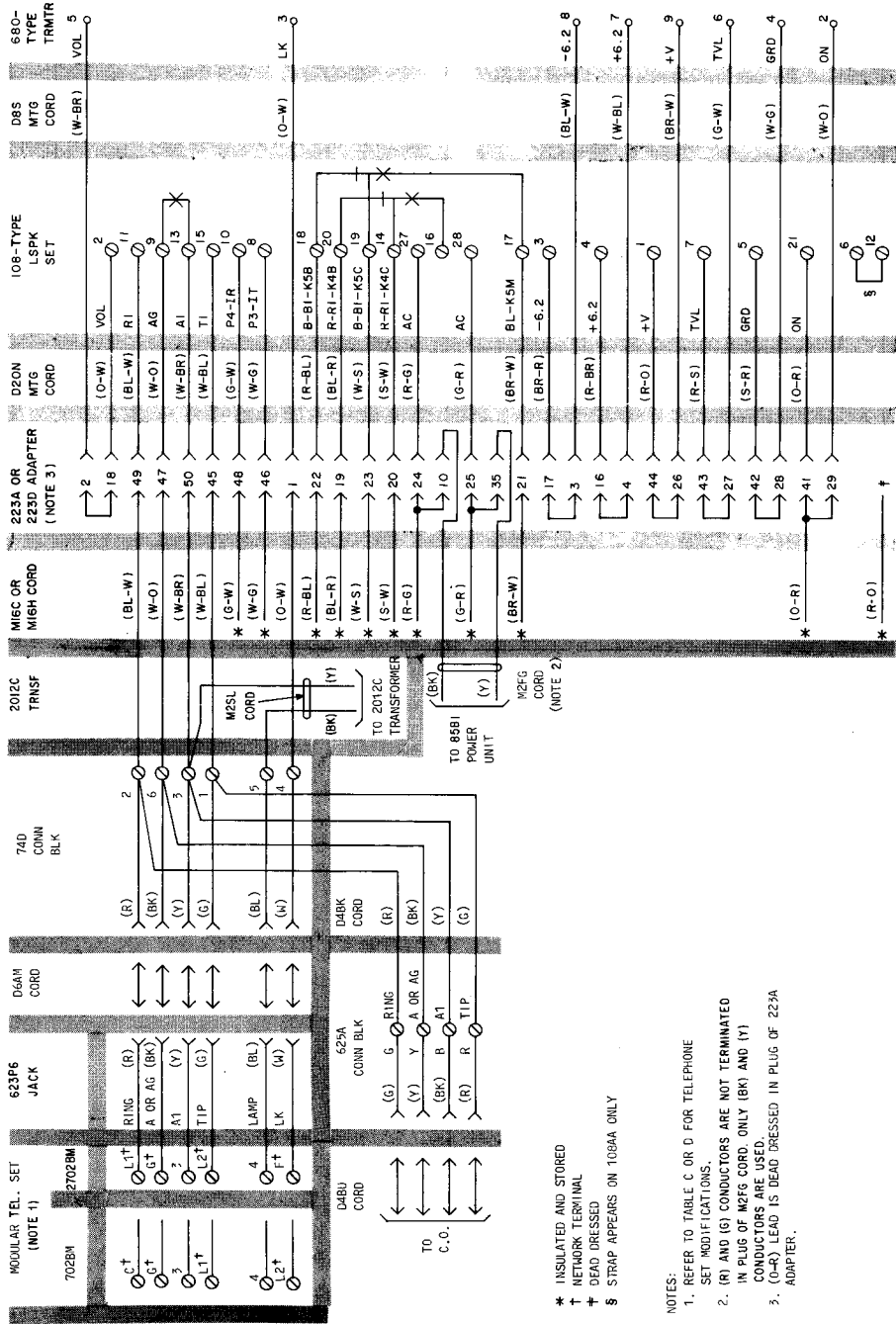
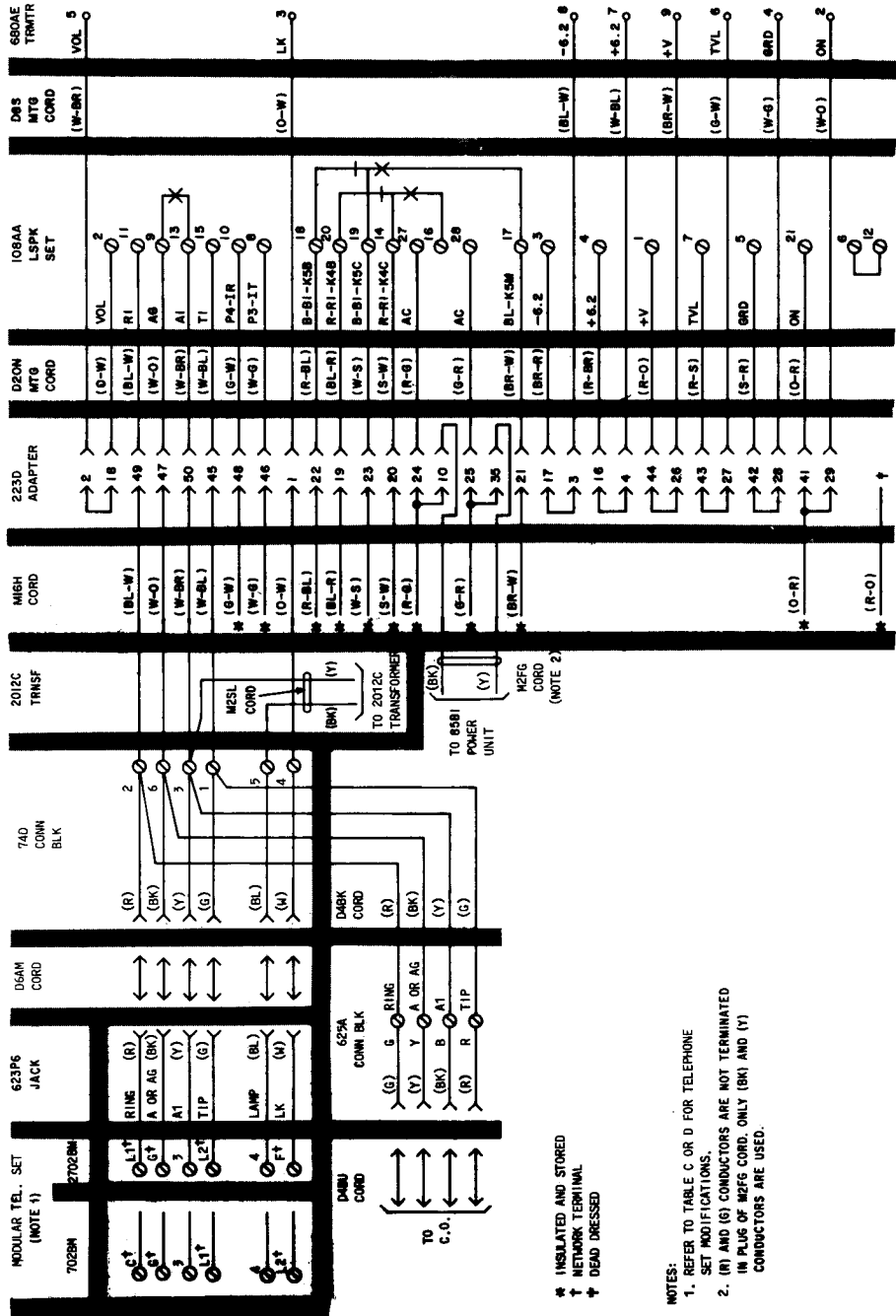


Fig. 4—Typical Grandfathered 4A Speakerphone System Arrangement, Connections to 702BM and 2702BM Telephone Sets

- NOTES:
1. REFER TO TABLE C OR D FOR TELEPHONE SET MODIFICATIONS.
  2. (R) AND (G) CONDUCTORS ARE NOT TERMINATED IN PLUG OF M2EG CORD. ONLY (BK) AND (Y) CONDUCTORS ARE USED.
  3. (O-W) LEAD IS DEAD DRESSED IN PLUG OF 223A ADAPTER.
- \* INSULATED AND STORED  
 † NETWORK TERMINAL  
 ‡ DEAD DRESSED  
 § STRAP APPEARS ON 109AA ONLY



\* INSULATED AND STORED  
 † NETWORK TERMINAL  
 ‡ DEAD DRESSED

- NOTES:  
 1. REFER TO TABLE C OR D FOR TELEPHONE SET MODIFICATIONS.  
 2. (R) AND (G) CONDUCTORS ARE NOT TERMINATED IN PLUG OF M2FG CORD. ONLY (BK) AND (Y) CONDUCTORS ARE USED.

Fig. 5—Registered 4A Speakerphone System Arrangement, Connections to 702BM and 2702BM Telephone Sets

♦TABLE A♦

## 702B TELEPHONE SET

## MODIFICATIONS FOR 4A SPEAKERPHONE

WIRE OR LEAD	COLOR	REMOVE FROM NET.	CONNECT TO	
			NET.	TERM. BLOCK
Line Switch	S	A	L2	
	Y	L2		3
	BR	C	G	
Ringer	BK	G	L1	
Network	BK	A	*	
Strap ‡			A ↔ C	
D5AK or D6AF Mounting Cord (See Note)	R		C	
	BL †		G	
	Y		L2	
	G		L1	
	W			3
	BK			4

\*Insulate and store.

†D6AF mounting cord only.

‡M1W cord or equivalent.

*Note:* Replace D5AK mounting cord with D6AF mounting cord when both KTS and speakerphone are required.



♦TABLE B♦

## 2702B TELEPHONE SET

## MODIFICATIONS FOR 4A SPEAKERPHONE

WIRE OR LEAD	COLOR	REMOVE FROM NET.	CONNECT TO	
			NET.	TERM. BLOCK
Line Switch	W	F	C	
	S	A	F	
	Y	L2		3
	BR	C	G	
Ringer	BK	G	L1	
Network Strap	BK	*	A	
D5AK or D6AF Mounting Cord (See Note)	R		L1	
	G		L2	
	BL†		G	
	Y		F	
	W			3
	BK			4
Dial	G	F	L2	

\*Remove from stored location.

†D6AF mounting cord only.

*Note:* Replace D5AK mounting cord with D6AF mounting cord when both KTS and speakerphone are required.

◆TABLE C◆

## 702BM TELEPHONE SET

## MODIFICATIONS FOR 4A SPEAKERPHONE

WIRE OR LEAD	COLOR	REMOVE FROM NET.	CONNECT TO	
			NET.	TERM. BLOCK
Line Switch	S	A	L2	
	Y	L2		3
	BR	C	G	
Ringer	BK	G	L1	
Network	BK	A	*	
Strap†			A↔C	
623P6 Jack	R		C	
	BK		G	
	W		L2	
	G		L1	
	Y			3
	BL			4

\*Insulate and store.

†M1W cord or equivalent.

◆TABLE D◆

## 2702BM TELEPHONE SET

## MODIFICATIONS FOR 4A SPEAKERPHONE

WIRE OR LEAD	COLOR	REMOVE FROM NET.	CONNECT TO	
			NET.	TERM. BLOCK
Line Switch	W	F	C	
	S	A	F	
	Y	L2		3
	BR	C	G	
Ringer	BK	G	L1	
Network Strap	BK	*	A	
623P6 Jack	R		L1	
	G		L2	
	BK		G	
	W		F	
	Y			3
	BL			4
Dial	G	F	L2	

\*Remove from stored location.