

43 OPERATOR CONSOLE
DISASSEMBLY/REASSEMBLY

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1. GENERAL

1.01 This section provides disassembly and reassembly procedures for the 43 operator console (opcon) (Fig. 1).

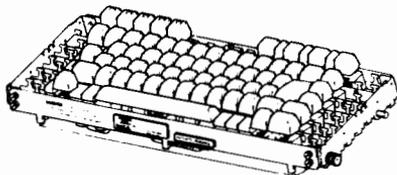


Fig. 1—43K101/CAA Operator Console

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

Note: When ordering replaceable components, unless otherwise specified, prefix each part number with the letters "TP" (ie, TP410055).

1.03 The operator console circuitry can be damaged by static discharge. The 346392 static discharge ground strap is available for use by service personnel. Maintenance spares are provided

in antistatic bags which should be saved for reuse when returning operator consoles for repair.

1.04 The extent of the disassembly procedure is limited to that which is required for correction of troubles or replacement of parts in field locations. When removing a subassembly or part from the operator console, follow the removal procedure and note the sequence of removal to enable proper reassembly.

1.05 Refer to Maintenance Tools, Section 570-005-800 for a complete listing of the various types of hand tools available for maintenance of TELETYPE® equipment. For a listing of the tools required to perform the disassembly and reassembly of the 43 operator console, refer to 2. TOOLS REQUIRED.

1.06 Precautions should be taken to assure that the opcon is disassembled and reassembled under clean conditions. No oil, grease, or other liquids shall be allowed on loose parts, subassemblies, keyswitches, or the complete opcon.

1.07 Reference in the procedures to left or right and up or down and top or bottom, etc, refer to the opcon in its normal operating position.

1.08 When removing a subassembly or part from the opcon, do not force or pry parts to provide the necessary clearance for removal. No forcing is required to accomplish a removal procedure. Follow the removal procedure and note how each part is removed and the sequence of its removal so that proper reassembly can be accomplished. For reassembly, reverse the removal procedure except where different instructions are given.

1.09 Refer to Station Disassembly/Reassembly, Section 544-500-700 for opcon removal and replacement procedures.

1.10 Some parts that are not listed in the parts sections are shown as necessary to the disassembly procedures such as screws, ring retainers, etc. Most of these parts are common to other TELETYPE® product lines and if needed may already be available in field repair kits or can be ordered.

2. TOOLS REQUIRED

2.01 The following tools are recommended for use during the disassembly and reassembly procedures:

- 75765 Spring Hook — Pull
- 89954 1/4 Inch Nut Driver
- 100982 Screwdriver (6 Inch Medium)
- 108285 Long-Nose Pliers
- 346257 Keyswitch Extractor
- 346260 Keytop Extractor
- 346392 Static Discharge Strap
- Telco Provided Soldering Iron (Low Wattage)
- Telco Provided Desolderer

3. DISASSEMBLY/REASSEMBLY

SPACEBAR MECHANISM

3.01 To remove the spacebar mechanism:

- (a) Disengage the leaf spring (bronze colored) from the wire bail using a spring hook and pull toward the front (Fig. 2).

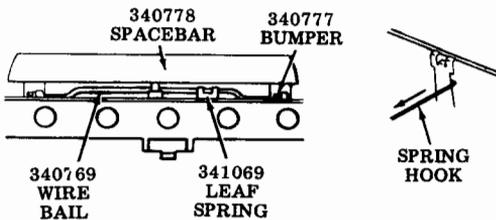


Fig. 2—Leaf Spring Disengagement

- (b) Disengage the two rear tines (one at each end of spacebar) with a small screwdriver while pulling the spacebar up and toward the front (Fig. 3).

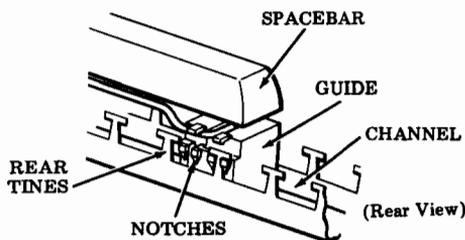


Fig. 3—Spacebar Removal

- (c) Continue applying upward pressure to the spacebar and disengage the two front tines.

- (d) Remove the wire bail from the left and right spacebar guides (snaps in and out) (Fig. 4).

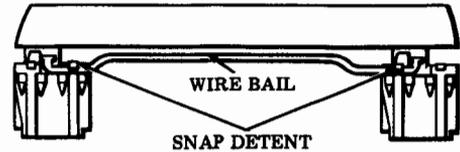


Fig. 4—Wire Bail Removal

3.02 To reassemble the spacebar mechanism:

- (a) Make sure the four tines engage the notches in the space bar housing and the leaf spring is engaged to the wire bail.
- (b) Check mechanical operation of the spacebar so that it returns to its unoperated position freely when depressed and released slowly.

KEYTOP

3.03 To remove the keytop (Fig. 5):

- (a) There are two types of keytops used on the operator console.

- (1) Control Keytop

Indicator
Non-Indicator



- (2) Data Keytop



Fig. 5—Keytops

- (b) To remove data keytops, place 346260 tool over the keytop and pull up to remove (Fig. 6).

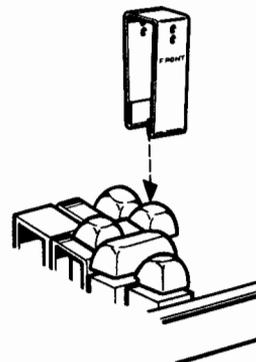


Fig. 6—Data Keytop Removal

Warning: The CAPS LOCK, PARITY, DU-PLEX, and CPS keytops must be in the fully extended, unlatched position before attempting to remove the keytop. Failure to observe this precaution will result in a damaged keyswitch.

(c) To remove control keytops (Fig. 7):

- (1) Grasp keytop using thumb and index finger.
- (2) Exert upward force until keytop releases.

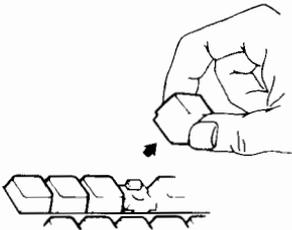


Fig. 7—Control Keytop Removal

(d) To remove the RETURN keytop with housing:

- (1) Remove keytops BACKSPACE, OVERLINE, GS, US, LINE FEED, SHIFT, and QUOTES that surround the RETURN keytop using 346260 tool.
- (2) Disengage the rear tines from housing with a small screwdriver while pulling the RETURN keytop up and toward the front (Fig. 8).

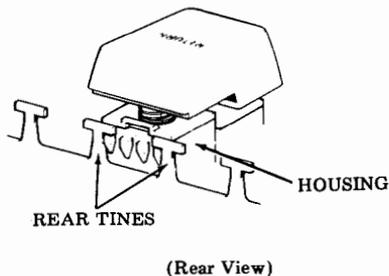


Fig. 8—Rear Tine Disengagement

- (3) Continue applying upward pressure to the RETURN keytop and disengage the front tine from housing using a spring hook. Remove keytop with housing from channel (Fig. 9).

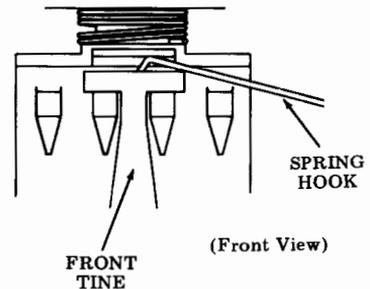


Fig. 9—Front Tine Disengagement

3.04 To reassemble the keytop:

Insert housing with keytop; observe position of locating lug on housing and press into channel. Housing must snap fully into front and rear channel tines.

KEYSWITCH

3.05 To remove the keyswitch:

- (a) Remove keytop.
- (b) Remove solder from around terminal pins of keyswitch to be removed (Fig. 10).

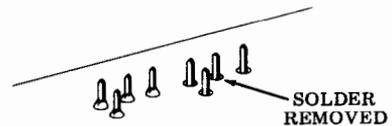


Fig. 10—Solder Removal

Warning: Use a grounded low wattage soldering iron (avoid prolonged contact with pins) along with a desoldering tool to prevent damage to keyswitch card circuits and components.

- (c) Place 346257 tool over the keyswitch and press downward. When the tool bottoms and embossed projections snap into notches on keyswitch, squeeze and pull back on the tool to lift keyswitch out (Fig. 11).

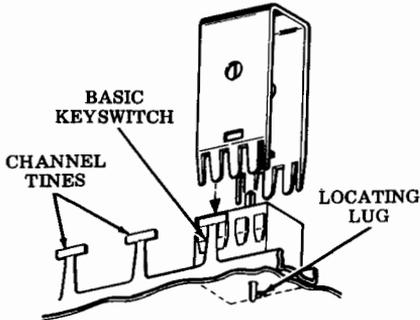


Fig. 11—Keyswitch Removal

Note: The tines of the tool must pass between the keyswitch housing and the inside of the tines on the channel.

3.06 To reassemble the keyswitch:

Insert new keyswitch, observe position of the locating lug, and press keyswitch into channel. Switch must snap fully into front and rear channel tines. Hold keyswitch in place and resolder.

346395 CABLE

3.07 To remove the 346395 cable:

- (a) Remove the PRINTER TEST, PARITY, DUPLEX and CPS keytops.
- (b) Remove the INTERLOCK, PRINTER TEST, PARITY, DUPLEX and CPS keyswitches (Fig. 12).

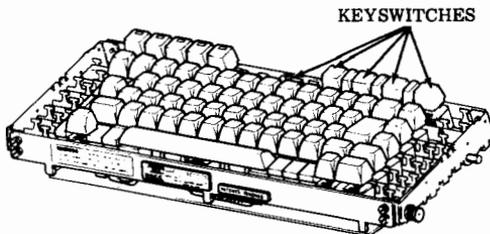


Fig. 12—Keyswitch Identification

- (c) Remove solder from around connector pins of cable to be removed (Fig. 13).

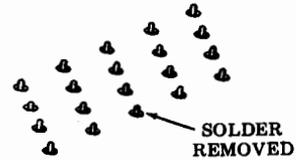


Fig. 13—Connector Pins

Warning: Use a grounded, low wattage soldering iron (avoid prolonged contact with pins) along with a desoldering tool to prevent damage to card circuits and components.

- (d) Remove the circuit card cover located in front of the control keys from the channel. Use a spring hook to remove the cover from the mounting posts (Fig. 14).

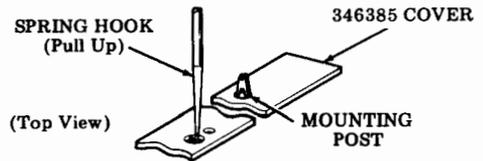


Fig. 14—Cover Removal

- (e) Grasp the cable connector using thumb and index finger.
- (f) Exert upward force until cable connector releases (Fig. 15).

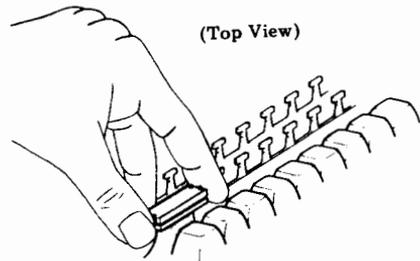
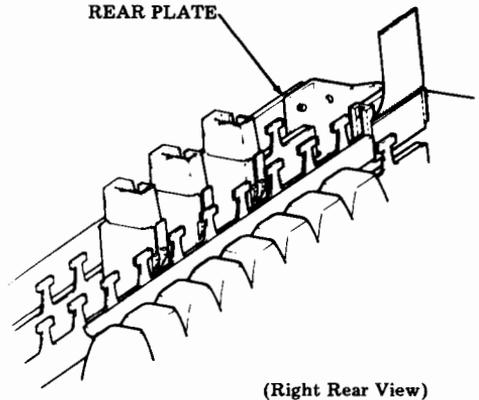


Fig. 15—Cable Connector Removal

- (g) Remove rear plate (Fig. 16).
- (h) Slide cable to the right until it clears the circuit card. Remove through opening between channels (Fig. 16).



- 3.08 To reassemble the 346395 cable:
- (a) Insert new cable connector into circuit card holes and press into place. Hold cable connector in place and resolder.
 - (b) Fasten cable to card using locally furnished cable tie.
 - (c) Reassemble keyswitches and keytop removed in 3.07 (a) and (b).
 - (d) Replace circuit card cover removed in 3.07 (d).
 - (e) Replace rear plate.

Fig. 16—Cable Removal

4. KEYTOP AND KEYSWITCH IDENTIFICATION (Fig. 17, 18 and 19)

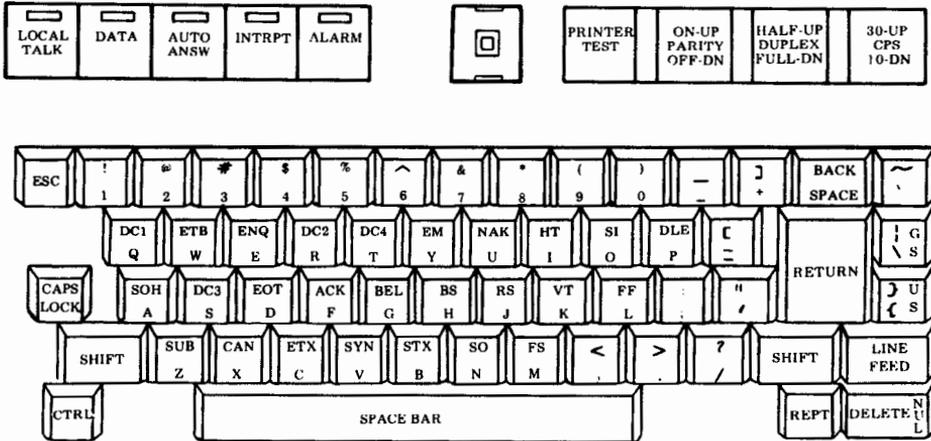


Fig. 17—Keyboard Layout

SECTION 574-502-720

TP PART NO.	KEYTOP DESCRIPTION	TP PART NO.	KEYTOP DESCRIPTION
340778	SPACEBAR	340872	STX B
340821	!	340873	SO N
340822	@	340874	FS M
340823	#	340875	< ,
340824	\$	340876	> /
340825	%	340877	? .
340826	^	340889] +
340827	&	340890	[=
340828	*	340894	CAPS LOCK
340829	(340975	ESC
340830)	340976	BACKSPACE
340831	-	340977	~ \
340838	DC1	340978	HT
340839	ETB	340979	DLE P
340840	ENQ	340981	! GS \
340841	DC2	340982	BS H
340842	DC4	340983	} US {
340843	EM	340984	} SUB Z
340844	NAK	340985	SYN V
340846	SI	340986	LINE FEED
340852	SOH	340987	CTRL
340853	DC3	340988	REPT
340854	EOT	340989	DELETE NUL
340855	ACK	346106	INTRPT
340856	BEL	346116	AUTO ANSW
340858	RS	346161	LOCAL - TALK
340859	VT	346162	DATA
340860	FF	346163	ALARM
340861	:	346164	ON-UP PARITY OFF-DN
340862	"	346165	HALF-UP DUPLEX FULL-DN
340867	SHIFT	346166	30-UP CPS 10-DN
340869	CAN	346169	PRINTER TEST
340870	ETX	346403	RETURN

*346409 spacer must be installed under the 346163 keytop to block the action of the ALARM keyswitch.

**The 340764 compression spring between the 346403 keytop and the housing must be ordered separately.

Fig. 18—Keytop Identification

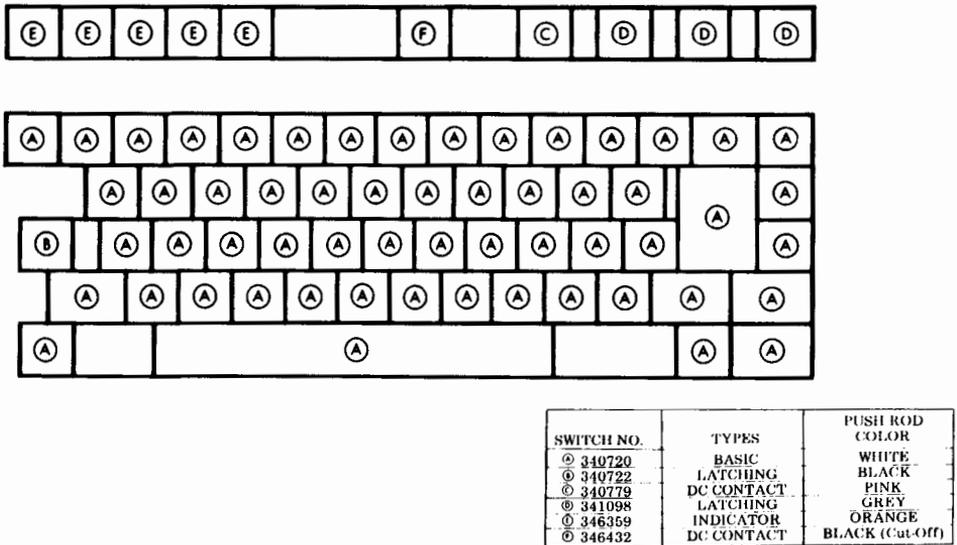


Fig. 19—Keyswitch Identification

5. SPACER, HOUSING AND REFERENCE IDENTIFICATION (Fig. 20)

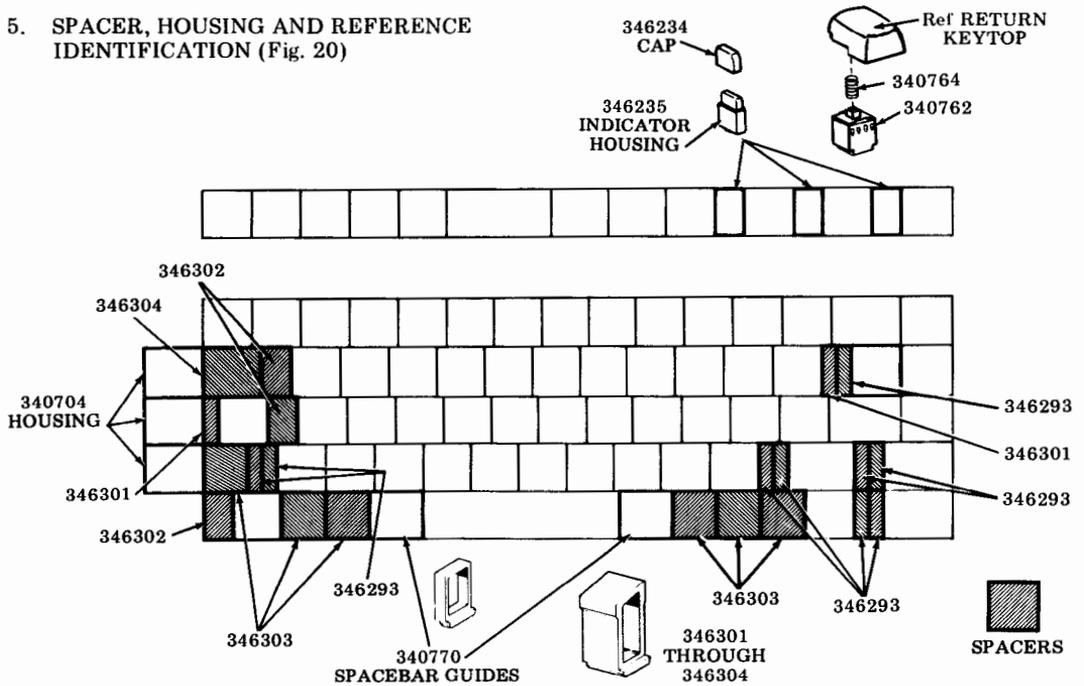


Fig. 20