

INSTRUCTIONS FOR INSTALLING THE 153920, 154741 OR 157532  
SELECTIVE CALLING MODIFICATION KIT ON A MODEL 28 CABINET  
LAC203\*\*, LAC204\*\*, LAC205\*\*, LAAC209\*\*, LAAC210\*\* AND THE  
160884 MODIFICATION KIT TO PROVIDE AUXILIARY CONNECTOR  
FOR CABINET LAAC206\*\* (FOR CAA)

\*The chart below pertains to Bell System only:

UNIT	TELETYPE CODE	BELL SYSTEM CODE
Apparatus Cabinet	LAC203**	28C**, 28E**
Apparatus Cabinet	LAC204**	28B**, 28D**
ASR Cabinet	LAAC209**	28G**
ASR Cabinet	LAAC210**	28F**

1. GENERAL

\*a. The 153920, 154741, or 157532 Modification Kit modifies a Model 28 Cabinet LAC203\*\*, LAC204\*\*, LAC205\*\*, LAAC209\*\*, LAAC210\*\* for selective calling. The 157152 Modification Kit provides two auxiliary terminal strips. The 157157 Modification Kit (part of 153920) provides the busy lamp feature. No wiring changes are needed on the cabinet when the 154741 Modification Kit is used while wiring changes are required on the cabinet when the 153920 or 157532 Modification Kit is used.

b. The 160884 Modification Kit (for CAA) provides an auxiliary connector (153919 Modification Kit see Specification 5820S) and cable assembly for Model 28 Cabinet LAAC 206\*\*. This provides additional wiring facilities to the function box of an associated printer (LP) through the cable assembly.

c. The modification kit consists of:

			153920	157532	154741	160884
1	2191	Washer, Lock			X	X
1	2897WD	Diagram, Wiring			X	
1	2918WD	Diagram, Wiring	X	X		
1	7002	Washer, Flat			X	X
1	121244	Clamp, Cable			X	
1	121245	Clamp, Cable			X	
1	121247	Clamp, Cable				X
1	151659	Screw			X	X
1	153919	Modification Kit (listed in Specification 5820S)				X
1	157152	Modification Kit (See Par. 1.d.)	X	X	X	
1	157156	Cable Assembly	X	X		X

			153920	157532	154741	160884
1	157157	Modification Kit (See Par. 1.e.)	X			
1	157260	Cable Assembly			X	
1	162370	Cable Assembly	X	X		
*1	58275	Specification	X	X	X	X

d. The 157152 Modification Kit consists of:

4	2191	Washer, Lock	2	153459	Terminal Block Assembly (includes 153485 Terminal Block w/40-153484 Screws)
1	7002	Washer, Flat			
1	121247	Clamp, Cable			
3	151346	Screw	1	157153	Bracket Assembly
1	151659	Screw	1	157154	Insulator
			1	157155	Cover w/Insulator
			1	151630	Screw

\*e. The 157157 Modification Kit consists of:

3	2191	Washer, Lock	1	151558	Nut, Speed
2	3598	Nut	*1	151631	Screw
2	5816	Washer, Insulating	1	151659	Screw
3	7002	Washer, Flat	1	153400	Lamp 60V
*1	96118-W	Wire, Electrical	1	155083	Lens
*1	96118-BK	Wire, Electrical	1	157158	Cable Assembly
1	102180	Screw	1	157159	Plate
1	121243	Clamp			

f. The double asterisks (\*\*) denote a suffix which indicates the color of the paint finish.

g. For part numbers referred to and for parts ordering information see Teletype Model 28 Parts Bulletins 1149B (LAC) or 1169B (LAAC).

## 2. INSTALLATION

a. 153920 Modification Kit.

(1) 157532 Modification Kit or 157152 Modification Kit and 157156 Cable Assembly.

NOTE: The installation of this modification kit is to be made prior to the installation of the keyboard or base.

(a) Place the 157154 Insulator between the ears of the 157153 Bracket, with the numbers "41 through 60" towards the single ear.

(b) Assemble the two 153459 Terminal Block Assemblies to the 157153 Bracket. The 151346 Screws, 151659 Screw, 2191 Lock Washers and 7002 Washer are to be used as follows.

1. Use two 151346 Screws and 2191 Lock Washers to mount the lower terminal block assembly. Place one screw in the front lower hole adjacent to terminal 80, place the other screw in the rear upper hole.

2. Place a 151346 Screw and 2191 Lock Washer in the upper rear hole of the upper terminal block assembly adjacent to terminal 41.

NOTE: When using the 157157 Modification Kit, the above rear screw is replaced with a 151659 Screw and 7002 Washer. This screw will accommodate the cable clamp associated with the 157157 Modification Kit.

3. Place the 157156 Cable into the 121247 Cable Clamp. Insert the 151659 Screw through the 2191 Lock Washer, 7002 Washer, the cable clamp, and the lower front hole right-hand side of the upper terminal block assembly (designated 41 to 60). The 157156 Cable should lay between the two terminal block assemblies with the flat of the cable away from the terminal blocks.

(c) Connect the 157156 Cable Assembly to the upper terminal block assembly according to Wiring Diagram 2918WD supplied with the modification kit.

(d) For LAC Cabinets, mount the 157153 Bracket Assembly to the right cradle rail using the front 125128 Nut and the 74567 Screw.

\*(e) For LAAC Cabinets, remove and discard the 161750 Bracket, three 151722 Screws, 2191 Lock Washers, and 7002 Washers from the 157153 Bracket Assembly. Mount the 160461 Bracket, which remains, to the inside surface of the right side panel using two 7002 Flat Washers, two 2191 Lock Washers, and two 3598 Nuts. If a felt pad is mounted to the inside of the right LAAC side panel, remove the pad by removing the two 112206 Flat Washers and two 3598 Nuts which hold it in place. Discard the pad, flat washers, and nuts.

(f) Route the 157156 Cable through the 151955 Cable Guide at the front of the cradle.

(g) Install the 157155 Cover and 151630 Screw after installing the 157157 Modification Kit (see Paragraph 2a(2)(j)).

(h) Connect the 162370 Cable to the upper terminal block and to the terminal strip (for LAC Cabinets) in accordance with Wiring Diagram 2918WD.

\*(2) 157157 Modification Kit. (For LAC Cabinets)

(a) On units equipped with the 152309 Modification Kit, 60 volt copylight system (Specification 5775S), remove the copylight switch mounting bracket and unsolder the yellow lead from the switch; remove the other end from terminal 37 of the cabinet terminal block "C", tape and tie back both ends.

(b) On units equipped with the 154744 Modification Kit, 6 volt copylight system (Specification 5853S) remove the switch mounting bracket assembly from the right cabinet hinge and unsolder the slate lead from the switch; remove the other end from terminal 37 of the cabinet terminal board, tape and tie back both ends.

(c) The upper left indicator light lens (top of dome) should be hollow; if it is not, remove the lens and speed nut and replace with the 155083 Lens and 151558 Speed Nut contained in modification kit.

\*(d) Mount the 157159 Plate and lamp socket (part of 157158 Cable Assembly) to the upper left cabinet lamp socket bracket, using the 151631 Screw, 7002 Washer, 2191 Lock Washer and 3598 Nut. The holes in the 157159 Plate are not centered; mount the plate so that the distance from the holes to the dome is maximum.

(e) Place the 153400 Lamp into the lamp socket. Make the indicator lamp adjustment in accordance with standard practice.

(f) Mount the 90814 Resistor (part of 157158 Cable Assembly) to the 157159 Plate, using the 102180 Screw, 5816 Washers, 7002 Washer, 2191 Lock Washer and the 3598 Nut.

(g) On units equipped with the 152309 Modification Kit

1. Route the 157158 Cable through the right hinge and cable and along the cable guide, tie at several points. Connect according to Wiring Diagram 2918WD supplied with the modification kit.

2. Remount the switch bracket and remake the Window and Paper Guide Adjustment, if necessary, in accordance with standard practice.

(h) On units equipped with 154744 Modification Kit

1. Untie the yellow wire loop on the 157158 Cable (pull enough yellow wire from the 157158 Cable to connect to the switch before cutting it), cut, strip, twist and tin the cut end which is terminated with the terminal. Tape and tie both ends of the remaining yellow wire back on the cable. Route the cable through the right cabinet hinge and cable clamp and along the cable guide, tie at several points. Connect per Wiring Diagram 2918WD supplied with the modification kit.

2. Remount the switch bracket assembly to the right cabinet hinge.

\* (i) Remove the 151346 Screw from the upper rear hole of the upper terminal block assembly. Place the 157158 and the 162370 Cables in the 121243 Cable Clamp. Insert the 151659 Screw through the 2191 Lock Washer, 7002 Washer, 121243 Cable Clamp, and upper rear hole of the upper terminal block assembly.

(j) Place the 157155 Cover into position and secure with the 151630 Screw.

(3) The plug, associated with the 157156 Cable Assembly, mates with the right hand (auxiliary) connector on the typing unit. The locating stud holes of the typing unit connectors are positioned so that the above plug will not mate with the left hand typing unit connector. The cords from the above plug and from the plug associated with the electrical service unit should extend toward the rear of the compartment when in position.

\* (4) 157157 Modification Kit (for LAAC Cabinets)

(a) Unsolder the white lead from the copylight switch; remove the other end from Cabinet Terminal 37, and tie back both ends.

(b) Unsolder the black and white wires from the 90814 Resistor on the 157158 Cable Assembly. Retain the vinyl tubing at the resistor terminals.

(c) Splice the 96118W and 96118BK Wires to the wires unsoldered in Paragraph (b). Tape the joint.

(d) Solder the other ends of the 96118W and 96118BK Wires to the resistor, and place the tubing retained in Paragraph (b) over the terminals.

(e) The upper left indicator light lens should be hollow; if it is not, remove the lens and speed nut and replace with the 155083 Lens and 151558 Speed Nut contained in the set of parts.

(f) Mount the lamp socket (part of 157158 Cable Assembly) to the upper left cabinet lamp socket bracket, using the 151631 Screw, 7002 Washer, and 2191 Lock-washer.

(g) Place the 153400 Lamp into the lamp socket. Position the socket so that the lamp filament is directly beneath the red lens and the lamp approximately 1/16 inch from lens.

(h) Mount the 90814 Resistor (part of 157158 Cable Assembly) to the 154408 Bracket, using the 102180 Screw, 5816 Washers, 7002 Washer, 2191 Lock Washer and 3598 Nut. Dress and tie the leads between the resistor and the lamp bracket to the existing cables in the cabinet.

(i) Remove the 151346 Screw from the upper rear hole of the upper terminal board assembly. Place the 157158 Cable in the 121243 Cable Clamp. Insert the 151659 Screw through the 2191 Lockwasher, 7002 Washer, 121243 Cable Clamp, and upper rear hole of the upper terminal board assembly. Connect per 2918WD.

(j) Place the 157155 Cover into position and secure with the 151630 Screws.

b. 154741 Modification Kit

(1) Follow procedure in Paragraphs 2a(1)(a), (b)1 and (b)2.

(2) Place the branch of the 157260 Cable with the greatest number of wires into the 121245 Cable Clamp on the top terminal strip and mount (in the right lower hole adjacent to terminal 60) with the 151659 Screw, 2191 Lock Washer and 7002 Washer. This branch should lay between the two terminal board assemblies. Place the other branch of the 157260 Cable into the 121244 Cable Clamp on the bottom terminal strip and mount (in the right lower hole adjacent to terminal 80) with the 151659 Screw, 2191 Lock Washer and 7002 Washer. This branch should lay along the outside edge of the bottom terminal strip. Discard the 121247 Cable Clamp; also the 151346 Screw from the lower front hole of the bottom terminal board assembly.

(3) Connect the 157260 Cable to the upper terminal block assembly according to Wiring Diagram 2897WD supplied with the modification kit.

NOTE

When installing in an LAAC236 Cabinet using an LP118, LP119 or LP120 and LESU112, wire per Wiring Diagram 7158WD instead of Wiring Diagram 2897WD.

(4) Follow procedure in Paragraphs 2a(1)(d) and (e).

(5) Route the 157260 Cable through the 151955 Cable Guide.

c. 160884 Modification Kit

(1) Connect the 157156 Cable Assembly to the upper terminal block assembly in accordance with Figure 1.

(2) Remove and discard the present mounting screw in the lower right hand side of the 153459 Terminal Strip (designated 61 to 80).

(3) Follow procedure in Paragraph 2a(1)(b)3.

(4) Install the 153919 Modification Kit in accordance with Specification 5820S supplied.

3. ADJUSTMENTS

For adjustment procedure refer to standardized adjustment information.

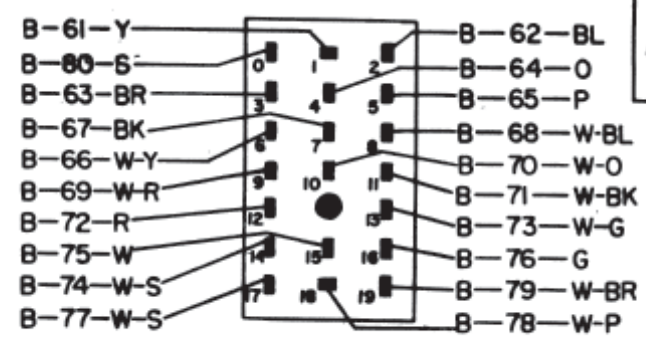
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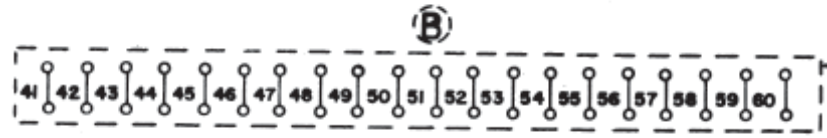
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BL	—	BLUE	W—BL	—	WHITE BLUE
BR	—	BROWN	W—BR	—	WHITE BROWN
G	—	GREEN	W—G	—	WHITE GREEN
O	—	ORANGE	W—O	—	WHITE ORANGE
P	—	PURPLE	W—P	—	WHITE PURPLE
R	—	RED	W—R	—	WHITE RED
S	—	SLATE	W—S	—	WHITE SLATE
Y	—	YELLOW	W—Y	—	WHITE YELLOW
W	—	WHITE			

**A**  
(VIEWED FROM SOLDER TERMINAL END)

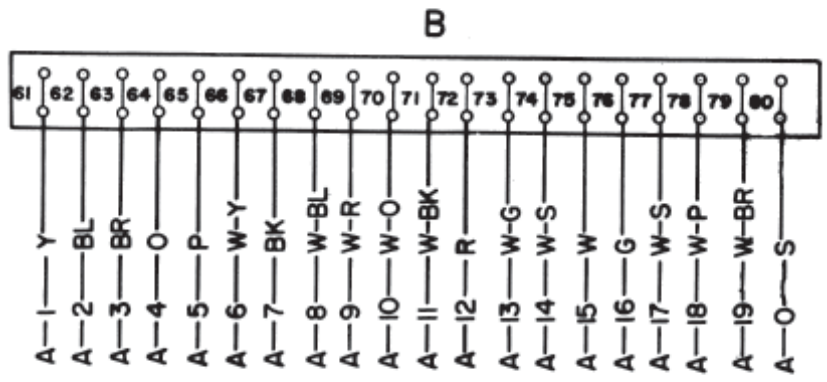


**AUX. TYPING UNIT  
CABLE & CONNECTOR ASSEMBLY  
157156**

(INFORMATION REGARDING THE WIRING OF THE FUNCTION BOX IS NOT FURNISHED WITH THIS MODIFICATION KIT.)



RESERVED FOR EXISTING WIRING ON LAAC206.



**AUX. CABINET TERMINAL BLOCK ASSEMBLY  
\*157152 (SEE NOTE)  
(RIGHT SIDE)**

**\* NOTE:**  
(1) NOT FURNISHED WITH THIS MOD. KIT, PART OF LAAC206.  
(2) REQ'D FOR MODIFICATION OF THE LAC205 CABINET.