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WESTERN ELECTRIC COMPANY TYPE 636CW1 CALL DIRECTOR ® TELEPHONE SET DESCRIPTION

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		1.	GENERAL		
OPERATIONGeneralPlacing a CallAnswering Incoming CallsUsing the Hold FunctionTerminating a CallOperator Recall	6 6 6 6 6 6 6 6	1.01 1), ar Also, variou field r 2.	This section describes the WECo Type 636CW1 Call Director telephone set (Figure and provides instructions for its installation. included are instructions for incorporating us options, operating the set, and performing maintenance. DESCRIPTION		
MODIFICATIONS	7		Intended Use		
Modification for Use with Type 1A Telephone System Station Busy Lamp Feature Supplementary Hold Feature Replacing Key-Strip Units Installing the Third Key-Strip Unit Key Blocking Rings Converting Line Pickup Key to Signa Key	Key 7 7 10 10 10 aling 15	2.01 with 10A1 1A2 origin PABX tie lin	The WECo Type 636CW1 telephone set is intended for use as customer's equipment either GTE Automatic Electric Type 10A, , 10A2, and 16A or WECo Type 1A, 1A1, and 6A Key Telephone Systems. It can ate, answer, and signal calls on central office, C, and tie lines; and hold calls on all lines but es.		
Converting Hold Key to Line Pic	ckup 15		Housing and Panel		
Addition of Signaling Buzzer	15	2.02 and 4 the ha	The WECo Type 636CW1 telephone set housing is 10-1/2 inches long, 8 inches deep, I-1/4 inches high. The overall size, including andset and cradle, is 12-7/8 inches long, 8-1/2		
Installation with 1A1, 1A2, 6A Equivalent Key System Installation with Type 1A or Equiva Key System	or 	inches is loc The k panel moun mats	s deep, and 4-1/4 inches high. A Type 8C dial ated in the left half of the sloping front panel. keys are located in the right half of the front . The front panel is equipped with a faceplate uting frame which accommodates the face and faceplate.		

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Figure 1. WECo Type 636CW1 Telephone Set.

2.03 The WECo Type 636CW1 telephone set is available in either of two colors, beige and green. Three face mats, in colors of silver, gold and coordinated color are supplied with each telephone set. The face mats have the dial numerals and letters printed on them so that when the face mat is installed, they occupy the proper positions around the periphery of the dial. A clear plastic faceplate is fitted over the dial and keys. This plate protects the face mat, and secures it to the faceplate frame.

Keys

2.04 The WECo Type 636CW1 telephone set is normally furnished with twelve keys arranged in two vertical rows of six keys each. A third row, located at the extreme right, is equipped with a blank white plastic molded insert to resemble a set of six pickup keys. This insert may be removed and a third row of six keys installed in its place. See Paragraph 4.10 for instructions for making this expansion. Wiring and the necessary connector for the third row of keys are included in the initial construction of the telephone set.

2.05 Each vertical row of six keys is made up of a key-strip unit (Figure 2). Each key-strip unit

is equipped with a 50-terminal receptacle through which all connections to the key-strip unit are made. No other wiring is required. These receptacles connect directly to 50-terminal plugs which are fastened to the key frame assembly. There are three 50-terminal plugs, one for each key-strip unit. Not all terminals on any plug are used.

2.06 The first (extreme left) key-strip unit nor-

mally consists of a WECo 599A 6-button key unit having five locking pickup keys and one hold key. Connections for the WECo 599A key are shown in Figure 3. The pickup keys are equipped with clear plastic pushbuttons, while the hold key has a red pushbutton. The second and third (when used) key-strip units each consist of a WECo 598A 6-button key having six pickup keys. Connections for the WECo 598A key are shown in Figure 4.



Figure 2. Key-Strip Unit Comprising Six Line Pickup Keys.

Any pickup key not needed for line pickup can be easily converted to non-locking operation for use as a signaling key. Instructions for making this conversion are contained in Paragraph 4.12. By replacing the entire first key-strip unit, the hold key may be replaced with a pickup key. See Paragraph 4.09 for instructions for making this conversion. Other conversions which can be made are described in Part 4.

2.07 The line pickup keys of each key-strip unit are mechanically interlocked to prevent the operation of more than one line pickup key in a key-strip unit at a time. The operation of a locking key within a key-strip unit restores any other operated key within that unit. An additional interlocking mechanism is provided between key-strip units, which restores all operated locking keys when another locking key on the telephone set is operated. Operation of the hold key also restores any operated locking key.

2.08 One locking key in each key-strip unit may be operated simultaneously, and both will lock operated. However, an electrical chaining switch incorporated in each key-strip unit, prevents the electrical connection of more than one line, or other voice channel to the transmission circuit of the telephone. Operation of a locking key in the first key-strip unit (nearest the dial) operates the chaining switch and opens the circuits to the chaining switch of the second position, etc. 2.09 When connected to a central office, PABX,

or similar line, operation of the non-locking hold key disconnects the telephone transmission circuit from that line, and causes the associated relay equipment to place a holding bridge across the line. This frees the telephone set for use on other lines. The line remains on hold until it is released by any telephone associated with that line. The hold condition may be applied to all lines except tie lines and intercom circuits.

2.10 The WECo Type 636CW1 telephone set is equipped with an amber colored Flash key and a clear Release key located above and to the right of the dial. The function of these keys is explained in Part 3.

Indicator Lamps

2.11 The condition of the indicator lamps associated with the keys on the WECo Type636CW1 telephone set indicates the status of the representative lines. The conditions of indication are established by the associated key system.

Handset

2.12 The WECo Type 636CW1 telephone set is equipped with a WECo Type G3AR handset of the same color as the telephone set housing. The handset is equipped with a retractile cord, which enters the telephone set through an opening in the front edge of the housing.



Figure 3. Connections for the WECo 599A Key.



Figure 4. Connections for the WECo 598A Key.

Component Arrangement

2.13 The single-gong ringer is mounted on the left front of the telephone set base plate. Its volume adjusting lever protrudes through a slot in

the left side of the telephone set housing.

2.14 The WECo Type 517A headset jacks that accommodate either a WECo Type 52 or 53 headset, are located on the left side of the housing below the handset cradle.

2.15 The WECo Type 4010B network is located on approximately the center of the base plate.

Cables and Connections

2.16 The 8-foot mounting cord enters the telephone set at the left side near the rear of the set. It passes under the induction coil of the network. It is fastened to the telephone set base plate by a clamp near the point of entry into the set. The 120 conductors terminate on 50-terminal plugs of the same type used for connection to the key-strip units. One group of forty conductors terminates on each of three plugs, leaving ten empty terminals on each plug.

3. OPERATION

General

3.01 The WECo Type 636CW1 telephone set can be used either as a conventional telephone set, that is, with the handset or with a headset which is plugged into the headset jacks of the telephone set. Both methods are described in the following paragraphs.

Placing a Call

- 3.02 To place a call on a WECo Type 636CW1 telephone set:
 - (1) Depress a line pickup key which has an unlighted lamp.
 - (2) Lift the handset (handset operation). The lamp associated with the depressed key will light. If a headset is used, It is not necessary to lift the handset; the lamp will light as soon as the pickup key is depressed.

- (3) Wait for dial tone, then dial the desired number.
- (4) When the called party answers, begin conversation.

Answering Incoming Calls

3.03 Incoming calls on the WECo Type 636CW1 telephone set are announced either by a ringer or a buzzer (if so equipped). A flashing lamp adjacent to one of the pickup keys indicates the line the call is on. To answer the call:

- (1) Depress the pickup key associated with the flashing lamp. The lamp will stop flashing and remain illuminated.
- (2) Pick up the handset and begin conversation. If a headset is used, conversation can begin as soon as the pickup key is depressed.

Using the Hold Function

- 3.04 This function is the same for handset or headset operation. To place a line on hold:
 - (1) Pick up the line as instructed in Paragraph 3.03.
 - (2) Depress the HOLD key momentarily. The operated pickup key will release, and its lamp will wink (if so equipped).

3.05 To take a line off of hold, depress the associated pickup key. The associated lamp will stop winking (if so equipped) and will maintain steady illumination.

Terminating a Call

3.06 To terminate a call return the handset to its cradle. To terminate a call with headset operation, depress the release key. With handset operation, the depressed pickup key will remain depressed, but the light will extinguish. When the release key is depressed, the depressed pickup key will restore and its associated light will extinguish.

Operator Recall

3.07 To recall the operator with handset operation, move the hookswitch up and down. To recall the operator with headset operation, operate the flash key.

4. MODIFICATIONS

General

4.01 The WECo 636CW1 telephone set is factory wired for use with Western Electric Company Types 1A1, 1A2 and 6A Key Telephone Systems. The circuit of the WECo Type 636CW1 telephone set is shown in Figure 5. These sets may, with a simple modification, be used with a GTE Automatic Electric Type 10A Key Telephone System. This set can also be modified to include optional features, such as, a station busy lamp feature, a supplementary I hold feature, a substitution or addition of a key module and changing the key functions. If practical, these modifications should be made before the unit is installed.

Modification for Use with Type 1A Key Telephone System

4.02 To use the WECo 636CW1 telephone set in a Type 1A Key Telephone System, the telephone set must be modified as shown in Table 1. Refer to Figures 3, 4 and 5 for conductor and terminal locations.

4.03 Line circuits for the Types 1A and 1A2 Key Telephone Systems may be connected to the same telephone set under the following conditions:

- (a) Types 1A1 and 1A2 Key Telephone System lines must be connected to the first key-strip unit with the Type 1A Key Telephone System lines connected to supplementary key-strip units (Table 1).
- (b) Types 1A, 1A1 and 1A2 Key Telephone System lines should not be connected to the same 6-line key-strip unit.

Station Busy Lamp Feature

4.04 The station busy feature provides a means of notifying an extension station that the master station is off-hook. A lamp is wired into the hold position of the extension station. This lamp will illuminate when the master station is off-hook. A P-90D033 Printed Wiring Board is required with telephone sets having either a Type 1A1 or 1A2 Key Telephone System line circuits. The printed wiring board assembly must be ordered separately

and installed in the WECo Type 636CW1 telephone set. Install the printed wiring board as follows:

- (1) Remove the telephone set housing.
- (2) Loosen the screws on the dial mounting plate, move the mounting plate to the left and lift out.
- (3) Remove the right-hand dial mounting screw.
- (4) Place the dial mounting screw through the hole in wiring board and replace screw in dial. Components on board should be positioned so as not to interfere with other set components when the dial mounting plate is replaced.
- (5) Replace and secure the dial mounting plate.
- (6) Connect the printed wiring board leads and make wiring changes as shown in Figure 5 (Note 1).

Supplementary Hold Feature

4.05 In addition to normal hold, the system may be equipped for supplementary hold which provides a special lamp flutter indication. Supplementary hold is provided by two methods:

- (a) Priority hold in which all stations on the line receive the flutter indication.
- (b) I hold in which the flutter indication is received only at the station initiating the hold.

4.06 Priority hold serves to alert personnel that an incoming call has been answered (acknowledged only), placed on hold and should be completed as soon as the first available attendant is able to do so.

4.07 I hold enables an attendant having access to a number of lines to readily determine which line he has placed on hold.

4.08 Supplementary hold feature may be provided two ways. Priority hold requires the substitution of the 599A key in the first module



Figure 5. Wiring Diagram for the WECo Type 636CW1 Telephone Set.

	MOUNTING CORD LEADS (NOTE 1)												
							IAINING SV	TEL SET CONTROL (NOTE 2)		Set Switch HOOK			
KEY TELEPHONE SYSTEM						18- AND 30-BUTTON SETS					ton sets NLY		
51512/1						1st KEY	2nd KEY	3rd KEY	4th KEY	5th KEY			(80)
	(YAG) [BK-BL]	(G-Y) [BK-W]	(V-O) [S-W]	(BR-V) [S-Y]	(V-ВК) [S-ВК]	[BL-W]	(V-G) [BL-W]	(V-G) [BL-W]	(V-G) [BL-W]	(V-G) [BL-W]	(BL-V) [R]	(U-1) [Y]	[S-G]
1A1 or 1A2 (shop wiring)	А-Н (I)	А-Н (I)	*	*	*	А-Н (I)	А-Н (II)	A-H (III)	A-H (IV)	A-H (V)	R (I)	1B (Note 4)	+
1A1 or 1A2 on first key unit; 1A on remaining key units	А-Н (I)	Y (Note 4)	*)‡ (I)	R (11)	(Y) (Note 4)	А-Н (II)	А-Н (III)	A-H (I∨)	A-H (∨)	R (l)	1B (Note 4)	t
1A1 or 1A2 on first and second key units; 1A on remaining key units	а-н (I)	Y (Note 4)	*)‡ (il)	R (HII)	A-H (!)	Y (Note 4)	A-H (III)	A-H (I∨)	A-H (∨)	R (I)	1B (Note 4)	t
1A1 or 1A2 on 1st, 2nd, and 3rd key units; 1A on remaining key units (30 button sets)	а-н (I)	Y (Note 4)	*]‡ ()	R (I∨)	А-Н (I)	А-Н (II)	(Y) (Note 4)	A-H (IV)	A-H (∨)	R (I)	1B (Note 4)	t -
1A1 or 1A2 on 1st through 4th key units; 1A on fifth key unit (30-button sets)	А-Н (I)	Y (Note 4)	*	1‡ (I∨)	R (∨)	A-H (I)	A-H (H)	A-H (111)	Y (Note 4)	A-H (∀)	R (I)	1 B (Note 4)	t
1A only (see Note 2 Fig. 6)	Y (Note 4)	A-H (I)	*	R1 (∨1)	R (I)	A-H (I)	A-H (II)	А-н (III)	A-H (IV)	A-H (∀)	R1 (Note 4)	SG (Note 4)	6 (Note 5)

Table 1. Wiring Modifications for Combining 1A, 1A1 or 1A2 or Equivalent KTS Lines.

* Indicates lead is spade-tipped; insulate and store.

t (BR)[S-G] switch hook lead connects to terminal 5 of telephone set terminal board (terminal G of network for MD color code) when station busy circuit is not provided and to terminal 9 of telephone set terminal board when station busy lamp circuit (P-90D033 printed wiring board assembly) is provided (1A1 or 1A2 KTS only).

‡ Disconnect, insulate, and store (BL-V) chaining switch lead at this terminal.

() Current color code.

[] MD color code.

NOTES:

1. Mounting cord lead colors in parentheses are in D120C or D200F even count cord; mounting cord lead colors in brackets are in D120B (MD) or D200B (MD) cord.

Ring (BL-V) [R] lead connects to (G) [S-Y] switch hook lead through flash key contacts and terminals 2 and 8 of telephone set terminal board (even count color code) or terminals 1 and 4 of telephone set terminal board (MD color code). A1 (O-V) [Y] lead connects to (Y) [S-W] switch hook lead at terminal 1 (even count color code) or terminal 5 (MD color code) of telephone set terminal board.

3. Roman numerals in parentheses indicate terminal board designations.

4. Terminal on terminal board VI.

5. Terminal on telephone set terminal board.

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with a 599H key. I hold requires rewiring of the telephone set leads to the existing 599A key (Notes 7 and 8, Figure 6).

Replacing Key-Strip Units

- 4.09 To replace a key-strip unit in a WECo Type 636CW1 telephone set:
 - (1) Remove the housing of the telephone set.
 - (2) Remove the mounting screws located at each end of the key-strip unit or insert. If equipped with insert, remove and return to stock.
 - (3) Lift the key-strip unit to unplug it from the mounting cord plug.
 - (4) Move the key-strip unit toward the rear of the telephone set until the front end clears the key frame.
 - (5) Lift the key-strip unit out of the key frame assembly, front end first.
 - (6) Lower the replacement key-strip unit, rear end first, into the opening in the key frame assembly vacated by the key-strip unit or insert in Step 2.
 - (7) Slide the new key-strip unit to the rear of the telephone set until its forward end clears the key frame.
 - (8) Engage the latch arm and the receptacle on the key frame assembly, with the latch bar and plug, respectively, at the rear of the key-strip unit.
 - (9) Press the key-strip unit firmly into place, and re-install the mounting screws from Step 2.
 - (10) Check operation of the replacement key-strip unit to see that all keys function properly.
 - (11) Install the housing on the telephone set.

Installing the Third Key-Strip Unit

4.10 To install a 6-key key-strip unit in the third (extreme right) position on the Type636CW1 telephone set:

- (1) Remove the housing from the telephone set as instructed in Paragraph 6.02.
- (2) Remove the two mounting screws securing the key-strip blank. Lift out the key-strip blank.
- (3) Remove the discard the plastic dust covers on the receptacle of the new key-strip unit and the third plug of the mounting cord.
- (4) Install the key-strip unit as instructed in Paragraph 4.09, Steps 7 through 10.
- (5) Install the housing on the telephone set as instructed in Paragraph 6.03.

Key Blocking Rings

4.11 Unused keys on the WECo Type 636CW1 telephone set can be prevented from operating by the addition of blocking rings. Two blocking rings are supplied with each telephone set. Additional blocking rings can be ordered if needed. To install blocking rings on unused keys:

- (1) Remove the telephone set housing as instructed in Paragraph 6.02.
- (2) On the key-strip unit containing the unused keys, remove the two receptacle assembly screws (Figure 2) and lift the receptacle assembly off the ladder assembly.
- (3) While holding the receptacle assembly upside down, remove the retaining strip and place the blocking rings inside the pushbutton collars of the unused keys.
- (4) Re-install the retaining strip on the underside of the receptacle assembly. Press firmly into place.



Figure 6. Cord and Cable Connections for WECo Type 636CW1 Telephone Sets Equipped with a D120C Mounting Cord (Sheet 1 of 4).



Figure 6. Cord and Cable Connections for WECo Type 636CW1 Telephone Sets Equipped with a D120C Mounting Cord (Sheet 2 of 4).

NOTES:

1. WITH 599A OR 599B KEY IN FIRST MODULE, THE FOLLOWING LEADS ARE SPADE TIPPED, INSULATED, AND STORED IG Y1, (S. VI., (Y. G), (V - S), (Y-O), (BL-Y), (Y-BL), AND (O. Y)

WITH 5998 KEY IN FIRST MODULE (BR. BK) SHOULD BE INSULATED AND STORED.

WITH 598A KEY IN FIRST MODULE, THESE SAME LEADS ARE CONNECTED AS FOLLOWS

- TO EXTEND LAMP LEADS, CONNECT (G-Y) TO (S-V) AND (Y-G) TO (V S-USING D-161488 CONNECTORS OR SPARE TERMINALS.
- . CONNECT (Y-O) AND (BR-BK) (IF STORED) TO A H TERMINAL ON TBI (BL-Y), (Y-BL), AND (O-Y) LEADS REMAIN STORED
- 2. WHEN 1A KEY SYSTEM ONLY IS USED, MOVE STRAP AT (O -V) FROM 18 TO SG AND MAKE CONVERSIONS IN TABLE 1
- 3. THE PB LEAD IS FOR ADD ON CONFERENCE CONTROL OF THE 64 KEY TELEPHONE SYSTEM.
- 4. WHEN SIGNALING KEYS OTHER THAN THE 617A ARE TO BE PROVIDED THE SPADE TIPPED LEADS ASSOCIATED WITH THE CONVERTED PICKUP KEYS

SHAFE BE CONNECTED THITLE SG TERMINAL ON TBWI. IF ADDITIONAL TERMINALS ARE REQUIRED, PROVIDE AN MINISTRAP, DR EILUIVALENT BETWEEN THE CLURIS AND SG TERMINALS ON TBWI.

- 5. WHEN MORE THAN FIVE PRIVATE AND INTERCOMMUNICATING LINES WITH COMMON SIGNAL KEY ARE REQUIRED PER TELEPHONE SET AND WHERE THE 517A KEY IS NOT USED, STRAP TOGETHER C TERMINALS OF RESPECTIVE 5-BUTTON KEY UNITS REQUIRING COMMON SIGNALING FEATURE
- TO EXTEND A LEAD CONTROL, CONNECT STRAP TO A-H TERMINAL ON THE 6 WHEN INSTALLING STATION BUSY LAMP FEATURE IN 1A1 OR 1A2 KTS CONNECT # OR HILEAD (G. VI FROM LAST KEY MODULE TO TERMINAL X OF TBUT INSULATE AND STORE RIGHT VI AND THY BUT LEADS.
 - T, R, A, AND L LEADS OF LINES WIRED FOR SUPPLEMENTARY HOLD FEATURE MUST BE ROUTED PER SD/695/0-01 RATHER THAN DIRECTLY TO LINE CIRCUITS
 - 8 TO TRANSPER A LEAD FROM GROUND TO 2247 FOR I HOLD FEATURE, CONNENT STORED (BR. V) LEAD FROM FIRST MODULE FLUG TO ANY SPARE MOUNTING CORD LEAD USING SPARE TERMINAL OR D-161488 CONNECTOR MOUNTING CORD LEAD BECOMES SPLEAD AT KEY EQUIPMENT.
 - 9 IN THE D120L MOUNTING CORD THE A OR HILEAD IG -VEIN THE THIRD MODEL IS MISSING FROM CORDS MANUFACTURED PRIOR TO III 1968



Figure 6. Cord and Cable Connections for WECo Type 636CW1 Telephone Sets Equipped with a D120C Mounting Cord (Sheet 3 of 4).

CONNECTOR CABLE CONNECTIONS

Figure 6. Cord and Cable Connections for WECo Type 636CW1 Telephone Sets Equipped with a D120C Mounting Cord (Sheet 4 of 4).

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- (5) Place the receptacle assembly over the shafts and fasten with the two receptacle assembly screws.
- (6) Attempt to depress the keys on which the blocking rings were installed to make certain that they are blocked.
- (7) Install the housing on the telephone set as instructed in Paragraph 6.03.

Converting Line Pickup Key to Signaling Key

- 4.12 To convert an unused line pickup key to a non-locking non-interlocked signaling key:
 - (1) Remove the key-strip unit containing the unused key as instructed in Paragraph 4.09.
 - (2) Remove the plunger screw (Figure 2) from the line pickup key being converted to signaling key use.
 - (3) Re-install the key-strip unit as instructed in Paragraph 4.09.
 - (4) Test the converted key to make certain that it does not lock, or release any lock-operated line pickup key, when depressed.
 - (5) Raise the key frame assembly.
 - (6) Perform the necessary wiring changes as shown in Table 3.
 - (7) Lower the key frame assembly to its normal position.
 - (8) Install the housing on the telephone set as instructed in Paragraph 6.03.

Converting Hold Key to Line Pickup Key

4.13 Individual keys within a key-strip unit cannot be replaced. Therefore, converting from hold key to line pickup key requires replacement of the entire key-strip unit containing the hold key. Certain wiring changes are also required. To perform this conversion:

- (1) Remove the key-strip unit with the hold key as instructed in Paragraph 4.09.
- (2) Install the replacement key-strip unit containing six line pickup keys, as instructed in Paragraph 4.09.
- (3) Raise the key frame assembly.
- (4) Make wire changes as described in the Notes on Figure 6.
- (5) Lower the key frame assembly.
- (6) Install the housing on the key telephone set.

Addition of Signaling Buzzer

4.14 To provide separate signaling from local points, a signaling buzzer may be added to the WECo Type 636CW1 telephone set. The buzzer is not electrically compatible with the ringing potential normally supplied by central offices, therefore, it cannot be used directly to replace the ringer for signaling calls from the central office.

4.15 Supports are provided in the telephone set for mounting a Type 7 buzzer. A bracket for the mounting of a KS-8109 buzzer is provided and fastened to the supports for the Type 7 buzzer. The KS-8109 buzzer should be mounted on the bracket using two nylon screws and two fiber washers to insulate the buzzer from the bracket. A KS-20419 Buzzer (10 Vac only) may be mounted in any convenient location. Provide a mounting screw and use a D-161488 connector or spare terminal to extend buzzer leads. Buzzer is now insulated from the base.

- 4.16 Make wiring connections to the buzzer as shown in Figure 7.
- 5. INSTALLATION

Installation with 1A1, 1A2, 6A or Equivalent Key System

5.01 The WECo Type 636CW1 telephone set is supplied with the mounting cord attached.Therefore, there is no necessity to remove the telephone set housing to perform a normal installation. The telephone set is factory wired for



(NOTE 4)

NOTES:

1

- WHEN A 7-TYPE BUZZER IS USED WITH A COMMON AUDIBLE ALARM IN CONNECTION WITH A POWER FAILURE FEATURE, A 548A OR EQUIVALENT CAPACITOR SHALL BE INSTALLED AS FOLLOWS:
 - (A) WHENEVER POSSIBLE USE THE CAPACITOR IN THE NETWORK, CONNECT BZ LEAD TO TERMINAL A OF NETWORK AND USE MIW CORD OR EQUIVALENT TO CONNECT K TO TERMINAL A OF BUZZER.
 - (B) CONNECT 548A CAPACITOR FROM TERMINAL A OF BUZZER TO BZ LEAD. USE D-161488 CONNECTOR OR SPARE TERMINAL TO CONNECT CAPACITOR LEADS TO BZ LEAD.
- WHEN A 7 TYPE BUZZER IS USED, REMOVE P-26E586 OR P-44E410 (MODIFIED) BRACKET AND MOUNT BUZZER (COVER REMOVED) TO DIAL MOUNTING PLATE.
- 3. MOUNT KS-8109, L2 BUZZER DIRECTLY TO THE MOLDED MOUNTING BRACKET PROVIDED IN THE SET. IF KS-8109, L2 BUZZER IS MOUNTED USING METAL MOUNTING BRACKET, BUZZER MUST BE INSULATED BY USING INSULATING WASHERS AND NYLON SCREWS FURNISHED WITH THE BRACKET.
- 4. KS-20419 BUZZER (10 VAC ONLY) MAY BE MOUNTED IN ANY CONVENIENT LOCATION. PROVIDE A MOUNTING SCREW AND USE D-161488 CONNECTOR OR SPARE TERMINAL TO EXTEND LEADS. BUZZER IS INSULATED FROM THE CASE
- () INDICATES CURRENT COLOR CODE
- I INDICATES MD COLOR CODE

OPTIONS:

- (R) COMMON AUDIBLE WITH POWER FAILURE FEATURE
- (S) DC OPERATION
- (T) AC OPERATION

Figure 7. Buzzer Connections.

use with WECo 1A, 1A1, 1A2 and 6A or equivalent Key Telephone Systems. To install the 636CW1 telephone set with any of these systems:

- (1) Place the telephone set in the location in which it will be used.
- (2) Mount one side of a connector housing on a wall or the floor within reach of the 8-foot long mounting cord (Figure 8). Cord terminations of the D120C and the D200F are given in Table 2.
- (3) Connect the plugs of the running cable into the receptacle of the mounting cord, and place the connectors inside the mounted half of the connector housing of Step 2.
- (4) Install the second half of the connector housing.
- (5) Connect the opposite end of the running cable to the key equipment. Refer to Figure 5.
- (6) Install key designation strips on the telephone set as instructed in Paragraph 5.03.
- (7) Stamp the telephone number card as instructed in Paragraph 5.04 as appropriate.

Installation with Type 1A or Equivalent Key System

5.02 The WECo Type 636CW1 telephone set requires certain wiring changes to adapt it to use with systems using Western Electric Company Type 1A, or equivalent, Key Telephone System. To install the telephone set with Type 1A key system:

- (1) Remove the housing from the telephone set as instructed in Paragraph 6.02.
- (2) Raise the key frame assembly.
- (3) Remove the dial as instructed in Paragraph 6.04.
- (4) Referring to Table 1, make the necessary wiring changes.
- (5) Re-install the dial unit, as instructed in Paragraph 6.04.
- (6) Return the key frame assembly to its normal position.
- (7) Install the housing on the telephone set as instructed in Paragraph 6.03.
- (8) Install the converted telephone set as instructed in Paragraph 5.01.



Figure 8. Mounting Cord Plugs Connected to Running Cable Receptacles (Cover Off).

Installing Key Designation Strips

5.03 A sheet of six designation strip blanks for identifying the functions of the keys is included with each telephone set. Each strip has six squares, one for each key in a key-strip unit. To install the key designation strip on the telephone set:

- (1) Carefully pry and lift the faceplate and face mat off the front panel of the telephone set.
- (2) Remove one designation strip from the sheet by tearing along the perforations.
- (3) Print or stamp in the proper segment of the designation strip, the line number, extension number, or other identifying letters assigned to each key of the left key-strip unit.
- (4) Peel the protective covering from the adhesive backing of the key designation strip.
- (5) Place the key designation strip face up on the light shield over the lamps. Press it firmly into place.
- (6) Repeat Steps 2 through 5 for the remaining key-strip unit(s).
- (7) Put the remaining key designation strips away for use when designations require changing.
- (8) Install the faceplate and face mat on the telephone set.

Stamping Telephone Number Card

5.04 The telephone number card is enclosed within the dial finger wheel. The finger wheel is of one piece construction which must be removed from the telephone set to gain access to the telephone number card. For removal of the dial fingerwheel and stamping the telephone number card, refer to the appropriate section in the 473-820 series of GTE Practices.

6. MAINTENANCE

6.01 Limit the maintenance performed on the customer's premises to verification and analysis of trouble, readily made adjustments and the replacement of easily accessible parts. If the defective telephone set or subassembly cannot be easily and quickly repaired, replace with a unit in known good condition and return the defective unit to the shop for repair.

Housing Removal and Installation

- 6.02 To remove the housing from the WECo Type 636CW1 telephone set:
 - (1) With the faceplates and face mat in place, carefully lift the faceplate frame from the front of the telephone set housing.
 - (2) Loosen the two housing securing screws located at the rear of the telephone set, one near each corner.
 - (3) Using the right hand, raise the rear bottom edge of the housing approximately one inch above the top edge of the set base plate rear flange.
 - (4) While holding the rear of the housing snug against the key frame assembly and transmission unit, with the fingers of the left hand gently spring the front edge of the cover enough to disengage the front housing mounting hooks.
 - (5) Lift the housing from the telephone set.
- 6.03 To install the housing on the telephone set:
 - (1) Place the housing down over the set front and rear.
 - (2) With the right hand, hold the rear of the housing approximately two inches above its normal position.
 - (3) With the left hand, spring the front of the housing, and while observing through key frame assembly and dial openings, engage the front housing mounting hooks in their slots.

(4) Lower the rear of the housing into its normal position, and tighten the two housing securing screws.

Dial Removal

- 6.04 To remove the dial:
 - (1) Remove faceplate assembly and housing.
 - (2) Loosen screws on dial mounting plate.
 - (3) Move dial mounting to the left and lift out.
 - (4) Disconnect spade-tipped dial cord leads from terminals.
 - (5) Loosen screws on each side of dial mounting plate and remove the dial.

Lamp Replacement

- 6.05 To replace any lamp in the key frame assembly of a Type 636CW1 telephone set:
 - (1) Carefully lift the faceplate assembly from the telephone set housing to disengage the faceplate frame mounting clips, and remove it from the telephone set.
 - (2) Remove the light shield from the key-strip unit in which the lamp is to be replaced.
 - (3) With a thin-bladed screwdriver, turn the lamp until the flat portion of the wedge-shaped lamp base is facing up.
 - (4) Press down on the flat portion of the lamp base until the opposite end of the lamp pops up.
 - (5) Gently pry the lamp up to remove it from the clip.
 - (6) Insert a new lamp in the clip. Press firmly into place.
 - NOTE: Press on the glass part of the lamp only to avoid breaking it.

- (7) Re-install the light shield on the key-strip unit.
- (8) Re-install the faceplate assembly.

Ringer Replacement

- 6.06 To replace the ringer in the WECo Type 636CW1 telephone set:
 - (1) Remove the telephone set housing as instructed in Paragraph 6.02.
 - (2) Remove the dial. Do not disconnect the dial leads.
 - (3) Disconnect the ringer leads from the transmission unit terminals.
 - (4) Unscrew the ringer mounting screws, and lift the ringer free of the telephone set baseplate.
 - (5) Place the replacement ringer in position and fasten it to the telephone baseplate, using the ringer mounting screws provided.
 - (6) Connect the ringer leads as shown in Figure 5.
 - (7) Re-install the dial.
 - (8) Install the housing on the telephone set as instructed in Paragraph 6.03.

Transmission Network Replacement

- 6.07 To replace the transmission network in the WECo Type 636CW1 telephone set:
 - (1) Remove the telephone set housing as instructed in Paragraph 6.02.
 - (2) Disconnect all leads to the transmission network terminals.
 - (3) Unscrew the transmission network mounting screws and lift the transmission network free of the telephone set.
 - (4) Place the new transmission network into position against the transmission

network mounting bracket and reinstall the transmission network mounting screws.

- (5) Connect the leads to the tranmission network as shown in Figure 5.
- (6) Install the housing on the telephone set as instructed in Paragraph 6.03.

Key Pushbuttons and Plungers

6.08 If any of the key pushbuttons or plungers bind, remove all accumulated dirt or other foreign matter, and wipe the surfaces clean with a damp cloth. If the mechanism persists in binding or squeaking, replace the entire key-strip unit. Do not use lubricants or solvents on the key-strip unit components.

Key-Strip Unit Latching Mechanism

6.09 The key-strip unit latching mechanism should operate freely. If operation is unsatis-factory, replace the key-strip unit with one in good working condition. Do not lubricate the latching mechanism components.

Mounting Cord Frame Removal and Installation

- 6.10 To remove the mounting cord frame from the Type 636CW1 telephone set:
 - (1) Remove the telephone set housing as instructed in Paragraph 6.02.
 - (2) Remove the dial as instructed in Paragraph 6.04, Steps 1 through 5.
 - (3) Raise the key frame assembly.
 - (4) Disconnect any mounting cord leads which connect at points other than on a 50-terminal plug.
 - (5) Remove the screws securing the mounting cord frame to the key frame assembly.
 - (6) Lift the mounting cord free of the telephone set.
- 6.11 To install the mounting cord frame in the Type 636CW1 telephone set:
 - (1) Plug the mounting cord plugs into the receptacles on the key-strip unit.

- (2) Fasten the mounting cord frame to the key frame assembly.
- (3) Make any connections necessary according to Figure 5 which do not terminate on any of the 50-terminal plugs.
- (4) Lower the key frame assembly to its normal position.
- (5) Install the dial.
- (6) Install the housing on the telephone set as instructed in Paragraph 6.03.

Contact Spring Adjustments

6.12 Normally open spring contacts must have a minimum separation between adjacent springs of 1/64 inch. Normally closed contact springs must have perceptible follow, with minimum separation between adjacent springs of 1/64 inch.

Handset and Capsules

6.13 The WECo Type 636CW1 telephone set is equipped with a Type G3AR handset. To replace the complete handset and cord assembly:

- (1) Remove the telephone set housing as instructed in Paragraph 6.02.
- (2) Remove the dial.
- (3) Disconnect the handset cord leads from the terminal board terminals.
- (4) Unhook the handset cord retainer from the hole in the telephone set baseplate, and remove the handset and cord assembly from the telephone set.
- (5) Hook the cord retainer of the replacement handset cord into the hole in the baseplate flange (Step 4).
- (6) Connect the handset cord leads to the telephone set terminal board terminals as shown in Figure 5.
- (7) Install the dial.
- (8) Install the housing on the telephone set as instructed in Paragraph 6.02.

		LEAD DESIGNATIONS							
PLUG	CORD	D120C CORD							
TERM	COLOR	PLUG 1	PLUG 2	PLUG 3					
		BL-W SERVING	o-w serving	G-W SERVING					
1	BL-W	R	R	R					
26	W-BL	Т	т	Т					
2	O-W	AT OR S	S						
27	W-O	A, H, S OR ST	A, H, S OR ST	A, H, S OR ST					
3	G-W	L	L	L					
28	W-G	LG	LG	LG					
4	BR-W	R	R	R					
29	W-BR	Т.	T	T					
5	S-W	S	S	s					
30	W-S	A, H, S OR ST	A.H.S OR ST	A, H, S OR ST					
6	BL-R		L	L					
31	R-BL	LG	LG	LG					
7	O-R	R	R	R					
32	R-O	T	T	Т					
8	G-R	S	S	S					
33	R-G	A.H.S OR ST	A.H.S OR ST	A, H, S OR ST					
9	BR-R	L	L	L					
34	R-BR	LG	LG	LG					
10	S-R	R	R						
35	R-S	Т	T	Т					
11	BL-BK	S	S	S					
36	BK-BL	A.H.S OR ST	A.H.S.OR ST	A.H.S.OR ST					
12	O-BK								
37	BK-O	LG	LG	IG					
13	G-BK	R	R	R					
38	BK-G	T	<u> </u>	T					
14	BR-BK	S	S	S					
39	BK-BR	A, H, S OR ST	A, H, S OR ST	A, H, S OR ST					
15	S-BK	L	Ĺ	L					
40	BK-S	LG	LG	LG					
16	BL-Y	R	R	R					
41	Y-BL	Т	T	T					
17	0-Y	S	S	S					
42	Y-0	A, H, S OR ST	A, H, S OR ST	A, H, S OR ST					
18	G-Y	L	L	L					
43	Y-G	LG	LG	LG					
19	BR-Y	SG	PB	SPARE					
44	Y-BR	BL OR LS	SPARE						
20	S-Y	R OR RT	BZ						
45	Y-S	B OR BT	BZ 1	*					
21		VACANT	VACANT	VACANT					
46									
22									
47									
23									
48									
24									
49									
25									
50		•	•	•					

Table 2. Plug Terminations of D120C Cords.

Table 3. Pickup Signal Key Conversion.

					KEY LEADS AND TERMINALS OF KEY UNITS INVOLVED							
NO. OF PICKUP KEYS	NO. OF PICKUP KEYS CONVERTED TO SIGNAL KEYS			NO. OF PRIVATE AND INTERCOM LINES WITH COM SIG KEYS	(O-W)	(S-W)	(G-R)	(BL-BK)	(BR-BK)	SUPL KEY ONLY		
	599A	599B	598A	(PER KEY UNIT)	[BK]	[BR-G]	[BR-W]	[R-BL]	[G-BL]	(Y-O) [S-BR]	(O-Y) [BR]	
6					A-H	A-H	A-H	A-H	A-H	A-H	G	
5			1		A-H	A-H	A-H	A-H	A-H	SG*	G	
4	1		2		A-H	A-H	A-H	A-H	SG*	SG*	G	
3	2	1	3		A-H	A-H	A-H	SG*	SG*	SG*	G	
2	3	2	4		A-H	A-H	SG*	SG*	SG*	SG*	G	
1	4	3	5		A-H	SG*	SG*	SG*	SG*	SG*	G	
			6		SG*	SG*	SG*	SG*	SG*	SG*	G	
3		-	1	2	A-H	A-H	A-H	C*	C*	A-H	C*	
2			1	3	A-H	A-H	C*	C*	C*	A-H	C*	
1			1	4	A-H	C*	C*	C*	C*	A-H	C*	
			1	5	C*	C*	C*	C*	C*	A-H	C*	

* Terminal on TBVI. () Current color code. [] MD Color code