

SERVICE MANUAL

FOR

MODEL SSW-323-F

STAINLESS STEEL WALL TELEPHONE

EQUIPPED WITH CAC6.00 FIRMWARE



Serving the Telephone Industry Since 1930

*Communication Equipment
& Engineering Company*

519 W South Park Street
Okeechobee, FL 34972

Voice: 863-357-0798

Fax: 863-357-0006

IMPORTANT INFORMATION FOR CUSTOMER

Please fill in before you continue.

The following information is necessary when calling CEECO for assistance.

MODEL NUMBER	MODEL SSW-323-F EQUIPPED WITH CAC6.00 FIRMWARE
SERIAL NUMBER	
DATE MANUFACTURED	
LOCATION INSTALLED	

For us to better serve you, please have this information available when calling for technical support.

CEECO

Communication Equipment & Engineering Company

519 W South Park Street
Okeechobee, FL 34972
863-357-0798- telephone
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1.0 INTRODUCTION

The practices in this manual provide installation and maintenance information for the Model SSW-323-F Stainless Steel Wall Telephone, equipped with CAC6.00 software.

For information not included in this manual, please call or write:

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2.0 GENERAL

The CEECO Model SSW-323-F Telephone, equipped with CAC6.00 Firmware, is a microprocessor-based coinless telephone designed to withstand abuse and fraudulent call attempts. The phone may be programmed with the following features:

- Implement call restrictions or allow all calls
- Allow or not allow incoming calls
- Select the width of the dial tone detection window
- Mute the microphone to guard against fraud.
- Select tone (DTMF) or pulse dialing
- Automatically time and disconnect a phone call
- Speed-dial pre-programmed numbers
- Automatically dial one or two numbers, when the handset is lifted.

As you can see, this telephone has a number of useful features and you may use any or all of them. Attempts to hookswitch dial will cause the microprocessor to go "on hook" until the attempt has ended. The steel housing and chrome plated tone dial are vandal resistant. An armored cord, hearing aid compatible handset is standard.

3.0 PROGRAMMING

- 3.1 **Connect the telephone** to a working telephone line or a DTMF test set.
- 3.2 Locate the two plastic **mini-jumpers** on the edge of the printed circuit board and move them to the “**ON**” position, as depicted on the last page of this manual.
- 3.3 **Lift the handset** and wait for dial tone before beginning programming. First read through the programming section and then do the actual programming as you read along again. Programming is accomplished by way of the DTMF keypad. The programming can be accomplished in one continuous sequence without having to stop or perform any measures between programming sections. It is important to be slow and deliberate when pressing the keys during programming. A missed or partial tone will result in improper programming.
- 3.4 Utilizing the keypad, enter # **9 7**. This will **clear all memory** locations.
- 3.5 Enter # **0 0**, which accesses the **telephone options** memory location. There are six (6) selections to be made in this location. By entering a selection into each of the six programming digit locations, the phone is customized for the particular installation. An entry **must** be made for each of the six digit locations. The six digit locations and the available selections are shown on the next page. Compare the example below to the information on the next page and then enter the 6 numbers selected.

Example: Entering #00 followed by 101003 would program the phone to have no call restrictions, no incoming call allowed, a wide dial tone detect window, a muted microphone initially, DTMF dialing, and a 5 minute automatic disconnect.

PROGRAMMING CONTINUED...Location #00:Digit 1

- 0 Implement Call restrictions
- 1 No call restrictions

Digit 2

- 0 No incoming calls allowed
- 1 Incoming calls allowed

Digit 3

- 0 Narrow dial tone detect window
- 1 Wide dial tone detect window (Always recommended)

Digit 4

- 0 Mute the microphone until the user dials a digit
- 1 Unmute the microphone after the access number is dialed

Digit 5

- 0 DTMF dialing
- 1 10 PPS pulse dialing
- 2 20 PPS pulse dialing

Digit 6

- | | |
|------------------------|-----------------------|
| 0=no call timeout | 5=12 min.call timeout |
| 1=2 min.call timeout | 6=15 min.call timeout |
| 2=3 min.call timeout | 7=20 min.call timeout |
| 3=5 min.call timeout | 8=25 min.call timeout |
| 4=10 min. call timeout | 9=30 min.call timeout |

- Be sure to record your selections in the table below for future reference.

Telephone Options Table: #00

1	2	3	4	5	6
---	---	---	---	---	---

PROGRAMMING CONTINUED...

- 3.6** In order for the phone to **automatically dial a number**, when the handset is lifted, **enter # 1 9 followed by the desired number**. If this is not a desired function, proceed to section 3.8. The Auto-dial number may be up to eleven (11) digits in length. Example: Entering **#199** will program the phone to automatically dial a 9, when the handset is lifted. Be sure to record your entry in the table below for future reference.

1st Auto Dial Number Table: #19 _ _ _ _ _ _ _ _ _ _

- 3.7** In order for the phone to **automatically dial a second number**, when the handset is lifted, **enter # 1 8, followed by the desired second number**. If this is not a desired function, proceed to section 3.8. The second Auto-dial number may also be up to eleven (11) digits in length. In order to use the #18 location, the #19 location must first be used. The second number (#18 location) will dial out approximately one second after any number stored in the first (#19) location. Example: Entering **#1818005551212** will program the phone to automatically dial 1-800-555-1212 approximately one second after it dials the number stored in location #19. Combining the examples from this section and the one above, entering **#199#1818005551212** will program the phone to automatically dial 9, pause one second and automatically dial 1-800-555-1212, when the handset is lifted. Be sure to record your entry in the table below for future reference.

2nd Auto Dial Number Table: #18 _ _ _ _ _ _ _ _ _ _

- 3.8** There are forty (40) memory locations available for **speed-dial numbers**. If this is not a desired function, proceed to section 3.10. The memory locations are #30 through #69. In order to program the phone with speed-dial numbers, simply **enter the location number (#30-#69), followed by the desired speed-dial number**. The speed-dial numbers may be up to eleven digits in length.

Example: Entering **#305551212#315875430#325839907** will program the phone to automatically dial 555-1212 when #30 is dialed, 587-5430 when #31 is dialed, and 583-9907 when #32 is dialed. Please note that, when the phone is in operation, the # key must be dialed preceding the two digit location number, in order to release the speed dial number.

PROGRAMMING CONTINUED...

* Be sure to record your speed dial entries in the table below for future reference:

Speed Dial Table:

#30	_____	#50	_____
#31	_____	#51	_____
#32	_____	#52	_____
#33	_____	#53	_____
#34	_____	#54	_____
#35	_____	#55	_____
#36	_____	#56	_____
#37	_____	#57	_____
#38	_____	#58	_____
#39	_____	#59	_____
#40	_____	#60	_____
#41	_____	#61	_____
#42	_____	#62	_____
#43	_____	#63	_____
#44	_____	#64	_____
#45	_____	#65	_____
#46	_____	#66	_____
#47	_____	#67	_____
#48	_____	#68	_____
#49	_____	#69	_____

PROGRAMMING CONTINUED...

- 3.9** In order to implement **call restrictions**, there are twenty (20) memory locations available. If this is not a desired function, proceed to section 3.10. In order to implement restrictions, a “0” must have been selected for Digit 1 under programming location #00. If this was not done, repeat section 3.5 only, in its entirety, and return to this section. The associated programming locations are **#70 thru #89**. Each of these twenty (20) locations may be used to program one call restriction. Each location will store a number or pattern of up to eleven (11) digits in length. An “*” represents a wild card, so any time the “*” key appears, the phone will allow any single digit in its place. In order to restrict calls, the phone is programmed with those numbers or patterns, which are allowed. In turn, it will block all others. As in the examples below, **enter the location number (#70-#89), followed by the allowed number or pattern.**

EXAMPLE: Entering #70***** allows all 0+ and 0- calls.
 Entering #71911 allows 911 to be dialed.
 Entering #721800***** allows any 1-800 call.
 Entering #73***** allows 7-digit calls.
 Entering #74587**** allows 7-digit calls beginning with 587.

Each pattern that is programmed will be “allowed” by the phone. If call restrictions are implemented (Location #00 Digit 1), the phone will restrict all numbers except those that it is specifically programmed to allow. Any numbers that have been programmed into the speed-dial (#30-#69), first auto-dial (#19), or second auto-dial (#18) locations do not have to be programmed again under this section.

- 3.10** Programming is now completed. **Hang up** the phone and return the **mini-jumpers** to the “OFF” position, as depicted on the last page of this manual. The phone is now ready for Testing/Operation.

4.0 TESTING/OPERATION

- 4.1 With the phone connected to a DTMF test set or working telephone line lift the handset. Any number that was programmed into Location #19 should automatically dial out, at this time. If not, hang up the phone and repeat sections 3.2, 3.3, 3.6 and 3.10 only. If this does not solve the problem, please refer to section 7.0.
- 4.2 If any number was programmed into Location #18, that number should automatically dial out approximately one second after the number stored in Location #19 dials out. If not, hang up the phone and repeat sections 3.2, 3.3, 3.7 and 3.10 only. If this does not solve the problem, please refer to section 7.0. Please note that, in order to use Location #18, Location #19 must first be used.
- 4.3 If Locations #19 and/or #18 have not been programmed, dial tone should be heard on the line.
- 4.4 If speed-dial numbers were programmed, test those locations. Press the location code (#30-#69) and any number stored in that location should be released. The # key must be entered as part of the location code. For example, entering #30 should cause the phone to automatically dial any number stored in Location #30. If not, hang up the phone and repeat sections 3.2, 3.3, 3.8, and 3.10 only. It is not necessary to try to reprogram all of the speed dial locations, but only the ones that are not working. If this does not solve the problem, please refer to section 7.0.
- 4.5 If telephone call restrictions were implemented, test the restrictions. The phone should only permit “allowed” calls to be dialed. The dialing of a number that is not “allowed”, should result in the phone emitting an error tone (three short beeps). The line will then reset. If not, hang up and repeat sections 3.2, 3.3, 3.5, 3.9, and 3.10 only. If this does not solve the problem, please refer to section 7.0.

TESTING/OPERATION CONTINUED...

- 4.7** Place a call to the phone. If the phone was programmed to accept incoming calls, it should ring and be answered with normal phone operation to follow. If it was programmed not to accept incoming calls, it will still ring, but when it is answered the called party will not be heard on the far end. The microphone will be muted. The Phone will then sound an error tone after approximately four seconds and reset itself. If not, hang up and repeat sections 3.2, 3.3, 3.5, and 3.10 only. If this does not solve the problem, please refer to section 7.0.
- 4.8** If the phone was programmed to automatically time and disconnect the phone call (Call timeout feature), try making a telephone call. Time the call and see if the phone, in fact, automatically disconnects after the programmed time period. Please keep in mind that this will not be exact. If this fails, hang up and repeat sections 3.2, 3.3, 3.5, and 3.10 only. If this does not solve the problem, please refer to section 7.0.
- 4.9** Also be sure to determine that the microphone is muting as it was programmed (Location #00 Digit 4) and that the phone is in either DTMF (tone) dialing mode or pulse dialing mode as programmed (Location #00 Digit 5)). DTMF sounds like definite tones or beeps, whereas pulse-dialing sounds like rhythmic clicks. If the phone does not seem to be functioning as programmed, hang up and repeat sections 3.2, 3.3, 3.5, and 3.10 only. If this does not solve the problem, please refer to section 7.0.
- 4.10** Attempt to “hookswitch dial” by tapping quickly on the tongue of the hookswitch assembly. The phone should momentarily open the line, until the attempt is over, and then return dial tone. If not, please refer to section 7.0.

5.0 RECOMMENDED TOOLS AND TEST EQUIPMENT

DTMF Test Set	Security Tool 301-037
1/4" Nut Driver	*The security tool is for a standard 5/32" button-head screw generally used on the framework of telephone booth
5/16" Nut Driver	
Volt/Ohm Meter	
Flat Blade Screw Driver	

6.0 INSTALLATION NOTES AND ASSEMBLY INSTRUCTIONS

NOTE: Be sure to avoid touching the circuit boards with metal objects, as this may cause damage.

- 6.1 Using a 301-037 security tool (sold separately) loosen and remove the security screw.
- 6.2 Separate the cover assembly from the backplate assembly by pulling the bottom forward and pushing up.
- 6.3 The backplate assembly may be installed on any standard backboard or suitable vertical surface. Four mounting holes are provided.
- 6.4 Run the inside station wire through the backplate assembly and terminate on to the RJ11C terminal block on the backplate.
- 6.5 The use of a gas tube station protector is recommended. The station ground should not exceed 50 ohms.
- 6.6 Plug the modular line cord from the cover assembly into the RJ11C terminal block.
- 6.7 Dress the line cable away from the security screw and install the cover assembly by inserting the tabs into the slots on top of the backplate.
- 6.8 Secure the cover assembly by tightening the security screw.

*******WARNING*******

- A. Never install telephone wiring during a lightning storm.**
- B. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.**
- C. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.**
- D. Use caution when installing or modifying telephone lines.**

7.0 SPECIFICATIONS

INPUT POWER:	C.O. Line powered
LOOP CURRENT:	23ma. min. 80ma. max.(48 VOLT LOOP)
IMPEDANCE:	600 ohms
SIGNALING:	DTMF, 70ms tone, 50ms spacing
OUTPUT:	-8.0 to -10.0dbm
HEARING AID COMPATIBLE:	Meets EIA standards
ENVIRONMENTAL:	Temperature 0°C to 50°C Humidity 20%-90% non-condensing
PROGRAMMING:	Via DTMF keypad.
TELEPHONE PANEL:	16 Gauge Stainless Steel
DIMENSIONS:	5" Wide x 10 3/4" High x 5 1/2" Deep (Handset on-hook)
MOUNTING:	Flat Vertical Surface
MEMORY RETENTION:	Lithium Battery - Long Life
WEIGHT:	Approximately 6 Pounds
FCC REGISTRATION:	BW88T7-13823-TE-T
UL LISTED NO.:	6OF5
RINGER EQUIVALENCY:	0.4A
TYPE JACK:	RJ11C

8.0 PARTS LIST

QUANTITY	PART NUMBER	DESCRIPTION
1	321-008	Blue Powder Coat Mini Housing or
1	321-020	Stainless Steel Mini Housing
1	301-004-29	Armored Cord Handset
1	301-009	Network
1	321-016	Outer Cover Locking Screw
1	301-581	Tongue & Bracket Assembly
1	301-588	Hookswitch Cradle
2	301-570	Microswitch Assembly
1	301-018	Modular Line Cord
1	321-015	Backplate
1	301-054	Modular Connector (RJ11C)
1	303-505	Service Manual
1	700-008	Keypad Cable
1	650-570	Network Cable
1	650-521	MCRK-2 Board
1	705-110	Connectorized Keypad W/ 705 Mounting
1	12017	Ringer

ACCESSORIES:

1	301-037	Security Tool
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OPTIONS:

1	301-106-29	Handset with Armored Cord or
1	301-106-18 (Prison)	Handset w/Armored Cord & Steel Lanyard

9.0 FCC NOTICE

9.1 FCC REGISTRATION AND REPAIR INFORMATION

Your new telephone has been registered with the Federal Communication Commission (FCC) in accordance with Part 68. The FCC requires that you be advised of certain requirements involving the use of this telephone.

9.2 CONNECTION WITH THE NATIONWIDE TELEPHONE NETWORK

The FCC requires that you connect this telephone to the Nationwide Telephone Network through a registered jack provided by the Telephone Company in your area. This jack is a modular outlet, which you can order from your local telephone company.

9.3 NOTIFICATION TO THE TELEPHONE COMPANY

Before connecting this telephone, the FCC requires that you notify your local telephone company business office. The number is in the front of your phone book.

Tell them:

The "line" to which you will connect the telephone (that is, your phone number) and the telephone's FCC registration number and ringer equivalence number. These numbers are listed in section 9.00.

The FCC further requires that you notify your local telephone company when permanently disconnecting this telephone.

10.0 REPAIR AND RETURN INFORMATION

10.1 WARRANTY REPAIR

Any device returned requiring warranty service, repair or credit must be accompanied with a "Return Material Authorization" (RMA) Form. It must include: RMA Number, return shipping instructions, original purchase order number, serial number and special marking instructions. A tag with the trouble observed must be attached to the defective unit. This information must be inside the shipping container.

10.2 DIRECT ALL INQUIRES TO:

CEECO

Repair Department

863-357-0798- telephone

863-357-0006- facsimile

info@ceeco.net

www.ceeco.net

10.3 NON-WARRANTY REPAIR:

CEECO will repair equipment out of warranty for a set charge plus parts. The customer must pay the shipping costs both directions.

10.4 RETURN FOR CREDIT:

Material may be returned for credit only with prior approval. Material authorized for return is subject to a 20% restocking charge based on the manufacturer's list price. Return RMA must be requested no later than 30 days after original shipment.

11.0 WARRANTY POLICY

11.1 GENERAL

CEECO guarantees its products to be free from defects in material and workmanship for a period of 365 days from the date of original purchase. CEECO's obligation under this warranty is limited to repair or Replacement of any part found to be defective by CEECO.

UNDER NO CIRCUMSTANCES shall CEECO be liable for loss, damage, cost of repair or consequential damages of any kind, which have been caused by neglect, abuse or improper operation of equipment.

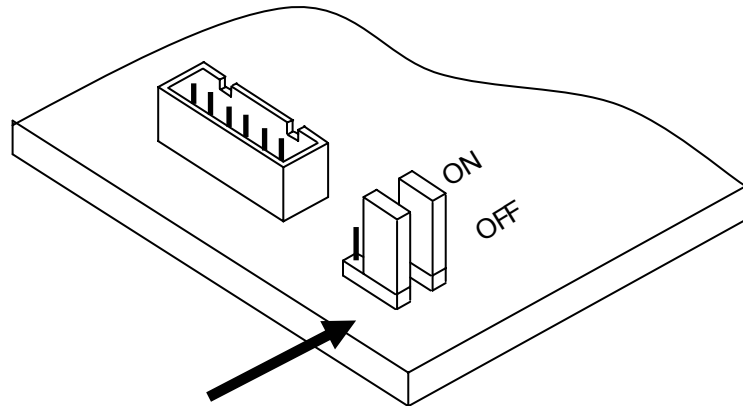
CEECO will repair or replace any unit during this period if found to be defective for reasons other than abuse and improper use or improper installation. It is the buyer's responsibility to return the defective unit to the factory. CEECO will then repair or replace any defective parts and return them to the buyer free of charge.

11.2 PRINTED CIRCUIT BOARDS

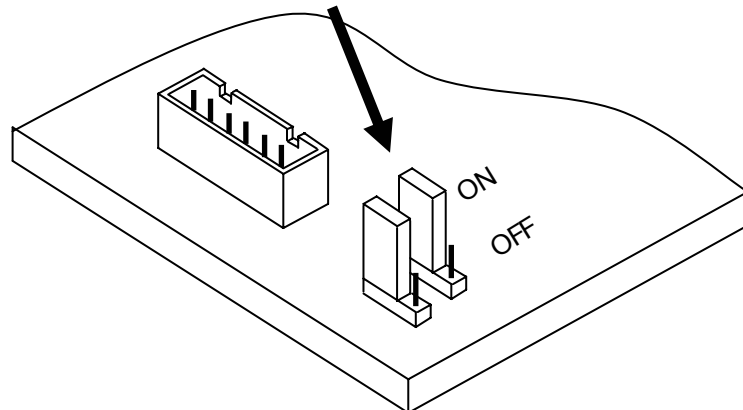
Printed circuit boards should not be repaired in the field. If a unit is found to be faulty, replace it with another unit and return the faulty unit to CEECO for repair. Modifications by any one other than CEECO will void the warranty.

12.0 DIAGRAM

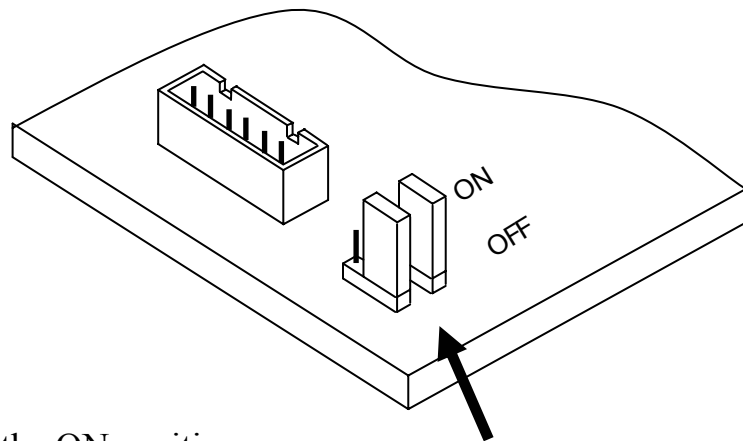
Locate the mini jumpers on the corner of the PCB.



MOVE THE MINI JUMPERS TO THE ON POSITION BEFORE GOING OFF-HOOK.



When programming is completed, move the mini jumpers to the **OFF** position.



NOTE:

Do not leave the mini jumpers in the ON position; this will decrease battery life.