

# SERVICE MANUAL

FOR

# MODEL

# WPP-531-FD-ADA-STROBE

**HANDS FREE WEATHERPROOF TELEPHONE**

**WITH OPTIONAL ADA FEATURE**

**WITH EMERGENCY STROBE LIGHT**

**EQUIPPED WITH SPK1.07 UNVLR1 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 WPP-531-FD-ADA-STROBE EQUIPPED WITH SPK1.07r1 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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**CEECO**  
*Communication Equipment & Engineering Company*  
**PROPRIETARY**

# TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION.....	4
2.0 GENERAL.....	4
3.0 PROGRAMMING .....	5
PROGRAMMING CONTINUED.....	6
PROGRAMMING CONTINUED.....	7
PROGRAMMING CONTINUED.....	8
PROGRAMMING CONTINUED.....	9
4.0 OPERATION .....	11
5.0 RECOMMENDED TOOLS AND TEST EQUIPMENT .....	11
6.0 INSTALLATION NOTES AND ASSEMBLY INSTRUCTIONS .....	12
7.0 TESTING.....	14
8.0 SPECIFICATIONS.....	15
9.0 PARTS LIST .....	16
10.0 FCC NOTICE.....	17
11.0 REPAIR AND RETURN INFORMATION .....	18
12.0 WARRANTY POLICY .....	19
13.0 DIAGRAM.....	20

## 1.0 INTRODUCTION

The practices in this manual provide installation and maintenance information for the CEECO Model WPP 531-FD-ADA-STROBE Telephone with SPK1.07UNVLR1 firmware.

The information in this manual is subject to change without notification.

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

### CEECO

#### Customer Service

519 W South Park Street

Okeechobee, FL 34972

863-357-0798- telephone

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[info@ceeco.net](mailto:info@ceeco.net)

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## 2.0 GENERAL

**2.1** The CEECO hands free telephone is a sturdy, vandal resistant, Stainless Steel Panel Speakerphone, with optional ADA feature (RED/GREEN LED). Instead of a hookswitch and handset, the telephone has a Press to start/Press to stop button for initiation and termination of phone calls. The Emergency Auto Dial button is also provided for one button dialing of a preprogrammed number of up to 11 digits. Manual volume control is also provided inside the telephone.

**2.2** When the Emergency Auto Dial Button is pushed, the strobe light is activated. It remains activated until the Press to stop button is pressed or the far end hangs up (wink back received).

**NOTE:** In some cases, the PBX does not automatically provide the wink back. Some of these PBXs can be programmed to do so. In such cases, it would be necessary to contact the PBX manufacturer.

**2.3** The telephone is equipped with an ADA feature, which is an LED that changes color (Red and Green) to provide a visual call progress indication.

**2.4** The microphone is muted during dial tone periods to deter the use of hand held dialers.

**2.5** Incoming calls may be allowed or blocked depending on the programming.

**2.6** Programming is accomplished via the DTMF keypad.

## 3.0 PROGRAMMING

**NOTE:** It is recommended that you ground yourself to prevent ESD damage to the PCB(s). Please read through the entire programming section before beginning so as to avoid unnecessary re-programming.

**3.1 Connect the phone** to a working telephone line or a DTMF test set before programming.

**3.2 Move the mini-jumpers** (located on the CEECO-SPK Printed Circuit Board) to the "ON" position, as depicted on the last page of this manual.

**3.3 Press the CALL button** and wait for dial tone before programming any digits.

**3.4** Each location is accessed by dialing the "#" sign and a two digit code. The valid program locations are: #00, #01, #02, #18, #30-#69 (speed dial locations), and #70-#89 (allowed call locations). The previous contents of the location are automatically erased when the location code is accessed.

**NOTE:** Once the "#" (pound) key has been entered you may get an operator recording or a fast busy, please disregard and continue programming.

**3.5 Enter # 9 7 # 1 8 #** on the programming keypad **to clear all** user programmable memory.

**3.6** Location "00" is the phone option location. It is comprised of ten digits, all of which must be filled to render the phone functional. By entering 0 or 1 into each of the 10 digits, (some digit locations allow a choice of 0-9 to be entered), the phone is customized to the particular installation. Please review the selections on the following page. Then, **Enter # 0 0 followed by the 10 selected digits.**

**3.7** Spaces are provided throughout the programming sections to record the programming entries. Please be sure to utilize these spaces to record your entries for future reference.

**PROGRAMMING CONTINUED...****LOCATION #00: (OPTION TABLE)**#00 \_ \_ \_ \_ 0 \_ 1 0 \_ \_**Digit 1:**

- 0 Call restrictions are in effect. (Default)
- 1 No call restrictions.

**Digit 2:**

- 0 No incoming calls allowed. (Default)
- 1 Incoming calls allowed.

**Digit 3:**

- 0 No Conversation Time-Out. (Default) For ***Emergency*** Button
- 1-9 Minutes Conversation Time-Out

**Digit 4:**

- 0 No Conversation Time-Out. (Default) For ***Call*** Button
- 1-9 Minutes Conversation Time-Out

**Digit 5:**

- 0 **Always 0 for this model.** (Default)

**Digit 6:**

- 0 No ADA Feature (Default)
- 9 Activate ADA Feature (Changing LED)

**Digit 7:**

- 1 **Always 1 for this model**

**Digit 8:**

- 0 Do not dial PBX access number #18 (Default)
- 1 Dial PBX access number stored in Location #18 For ***Call*** Button

**Digit 9:**

- 0 Do not dial PBX access number #02. (Default)
- 1 Dial PBX number stored in location #02. For ***Emergency*** Button

**Digit 10:**

- 0 No Wink Detect
- 1-9 Length of the Wink (1 = 50ms incremental to 450ms – entering a 5 is recommended)

## PROGRAMMING CONTINUED...

### EXAMPLE:

DIAL #00 0152091015

Phone will be set as follows:

- DIGIT 1 .. CALL RESTRICTIONS IN EFFECT
- DIGIT 2 .. INCOMING CALLS ALLOWED
- DIGIT 3 .. 5 MINUTE TIME OUT FOR EMERGENCY CALLS
- DIGIT 4 .. 2 MINUTE TIME OUT FOR BLACK CALL BUTTON
- DIGIT 5 .. ALWAYS 0
- DIGIT 6 .. ACTIVATE ADA LED
- DIGIT 7 .. ALWAYS 1
- DIGIT 8 .. DO NOT DIAL PBX NUMBER STORED IN LOCATION

#18

- DIGIT 9 .. DIAL THE PBX ACCESS NUMBER FIRST FROM LOCATION #02 (SHORT PAUSE THEN DIAL EMERGENCY NUMBER).
- DIGIT 10 . 250ms WINK

### LOCATION #01: (EMERGENCY NUMBER)

#01 \_\_\_\_\_

**Enter # 0 1 followed by the Emergency number** to be dialed. The number can be up to 11 digits in length. When a caller pushes the "EMER" (RED) button the number will be dialed and the blue strobe light will be activated. If caller wants to hang up then he or she **must** push the "CALL " button. The automatic time out disconnect feature will begin to work after the number has been dialed. The call will also disconnect when the called end hangs up, provided the PBX gives the proper wink back on the line. The blue strobe light will deactivate when the "CALL" button is pressed or the far end hangs up and the wink back is received.

### LOCATION #02: (PBX - EMERGENCY NUMBER)

#02 \_\_\_\_\_

If a PBX or other access number must be dialed preceding the "Emergency" (#01) number, then Enter # 0 2 followed by the required number. Otherwise, proceed to the next section. This number may also be up to 11 digits in length. Any number stored in location #02 will automatically dial first, followed by a pause, then the phone will

automatically the number stored in location #01. Digit 9 on page 6 must have been set to “1” for this feature to work.

**PROGRAMMING CONTINUED...**

**LOCATION #18: (BLACK CALL BUTTON)**

#18 \_ \_ \_ \_ \_

If a PBX or other access number must be dialed before making normal calls using the “Call” button and keypad, enter # 1 8 followed by the required number. If this is not required, proceed to the next section. The number can be from 1 to 11digits. Any number stored in Location #18 will automatically dial first when the black “Call” button is pressed. Digit 8 on page 6 must have been set to “1” for this feature to work.

**LOCATION #30 - #69: (SPEED DIAL TABLE)**

If Speed Dialing is desired, enter the Speed Dial numbers in any of these 40 locations. The numbers can range from 1 to 11 digits.

**EXAMPLE:**

Enter #**30**18005551212 in the programming sequence. When in normal operating mode, the user dials #30 and the phone will Speed Dial 1-800-555-1212. Please record your entries on the following page for future reference.





**LOCATION #70 - #89: (CALL RESTRICTIONS OR “ALLOWED” NUMBERS)**

If the phone is intended to restrict certain calling patterns, then it must be programmed to tell it specifically which calls to allow. Enter the allowed numbers in any of these 20 locations. The numbers can range from 1 to 11 digits. Please enter your numbers below for future reference.

**EXAMPLE:**

**NOTE:** The \* (Asterisk) symbol is defined as a wildcard. A wildcard allows any digit (0-9) to be emitted from the keypad.

- #70 0-\*\*\*-\*\*\*-\*\*\*\* Allows all 0 minus and 0 plus calls.
- #71 1-555-1212 Allows 1-555-1212 information calls.
- #72 911 Allows 911 emergency calls.
- #73 1-800-\*\*\*-\*\*\*\* Allows 1-800 calls.

**ALLOWED CALL TABLE**

<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>
#70	_ - _ - - - - - - - -	#80	_ - _ - - - - - - - -
#71	_ - _ - - - - - - - -	#81	_ - _ - - - - - - - -
#72	_ - _ - - - - - - - -	#82	_ - _ - - - - - - - -
#73	_ - _ - - - - - - - -	#83	_ - _ - - - - - - - -
#74	_ - _ - - - - - - - -	#84	_ - _ - - - - - - - -
#75	_ - _ - - - - - - - -	#85	_ - _ - - - - - - - -
#76	_ - _ - - - - - - - -	#86	_ - _ - - - - - - - -
#77	_ - _ - - - - - - - -	#87	_ - _ - - - - - - - -
#78	_ - _ - - - - - - - -	#88	_ - _ - - - - - - - -
#79	_ - _ - - - - - - - -	#89	_ - _ - - - - - - - -

- 3.8 When programming is finished, **return the mini-jumpers** to the "OFF" position. **Press the "CALL" button** to hang up the phone.

## 4.0 OPERATION

- 4.1 To make a call, press the black "CALL" button located on the front of the phone. When dial tone is received, the transmitter is muted and the phone waits for numbers to be dialed.
- 4.2 To make an Emergency call, press the red "EMER" button located on the front of the phone. The preprogrammed number will dial out on the line and the blue strobe light will activate.
- 4.3 After the call is complete, press the "CALL" button again to terminate the call. If user does not press the "CALL" button when he or she is finished using the phone, then the phone will hang-up after detecting a WINK (momentary open) or when the timer times-out, if it was so programmed. The blue strobe light will deactivate at this point.
- 4.4 If digit 1 of Location #00 is "0", then call restrictions are in effect. The numbers that may be dialed are restricted to the numbers entered into Location #70-#79. If the number dialed is not in the Location #70-#79, then the phone gives three tones and drops the line.

If digit 1 of Location #00 is "1" then there are no restrictions and any number may be dialed.

## 5.0 RECOMMENDED TOOLS AND TEST EQUIPMENT

DTMF Test Set  
Volt/Ohm Meter  
3/8" Nut Driver  
5/16" Nut Driver  
Flat Blade Screw Driver  
Security Tool, CEECO Part Number 301-064  
Wire Strippers

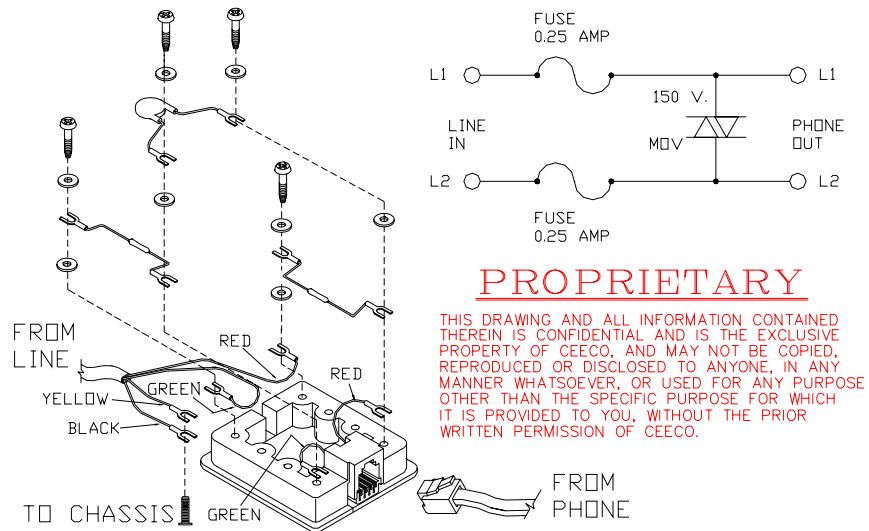
## 6.0 INSTALLATION NOTES AND ASSEMBLY INSTRUCTIONS

- 6.1 Using a 301-064 security tool (sold separately) loosen and remove the four (4) security screws. Separate the faceplate assembly from the weatherproof housing by pulling the faceplate forward.
- 6.2 Run the inside station wire into the enclosure and terminate on the RJ11C modular jack inside, as depicted on the following page. The CEECO-provided modular jack must be used, as it contains required over-voltage protection. Mount the housing in the intended location using the four mounting holes provided. There is a pole-mounting bracket available, which is sold separately.
- 6.3 The use of a gas tube station protector is recommended. The station ground should not exceed 50 ohms.
- 6.4 Run an AC line cord into the weatherproof housing. The A/C line should only be installed by an electrician, in accordance with applicable codes. Locate the strobe light circuit board on the telephone assembly, which is located underneath the main 660-000 printed circuit board. The strobe light circuit board has a five position terminal strip on it. The strobe light will already be connected to the terminal strip. Attach the AC line cord to the AC contacts, as labeled, on the terminal strip. Please refer to the A/C line diagram on the following page.
- 6.5 Plug the modular line cord from the faceplate assembly into the RJ11C terminal block. Dress the line cord away from the security screws and seat the faceplate into the weatherproof housing.
- 6.6 Return the telephone assembly to the housing, securing it in place with the four (4) security screws and security tool.

**\*\*\*\*\*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.**
- E. **Do not apply A/C power while installing telephone.**

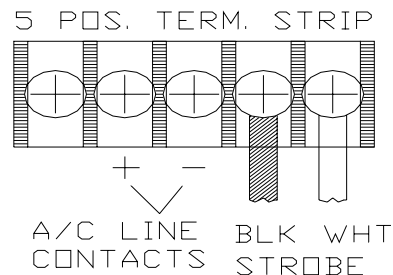
## 6.7 OVER-VOLTAGE PROTECTION DIAGRAM



## 6.8 A/C LINE DIAGRAM

**\*\*\*\*\*WARNING\*\*\*\*\***

**THE INSTALLATION OF A/C LINES SHOULD ONLY BE DONE BY A LICENSED AND QUALIFIED ELECTRICIAN, IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.**



## 7.0 TESTING

Assuming that the phone was programmed to automatically dial an emergency number, and also allow use of the keypad for normal calls, without automatically dialing a number when the black "CALL" button is pressed, the following should apply:

- Action: Connect the phone to a working phone line or DTMF test set. Press the black "CALL" button.
- Reaction: Dial tone. The LED lights red.
- Action: Dial a number. The LED flashes red and green during the ring cycle.
- Reaction: The called party answers. The LED turns green after a maximum of four seconds. A normal speakerphone conversation is allowed.
- Action: Finish the conversation. Press the "CALL" button, or wait until time-out occurs (if programmed as such).
- Reaction: The call is terminated. The LED goes out.
- Action: Press the "EMER" button.
- Reaction: Preprogrammed number is automatically dialed (SEE SECTION 2, LOCATION #01) and the blue strobe light is activated. The LED lights red initially and flashes red and green during the ring cycle. When the call is answered, the LED will light green after a maximum of four seconds. The call will not disconnect unless the black "CALL" button is pushed, the called party hangs up and a wink back is received, or a programmed time out disconnect occurs. The blue strobe light will deactivate at this time.

## 8.0 SPECIFICATIONS

INPUT POWER:	C.O. LINE POWERED (48v Loop)
LOOP CURRENT:	30ma. MIN. 80ma. MAX.
IMPEDANCE:	600 Ohms
SIGNALING:	DTMF, 70ms tone, 50ms spacing
OUTPUT:	-4.0 to -6.0dbm
ENVIRONMENTAL:	Temperature 0°C to 50°C Humidity 20%-90%
PROGRAMMING:	Via DTMF keypad.
DIMENSIONS:	12 5/8" High x 9 1/2" Wide x 8" Deep including Door
MEMORY RETENTION:	Lithium Battery - Long life
WEIGHT:	16 Pounds
FCC REGISTRATION:	BW88T7-13716-TE-T
RINGER EQUIVALENCY:	0.4A
TYPE JACK:	RJ11C
UL LISTED NO.:	6OF5

## 9.0 PARTS LIST

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
4	331-006	Outer Cover Locking- Screw
1	301-018	Modular Line Cord
1	301-054	Modular Connector (RJ11C)
1	531-200	Service Manual
1	700-008	Keypad Cable
1	660-000	CEECO SPK Board
1	705-110	Connectorized Keypad
2	6020-A	Momentary Panel Switch
1	14123	Speaker
1	331-005	Weatherproof Housing
1	14110	Blue Strobe Light

### ACCESSORIES:

1	301-064	Security Tool
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## **10.0 FCC NOTICE**

### **10.1 FCC REGISTRATION AND REPAIR INFORMATION**

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

### **10.2 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.

### **10.3 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 11.00.

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

## **11.0 REPAIR AND RETURN INFORMATION**

### **11.1 WARRANTY REPAIR**

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

### **11.2 DIRECT ALL INQUIRES TO:**

## **CEECO**

### **Repair Department**

863-357-0798- telephone

863-357-0006- facsimile

[info@ceeco.net](mailto:info@ceeco.net)

[www.ceeco.net](http://www.ceeco.net)

### **11.3 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.

### **11.4 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.

## **12.0 WARRANTY POLICY**

### **12.1 GENERAL**

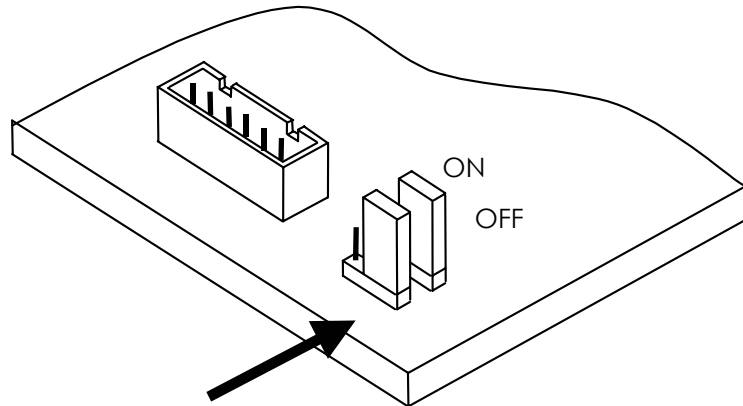
CEECO products are guaranteed to be free of defects in material and workmanship for a period of 365 days from the date of original purchase. CEECO's obligation under this warranty is limited to repair or replacement of any part found to be defective by CEECO. Under no circumstances shall CEECO be liable for loss, damage, cost of repair or consequential damages of any kind, which have been caused by neglect, abuse, act of God or improper operation of equipment. This warranty is limited to the value of material only.

### **12.2 PRINTED CIRCUIT BOARDS**

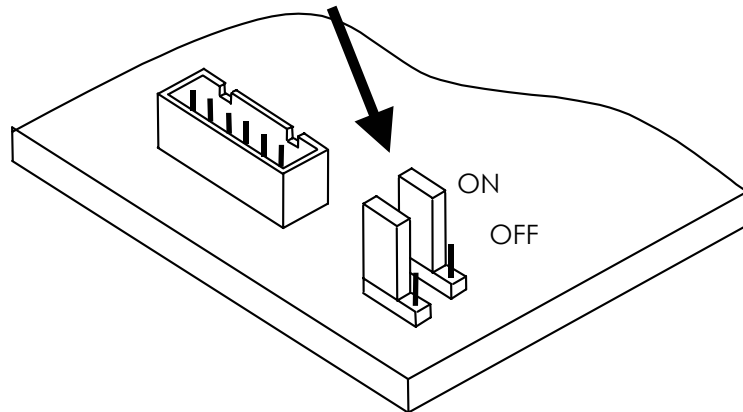
Printed circuit boards should not be repaired in the field. If a unit is found to be faulty, replace it with another unit and return the faulty unit to CEECO for repair. Modifications by any one other than CEECO will void the warranty.

### 13.0 DIAGRAM

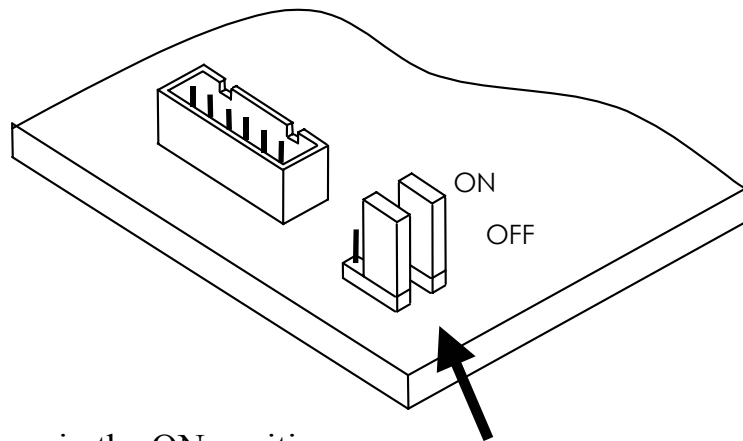
Locate the mini jumpers on the corner of the PCB.



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.