SERVICE MANUAL

FOR

MODEL

WPP-333-F-M-IVC
WEATHERPROOF TELEPHONE

HOB-333-F-M-IVC
WEATHER-RESISTANT TELEPHONE

SSP-313-F-M-IVC
STAINLESS STEEL PANEL TELEPHONE

EQUIPPED WITH CAC6.00 SOFTWARE
RECEIVER-OPERATED MAGNETIC HOOK SWITCH
BACKGROUND NOISE REDUCTION
VOLUME CONTROL

Serving the Telephone Industry Since 1930

Communication Equipment	**519 West South Park Street**
& Engineering Company	**Okeechobee, Florida 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-333-F-M-IVC OR HOB-333-F-M-IVC OR SSP-313-F-M-IVC 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 and Engineering Company

519 West South Park Street
Okeechobee, Florida 34972

(863) 357-0798 Voice
(863) 357-0006 Fax

TABLE OF CONTENTS

1.0   INTRODUCTION

The practices in this manual provide installation and maintenance information for CEECO Model Telephones noted on the front cover.

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 West South Park Street
Okeechobee, Florida 34972

(863) 357-0798
(863) 357-0006 FAX

2.0   GENERAL DESCRIPTION

These CEECO Model Telephones are microprocessor-based coinless units designed to withstand abuse and fraudulent call attempts. Each phone is equipped with CAC6.00 Firmware, which allows the phone to be programmed to implement the following: call restrictions, allowed or not allowed incoming calls, narrow or wide dial tone detection window, muted microphone to guard against fraud, tone (DTMF) or pulse dialing, automatic, timed-call disconnect, speed-dialing, and automatic one, or two-number auto-dialing (typically access numbers), when the handset is lifted. This telephone has a number of useful features and any or all of them may be used. 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. A receiver-operated, sealed magnetic hook switch is utilized to eliminate moving parts and to seal the hook switch cavity. Internal Volume Control is provided as a cost-effective means to allow an incremental volume increase up to a total gain of 18-20dB. It is activated by pressing the volume control button on the face of the phone marked with the loudness symbol. The volume is reset upon the fourth press of the volume control button, or upon hang up. Background noise reduction is automatically applied. A 32" armored cord, hearing aid compatible handset is standard.

3.0   PROGRAMMING

THIS EQUIPMENT IS TELEPHONE LINE POWERED. DURING PROGRAMMING THE CENTRAL OFFICE OR PBX MAY RESPOND TO THE PROGRAMMING CODES WITH VARIOUS BUSY TONES, REORDER TONES RECORDINGS, ETC. THESE TONES AND RECORDINGS WILL HAVE NO EFFECT ON THE PROGRAMMING. PLEASE IGNORE THEM. ALL PROGRAMMING IS DONE THROUGH THE UNIT KEYPAD.

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

3.2   Locate the two green 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. You **must** make an entry 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 you choose.

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 timed call 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   If you desire the phone to **automatically dial a number** (up to eleven digits in length) when the handset is lifted, now is the time to enter it. If this is not a desired function, proceed to section 3.9. Programming location **#19** stores the auto-dial number. Therefore, enter # 1 9 followed by the desired auto dial number. For 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   If you desire the phone to **automatically dial a second number** (up to eleven digits in length) after the one stored in location #19 (see above), now is the time to enter it. If this is not a desired function, then proceed to section 3.8.   Programming location **#18** stores the second auto dial number. In order to use #18, you must first use #19. This number will dial out approximately one second after any number stored in the #19 location. Enter # 1 8 followed by the desired auto dial number. For example: Entering #1818005551212 will program the phone to 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   If desire to have **speed-dialing** capability, now is the time to program it. If this is not a desired function, proceed to section 3.9. There are 40 speed-dial locations available. Those **locations are #30 thru #69**. The speed numbers may be up eleven digits in length. Simply enter the pound key, followed by the location number, followed by the desired speed dial number.

Example: Entering **#30**5551212**#31**5875430**#32**5839907 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 put into 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 If you desire the phone to implement **call restrictions**, we will program the restrictions now.   If this is not a desired function, proceed to section 3.10. In order for the phone 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 in its entirety. 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 (pattern) of up to eleven (11) digits in length. An "*" represents a wild card, so any time you enter the "*" key, you tell the phone to allow any single digit in its place. In order to restrict calling patterns, you program the phone to tell it which patterns to allow. In turn, it will block all others. Take a moment to look over the examples below. When you are finished, enter the # key, followed by a location code, followed by the desired number/pattern.

EXAMPLE: Entering #700**********   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 you program will be "allowed" by the phone. If call restrictions are implemented (Location #00 Digit 1), the phone will only permit the calls that it is specifically programmed to allow. Any numbers that have been programmed into the speed, #19 or #18 locations <u>do not</u> 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 the 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 <u>only</u>. If this does not solve the problem, please refer to section 10.2.

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 <u>only</u>. If this does not solve the problem, please refer to section 10.2. 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, you should receive dial tone on the line.

4.4   If you programmed speed-dial numbers, try them now. When you press the # key followed by the two-digit location code, any number stored in that location should be released. 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 <u>only</u>. 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 10.2.

4.5   If you opted to use phone implemented call restrictions, try some of them now. The phone should only permit "allowed" calls to be dialed. When you try to dial a number that you did not "allow", the phone should sound an error tone (three short beeps) and reset the line. If not, hang up and repeat sections 3.2, 3.3, 3.5, 3.9, and 3.10 <u>only</u>. If this does not solve the problem, please refer to section 10.2.

4.6   Try placing 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 this does not solve the problem, please refer to section 10.2.

TESTING/OPERATION CONTINUED…

4.7 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 <u>only</u>. If this does not solve the problem, please refer to section 10.2.

4.8 Also be sure to determine that the microphone is muting as it was programmed (Location #00) and that the phone is in either DTMF (tone) dialing mode or pulse dialing mode as programmed (Also Location #00). 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 <u>only</u>. If this does not solve the problem, please refer to section 10.2.

4.9 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 10.2.

4.10 At any time during a call, the volume may be increased by pressing the volume control button located on the face of the telephone. It is marked with the loudness symbol. Each press of the button will increase the volume incrementally until the fourth press, which will reset the volume to the starting level. The volume will also reset when the phone is hung up.

5.0   RECOMMENDED TOOLS AND TEST EQUIPMENT

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

*****WARNING*****

A. **Never install telephone wiring during a lightening storm.**

B. **Never install telephone jacks in west 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.**

6.0 INSTALLATION NOTES AND ASSEMBLY INSTRUCTIONS

6.1 To reduce the possibility of ESD (Electrostatic Discharge) damage to the MCRK-2 Microprocessor Card it is recommended that this telephone be grounded via the housing and/or the yellow-black line cord wires to a suitable ground. These grounds include but are not limited to:

> Service Conduits
> Service Equipment Enclosures
> Grounding Conductors
> Grounding Rods
> A Metallic Cold Water Pipe having an underground length of at least 10 feet.
> #24 gauge wire or larger is suitable for this purpose.

6.2 When servicing the telephone, be sure the MCRK-2 board does not contact metal parts, otherwise permanent damage may occur to the board.

6.3 Using a 301-064 security tool (sold separately), loosen and remove the security screws.

6.4 The security tool is for a standard 1/8" button head screw generally used on the framework of telephone booths.

6.5 Separate the cover assembly from the housing by lifting the faceplate up and away from the housing.

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6.6 The housing is designed for mounting on any flat vertical surface. Mounting holes are provided.

6.7 Run the inside station wire through the housing and terminate on the RJ11C terminal block on the backplate.

6.8 The use of a gas tube station protector is recommended. The station ground should not exceed 50 ohms.

6.9 Plug the modular line cord from the cover assembly into the RJ11C terminal block.

6.10 Dress the line cable away from the security screws. Install the faceplate into the housing and secure it by tightening the security screws.

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
HEARING AID COMPATIBLE:	Meets EIA standards
ENVIRONMENTAL:	Temperature: 0°C to 50°C Humidity: 20%-90%
PROGRAMMING:	Via DTMF Keypad
TELEPHONE PANEL:	Brushed 14 gauge Stainless Steel
DIMENSIONS:	**WPP** Model – 12 5/8" High x 9 1/2" Wide x 8 " Deep (including door) **HOB** Model – 11 1/4" High x 7 1/16 Wide x 5" Deep **SSP** Model - 11 1/4" High x 7 1/6" Wide x 4 1/4" Deep (Handset on hook)
MOUNTING:	WPP Model - 4 Holes spaced 8" x 5 7/8" HOB Model - 4 Holes spaced 8" x 5 7/8" SSP Model - 4 Holes spaced 10 3/4" x 6.5"
WEIGHT:	WPP Model - 15 lbs. HOB Model - 10 lbs. SSP Model - 5 lbs.
DIMENSIONS:	9 1/2" Wide x 12 5/8" High x 8" Deep (Including door).
MOUNTING:	4 Holes spaced 8" x 5 7/8" x 13/32"
WEIGHT:	12 Pounds
MEMORY RETENTION:	Lithium Battery - Long Life
FCC REGISTRATION:	BW88T7-13823-TE-T
TYPE JACK:	RJ11C

8.0   PARTS LIST

QUANTITY	PART NUMBER	DESCRIPTION
1	705-110	Keypad
1	700-008	Keypad cable
1	650-521	MCRK-2 PC board.
1	301-004-18	18" Armored cord handset (WPP Model)
1	301-004-32	32" Armored cord handset (HOB Model)
1	301-009	Network
1	301-592	Magnetic Hookswitch
1	331-010	Stainless Steel Panel
1	331-005	Cast Aluminum Weather Proof Case
1	301-051	Modular Jack
1	301-018	30" Modular Cord
1	650-570	Network Cable
4	301-016	Security screw
1	331-005	BLACK weatherproof housing (WPP model)
1	331-HOB	BLACK open face housing (HOB model)

Accessories:

1	301-064	Security tool
1	301-016	Spring Loaded Door Option

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 of its rules. 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 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.

10.2   DIRECT ALL INQUIRES TO:

CEECO
Repair Department
519 West South Park Street
Okeechobee, Florida 34972

(863) 357-0798

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 products are guaranteed to be free of defects in material and workmanship for a period of 12 months from the date of original shipment, if properly installed and maintained. This warranty is limited to the value of material only.

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.
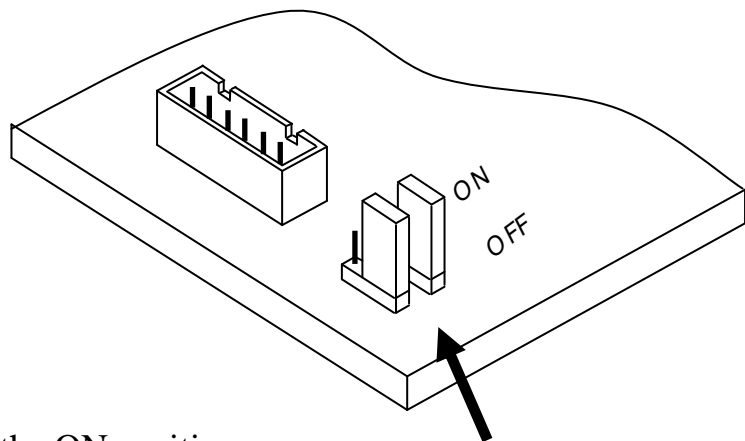
12.0   DIAGRAM

Locate the mini jumpers
on the corner of the PCB.
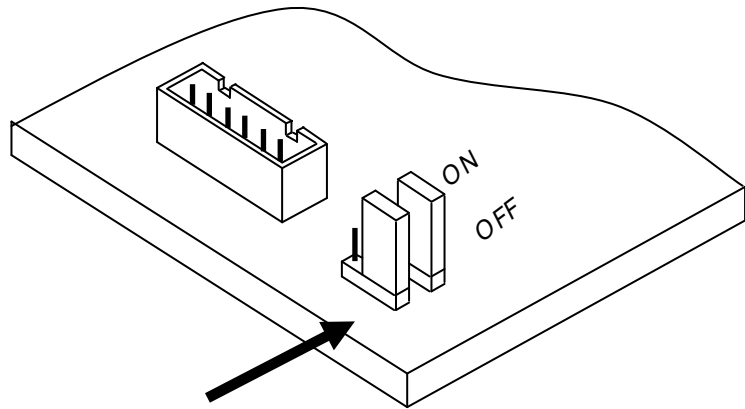
MOVE THE MINI - JUMPERS
TO THE ON POSITION
BEFORE GOING OFF-
HOOK.
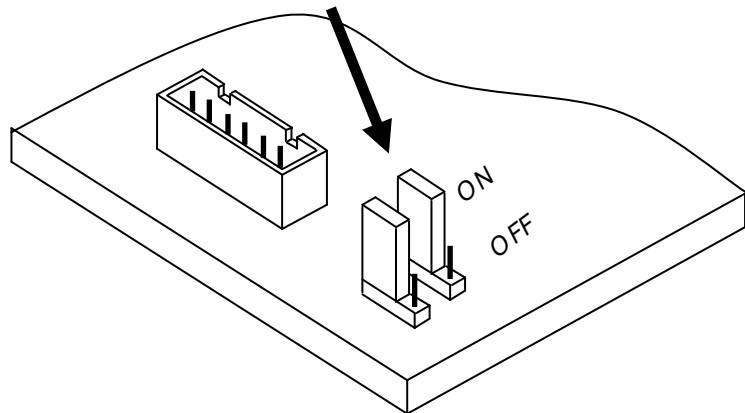
When programming is
completed, move the mini
jumpers to the OFF
position.

NOTE:
Do not leave the mini jumpers in the ON position,
this will decrease battery life.