# MOTOROLA GAUL BOX SYSTEMS

# FROM



# **OPERATOR'S MANUAL**

A1, A1P512, A1A1010, ACB, A144, A106.5 & A1410 Systems Thank you for your purchase. Motorola's call box systems from Connectivity are the result of years of engineering, development and testing. These patented systems are designed to provide you with a product that delivers outstanding performance and reliability for many years.

Most service issues are minor in nature and typically can be troubleshot over the telephone.

If **technical assistance** is needed, please call Motorola at **800-927-2744**. When prompted, press three (3) for "technical support...", then press three (3) again for "...other miscellaneous mobile products".



## **CAUTION!**

To reduce the risk of electric shock, do not wire direct AC voltage to the circuit board. All Connectivity call box systems are DC powered. Therefore, all AC currents should be converted to DC power <u>before</u> entering the call system enclosure!



## **CAUTION!**

Please use caution when applying vinyl message decals. Once affixed, the **decals cannot be removed intact!** Made from a tamper-resistant material, they will break into small pieces when removed to discourage vandalism. It may be helpful to have a second person assist with large decal placement.

## **TABLE OF CONTENTS**

CALL BOX IDENTIFICATION NUMBERS	3
	4
Basic	4
	4
ACCESSING THE CIRCUIT BOARD	
(A1, A1P512 & A1A1010 Models)5	5
ACCESSING THE CIRCUIT BOARD	
	6
ACCESSING THE CIRCUIT BOARD	
(A106.5 Model)	7
	8
	9
Maximum Message Length 10	0
Placing Call Box in Standby Mode 10	)
Tamper Alert Message 11	1
ID/Location Message 12	2
User Instruction Message 14	4
Message Audio Level 15	5
ADDITIONAL SETUP	
Solar Panel	
Tamper Alert Sensitivity	
GENERAL MAINTENANCE	
Pest Prevention	
Cleaning Surfaces 17	7
Door Hinges	
TROUBLESHOOTING	8
Open Door Notification	
Low Battery Alert	8
Dead or Clicking when Activated 18	8
RADIO TECHNICIAN REQUIRED 19	9
Level Settings 19	
Auxiliary Outputs 20	)
Light and Power Wiring 21	1
Radio Voltage Regulator 22	2
"Radio Receive Audio"	2
Message TX Audio 22	2
Mic TX Audio" 23	3
Battery Testing 23	3
Fuse Testing 23	
MANUFACTURER'S LIMITED WARRANTED	
LOST OF DAMAGED FREIGHT	
DISCLAIMER 26	

## CALL BOX IDENTIFICATION NUMBERS

For your convenience, listed on the labels below are the call box, model, radio serial, and circuit board serial numbers. Please keep this record in a safe place.

## CALL BOX OPERATION

#### **BASIC OPERATION**

While the call box is in standby mode, the call box board is in "sleep mode". To activate, open the door or push the red button.

- \* The faceplate's user courtesy light will come on and the strobe light (if equipped) will flash.
- \* The call box activation ringer (if equipped) will sound.
- \* The call box ID/location message will play at the call box and transmit to monitoring personnel.
- \* The user instruction message; i.e., "Push to Talk, Release to Listen" will then play at the call box only. This message does not transmit to monitoring personnel.

Monitoring personnel will have to wait approximately five (5) seconds to communicate to the call box. The person at the call box will not hear any incoming radio transmissions, until the user instruction message has finished playing.

The system is now ready for a two-way conversation. There is a busy channel circuit which prevents the call box from transmitting if the channel is in use. For instance, if monitoring personnel is transmitting to the call box user, the call box can not respond until the channel is clear.

When finished, the system will reset automatically. Door models reset approximately six (6) seconds after the door is closed. Models without doors reset three (3) minutes after the last transmission from the call box.

Upon resetting, the call box will enter standby mode. The faceplate's user courtesy light will go out and the strobe light (if equipped) will stop flashing.

#### AUTO CHECK-IN CAPABILITY

Call boxes equipped with MDC-1200 signaling capability will automatically check in every 12 hours. The call boxes' ANI (Automatic Number Identification) will be reported to a dispatch center console and transmitted to a dot-matrix printer, if the call box system has been networked to this equipment. ACCESSING THE CIRCUIT BOARD (A1, A1P512 & A1A1010 Models) You may access the circuit board for message programming, adjusting volume, tamper alert sensitivity, and changing the battery by removing the faceplate of the call box.

First, open the door and place the barrel key in its keyhole and turn the unit on by turning the switch to the 3 o'clock position.

**IMPORTANT**! Next, cover the large magnet on the right edge of the faceplate with a strip of electrical tape.

If the magnet is not covered, the faceplate will stick to the inside of the front door and will not come out.

Now, remove the six screws that are around the edge of the faceplate, using the security bit provided. Once the faceplate is loose, set the faceplate into the back of the front door





Check that the microphone and wiring harness are still connected to the circuit board as shown below.





Harness Cable

The system is now ready to install the battery and to record your customized messages. Proceed to Page 8.

## ACCESSING THE CIRCUIT BOARD (ACB, A144, & A1410)

You may access the circuit board for message programming, adjusting volume, tamper alert sensitivity, and changing the battery by removing the faceplate of the call system.

First remove the Lexan cover (by using the security screw tip provided).

Now place the barrel key in its keyhole and **turn the unit on** by turning the switch to the 3 o'clock position.

Next, remove the faceplate by using a Phillips head screwdriver. Four screws can be found in the top and bottom channel of the faceplate as shown.





The faceplate has 2 holes in the left front edge. After the faceplate has been pulled free, swivel it left until it is 90 degrees to the stanchion. Place the faceplates holes over the pins protruding from the left side of the stanchion's opening edge.



Next, check that the microphone and harness cables are still connected to the faceplate as shown below



Microphone



Harness Cable

The system is now ready to install the battery and to record your customized messages. Proceed to Page 8.

## ACCESSING THE CIRCUIT BOARD (A106.5 Model)

You may access the circuit board for message programming, adjusting volume and tamper alert sensitivity by removing the faceplate of the call system.

First remove the Lexan cover (by using the security screw tip provided).

Now place the barrel key in its keyhole and **turn the unit on** by turning the switch to the 3 o'clock position.

Next, remove the faceplate by using a Phillips head screwdriver. Four screws can be found in the top and bottom channel of the

faceplate as shown.





The faceplate has 2 holes in the left front edge. After the

faceplate has been until it is 90 degrees to faceplates holes over the left side of the edge.



pulled free, swivel it left the stanchion. Place the the pins protruding from stanchion's opening

Next, check that the microphone and harness cables are still connected to the faceplate as shown below



Microphone



Harness Cable

The system is now ready to install the battery and to record your customized messages. Proceed to Page 8.

## **BATTERY INSTALLATION**

To prevent damage to internal components, the call box battery is shipped in a separate container. To install the battery, follow the appropriate installation instructions below.

### ACB, A144 & A1410 BATTERY INSTALLATION

Place battery in tray as shown below, then tighten battery strap. Connect **RED** battery wire to the **RED** positive (+) battery terminal Now connect **BLACK** battery wire to the **BLACK** negative (-) battery terminal.



#### A1, A1P512 & A1A1010 MODELS-BATTERY INSTALLATION

Remove two (2) nuts holding down the battery bracket and remove bracket. Insert the battery as shown, placing left end of battery under the retaining posts first. Re-install the battery bracket and tighten the nuts Connect **RED** battery wire to the **RED** positive (+) battery terminal Now connect **BLACK** battery wire to the **BLACK** negative (-) battery terminal.





#### A106.5 BATTERY INSTALLATION

Remove battery compartment cover (by using the security screw tip provided). Connect **RED** battery wire (with the in-line fuse holder) to the **RED** positive (+) battery terminal. Now connect **BLACK** battery wire to the **BLACK** negative (-) battery terminal. Next, place battery in compartment as shown below.

## **MESSAGE PROGRAMMING**

Sample messages have been pre-recorded to help identify each call system's ID and location once the unit is activated. These voice messages are broadcast to both the user and personnel monitoring the system. The following will instruct you on how to quickly customize these messages for each application or special event. Labeling each system while recording messages will help identify the units later during installation.

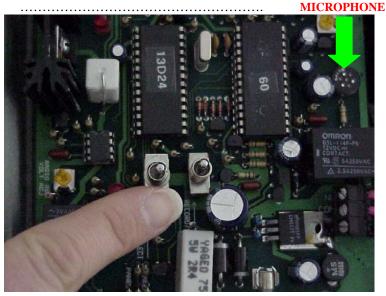
The two toggle switches "MESSAGE SELECT" and "RECORD-PLAY" (shown below) will be used to program messages as follows:

Steps 1-3 will explain how to record the Tamper Alert Message.

Steps 4-6 will explain how to record the ID and Location Message.

Steps 7-9 will explain how to record the User Instruction Message.

To record messages, speak facing the circuit board using a clear, conversational voice level, at a slightly slower pace. Don't shout...the microphone is very sensitive. Indoor recording is recommended and a woman's voice is often clearer and more intelligible



#### MESSAGE SELECT-Left Toggle Switch (3 positions)

The left switch has three positions (up, center and down). These positions are used to select the Tamper Alert, Location/ID and User Instruction Message.

**RECORD-PLAY-Right Toggle Switch (2 positions)** The right switch has two positions (up for record and down for play).

## MESSAGE ROGRAMMING, CONT'D.

#### MAXIMUM MESSAGE LENGTH

The Tamper Alert Message has a maximum length of four (4) seconds.

The ID/Location Message and the User Instruction Message have a maximum length of eight (8) seconds each.

#### PLACING THE CALL BOX IN STANDBY MODE

The call box must be in standby mode to record messages. If the system is not recording, place the system in standby mode as follows:

#### **Models without Doors**

Turn the key switch off (12 o'clock) then back on (3 o'clock) to put the call box in standby mode.

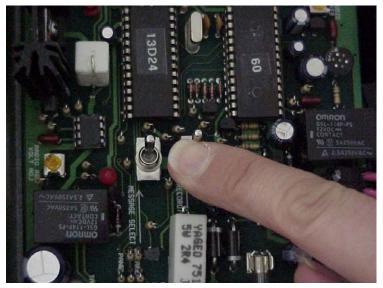
#### Models with a Door

**IMPORTANT!** Cover the large magnet on the right edge of the faceplate with a strip of electrical tape. If the magnet is not covered, the faceplate will stick to the inside of the front door and will not come out.

Next, make sure the faceplate is positioned **COMPLETELY** inside the back of the door. This positions the magnet in the corner of the door with the "door open" switch in the corner of the faceplate, and the system will go into standby mode within approximately six (6) seconds.



STEP 1 – TAMPER ALERT MESSAGE Position the left switch up to select the Tamper Alert Message. Sample Message – "Tamper Alert, Tamper Alert"



**STEP 2 – TAMPER ALERT MESSAGE** 

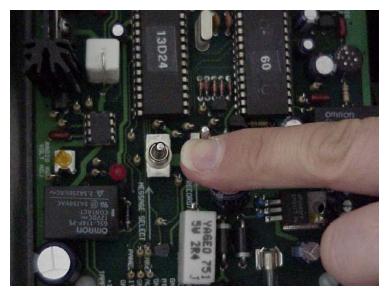
Next, press the right switch up (while the left switch is in the up position) to *record* the tamper alert message.



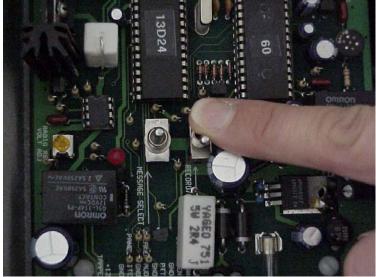
Next, press the right switch down (while the left switch is in the up position) to *replay* the tamper alert message. The recording is now complete. If you would like to re-record your message, repeat STEP 2.



**STEP 4 – ID/LOCATION MESSAGE** Position the left switch in the center to select the ID/Location Message. **Sample Message - "Assistance Callbox 23, 5<sup>th</sup> and Maple Street."** 



**STEP 5 – ID/LOCATION MESSAGE** Next, press the right switch up (while the left switch is in the center position) to *record* the call box ID/location message.

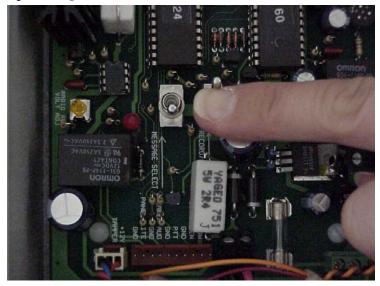


**STEP 6 – ID/LOCATION MESSAGE** 

Next, press the right switch down (while the left switch is in the center position) to **replay** the ID/location message. The ID/location recording is now complete. To re-record your message, repeat STEP 5.

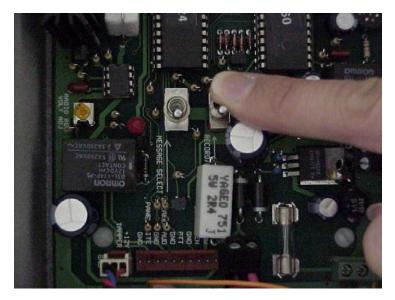


STEP 7 – USER INSTRUCTION MESSAGE Position the left switch down to select the User Instruction Message. Sample Message - "Press and Hold the Red Button to Talk, Release to Listen."



#### **STEP 8 – USER INSTRUCTION MESSAGE**

Next, press the right switch up (while the left switch is in the down position) to *record* the user instruction message.



#### **STEP 9 – USER INSTRUCTION MESSAGE**

Next, press the right switch down (while the left switch is in the down position) to *replay* the user instruction message. If you would like to re-record you message, repeat STEP 8.

<u>CAUTION - DO NOT CRIMP WIRING HARNESS OR MICROPHONE</u> <u>CABLE WHEN REPLACING THE FACEPLATE!</u>

#### MESSAGE AUDIO LEVEL



The message audio level has been pre-programmed. If the call box is located in a high-noise environment, an adjustment may be required. While holding the "RECORD-PLAY" switch (right toggle) in the down position, adjust the "MESSAGE AUDIO TO SPEAKER" control to obtain the desired level for the faceplate speaker.

## ADDITIONAL SETUP SOLAR PANEL

**IMPORTANT** -The call system's solar panel (if equipped) is unmounted for shipping purposes. Connect the bracket to the mount and install the retaining nut. Angle the solar panel and tighten all bracket screws prior to installation. To ensure optimal performance, do not install your call box in an area that receives little sunlight due to excessive shade from buildings, trees, etc. A "4-season" solar panel bracket is included with the unit. Periodically check and adjust the moveable bracket (if needed) to ensure direct sunlight (southern) exposure.

If the call box is not installed for a long period of time following delivery, it is recommended that solar powered units be turned off and allowed to charge in the sun for one full day.

#### TAMPER ALERT SENSITIVITY

In areas where heavy wind or excessive vibration may occur, the tamper alert can be adjusted to be less sensitive. The tamper alert is a shock sensor module mounted inside the call box. To adjust, turn the knob located in the bottom right corner of the shock sensor. Turn clockwise to lessen sensitivity and counterclockwise to increase sensitivity. The **GREEN** LED will light when any vibration is detected, i.e. tapping on the call box. The **RED** LED will light with sustained vibration. The call box will broadcast a tamper alert once the **RED** LED lights. PLEASE NOTE: Once the tamper alert is activated, **only** the faceplate user courtesy light will come on.

The **tamper alert is a silent alarm**. Therefore, the call box activation ringer, call box location and tamper alert message will only be transmitted over the radio system but **not heard or seen (strobe light units) at the call box**. After the tamper alert message has been transmitted, the call box will enter standby mode and the faceplate user courtesy light will go out.



-16-

## GENERAL MAINTENANCE

**IMPORTANT!** Unless a MDC-1200 Signaling call box system with verbal and printed operating reporting capabilities is in place, a manual procedure must be put in place to test call box transmission. In addition, a regularly scheduled general maintenance procedure must be put in place to address the following:

#### PEST PREVENTION

Treating the area around the call system's base stanchion (ground level) with a pesticide is recommended. For box style units, an air vent is located at the bottom of the call box. This vent can be removed by gently prying it out with a flathead screwdriver.

If needed, vacuum any bug debris and apply a gel or paste type pesticide around the inside opening prior to replacing the vent cap.

#### DO NOT SPRAY A LIQUID INSIDE THE VENT OPENING -INTERNAL CIRCUITRY MAY BE DAMAGED.

#### **CLEANING SURFACES**

#### POWDER COATED ALUMINUM

**Handprints and smudges**, use <u>SIMPLE GREEN</u>, 409 or a similar non-abrasive cleaner. A fine liquid, non-abrasive wax can be applied once a year to protect color.

#### **PVC STANCHIONS**

Handprints/smudges, use <u>SIMPLE GREEN, 409</u> or a similar non-abrasive cleaner.

Fine scratches, use <u>SIMPLE GREEN</u>, 409 or a similar non-abrasive cleaner.

**Deep scratches,** use an ultra-fine (600 Grade) sandpaper, buff with polishing cloth.

#### LEXAN FACEPLATE

Clean LEXAN with a soft cloth and water or a LEXAN cleaner **only**!

## GENERAL MAINTENANCE, CONT'D.

#### **DOOR HINGES**

It is recommended that the door hinges be lubricated every three to six months (depending on environment), using a silicone lubricant.

### TROUBLESHOOTING

#### **DOOR LEFT OPEN NOTIFICATION**

Call box models equipped with a door have been designed with a selfclosing door. However, if a strong wind or foreign object prevents the door from closing, the call box will transmit the ID/Location Message every 12 minutes until the door is closed.

#### LOW BATTERY ALERT

When the call box activates a low battery alert, the faceplate user courtesy light will come on. The call box activation ringer, call box ID/location, and a low battery alert message will transmit to monitoring personnel. The call box ID and location and low battery alert message are also played at the box. If the call box is equipped with a strobe light, it will not flash during a low battery alert. After the low battery alert message has been transmitted, the call box will enter standby mode and the faceplate user's courtesy light will go out.

The low battery alert message will repeat every 30 minutes for as long as the battery has enough power to transmit. The battery is warranted for one (1) year. However, typical battery life is approximately two years. The 12-Volt, 12-Amp Hour Sealed Lead Acid Battery can be purchased at most electronics stores.

#### **DEAD OR CLICKING WHEN ACTIVATED**

If the call box just clicks when activated, either the battery is dead or the fuse has blown. Replace the battery and/or the fuse (located on the circuit board) to correct this problem. The 12-Volt, 12-Amp Hour Sealed Lead Acid Battery and the GMA 7-Amp Fuse can be purchased at most electronics stores.

## **RADIO TECHNICIAN REQUIRED**



Certain microcircuits in this unit are subject to damage from static discharge. **Do not remove IC's from the circuit board!** 

**ALWAYS** have the key switch in the off position (<sup>1</sup>/<sub>4</sub> turn counterclockwise) when disconnecting/connecting the call box harness from/to the circuit board.

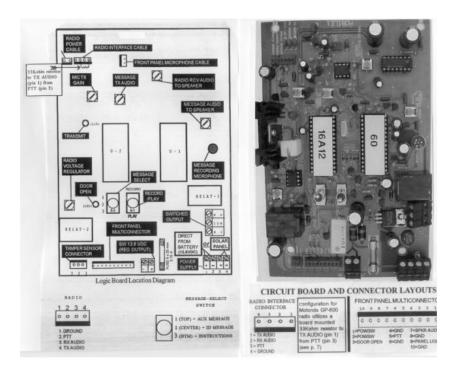
#### LEVEL SETTINGS

As you will notice looking at the call box circuit board, all field serviceable parts and connectors are labeled. A number of audio and voltage levels may be adjusted by means of potentiometer controls on the circuit board with supervision from a factory technician. All other controls have been factory set to match the characteristics of the radio supplied with the call box. **DO NOT ATTEMPT TO CHANGE THESE SETTINGS.** Adjustments to the radio and call box require complex test equipment to ensure proper FM power, frequency and deviation. It is recommend that only a certified/licensed radio technician perform these adjustments.

#### RADIO TECHNICIAN REQUIRED, CONT'D

#### **AUXILIARY OUTPUTS**

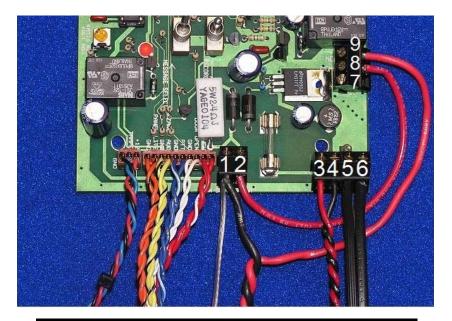
Every Connectivity call system is equipped with auxiliary SPDT relays for controlling a variety of external functions. The board location diagram below shows the contact arrangements. This relay is rated at 120 V.A.C., 5 Amperes, non-inductive.



## RADIO TECHNICIAN REQUIRED, CONT'D.

#### LIGHT & POWER WIRING

Pictured below is the typical wiring configuration of the call box. PLEASE NOTE: If for any reason AC/DC or solar panel wires are disconnected, the polarity is not affected if wires are reversed when reconnected.)



- 1. STROBE OR LOCATOR/STROBE NEGATIVE (-)
- 2. JUMPER
- 3. BATTERY POSITIVE (+)
- 4. BATTERY NEGATIVE (-)
- 5. AC/DC AND SOLAR
- 6. AC/DC OR SOLAR
- 7. NORMALLY CLOSED RELAY CONTACTS
- 8. JUMPER
- 9. STROBE POSITIVE (+)

## **RADIO TECHNICIAN REQUIRED, CONT'D**

#### <u>RADIO VOLTAGE REGULATOR -</u> <u>"RADIO REG VOLT ADJ"</u>

To check radio voltage, measure the voltage appearing at the "RADIO POWER" connector. (Upper left corner of the circuit board - please refer to board diagram) Radio power supply voltage is factory set at 7.8 volts. Adjust the "RADIO REG VOLT ADJ" to obtain the correct voltage for the radio in use. Next, turn on the radio and repeat the adjustment – while activating the PTT button.

#### "RADIO RECEIVE AUDIO"

- 1. Turn the radio on and adjust the volume to the middle of the control range.
- 2. Using a service monitor tuned to the call box transmit frequency, generate a 1-KHz signal having a 4-KHz deviation.
- 3. Adjust the radio volume control to obtain the best sounding audio from the call box speaker.
- 4. Using a portable radio, test the voice quality as described and adjust the radio volume control for the best sounding audio from the call box speaker.

### "MESSAGE TX AUDIO"

The antenna or a 50-Ohm dummy load antenna needs to be attached to perform this test.

- 1. Set the service monitor to the call box transmit frequency.
- 2. Reset the call box.
- 3. Activate the call box to initiate automatic message transmission.
- 4. Observe the monitor display and adjust the "MESSAGE TX AUDIO" control during message transmission to obtain the FCC authorized deviation.

## RADIO TECHNICIAN REQUIRED, CONT'D. <u>"MIC TX AUDIO"</u>

The antenna or a 50-Ohm dummy load antenna needs to be attached to perform this test.

- 1) Set the service monitor to the call box transmit frequency.
- 2) While pressing the PTT button on the faceplate, speak into the call box microphone and adjust the "MIC TX AUDIO" to obtain the FCC-authorized deviation as displayed on the monitor.

#### **BATTERY TESTING**

The call box battery is maintained between 13 and 13.5 volts under normal operation. A low battery alert is transmitted if the battery voltage drops below 10.5 volts.

- 1) Turn off the call box by placing the barrel key in its keyhole and turning the switch to the 12 o'clock position.
- 2) Disconnect the red wire from the battery.
- 3) With a DC voltmeter, measure voltage on the solar panel or AC/DC wires. (Refer to Page 20, Connector Positions 5 & 6.)
- 4) With good sunshine, should be approximately 20 volts if using a solar panel, or 15.5 volts if using an AC/DC converter. If using a solar panel and the voltage is <20 volts, the problem lies with the solar panel or solar panel wires. If using an AC/DC converter and the voltage is <15.5 volts, the problem lies with the converter or converter wires. Next, measure voltage going to battery (Refer to Page 20, Connector Positions 3 & 4.) Voltage should be > 13 volts. If <13 volts, the problem lies with the charging circuit.</p>

Next, measure voltage at the red and black terminals of the battery. If the battery reads less than 12 volts, the battery is bad and needs to be replaced.

#### **FUSE TESTING**

When checking the fuse with a voltmeter, check both sides of the fuse. The voltage should read the same if the fuse is good. If the fuse is blown, you will read battery voltage on the bottom end and solar panel or AC/DC converter voltage on the top end. It is best to check with an ohmmeter.

## MANUFACTURER'S LIMITED WARRANTY

CONNECTIVITY, INCORPORATED (CONNECTIVITY) HEREBY WARRANTS THIS PRODUCT TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND SERVICE COMMENCING FROM THE ORIGINAL DATE OF DELIVERY AND CONTINUING FOR THE DURATION OF THE WARRANTY PERIOD UNDER THE TERMS AND CONDITIONS SETFORTH BELOW.

#### **COVERAGE AND DURATION:**

Connectivity warrants that its product sold hereunder will, at time of delivery have a Manufacturer's Warranty limited to the repair or replacement of defective parts for the warranty period outlined below:

- one (1) year for all callbox system parts and accessories
- five (5) years for Solar Panels
- freight costs during appropriate coverage period to return repaired or replaced product back to the customer.

#### WHAT IS NOT COVERED:

Connectivity, Incorporated does not warrant product loss or damage caused by:

- a) improper installation or maintenance
- b) improper operation or use of the product in other than its normal and customary manner.
- c) physical abuse, accident, neglect or natural catastrophe.
- d) unauthorized testing or repair
- e) improper adjustment, alteration, or modification

Further, this warranty does not cover:

- a) Product which has had the serial number removed or altered.
- b) scratches and dents that do not affect the operation of the system
- c) normal wear and tear.
- d) signal conditions or network reliability
- e) freight costs to return Product back to Connectivity for repair

The Product may be returned only after Purchaser obtains an authorization number (RMA) and prepays all freight and insurance charges to return such product to Connectivity's designated repair facility.

#### **GENERAL PROVISIONS:**

Connectivity, at its option, will at no charge either repair the product with new or reconditioned parts, or replace it with new or reconditioned parts. Replaced parts and units are warranted for the balance of the original warranty period.

This warranty is limited to the original end use Purchaser only and is not assignable or transferable to any other party.

Additions or modifications to this warranty will not be covered unless made in writing and signed by an officer of Connectivity.

In no event shall Connectivity be liable for any loss or damages in excess of the purchase price of the product, for any loss of use, loss of time, inconvenience, lost profits or revenue or claims by third parties resulting from installation, implementation or use of this product.

#### LOST OR DAMAGED FREIGHT

Loss or damage to the contents of a product shipping container should be noted at the time of delivery. Loss or damage to the contents of a shipping container, which could not have been noted at the time of delivery, must be reported to Connectivity within five (5) calendar days from date of delivery, so that an inspection can be scheduled with the freight carrier's delegate All merchandise should be retained in the original shipping (Inspector). container, in the same condition it was in when loss or damage was discovered, until inspected by the Inspector. Inspection by the Inspector will include examination of the damaged merchandise and the shipping container. If a shortage is involved, the Inspector will check contents of the package against the invoice, weigh the shipping container and contents or conduct additional investigation to establish a loss has occurred. In either case, inspection by the Inspector will be limited to a factual report. If the inspection by the Inspector is not performed within five (5) working days, the Purchaser may perform the inspection. The Purchaser's inspection, in such case, will be considered the same as the carrier's inspection by the Inspector and will not jeopardize any recovery the Purchaser is due based on facts contained in the report.

Salvage must be retained until the claim is resolved, or until the claimant is given disposition by Connectivity. No salvage is to be dumped without written authorization from Connectivity, Incorporated.

Replacement of lost or damaged Product during shipment will be expedited by Connectivity in accordance with initial claim discovery and manufacturing capability.

#### CONNECTIVITY'S DISCLAIMER OF IMPLIED WARRANTIES:

EXCEPT AS SET FORTH ABOVE, THE PRODUCTS ARE "AS IS." CONNECTIVITY EXPRESSLY DISCLAIMS, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL REPRESENTATIONS AND WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY. INCLUDING REPRESENTATIONS OR WARRANTIES OF NONINFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY **RIGHTS, OWNERSHIP,** MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, SYSTEM INTEGRATION, AND DATA ACCURACY. CONNECTIVITY'S EXPRESS WARRANTY WILL NOT BE ENLARGED, DIMINISHED OR AFFECTED BY, AND NO **OBLIGATION OR LIABILITY WILL ARISE OUT OF. THE RENDERING OF TECHNICAL OR OTHER ADVICE OR SERVICE** BY CONNECTIVITY IN CONNECTION WITH CONNECTIVITY'S PRODUCTS.