

## OWNER'S MANUAL



**UHF 450-470 MHz Two-Way Radio**

**ARE YOU WIRELESS YET?®**



20809 Kensington Blvd. Lakeville, MN 55044  
1-800-475-5852 [www.advancedwireless.com](http://www.advancedwireless.com)

**THANK YOU!**

We are grateful for your purchase of Advanced Wireless Communications product. We believe this easy-to-use radio will provide you with dependable and reliable communications. This Advanced Wireless Communications portable two-way radio is a precision device. Treat it with care, and you will enjoy years of reliable operation.

**MODELS COVERED IN THIS MANUAL**

Frequency: UHF 450-470 MHz  
Model Number: AWR391V3

Surwave Charger  
Model Number: SSA021F060080USD

## Product Safety and RF Exposure for Portable Two-Way Radios Compliance with RF Energy Exposure Standards



**NOTICE:** This radio is intended for use in occupational/controlled applications where users have been made aware of the potential for exposure and can exercise control over their exposure. This radio device is NOT authorized for general population, consumer or similar use.

BEFORE USING THIS RADIO, READ THE TRAINING MATERIAL BELOW WHICH CONTAINS IMPORTANT OPERATING INSTRUCTIONS FOR SAFE USAGE AND RF ENERGY AWARENESS AND CONTROL INFORMATION FOR COMPLIANCE WITH RF ENERGY EXPOSURE LIMITS IN APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS.

### Federal Communication Commission (FCC) Regulations

The FCC has established limits for safe exposure to radio frequency (RF) emissions from portable two-way radios. The FCC requires manufacturers to demonstrate compliance with RF exposure limits before portable two-way radios can be marketed in the U.S. When two-way radios are approved for occupational/controlled environment exposure limits, the FCC requires users to be fully aware of, and exercise control over, their exposure. Awareness and control of RF exposure can be accomplished by the use of labels, or by education and training through appropriate means, such as information and instructions in user manuals or safety booklets. Your Advanced Wireless two-way radio has an RF exposure information label in the battery compartment. The training material below includes useful information about RF exposure and helpful instructions on how to control your RF exposure.

Your Advanced Wireless two-way radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to RF electromagnetic energy. In terms of measuring RF energy for compliance with FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.



### Compliance and Control Guidelines and Operating Instructions for Portable Two-Way Radios

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits, always adhere to the following procedures:

\* Transmit no more than 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) button. To receive calls, release the PTT button. Transmitting 50% of the time or less is important since the radio generates measurable RF energy exposure only when transmitting (in terms of measuring standards compliance).

\* For body-worn operation, always place the radio in an AWC approved belt-clip or similar accessory that contains no metallic components and provides a minimum separation distance of 2.5 cm between the back of the radio and the user's body. AWC-approved accessories, antennas, and device combinations comply with the occupational/controlled environment RF exposure limits. Using non AWC approved accessories may result in exposure levels which exceed the FCC's occupational/controlled environment RF exposure limits. AWC-approved accessories have been tested and comply with FCC RF exposure requirements.

\* If you are not using a body-worn accessory and are not using the radio held in front of the face, ensure the radio is kept a minimum of 1.3 cm from the body when transmitting. Keeping the radio at a proper distance is important since RF exposure decreases with increasing distance from the antenna.

\* Use only FCC-approved supplied or replacement headsets, batteries, and accessories intended for use with this radio. Use of non-FCC approved headsets, batteries and accessories may exceed FCC RF exposure guidelines.

## FCC license information

Your Advanced Wireless Communications radio operates on communications frequencies which are subject to FCC (Federal Communications Commission) Rules & Regulations. FCC Rules require that all operators using Private Land Mobile radio frequencies obtain a radio license before operating their equipment. Application for license must be made on FCC form 601, and schedules D, E, and G.

**FAX:** Forms can be obtained by fax from the FCC Fax-On-Demand system. Call 1-202-418-0177 from your fax machine and request document number 000600 for the form, schedules, and instructions.

**MAIL:** Forms can be ordered by telephone, and will be sent to you by first class mail. Call the FCC Forms Hotline at 1-800-418-FORM (1-800-418-3676).

**INTERNET:** Form 601 and instructions can be downloaded from the FCC Forms website at: <http://www.fcc.gov/Forms/Form601/601.htm>

Before filling out your Form 601 application Technical Data section, you must decide which frequency (or frequencies) you will operate on.

**Questions?** Call the FCC for license application questions at 1-888-CALL-FCC (1-888-225-5322).

If you have any questions, call Advanced Wireless Communications:  
1-800-475-5852

### Notices to The User

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

One or more of the following statements may be applicable:

#### FCC WARNING

This equipment generates or uses radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

#### INFORMATION TO THE DIGITAL DEVICE USER REQUIRED BY THE FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can generate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer for technical assistance.

**SAFETY INFORMATION:**

Your wireless portable two-way radio has been designed using a low power transmitter. When the PTT switch is pressed, the radio generates radio frequency (RF) electromagnetic energy (EME). This radio is designed to comply with the FCC Report and Order FCC 96-326 (August, 1996).

**User Safety Information**

**PLEASE READ THIS IMPORTANT INFORMATION BEFORE USING YOUR ADVANCED WIRELESS COMMUNICATIONS PORTABLE TWO-WAY RADIO.**

- ◇ Only qualified technicians are allowed to maintain this product.
- ◇ To avoid electromagnetic interference, turn off your radio in places where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy. When traveling on aircraft, turn off your radio when the airline crew instructs you to do so.
- ◇ When in vehicles equipped with an air bag, do not place a portable radio in the airbag deployment area.
- ◇ Turn off your radio prior to entering any area with a potentially explosive atmosphere. Do not remove, install, or charge batteries in such areas.
- ◇ To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps.
- ◇ Do not expose the radio to direct sunlight for long periods of time. Do not place the radio in direct contact with any heating source.

**IC Statement:**

This device complies with IndustryCanada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'IndustrieCanada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## INTRODUCTION

Advanced Wireless Communications is a leader in the design and integration of wireless communications solutions. Since 1992, we've been creating on site wireless systems that help businesses communicate effectively.

Whether it's a national chain of retail stores, a 50-story office tower, construction site, a large distribution center, a college campus or a retirement home, Advanced Wireless has the expertise and experience to create the best solution possible...

We're ready to partner with you to make your communications more effective and efficient.

Ken & Ben Coons  
Founders of Advanced Wireless Communications

## GETTING ACQUAINTED

### PRODUCT INSPECTION

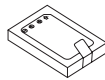
Thank you for your purchase of Advanced Wireless Communications Portable two-way radio model: Mini 391 V3. Before use, please inspect the product as follows. First check the shipping carton for any signs of damage if any damage has occurred, please contact your dealer immediately. Confirm the supplied product against the packing slip to assure accuracy.

### PACKAGING CONTENTS:

	Part number	Item	Qty.
1.	S139145702	AWR391V3	1pc
2.	BA0L080040	Li-ion Battery pack for Mini 391	1 pc
3.	.4503003911	Holster for Mini 391	1pc



1



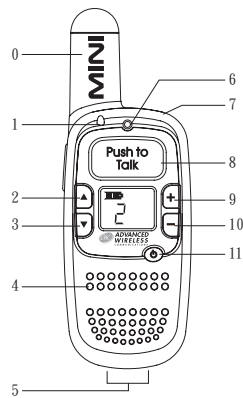
2





3

Headset 1pc, Model: AWR391HS

## TRANSCEIVER RADIO VIEW




### Front View:


0. Antenna  
Receives and transmits signals
1. LED indicator  
Lights up red when transmitting a signal
2. Channel **Up**   
Press and hold for more than 2.0 seconds to activate the auto scan or dual watch (selected by PC program) for available channel. While radio is on, press button to increase channel no.
3. Channel **Down**   
Press and hold for more than 2.0 seconds to activate the key lock. While radio is on, press button to decrease channel no.
4. Speaker  
Generates audible sound
5. Connection pins  
Slot pins into a desktop charger docking pins station (docking station not included)
6. Microphone  
Picks up voice sounds

7. Headset jack


Allows use of headset for hands-free communication.

8. Push to talk 

Press and hold **PTT** button, speak into the microphone using your normal speaking voice.

9. Volume **Up** 

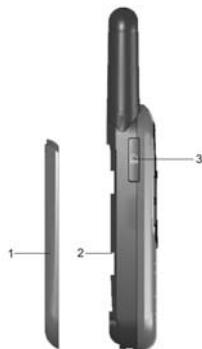
Press and hold more than 1.5 seconds to rapidly increase the volume. While radio is on, press button to increase the volume by a single unit.

10. Volume **Down** 

Press and hold for more than 1.5 seconds to rapidly decrease the volume. While radio is on, press button to decrease the volume by a single unit.

11. **Power** 

Press and hold for more than 1.5 seconds to turn the unit on or off.

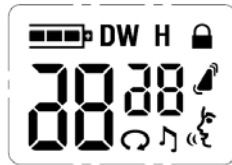


**Back View:**

1. Battery door  
Remove to access battery compartment
2. Battery compartment  
Uses lithium 3.7 V - 830 mAh rechargeable battery
3. **Mon** button  
Activate MONITOR function

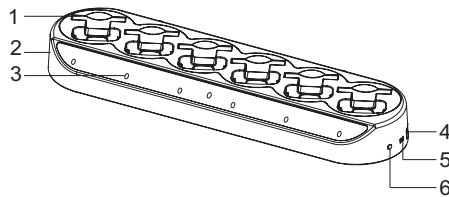


### LCD DISPLAY SYMBOLS



SYMBOL	FUNCTION
28 (big)	Channel number: Select between 16 channels
	Battery indicator: Provides battery status during operation
DW	Dual Watch: Scan 2 channels
H	High Power: the current channel is high power
	Keypad lock: Locks keypad to prevent accidental button activation
	Auto-scan: Unit is scanning Channels or CTCSS
	PTT tone: the Call tone is activated
	VOX: Voice activation system
28 (small)	Auxiliary function

### 6-GANG CHARGER VIEW



1. Docking cradle
2. DC adaptor socket: Charge radio units; provide power for cloning operation
3. LED status indicator for extra batteries

4. USB socket: download settings from PC to radio units (No use for AWC391 V3).
5. **CHG-CLON** switch: Charge radio units; clone radio unit settings(No use for AWC391 V3).
6. **PROG**: Clone radio unit settings from source radio to other radiounits  
This is no use for AWC391 V3.

## SAFETY AND CARE INSTRUCTIONS

### SAFETY PRECAUTIONS

Please observe the following safety precautions when setting up and using this product.

- \* LCD panel – The LCD panel is made of glass, and may break if the unit is dropped or impacted.
- \* Heat sources – Keep the product away from heat sources such as radiators, stoves, heaters, and other heat-generating products.
- \* Water and moisture – Do not use the product in or near water or in high moisture areas such as a bathroom. Indoor use only.

### CARING FOR THIS PRODUCT

To ensure you receive the maximum benefit from using this product, please observe the following guidelines.

- \* Cleaning – Use a damp cloth. Do not use liquid cleaning agents, benzene, thinner, or aerosols.
- \* Repair – Do not attempt to repair the product or modify the circuitry by yourself. Only replacement parts that are recommended by **Advanced Wireless Communications at 1-800-475-5852** are to be used.
- \* Do not scratch hard objects against the LCD display as this may cause damage.

### CAUTION

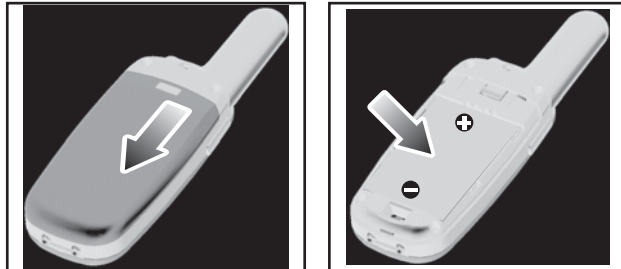
- \* To avoid risk of fire or injury, do not attempt to charge non-rechargeable batteries. Please turn off the unit while charging.
- \* Replace only batteries with the same or equivalent type recommended by the manufacturer.
- \* Please dispose of old, defective batteries in an environmentally friendly manner in accordance with the relevant legislation.
- \* See additional battery warnings in the "WARNING" section of the user manual.
- \* Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
- \* No open flames, such as lighted candles, should be placed near the apparatus.
- \* To reduce the risk of electric shock, do not expose this application to rain or moisture.

## GETTING STARTED

### INSTALLING / REMOVING / CHARGING THE BATTERY

#### To insert the battery:

1. Slide the battery door open.
2. Insert the lithium battery into the battery compartment, making sure the polarities (+ and -) match.
3. Slide the back cover and clip into place.



**WARNING:** There is a danger in which incorrectly placing the battery can cause an explosion. Always make sure the radio is switched off before installing or changing the battery. Replace only with the same or equipment type. Use ONLY with lithium 3.7V 830mAh rechargeable battery. Contact **Advanced Wireless Communications** at 1-800-475-5852 or [www.advancedwireless.com](http://www.advancedwireless.com) for more information.

#### To charge the battery using 6 gang charger:

**IMPORTANT:** Charge the battery for 12 hours on the first charge. After that, it should take 4 or less hours to charge.

Make sure the adapter is not obstructed and is easily accessible to the unit.

- 1) Connect 6 gang charger to AC power using DC adaptor provided.
- 2) Slide **CHG-CLON** switch to select CHG.
- 3) Insert radio unit into 1<sup>st</sup> docking cradle (insert additional radio units into docking cradles, 2 through 6). Please ensure radio screen faces forward (same direction as LED lights on gang charger).


Battery Status	Extra Batteries LED	Radio screen
Battery charging	Red	LCD backlight on
Battery charged	Green	LCD backlight off

#### **NOTE:**

- To completely disconnect from power, the adapter should be disconnected from the 6-Ganged Charger.
- Batteries should not be exposed to excessive heat such as sunshine or fire.
- The 6-Ganged Charger and adapter should not be exposed to wet conditions. No objects filled with liquid, such as vases, should be placed on the main unit and adapter.
- To maintain the battery life of your two-way transceiver it is recommended that you only charge the battery when needed. Overcharging the battery will reduce performance.
- For best results ensure that the unit is turned off before charging.
- Remove batteries before storing your radio for extended periods. Batteries corrode over time and may cause permanent damage to your radio.



#### **TURN THE UNIT ON / OFF**

##### **To turn the unit ON or OFF:**


Press and hold  until you hear a beep and the LCD display appears or disappears.

#### **VOLUME**



##### **To change the volume level:**

Use  or  to increase or decrease volume.

#### **TALK TO ANOTHER TRANSCIVER**

For best transmission speak about 2" away from the radio and leave a short pause before speaking once you have pressed 

##### **To talk to another transceiver:**

1. Press and hold "**Mon**" to check if the channel is free.
2. Press and hold  and speak into the microphone to transmit.
3. Release  once you have finished speaking to allow other radios to respond. The transceiver will automatically play received transmissions.



**NOTE:** You can only communicate with another transceiver that is on the same channel and using the same CTCSS/DCS code as your transceiver.

### KEYPAD LOCK

To avoid accidentally changing the channel and the unit's preferred settings, you can lock the keypad.

#### To lock or unlock the keypad:





Press and hold  for 2.0 seconds.  appears when the keypad is locked.

**NOTE:** While the keypad is on you can still use the  and .

### SELECT A CHANNEL

The transmitter and receiver **must** be on the same channel using the same CTCSS code or DCS code in order for you to communicate with another party.



#### To select between maximum 16 channels (the CTCSS code or DCS code is set by PC program):

1. Press  to increase channel no. To activate auto scan for available channels, press and hold  for more than 2.0 seconds.
2. Press  to decrease channel no. To activate key lock, press and hold  for more than 2.0 seconds.

### VOX LEVEL / VOICE DELAY TIME

The Voice Activated Transmission (VOX) function allows your voice to activate transmission automatically when the transceiver is used with an optional hands-free microphone / headset. If the unit is set to VOX level 1, 2 .....9 , it will automatically detect and transmit your voice through to the selected channel. The VOX level and transmission delay time should be adjusted according to your voice loudness and personal preference.

#### To set up a headset:

1. Press and hold  to switch the radio off.
2. Plug in the headset.
3. Press and hold  to switch the radio back on again.

**NOTE:** This product is only compatible with AWC headsets, please ask your local retailer for further information.

Pressing the PTT button disables VOX

## TROUBLESHOOTING

See below for some common problems and their remedies. DO NOT attempt any repairs yourself. This will invalidate your warranty.

PROBLEM	POSSIBLE CAUSES / REMEDIES
Can't turn the radio on	<ul style="list-style-type: none"><li>• Check the battery is correctly installed and has been fully charged</li></ul>
Can't communicate with other radios	<ul style="list-style-type: none"><li>• For this and all other issues contact <b>Advanced Wireless Communications</b> at <b>1-800-475-5852</b> or <a href="http://www.advancedwireless.com">www.advancedwireless.com</a> for more information</li></ul>
VOX function is not working	<ul style="list-style-type: none"><li>• Check the headset is correctly plugged in and is compatible with the Mini 391 radio</li></ul>