#### Federal Communication Commission Interference Statement

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 radiate 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 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 of the following measures:

- -Reorient or relocate the receiving antenna.
- -Increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

### RF Exposure Warning!

This device contains transmitters and receivers which emit Radio Frequency (RF) energy. The device is designed to comply with the limits for exposure to RF energy set by the Federal Communications Commission (FCC) of the United States, Industry Canada (IC) of Canada, and the regulating entities of other countries.

If you are still concerned about exposure to RF energy. you can further limit your exposure by limiting the amount of time you use the equipment or by placing more distance between your body and the device, since exposure level drops off dramatically with distance.



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1.00 JANUARY 2022

## **Controls and Connection**

## Accessory Jack

This jack is used to connect an optional, wired listen-only earphone or audio accessory to the speaker microphone for enhanced privacy. Any standard 3.5mm mono or stereo listen-only earphone can be plugged into this jack. Received calls will be heard over the earphone.

This jack can also be used with a 3.5 mm 4-conductor (Apple iPhone compatible) audio accessory that contains both an earphone and a microphone such as Apple part numbers ME186LL/A, or MD827LL/A. (Not included.) When used with such an accessory, received calls can be heard over the accessory earphones and transmit audio will be taken from the accessory microphone.

#### PTT Button

This button is used to activate the push-to-talk feature of the PoC app or two-way radio.

Front Firing Speaker
Received calls are heard over this speaker. The volume level can be controlled using either the Volume/Power Knob on the speaker microphone, or by using the volume controls on the phone

This micro-USB jack is used to recharge the removable battery of the speaker microphone by connecting the BTH-550-MAX to a USB charger or any powered USB source. Keep the rubber cover in place when the jack is not being used.



# Status LEDs

The red and blue LEDs flash messages that let the user know the current status of the speaker microphone

#### **Multifunction Button** Volume Control/Power Knob

This button is used to answer or hang up phone calls. Is also used to place the This knob allows you to turn the BTH-550-MAX microphone on and microphone into pairing mode so it can off and to adjust the volume of be connected to a handset via BT. received calls.



#### Microphone

This microphone picks up the user's voice audio when sending a call.

#### Replaceable Clothing Clip

The alligator-type clip secures the speaker microphone to the user's clothing during use. The clip can be rotated to allow the microphone to be better positioned.





# PRYMEMAX™ BTH-550-MAX **Wireless Speaker Microphone**

For use with PRYMEBLU Wireless adapters; BK, Icom, and Kenwood two-way radios with built-in BT connectivity; and for PTT Over-Cellular apps such as ES Chat, Wave Communicator, and Zello on IOS and Android smart phones.



Optional Cradle Charger Part No. P-CHA-550

> Model No. BTH-550-MAX Made in Taiwan

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## **Charging the Speaker Microphone**

The BTH-550-MAX speaker microphone has an internal Lithium Ion rechargeable battery pack which must be charged prior to operation, and must be recharged regularly. A fully charged battery will provide up to 40 hours of continuous operation before needing to be recharged. However, operating time can vary depending on usage and the condition of the battery pack. Recharge the battery regularly.

The microphone can be charged either using the wall charger (not included) or optional drop-in charging cradle. (not included. part number P-CHA-550)

#### To charge the speaker microphone using the wall charger:

- 1. Ensure the microphoe is turned off using the Power/Volume Knob. The microphone cannot be operated while plugged into the wall charger. 2. Plug the charge cable into any powered USB outlet, such as an
- AC wall charger, and then into the charge jack on the bottom of the speaker microphone.
- 3. Once the charging process has begun, the LED indicator
- on the speaker microphone will show a constant red light.

  4. Typical charge time is approximately five hours. Actual charge time will vary depending on several factors including the battery's
- charge state, condition, and age. 5. When the battery is fully charged the LED
- indicator on the speaker microphone will turn off.
- 6. Disconnect the charger from the adapter when
- charging is completed.

### To charge the speaker microphone using the optional drop-in charging cradle:

- 1. Plug the power cable for the charge cradle into any powered USB outlet, such as an AC wall adapter and then into the jack on the back of the charge cradle. The LED on the charge cradle will light a solid green.
- 2. Drop the microphone into the charge cradle. NOTE that you may continue to operate the microphone while it is in the charge cradle. 3. Once the charging process has begun, the LED indicator on the charge cradle will show a constant red light.
- 4. Typical charge time is approximately five hours. Actual charge time will vary depending on several factors including whether you are operating the microphone duringh charging as well as the battery's charge state, condition, and age.

5. When the battery is fully charged the LED indicator on the charge cradle will turn green.

Optional Cradle Charger Part No. P-CHA-550

#### **Charging Cautions:**

- Do not use a charger or charge cable that appears to be damaged. (Example: fraved wires. melted plastic, etc.) Contact PRYME to get a new manufacturer-approved replacement charger.
- Do not tamper with or modify the speaker microphone or charger.
- Always turn the speaker microphone off when charging

## Pairing with a Smartphone or Two-Way Radio

The BTH-550-MAX speaker microphone is designed to wor with PRYMEBLU wireless adapters, two-way radios with internal BT made by BK, Icom, and Kenwood as well as smartphone and tablets running either the Android or Apple iOS operating systems. Prior to normal operation, the handset and speaker microphone must be paired together using the following process:



- 1. Activate the pairing mode on the speaker microphone by turning it on using the Volume/Power Knob and then pressing and holding the Multifunction button for three seconds until the status LED flashes BLUE-RED-BLUE-RED continuously in sequence.
- 2. If pairing with a PRYMEBLU adapter, place the adapter into pairing mode following the instructions in the device's manual. Then proceed to step 5.
- 3. If you are pairing the microphone with a two-way radio, follow the manufacturer's instructions to have the radio scan for nearby headset devices. Once it finishes scanning, select the device named "BTH-PTT" from the list of nearby devices. Then proceed to step 5.
- 4. If you are pairing the microphone with a smartphone, make sure that the smartphone's BT slider is turned on and then use the phone's BT menu to scan for nearby devices. Select the device named "BTH-PTT" to pair with the phone then proceed to step 5.
- 5. Keep the radio or handset and speaker mic near each other and wait a few seconds. The devices will pair to each other.

 $\textbf{NOTE} \ \text{that on some Kenwood radios you may hear a ring tone. If so, press the Phone Answer button on top of the BTH-550-MAX microphone to confirm that pairing.}$ 

#### Reconnecting a Previously Paired Speaker Microphone and Phone

Once the speaker microphone and handset have been successfully paired together, both devices will remember that connection. They will reestablish their link whenever the speaker microphone and handset are both powered on and within range of each other, as long as the BT radio is enabled in the handset. Re-establishing this connection can take 10-60 seconds.

In the event that the handset and speaker microphone to not automatically reestablish their link, simply press the handset button on the BTH-550-MAX to restore the connection.

#### STATUS LED MESSAGES

The meanings of the various status LED messages shown by the speaker microphone are shown on the following table:

LED INDICATION	MEANING
Constant Red (while plugged into charger)	Charge mode
No indication (while plugged into charger)	Charging is finished
Flashes red-blue-red-blue repeatedly	Pairing mode
One blue flash every three seconds	Speaker microphone is powered on but not paired
One blue flash every three seconds	Speaker Microphone is powered and paired
No indication	Speaker microphone is powered off

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## Using the Speaker Microphone with your PTT App

If you are using the microphone with a PTT Over Cellular app on an IOS or Android smartphone, you may need to complete some additional setup within the app itself. Once setup, you will be able to use the speaker microphone with the push-to-talk app, even if the app is running the background.

# Please see insert for instructions on how to set up the PTT button in Zello, Wave or ES Chat.

- -To activate the app's push-to-talk feature, press and hold the PTT button on the speaker microphone.
- -When the app is transmitting a call, audio will be picked up by the BTH-550-MAX's built-in microphone.
- -Incoming calls received by Zello will be heard over the BTH-550-MAX's built-in speaker or through the optional earphone if you are using one.

#### **Making and Receiving Phone Calls**

You can also use the speaker microphone to make and receive phone calls.

- -You can initiate a phone call by using the Phone Dialer app in the phone.
- -Phone audio will be routed to the BTH-550-MAX's built-in microphone and speaker (or earphone, if you are using one).
- -To answer an incoming call, press the Multifunction button on the speaker microphone.
- -While on a call, you can press the Multifunction button on the speaker microphone to hang up the phone and end the call.

#### **SPECIFICATIONS**

[	BT Version:	Version 4.1 fully qualified
	Weight:	130 g
Ī	Speaker Output:	2-watts
Ī	Receiver Sensitivity:	-83 dBm (typical)
Ī	Power Class:	BT class 2
Ī	Range:	10 meters
ſ	Display:	Blue and Red LEDs
	BT Profiles:	HSP / HFP / A2DP / AVRCP
	Operating Voltage:	5 Vdc @ 25 mA (Average)
	Battery Capacity:	1000mAH, not replaceable
	Operating Time (Standby):	> 30 days
ſ	Operating Time (Typical):	> 80 hours
Ī	Operating Time (Continuous Talk):	> 40 hours
Ī	Push-to-Talk Function:	Built-in
ı	Operating Temperature:	-70°F to +120°F (approx.)

#### Connecting an Audio Accessory to the BTH-550-MAX Speaker Microphone

For enhanced privacy, the PRYMEMAX™ BTH-550-MAX speaker microphone may be used with a listen-only earphone or another compatible audio accessory that includes an earphone and a microphone. However, many different optional wired audio accessories are also available.

#### To connect an audio accessory to the BTH-550-MAX speaker microphone:

- 1. Plug the audio accessory into the 3.5 mm audio jack located on the top of the PRYMEMAX™ BTH-550-MAX speaker microphone. Make sure that the connector on the audio accessory is pushed all the way into the jack on the speaker microphone.
- 2. You can adjust the volume of received signals by using the Volume Up and Volume Down buttons on the speaker microphone or by adjusting the volume setting on the cellphone.

#### **Optional Audio Accessories:**

The 3.5 mm audio jack on the speaker mic will accept any stereo earphone with a 3.5 mm audio plug. You can also use any 3.5 mm 4-conductor (Apple iPhone compatible) audio accessory that includes both an earphone and a microphone, such as Apple part numbers ME186LL/A, or MD827LL/A (not included). If the audio accessory has a built-in microphone, transmit audio will be taken from the accessory microphone.

PRYME makes a variety of listen-only earphones and accessory microphones in different styles that will work with the BTH-550-MAX:

MODEL	TYPE	STYLE
EH-1189SC	Listen-only	Ear Bud Earphone
EH-1399SC Recon™	Listen-only	Acoustic Tube Earphone
EH-3099SC Bullet	Listen-only	Bullet Transducer Acoustic Tube Earphone
EH-GH99SC G-Hook	Listen-only	G-Hook Swivel Earphone
SPM-499D Ranger™	Mic+Earphone	Boom Mic Headset with D-Ring Earphone
SPM-1599 Gladiator™	Mic+Earphone	Throat Mic Headset with Acoustic Tube Earphone
SPM-899B Highway™	Mic+Earphone	Motorcycle Helmet Boom Mic Kit

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#### SUPPORT AND WARRANTY

PRYME Radio Products warrants this product against defects in materials or workmanship for a period of one year from the date of retail purchase. PRYME will repair or replace a defective unit, at our option, without charge for parts or labor. The limited warranty is extended only to the original purchaser and is valid only to consumers in the United States and Canada. It does not cover damage or failure caused by or attributable to Acts of God, abuse, misuse, improper or abnormal usage, faulty installation, improper maintenance, lightning, or other incidences of excessive voltage, or any tampering or repairs by other than a PRYME authorized repair facility. It does not cover replacement of consumable parts, transportation costs, or damage in transit.

Repair or replacement under the terms of this warranty does not extend the terms of this warranty. This warranty can only be modified by an officer of PRYME Radio Products, and then only in writing. Should this product prove defective in workmanship or material, the consumer's sole remedies shall be such repair or replacement as provided by the terms of this warranty. Under no circumstances shall PRYME Radio Products be liable for any loss or damage, direct, consequential, or incidental, arising out of the use of or inability to use this product. Some states do not allow limitations on how long an implied warranty lasts or the exclusions or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights, which may vary, from state to state.

For support or warranty service on your PRYME product, contact us at 1-800-666-2654 or visit us on the web at www.PRYME.com.

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iOS is a trademark of Cisco Systems and is used by Apple Inc. under license.

ZELLO is a trademark of Zello, Inc.

WAVE and WAVE COMMUNICATOR are trademarks of Twisted Pair Solutions, a wholly owned subsidiary of Motorola Solutions, Inc.

ESChat is a registered trademark of San Luis Aviation, Inc.

BK Radios is a trademark of Relm Wireless Corporation Icom is a trademark of Icom Inc.

Kenwood is a registered trademark of JVCKENWOOD Corporation All other product or service names are the property of their respective owners.

**DISCLAIMER:** The BT wireless link used by PRYMEBLU products is an open standard, unsecured technology. As such, it is not recommended for first-responder or other mission critical users.

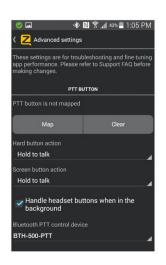
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# **App Setup (ZELLO)**

To get the Zello app on your phone, install Zello from your Zello@Work network, or download the app from the Google Play store or Apple App Store

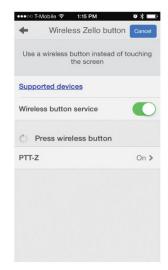
## Setting up Zello (Android)

- 1. Make sure that your phone's BT radio is enabled, and that the speaker microphone is powered on and that the microphone and phone are connected to each other.
- 2. Open Zello and go to Menu > Options > Under the Hood.
- 3. Under "BT PTT Control," choose "BTH-PTT". You should see a popup indicating the device control has been activated. If you don't see it, you may need to power cycle the speaker microphone and repeat this step.
- 4. Open the Talk screen in Zello (the screen with a big round button). In the bottom-left corner of the screen, tap-hold and slide to the BT icon to activate the speaker microphone in Zello.



## **Setting up Zello (iOS)**

- 1. Make sure that your phone's BT radio is enabled, and that the speaker microphone is powered on and that the microphone and phone are connected to each other.
- 2. Open Zello and go to: Settings > PTT Button > Wireless Zello Button.
- 3. Make sure that the "Wireless Button Service" is turned on by sliding the button to the right.
- 4. Press and hold the PTT button on the BTH-550-MAX.
- 5. Select "PTT-Z" from the list of PTT devices shown on the screen.
- Open the Talk screen in Zello (the screen with a big round button).
   Pressing the PTT button the Push-to-Talk device should now cause
   Zello to transmit.



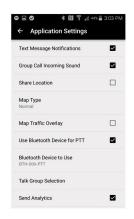
# **App Setup (Wave Communicator)**

To get the WAVE Communicator app on your phone, download the app from the Google Play store or Apple App Store.

For Android phones the PTT function of the BTH-550-MAX can be enabled to work with the Wave Communicator app in one of two different ways, either using Serial Port Protocol (SPP) over conventional BT or using a special version of BT called BT Low Energy (BLE). The BLE option can only be used with handsets that have hardware support for BLE and are using Android version 5.0 (Lollipop) or newer. Choose the option that is right for your phone and follow the instructions below:

### Setting up WAVE Communicator (Android-SPP)

- 1. Make sure that your phone's BT radio is enabled, and that the speaker microphone is powered on and that the microphone and phone are connected (paired) to each other.
- Open WAVE Communicator and log in using your username and password.
- 3. Tap on the More Options symbol ":" in the top right hand corner of the app and then tap "App Settings."
- 4. Make sure that "Use BT Device for PTT" is selected. If it isn't, tap it to select it.
- 5. Tap on "BT Device to Use" and then select "BTH-PTT" from the list.
- 6. The app will then prompt you to press the PTT button on the BTH-550-MAX to confirm that the setup was successful.



## Setting up WAVE Communicator (optional, Android - BT Low Energy)

- 1. Make sure that your phone's BT radio is enabled, and that the speaker microphone is powered on and that the microphone and phone are connected (paired) to each other.
- 2. Press and hold the PTT button on the BTH-550-MAX speaker microphone.
- 3. On your phone, go to Settings > BT. Select "Search for Devices" from the phone's BT menu. The phone will scan for nearby BT devices and a list showing the names of nearby BT devices will be shown on the screen.
- 4. Choose "PTT-Z" from the list.
- 5. Keep the phone and speaker mic near each other and wait a few seconds. The devices will pair to each other.
- 6. Open WAVE Communicator and log in using your username and password.
- 7. Tap on the More Options symbol " in the top right hand corner of the app and then tap "App Settings."
- 8. Make sure that "Use BT Device for PTT" is selected. If it isn't, tap it to select it.
- 9. Tap on "BT Device to Use" and then select "PTT-Z" from the list.
- 10. Release the PTT button on the BTH-550-MAX.

#### Setting up WAVE Communicator (iOS)

- 1. Make sure that your phone's BT radio is enabled, and that the speaker microphone is powered on and that the microphone and phone are connected (paired) to each other.
- 2. Open WAVE Communicator and log in using your username and password.
- 3. Tap on the More Options symbol ":" in the top right hand corner of the app and then tap "App Settings."
- 3. Press and hold the PTT button on the BTH-550-MAX speaker microphone.
- 4. Make sure that "Use BT Device for PTT" is selected. If it isn't, tap it to select it.
- 5. Tap on "BT Device to Use" and then select "PTT-Z" from the list.
- 6. Release the PTT button on the BTH-550-MAX.