

# PRYME® RADIO PRODUCTS

## PRYMEBLU® MOBILE ADAPTER GUIDE For Amateur Mobile Radios

The PRYMEBLU Mobile Adapter allows you to use a Bluetooth headset or other audio accessory with your mobile or base station amateur radio



Bluetooth Adapter  
Made in Taiwan

This manual applies to the PRYMEBLU BT-M6DIN

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### 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.

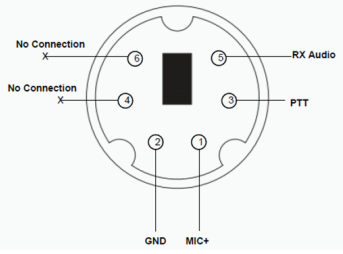
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### INSTALLING THE PRYMEBLU MOBILE ADAPTER

The PRYMEBLU Mobile Adapter will work with most mobile and base-station amateur radios that feature a 6-pin DIN type accessory connector. This jack is typically labeled "Packet" or "Data" and is normally used to connect a Terminal Node Controller and other type of digital modem to the radio. The connections used by the PRYMEBLU Mobile Adapter are shown below. For more information about the function of this jack consult the manual for your radio.



#### STEP ONE: Connecting the Mobile Adapter to an Amateur Radio

- \* Align the radio connector of the Mobile Adapter with the jack on the amateur radio and push the connector into the jack until it is firmly seated.
- \* If you will use the PRYMEBLU Mobile Adapter with a wired Push-to-Talk (such as a footswitch) plug the connector for the PTT into the External PTT Jack of the adapter and mount the switch.

#### STEP TWO: Programming radio

- \* On some radio models you may need to set the radio for "1200 Baud" packet radio operation for the radio to work properly with the PRYMEBLU Adapter. The Bluetooth adapter may not work properly if the radio is set for "9600 baud" packet mode.

#### STEP THREE: Powering the Adapter

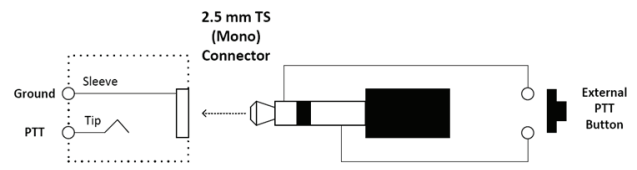
- The PRYMEBLU Mobile Adapter requires an external filtered, regulated DC power source. The power source should be rated for between 10 and 15 VDC and capable of delivering current at least 100 mA (0.1 A) average / 150 mA (0.15 A) surge. Power leads are provided so that you can make this connection.
- \* The black wire (-) should be connected to the negative lead of a DC power source or to chassis ground if you are installing the adapter in a vehicle.
- \* The red wire (+) should be connected to the positive lead of a DC power source. It is recommended to make all connections with at least #20 AWG stranded insulated copper wire.

#### STEP FOUR: Mounting the Adapter

Velcro is supplied with the PRYMEBLU Mobile Adapter which allows you to secure the adapter to nearly any location near the amateur radio. For convenience, you should mount the adapter somewhere that the user will be able to see the status LED and to reach the Multifunction Button for ease of use.

## Controls and Connections

- Status LED**  
The LED flashes messages that lets the user know the current status of the PRYMEBLU Mobile Adapter.
- Multifunction Button**  
This button is used to place the PRYMEBLU Mobile Adapter in pairing mode. It can also be used as a Push-to-Talk (PTT) button
- Adapter Housing**  
The Bluetooth and radio interface circuitry of the PRYMEBLU Mobile Adapter are contained inside this compact and rugged polycarbonate housing
- DC Power Cable**  
These wires are used to connect the adapter to a DC power source. For more information about the power requirements of the adapter, see page 3.
- Radio Connector**  
The radio connector is the part of the adapter that plugs into your amateur radio. For more information on this connector, see pg. 3
- External PTT Jack**  
This 2.5 mm Tip-Sleeve (TS) style jack can be used to connect an (optional) external Push-to-Talk device (such as a foot switch) to the adapter. The correct method for wiring the external switch appears below.
- Connection Cable**  
The PRYMEBLU BTM-Adapter uses shielded cable to connect the adapter to the mobile/base station radio
- Velcro for Mounting**  
The Velcro pad on the bottom of the PRYMEBLU Mobile Adapter allows it to be mounted in a convenient location near the mobile/base station two-way radio
- Power Switch**  
Turns the PRYMEBLU Mobile Adapter on and off.



### STEP FIVE: Pairing the PRYMEBLU Mobile Adapter with a Bluetooth Headset

- \* Make sure that the amateur radio, PRYMEBLU Mobile Adapter, and Bluetooth Headset are all powered OFF. The Bluetooth Headset should be fully charged.
- \* Put the Bluetooth Headset into pairing mode following the instructions provided by the headset's manufacturer.
- \* On the PRYMEBLU Mobile Adapter, press and hold the Multifunction Button while turning the Power Switch on the adapter to the ON position. Continue to hold the Multifunction button down for approximately three seconds. Release the button when the status LED of the adapter begins to flash two times per second. The PRYMEBLU Mobile Adapter is now in headset pairing mode.
- \* Place the Bluetooth Headset near the PRYMEBLU Mobile Adapter and wait. Within a few seconds, the devices should synch to each other. Once paired, the LED on Mobile Adapter will change to a long blue flash followed by a single blue flash every few seconds.
- \* If the PRYMEBLU Mobile Adapter does not detect a compatible Bluetooth Headset within sixty seconds of being put into pairing mode, the adapter will exit the pairing mode and resume normal operation.
- \* Once the adapter and headset have paired to each other, you can power on the amateur mobile radio.



FIG. 4 - Wireless Communication System

### STEP SIX: Pairing the PRYMEBLU Mobile Adapter and PRYMEBLU PTT (OPTIONAL)

- \* Make sure the amateur radio, PRYMEBLU Mobile Adapter, Bluetooth Headset, and PRYMEBLU BT-PTT are all turned OFF. The BT-PTT should be fully charged.
- \* On the PRYMEBLU Mobile Adapter, press and hold the Multifunction Button while turning the Power Switch on the adapter to the ON position. Continue to hold the Multifunction button down for approximately three seconds. Release the button when the status LED of the adapter begins to flash two times per second.
- \* Once again, press the Multifunction Button on the PRYMEBLU Mobile Adapter. Release the button. The LED indicator on the Mobile Adapter should now flash three times per second. The PRYMEBLU Mobile Adapter is now in PTT pairing mode.
- \* On the PRYME BT-PTT, press and hold the Push-to-Talk button while setting the power switch to the ON position. Continue to hold the Push-to-Talk button down until you see the LED indicator change to a series of rapid flashes. Release the Push-to-Talk button. The BT-PTT is now in pairing mode.

- \* Place the BT-PTT near the PRYMEBLU Mobile Adapter and wait. Within a few seconds, the devices should synch to each other.
- \* Once paired, the LED on Mobile Adapter will change to a long blue flash followed by a single blue flash every few seconds. The LED on the BT-PTT will also show a quick single flash every second.
- \* If the PRYMEBLU Mobile Adapter does not detect a compatible BT-PTT within sixty seconds of being put into pairing mode, the adapter will exit the pairing mode and resume normal operation.
- \* Power on the Bluetooth Headset that you previously paired to the PRYMEBLU Mobile Adapter. Within a few seconds, the headset and adapter should reconnect.
- \* Once the adapter, Bluetooth Push-to-Talk, and headset have connected to each other, you can power on the amateur mobile radio.

**Reconnecting to a Previously Paired Headset / PRYMEBLU PTT**

Once the PRYMEBLU Mobile Adapter has been successfully paired to a Bluetooth Headset or PRYMEBLU BT-PTT, it will remember those connections. If the headset or BT-PTT is powered off or loses connection, the adapter will attempt to reestablish the connection. The adapter and headset/BT-PTT will attempt to reestablish their link whenever when the devices are powered on and in within range of each other. Re-establishing this connection can take 10-60 seconds.

**STEP SEVEN: Transmit and Receive Operation**

Push-to-Talk can be activated by any of the following methods:

- \* Pressing and holding the Multifunction button of the PRYMEBLU Mobile Adapter
- \* Pressing and holding the PTT button on the PRYMEBLU PTT (if a BT-PTT is paired to the Mobile Adapter).
- \* Pressing and holding the button on the external Push-to-Talk/Footswitch (if one is plugged into the Mobile Adapter).

When transmitting, the operator’s voice is picked-up by:

- \* The microphone in the Bluetooth Headset.
- \* Note that the radio’s hand microphone can be used as a back-up. Pressing and holding the PTT button on the hand microphone will cause the radio to transmit and the operator’s voice will be picked up by the hand microphone.

When receiving signals:

- \* Receive audio can be heard over both the radio’s internal speaker or over the earphone in the Bluetooth Headset.
- \* The volume control knob on the radio controls the internal speaker volume only. If you do not wish to hear received signals over the internal speaker, simply set the radio’s volume to zero.
- \* The volume of the earphone can be controlled using the Volume Up/Down buttons on the Bluetooth Headset.

**STATUS LED MESSAGES**

The meanings of the various status LED messages shown by the PRYMEBLU Mobile Adapter are shown on the following table:

LED INDICATION	MEANING
One flash every 4 seconds	Normal operation
Two flashes per second	Headset pairing mode active
Three flashes per second	PTT pairing mode active
One long flash for three seconds	Successfully paired or re-paired
No indication	Radio is turned off or no power is being supplied to the adapter

SPECIFICATIONS	
Operating Temperature:	-20° C to +50° C ± 2°
Weight:	30g approximate
Bluetooth Module:	Fully Qualified Bluetooth v2.1+EDR Chip set
Audio Line Input:	350 mVrms (maximum)
Audio Output:	20 mVrms
Transmitted Power:	1 dBm (typical)
Receiver Sensitivity:	-82 dBm (typical)
Supported Bluetooth Operating Profiles:	HSP, HFP, SPP (for Push-to-Talk).
DC Input:	12 VDC
DC Current Draw (average):	13 mA
DC Current Draw (maximum):	120 mA

**TROUBLESHOOTING**

***My Bluetooth Headset or PRYMEBLU Push-to-Talk will not pair with the PRYMEBLU Adapter.***

Try re-pairing the PRYMEBLU Mobile Adapter and Bluetooth accessory following the instructions in this guide. Make sure that the PRYMEBLU Mobile Adapter and accessory being paired are within one meter of each other. If possible, isolate them from other Bluetooth devices such as phones, laptops, etc. that might interfere with the pairing process.

***My Bluetooth Headset or PRYMEBLU Push-to-Talk worked with the PRYMEBLU Adapter previously, but is not working now.***

Make sure that the PRYMEBLU Mobile Adapter is properly connected to the amateur radio and that the adapter has power supplied to it. Ensure that your wireless audio accessory has a fully charged battery and is turned on. If the devices will still not work, re-pair the PRYMEBLU Mobile Adapter to the wireless accessories.

***I can transmit using the Multifunction Button on the PRYMEBLU Mobile Adapter and transmit audio is picked up from my Bluetooth Headset; however the PTT button on my PRYMEBLU Push-to-Talk does not key the radio.***

Your PRYMEBLU BT-PTT is not properly paired with the PRYMEBLU Mobile Adapter or has come un-paired. Try pairing the adapter and BT-PTT again.

***I can transmit using the Multifunction Button on the PRYMEBLU Mobile Adapter or the PTT button on the PRYMEBLU Push-to-Talk but no microphone audio is being heard.***

Your Bluetooth Headset is not properly paired with the PRYMEBLU Mobile Adapter or has come un-paired. Try pairing the adapter and headset again.

***I have my PRYMEBLU Mobile Adapter plugged into my Mobile Two-Way radio but when I turn the radio on, the LED on the adapter does not light up.***

Check the connections to the external DC power supply and ensure that the power supply is turned on.

**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](http://www.PRYME.com).

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**DISCLAIMER:** The Bluetooth link used in this product is an open standard, unsecured technology. As such, it is not recommended for first-responder or other mission critical users.