Owner's Manual
Model: Milennia PRV21

Watertight Stereo Receiver built for the Outdoors
With Built In Bluetooth Audio Streaming, AM/FM,
USB Input, and Auxiliary Input

Product Description:

This radio features state of the art Bluetooth technology allowing music to wirelessly stream from an audio source to the receiver you just purchased. Why Bluetooth? From a practical standpoint, Bluetooth enables your music device (if applicable) to be placed in a glove box, your overhead console, or even your pocket-places that are dry-without having to install a separate docking station.

In addition, Bluetooth audio streaming will work with any Bluetooth enabled device, not just one brand of media. Once connected, you can use your marine receiver to control your media device and vice versa!

The Milennia PRV21 incorporates the following features:

AM/FM

Bluetooth Audio Streaming

USB input

Auxiliary input

RF remote option

U.S. and European tuning

Waterproof faceplate

45W x 4 amplifier

⏻	Power On/Off button
SL/AP	SL stands for SELECT; AP stands for AUTOPRESET.
1▶∥	Preset 1 while in Radio mode; Play/Pause while in USB mode.
2/INT	Preset 2 while in Radio mode; Introduction while in USB mode.
3/RPT	Preset 3 while in Radio mode ; Repeat while in USB mode.
4/RDM	Preset 4 while in Radio mode; Random while in USB Mode.
5/D+	Preset 5 while in Radio mode; Directory plus while in USB mode.
6/D-	Preset 6 while in Radio mode; Directory minus while in USB mode.
MOD	Mode Function. Switches amongst FM, Auxiliary, USB,and Bluetooth modes. Long press while in Bluetooth Mode results in Bluetooth pairing.
BND	Band Function. Switches amongst AM and FM bands.
VOL+	Volume Increase.
VOL-	Volume Decrease.
▶▶∣	Track Up/Tune Up/Fast Forward.
∣◀◀	Track Down/Tune Down/Reverse.

Ⅱ、 Radio Operation

A、 Press BND to access FM and AM. There are three FM bands and two AM bands each consisting of four channels.

B、 AP button. When this button is pressed, 6 of the strongest stations will be searched and programmed into the preset memory.

Ⅲ、 USB Operation

Note: Our USB slot is for USB sticks only. For play of other brands of media, please use the auxiliary input.

A、 Insert a USB stick into the USB slot. *Songs must be of the mp3 or wma format.*

B、 Press ▶‖ button to play songs; press ▶‖ again to pause the track.

C、 A short press of the ▶▶‖ or ‖◀◀ buttons will track up or track down respectively. A long press of the ▶▶‖ or ‖◀◀ will fast forward and rewind the current track respectively.

D、 INT button (INT stands for Introduction). A press of this button will result in playing the first 10 seconds of each track located on the USB stick. Pressing the button again will allow the unit to resume on the current track and correspondingly stops the Introduction process.

E、 RPT button. (RPT stands for Repeat). Pressing this button will result in repetitive playing of the current track. Pressing the RPT button again will stop the Repeat process.

F、 RDM (RDM stands for Random). Pressing this button will result in random playing of the USB stick files. Pressing this button again will stop the Random playing process.

Ⅳ、 Bluetooth Operation

A、 To pair your Bluetooth device, press the Mode button on the stereo until BT appears.

B、 Next, go to settings on the Bluetooth device and turn the Bluetooth option to "on".

C、 Pick the "MILPRV21" option on your Bluetooth enabled device

(please note that if you are prompted for a password, the code entered will be "0000" (zero). Next, on the stereo receiver, hold the Mode button in for 3 seconds. This will allow the pairing process to finalize. A higher pitch frequency noise will alert you to the connection/success!

D、 Once Bluetooth is paired, you can control track up and down, volume up and down, play and pause of the portable media through the Milennia receive.

V 、 Auxiliary Input Mode

A、 Press the Mode button until "AUX" appears on the LCD screen.

B、 The use of auxiliary mode allows you to play the portable music device through the headphone jack.

VI、 Remote Dongle

A、 You will notice there is a 3.5mm female port located on the back of the unit. This port is for the plug in of our RF remote (receiver and transmitter sold separately).

VII、 Bass, Treble, Balance, and Fader

A、 To adjust bass, treble, balance, and fader, press the SL button and adjust using the volume up or down button.

VIII、 Clock Adjustment

A、 The time can be kept in a standard 12 hour format or 24 hour format. To choose between the two, while in FM mode, press the SL/AP button. Then press volume up or down for the 12 or 24 hour cycle.

B、 To set the clock, the following must be completed. While in FM mode, long press the BND button. Follow this with another long press of the BND button. In doing so, the hour will flash. Press volume up or down to change the hour. Another long press of the BND button will cause the minute to change. Press volume up or down to change the minute.

IX 、 U.S. and European Tuning

A、 The receiver must be in the off position. While in the off position ,press button 4, 3, 1, 2 in succession.

4

X、INSTALLATION
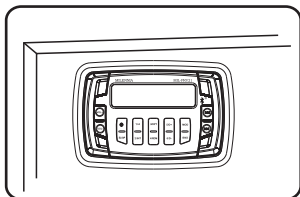
①

Please install this unit in the place you prefer
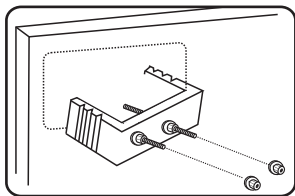
②

Use the bracket and screw to fix the unit

ⅰ 、WIRING

MAIN BOARD

REAR LEFT	**+** GREEN
	GREEN/BLACK **–**
FRONT LEFT	**+** WHITE
	WHITE/BLACK **–**

+ PURPLE	REAR RIGHT
PURPLE/BLACK **–**	
+ GRAY	FRONT RIGHT
GRAY/BLACK **–**	

ANT — BLACK

RED ACC — FUSE 1A

YELLOW B+ — FUSE 10A

BLACK GND

AUX IN1 — WHITE L / RED R

AUX IN2 — WHITE L / RED R

BLACK — USB

BLACK — REMOTE
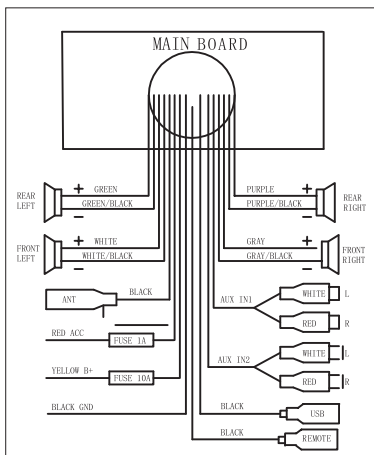
ii 、 Troubleshooting

Issue	Cause	Solution
No power	1. Incorrect wiring 2. Fuse is blown	1. Double check wiring 2. Replace fuse
No Sound	1. Speaker connection came loose 2. Bad speaker 3. Output blown.	1. Double check connection. 2. Replace bad speaker with known good speaker and connect. 3. Send unit in for repair.
No Reception	1. Antenna not firmly seated in socket.	1. Insert firmly
USB stick not reading	1. File must be a mp3 or wma file.	1. Convert format to mp3 or wma.

While in Bluetooth mode:

No Connection	1. You are not connected to the "MILPRV21" address.	1. Choose "MILPRV21" on your portable media device.
	2. Out of range	2. Bring portable media device closer to Milennia receiver. Device needs to be within 30".
	3. The connection is already in use.	3. Ask the person who first paired to drop out enabling you to connect.

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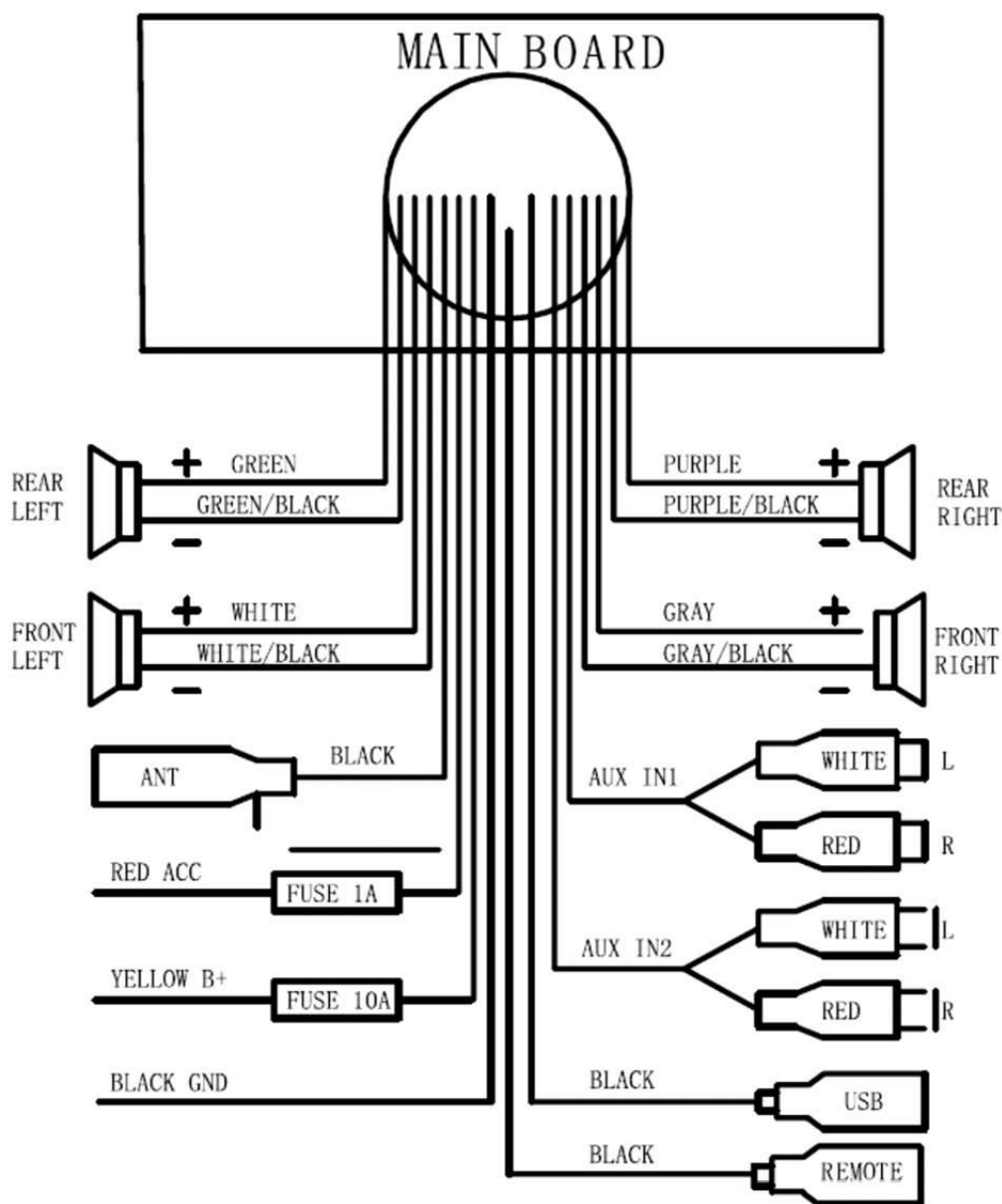

Thank you for purchasing this audio product.

Milennia PRV21 Troubleshooting Guide

Prospec Electronics of South Carolina, Inc.

MAIN BOARD

REAR LEFT   **+** GREEN   GREEN/BLACK **–**

PURPLE   **+**   PURPLE/BLACK **–**   REAR RIGHT

FRONT LEFT   **+** WHITE   WHITE/BLACK **–**

GRAY   **+**   GRAY/BLACK **–**   FRONT RIGHT

ANT   BLACK

AUX IN1   WHITE L   RED R

RED ACC   FUSE 1A

YELLOW B+   FUSE 10A

AUX IN2   WHITE L   RED R

BLACK GND

BLACK   USB

BLACK   REMOTE

1.0. Wiring Follow the wiring diagram below.

- The red ACC wire is designed as the trigger to turn the radio on. It recommended that this wire is connected to an on/off switch for purposes of lowering the current draw on the battery while the radio is not in use.
- Both red ACC and yellow battery wires must be connected to 12V+ for the radio to turn on.
- Ground (black) must be connected to a good 12V- source. Best source is directly to the battery.
- Speaker wires must be installed to the individual speaker's terminals as labeled, positive and negative, respectively. Do NOT combine any speaker wires as this will cause permanent damage to the radio's output IC. Tape off any unused speaker wires individually to prevent accidental shorting which can also harm the output IC.
- Antenna must be installed.
- USB extension is supplied with radio.
- AUX Input 1 and AUX Input 2 – two separate inputs for two separate external devices. Connectors shown in diagram are female RCA connectors.
- Remote lead – female 3.5mm jack for wired remote or wireless remote adapter.

2.0. Compatible Accessories See our website for the following add on accessories:
- SEAMINI2 – AUX input extension with protective outlet housing
- SEAUSBMINI – AUX input and USB input extension with protective housing
- MIL-IDOCK – multimedia device protective storage drawer
- MIL-RF9-21 – RF remote with compatible adapter (except PO H06804912 which does not have the connection)
- MIL-plate1
- Any Antenna
- MIL-MA-100 (high pass wiring only)

3.0. List of common issues

3.1 No Power
- Check each button on the control pad for sticking. Under normal conditions, a faint click is heard upon pressing each button. If any button does not click, initiate a warranty claim.
- Ensure red and yellow leads are connected to a good 12V+ source. Both must have power for the radio to turn on.
- Ensure black ground wire is connected to a good reliable ground source.
- Open the fuse holder and check the fuses. Note, while in most situations, a bad fuse can be spotted visually, this may not always be the case. The best method would be to use a multi-meter or a test light.
- While the fuse holders are open, inspect the fuse holder terminals to ensure they have spring tension and they are not stuck down inside the fuse holder(s). Also inspect the fuses and terminals for rust and corrosion. See below picture
- Ensure the battery/power supply is putting out at least 12V while under load. The radio requires at least 11V to operate normally.
- Check all connections for corrosion, looseness, or other condition that can produce a bad ground. Corrosion or terminal looseness is the leading cause for most grounding issues and can cause excessive heat resulting in melting wires or terminals.
- If possible, connect the radio power directly to a 12V system, bypassing any toggle switches. If radio works connected directly to power, the problem might be with the toggle switch.
- If the above doesn't help, initiate a warranty claim if you are within warranty.
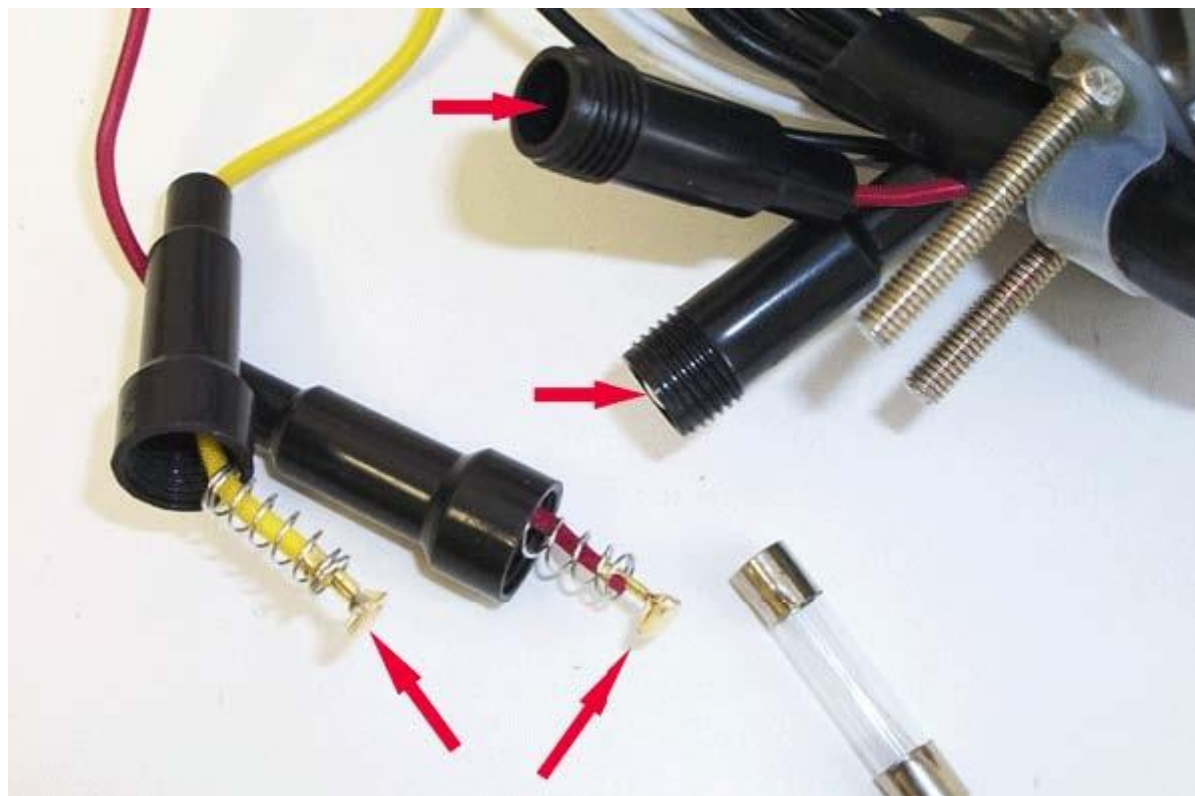
3.2 Intermittent Power

3.2.1 Powers on and off constantly

•   Check voltage under load. At least 11V must be maintained consistently to operate the radio normally.

•   If voltage cannot be maintained, load test the battery or power supply.

•   Check all connections for corrosion, looseness, or other condition that can produce a bad ground.

•   Check wire harness by wiggling the wire harness on the radio and the vehicle side. If the whole pin comes out, bend the holders on the pin so that the pin will stay in the plug (see below image). If the wire comes out of the pin, initiate a warranty claim so we can re-pin the radio.

3.2.2 Powers off and on while vehicle is moving

• Inspect all connections including the radio's harness for looseness. Wriggle connections while the radio is operating to produce the symptom and narrow down the loose connection.

3.3 Buttons/controls not responding

•   Press each button to ensure a click is heard signifying the button is mechanically operational. If one or more buttons do not click, initiate a warranty claim.

•   Reset the microprocessor - disengage the radio from power for at least 3 seconds, then reconnect. Both red ACC and yellow Memory wires must be disengaged to facilitate a reset of the microprocessor. If both ACC and Memory wires are connected to a main breaker or cut-off switch/ignition switch, any of these methods can be used in lieu of physically disconnecting the wires.

3.4 Wireless Remotes not Working

If your radio has PO H06804912, then you do not have remote capability

- Make sure the MIL-RF9-21 remote package is connected to the PRV-21. If it is not, the RX21 remote adapter is needed.

3.4.1 Remote will not light up

- The MIL-RF9 has a thin plastic film under the battery that protects the battery from being drained during storage and shipping. Remove this film and try the remote again.
- Replace the battery in the MIL-RF9
- Initiate a warranty claim for the remote here if you are under warranty

3.4.2 Remote Controls Wrong Functions

- Check the PO number on the back of the radio. If the PO is H05022014, then an adapter will fix this problem. Contact Customer Support here

3.5 USB issues

    3.5.1 iPod/iPhone not charging or playing – these devises are not supported. To play iPod/iPhone, use the headphone jack and connect to the AUX inputs of the PRV-21. Recommended additional purchases are the SEAMIN2 or SEAUSBMINI.

    3.5.2 MP3 player is not charging or playing – not all mp3 players will play via USB. The difference is in the software of the mp3 player.

    3.5.3 Flash Drive/ Thumb drive not playing

        3.5.3.1 Only MP3 or Windows Media files are supported. These files can be recognized by viewing their file extension on a computer; i.e., the file "My Favorite Song" will be followed by a "." and the extension "mp3" or "wma". Some computer operating systems have extension view disabled. The feature can usually be enabled in the computer's folder properties.

        3.5.3.2 iTunes music files will not play as these are not in mp3 format. Software converters can be purchased to convert these files as others to mp3 format. Do not exceed a bit rate of 128 Kbps when converting.

        3.5.3.3 Only drives formatted to FAT are supported. Most flash drives come this way standard.

        3.5.3.4 Some flash drives com preloaded with proprietary software or other media organizational software that will prevent the PRV21 from reading the contents. Best practice is to completely format the drive to erase all contents before loading music files.

        3.5.3.5 Supported formats must not exceed a bit rate of 128 Kbps.

        3.5.3.6 Check USB outlet for corrosion or rust.

3.6 Poor or no Reception

    3.6.1 For an amplified antenna

- Ensure the antenna is connected to power and ground according to manufacturer's instructions.
- The antenna wire should never be coiled or wound up.
- Check proximity of radio, speakers and antenna to gages, GPS equipment, depth finders, LED lighting, or any other source of Radio Frequency Interference (RFI) and Electronic Magnetic Interference (EMI).

    3.6.2 For all other Antennas

- Inspect the antenna for torn wires
- The antenna wire should never be coiled or wound up
- Check proximity of radio, speakers and antenna to gages, GPS equipment, depth finders, LED lighting, or any other source of Radio Frequency Interference (RFI) and Electronic Magnetic Interference (EMI).

    3.6.3 LED lighting causes low FM/AM audio or poor reception

- Never bundle the power source wires of the LED lighting to the power wires of the radio.
- If needed, the LED power wires and radio power wires should intersect at a 90 degree angle.
- The radio's antenna must be as far away from the LED lights and power source as possible.
- The radio's speakers also must be as far away from the LED lights as possible.
- If all fails, upgrade the LED lighting to a brand that is guaranteed not to emit RF or EMI.

3.7 No audio, speaker audio is unevenly distributed or some speakers not working
• Check Balance settings. To access and adjust these settings, press the SEL button to access the system settings. Quickly press the SEL button again and again until the desired setting is displayed. Use the volume buttons to adjust. Center the fade and balance adjustments between front/rear and left/right.
• Check speaker connections. Ensure each speaker wire is routed to the appropriate speaker terminal for which it is intended.
• Inspect all speaker wires for exposed wire and tape up as necessary. Make sure they cannot ground to one another or make contact with any other potential power source or ground. NEVER combine speaker wires.
• If some speakers are working but others are not and the above methods do not help, swap the known working speakers with the ones that are not working. This will help determine any defective speakers.
• If no audio and the above methods yield nothing, initiate a warranty claim.

3.8 Low Audio
• Check speaker specifications – recommended impedance is 4ohm
• Check sound enhancements - To access and adjust these settings, press the SEL button. Quickly press the SEL button again and again until the desired setting is displayed. Use the volume buttons to adjust or turn on/off.
• LED lighting can cause low FM/AM audio – see section 3.6.3

3.9 Fluctuating audio or FM signal - Audio level constantly raises and lowers when the engine is started or revved. This issue is more frequently caused by power fluctuations than radio failure.
• Check to ensure ground is good and no corrosion exists at connection points.
• Check all power wires for corrosion at connection points.
• Check for corrosion at battery terminals, bus terminals, and fuse panel.
• If in a boat or another motor vehicle, ensure the recommended plugs are being used the engine. Resistor plugs can often block unwanted RF signal that can interfere with radio reception.
• LED lighting can cause fluctuating FM/AM audio – see section 3.6.3
BREAKABLE

3.10 Moisture in Display
    3.10.1 Water inside display after washing the mounting area
• Radio is not designed to withstand pressurized streams of water. When rinsing the radio or around the radio, a very low pressure spay is recommended.
• Monitor the display for possible evaporation without harm to the radio.
• Monitor the radio for strange or erratic behavior. If the issue persists, internal damage has occurred- seek to repair or replace.
    3.10.2 Slight fog after operation – normal in colder weather but monitor
    3.10.3 Heavy condensation
• The condensation may evaporate without harm to the radio.
• Monitor the radio for strange or erratic behavior. If the issue persists, internal damage has occurred – seek to repair or replace.

4.0 Bluetooth Connections

4.1 Common Devices and Connections

Bluetooth Connections -*Smartphones must be an A2DP enabled device in order to stream audio and Bluetooth 2.0 or newer.*

4.1.1 iPod/iPhone Pairing Instructions
• Switch PRV-21 to Bluetooth mode.
• Go to settings on the iPod/iPhone and make sure Bluetooth is on.
• Go to Bluetooth settings on the iPod/iPhone; the iPod/iPhone should start scanning for Bluetooth devices.
• On the PRV-21, press and hold the MOD button until "BT PAIR" displays.
• PRV-21 should show in the device list on the phone.
• If PRV-21 does not show in the list of devices when the iPod/phone is done scanning, press and hold the MOD button on the PRV-21 again until "BT PAIR" displays. Immediately after this step, rescan for Bluetooth devices on the iPod/phone.
• Once PRV-21 shows up on the phone, select it and the iPod/phone will automatically connect.

4.1.2 Android phones Pairing Instructions - *Most android phones will work with the PRV-21 however you may have an exception if the customer has an outdated Android phone. Mostly phones older than three years.*
• Switch PRV-21 to Bluetooth mode
• Go to settings on the Phone and make sure Bluetooth is on.
• With the phone, go to Bluetooth settings and scan for new devices.
• While the phone is scanning devices, press and hold MOD on the PRV-21 until "BT PAIR" displays.
• Wait for the phone to add the PRV-21 to the list of Bluetooth devices.
• Select the PRV-21 on the phone's list of devices and the connection should complete automatically.
• When the connection is complete and ready, the phone will display "Connected to media and audio". *Varies from device to device.*

4.1.3 Blackberry Pairing Instructions
4.1.3.1 Pairing
• Switch PRV-21 to Bluetooth mode
• On the phone, turn on Bluetooth and go to Bluetooth settings.
• Select "Add new device".
• On the PRV-21, press and hold the MOD button until "BT PAIR" displays on the LCD.
• Once the phone has found the PRV-21, select it and pairing will complete automatically.

4.2 Playing Bluetooth Music
4.2.1 After the connection is complete, the user may have to initiate play mode either via the phone/iPod or via the play/paus button on the PRV-21.
4.2.2 The User will have control over the music library from both the PRV-21 as well as the phone; however, changing of playlists or other search options will have to be done via the phone/iPod.

4.3 Common Bluetooth Issues
4.3.1 iPod, phone, cannot find the PRV-21 – The PRV-21 must be in pairing mode when scanning devices on the iPod/phone.
4.3.2 Music fades in and out while playing –
4.3.2.1 Bluetooth reception can be impaired by certain types of objects when disrupt line of site. Some of these objects include metal, concrete, and the human body.
4.3.2.2 The Bluetooth line of site range for the PRV-21 is approximately 20 feet.
4.3.3 The PRV-21 plays only one track or the same set of tracks repeatedly – A playlist, artist, album, or other search is selected on the phone/iPod. This will limit playing to the tracks selected within the search parameter. The PRV-21 cannot change this selection; this selection must be changed via the phone/iPod.

5.0 Reset Procedure

With the radio plugged in and powered off, press preset 4, 3, 1, 2 in that order. The radio will then display "RESET" and power off.