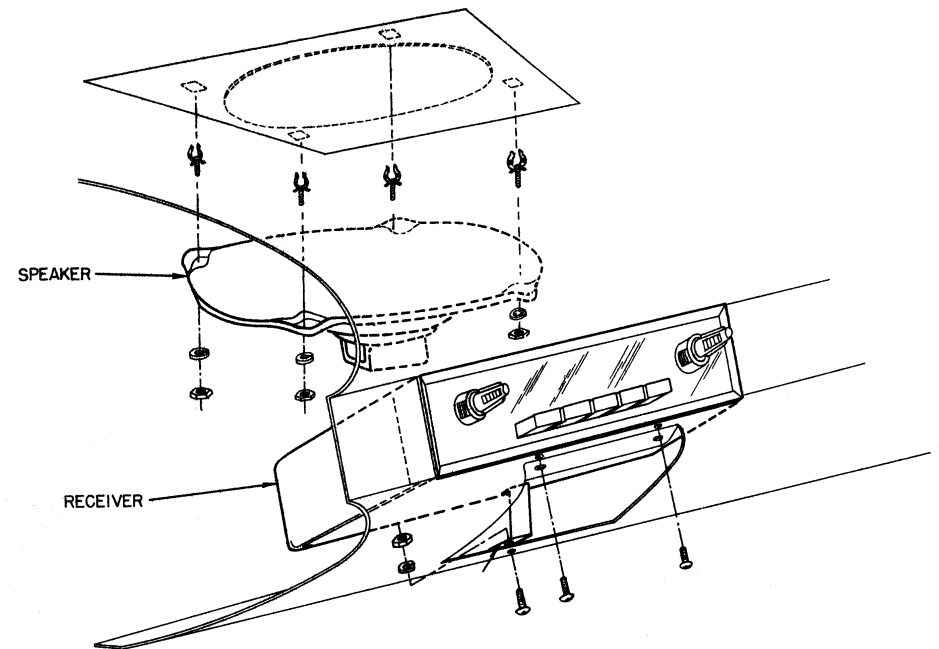# Aurora Design
BTC-3.0/BTL-3.0
Bluetooth/AAC Adapter

User Operation
Manual

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Le présent appareil est conforme aux CNR d'Industrie Canada 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.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Specifications:

Bluetooth Transceiver*:

Frequency Band:	2.40-2.48GHz
Standard:	Bluetooth 5.0 certified, Class 2
Profiles:	HFP 1.6, A2DP 1.2, AVRCP 1.5
Sensitivity:	-90dBm @ 0.1% BER
TX Power:	4dBm maximum

Environmental:

Temperature:	-30C to 65C (-22F to 150F) Operating
	-40C to 125C (-40F to 257F) Storage
Humidity:	10% to 90% non-condensing

Aurora Design LLC. does not assume any responsibility for personal injury or property damage incurred due to hazardous driving as a result of interaction with the BTC-3.0/BTL-3.0 or other Bluetooth devices.

BE SAFE! Never text while driving or be distracted by the radio.

Note: *seek-button* refers to the Wonderbar or Town & Country button on a signal seeking radio. In AM/FM mode this button will only control the radio seek function, not the Bluetooth.
*Characterized by component manufacturer
Bluetooth® is a registered trademark of the Bluetooth SIG
AAC trademark used under license from Via Licensing

Troubleshooting:

Poor Range: Make sure nothing is obstructing the dial face of the radio, or the openings along the bottom side of the radio chassis. Try moving your Bluetooth device to a different location.

No Sound: Make sure the BTC-3.0/BTL-3.0 is paired and connected to your device. Also make sure the BTC-3.0/BTL-3.0 is selected as the audio device for streaming audio and hands-free operation on your device following the manufacturers instructions. Verify the audio levels are set properly on the Bluetooth device.

US Certification:

FCC ID: A8TBM20SPKXYNBZ

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 or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Consult the dealer or an experienced radio/TV technician for help.

European Certification:

The Bluetooth module used in this device complies with the essential requirements of the R&TTE 1999/EC, the EMC Directive 2004/108/EC and the low-voltage Directive 2006/95/EC.

Canadian Certification:

IC: 12246A-BM20SPKS1

This device complies with Industry Canada license-exempt RS 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.

Congratulations on your new Aurora Design BTC-3.0/BTL-3.0 Bluetooth/AAC adapter. Combined with an FMR-3 converted radio, you can enjoy 21st century technology in your classic vehicle!

Setup: Your radio may have come equipped with an internal microphone. If not, before installing your radio back into your vehicle, you may wish to plug the hands-free microphone or optional illuminated pushbutton into the appropriate jacks on the radio. The microphone can be placed in a convenient location in the vehicle, typically along the front edge of the headliner near the rear view mirror or along the bottom edge of the dashboard. The attached cable is 9.8' (3M) long and can be routed as required, typically behind the A pillar cover for headliner mounting. Excess cable can be coiled and tied off.

The optional pushbutton assembly is not required when used with an FMR-3 converted radio as the existing radio controls can be used to fully control the BTC-3.0. The pushbutton assembly can still be used with an FMR-3 converted radio if desired, and must be used with all other installations. The pushbutton requires a 1/2" (12.7mm) hole and should be mounted somewhere convenient such as the bottom edge of the dashboard. The pushbutton is illuminated with a red status LED that should be made visible for easiest operation. The attached cable is 3.3' (1M) long and can be routed as required. Excess cable can be coiled and tied off.

Basic Operation: Operation of the BTC-3.0/BTL-3.0 is extremely simple yet powerful. The BTC-3.0, when combined with an FMR-3 AM/FM receiver form a fully integrated AM/FM/Bluetooth/AAC solution. Communication over a proprietary com-link keeps the two modules in perfect sync. No external cables, plugs or switches are required. Full operation is provided by the existing controls on the radio. When streaming music or handling a phone call, the FMR-3 status LED will change color to indicate Bluetooth operation. (see FMR-3 manual for more information on status LED) When you stop streaming music or end a call, the BTC-3.0/BTL-3.0 will put the FMR-3 back into normal operation. Everything is handled automatically.

The BTC-3.0/BTL-3.0 supports SBC and AAC formats over Bluetooth. AAC files offer higher quality and is the native format used by iTunes® and many other popular music services. ACC files will play natively off compatible Bluetooth devices.

The BTC-3.0/BTL-3.0 will always return to the last mode it was in when the radio was turned off assuming the Bluetooth device is still present. For example, if the BTC-3.0/BTL-3.0 was playing back from the Bluetooth when the radio was powered off, it will return to playing back from where it left off when the radio is turned back on.

The BTC-3.0/BTL-3.0 supports *Voice Assist HD* which will clearly speak messages to you to assist in the operation of the radio.

Bluetooth Pairing: To pair a new device, twist the volume control back and forth twice towards the direction of higher volume. (this is the same action that is used with the tone control to access the virtual fader function) or push and hold the optional pushbutton. The optional front panel status LED or the optional pushbutton LED will flash and a *Voice Assist* message will be heard in the radio. The BTC-3.0/BTL-3.0 will then go into pairing mode for approximately 90 seconds or until a device is paired. While in pairing, the BTC-3.0/BTL-3.0 will display as *AuroraDesign BTC-x.x.x* in the Bluetooth section of your device. (x.x.x represents the version) Select the BTC-3.0/BTL-3.0 to connect. (refer to the owners manual for your Bluetooth device for information on pairing) If you wait longer than 90 seconds the BTC-3.0/BTL-3.0 will time out and *Voice Assist* message will be heard. Up to eight devices can be paired to the BTC-3.0/BTL-3.0.

Bluetooth Connecting: The BTC-3.0/BTL-3.0 will automatically attempt to reconnect to the last connected Bluetooth device. If this device is not within range, the BTC-3.0/BTL-3.0 will then attempt to reconnect to any of the last four connected devices. This is handy when the user has multiple Bluetooth devices, or several people use the radio. If any paired device is within range when the radio is powered on, the BTC-3.0/BTL-3.0 will reconnect and return to its last mode. The optional front panel LED or the optional pushbutton LED will illuminate to signify a Bluetooth device is connected. A *Voice Assist* message will also be heard in the radio when a Bluetooth device successfully connects.

Bluetooth Audio Levels: The BTC-3.0/BTL-3.0 sends commands to the connected Bluetooth device to adjust the playback audio levels, but many devices require that the user make these settings manually. Usually the playback levels for audio streaming, phone calls and *Voice Command* are all stored separately so must be adjusted separately. The first time you stream audio, take a phone call, or use the *Voice Command* feature, use the volume buttons or volume slider menu on the device to adjust the audio level. This only needs to be performed once on the device as these settings are permanently saved in the device.

Bluetooth *Voice Command*: The Bluetooth *Voice Command* feature allows the user to control their compatible Bluetooth device through voice commands. The *Voice Command* feature is accessible in all radio modes. It is designed to work with Apple Siri®, Google Voice® and Microsoft Cortana® and other Bluetooth voice interfaces. To initiate a *Voice Command*, twist the volume control back and forth twice towards the direction of higher volume or push and hold the optional pushbutton/seek-button. (this is the same motion that was used to open up pairing) Wait for the confirmation tone from the Bluetooth device and then speak the command. For example you can say things like "call home" or "play Bruce Springsteen". Check with the manual for your Bluetooth device for further information on its support for voice commands.

Bluetooth Streaming: To start playing music from the Bluetooth interface, twist the volume control back and forth twice towards the direction of lower volume or push and hold the optional pushbutton/seek-button for about 1 second. (you can also use the menus on your Bluetooth device to control the audio) To toggle between pause and play, repeat the procedure above. When the audio is paused, the FMR-3 status LED will blink slowly. If the audio is paused for more than about 10 seconds, the BTC-3.0/BTL-3.0 will release the FMR-3 and it will switch back to normal radio operation. If playback is started again, it will continue from where it left off.

To skip to the next song, twist the tuning control towards the high frequency end of the dial or quickly press the optional pushbutton/seek-button once. To skip to the previous song, twist the tuning control towards the low frequency end of the dial or quickly press the optional pushbutton/seek-button twice. (Hint: when twisting the tuning control, twist it in the desired direction and then back to the starting point. This way the tuner always remains in the same position)

Hands-free Phone: When a phone call comes in, the FMR-3 will mute the radio and ring through. To accept the call, twist the tuning control towards the high frequency end of the dial or quickly press the optional pushbutton/seek-button once. To reject or end a call, twist the tuning control towards the low frequency end of the dial or quickly press the optional pushbutton/seek-button twice or press the seek button again.

To mute the microphone, twist the volume control back and forth twice towards the direction of lower volume or push and hold the optional pushbutton/seek-button for about 1 second. (you can also use the menus on your Bluetooth device to control the audio) A repeating confirmation tone will be heard on the radio while the call is muted. To toggle between mute and unmuted, repeat the instructions above. When the audio is muted, the FMR-3 status LED will blink slowly. A *Voice Assist* message will be heard confirming when the call ends.

For call-waiting, follow the same procedure as above to accept or reject the waiting call. To switch between calls, use the accept call action. To end the active call, use the reject call action. To join the calls, twist the volume control back and forth twice towards the direction of higher volume or push and hold the optional pushbutton/seek-button.

Note: The Bluetooth device can also be controlled using its own menus. (follow manufactures instructions on controlling your device)