

AQUATIC AV®

products with a watertight reputation

AQ-MP-5UBT-HS - WATERPROOF MEDIA PLAYER

for SiriusXM, iPhone, iPod, USB, Bluetooth & MP3 devices

USER / INSTALLATION MANUAL



Replaces Factory Radio on Harley-Davidson® Motorcycles
(Models 1998-2013)



! PLEASE READ THIS INSTRUCTION MANUAL BEFORE
INSTALLATION AND OPERATION !

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1.1 Contents

- AQ-MP-5UBT-HS Digital Media Player
- Dummy Faceplate/Dust Cover
- AQ-USB-1 USB Input Socket
- Four-pin Speaker Wiring Harness
- User / Installation Manual

1.2 Connections (see also '1.3 Wiring Diagram')

1. 23-pin Harley-Davidson® Standard Harness Connection

The 23-pin harness supplies power and ground connections to the Media Player and two speaker channel output connections from the Media Player.

2. FM/AM Radio Antenna Jack

Allows connection of FM/AM radio antenna. For best FM/AM performance make sure the antenna is extended to the highest achievable position.

3. Auxiliary Outputs

Allows external amplifiers to be connected to power additional speakers.

4. Auxiliary Inputs

Allows an additional RCA input, from a standalone unit or another stereo source.

5. Bluetooth Antenna

Allows a Bluetooth device to wirelessly connect to the unit.

6. Subwoofer Output

Allows powered (active) subwoofer to be connected via RCA connector.

7. 12V DC External Trigger (x2)

Allows for external lighting or relays to be triggered (350mA max load).

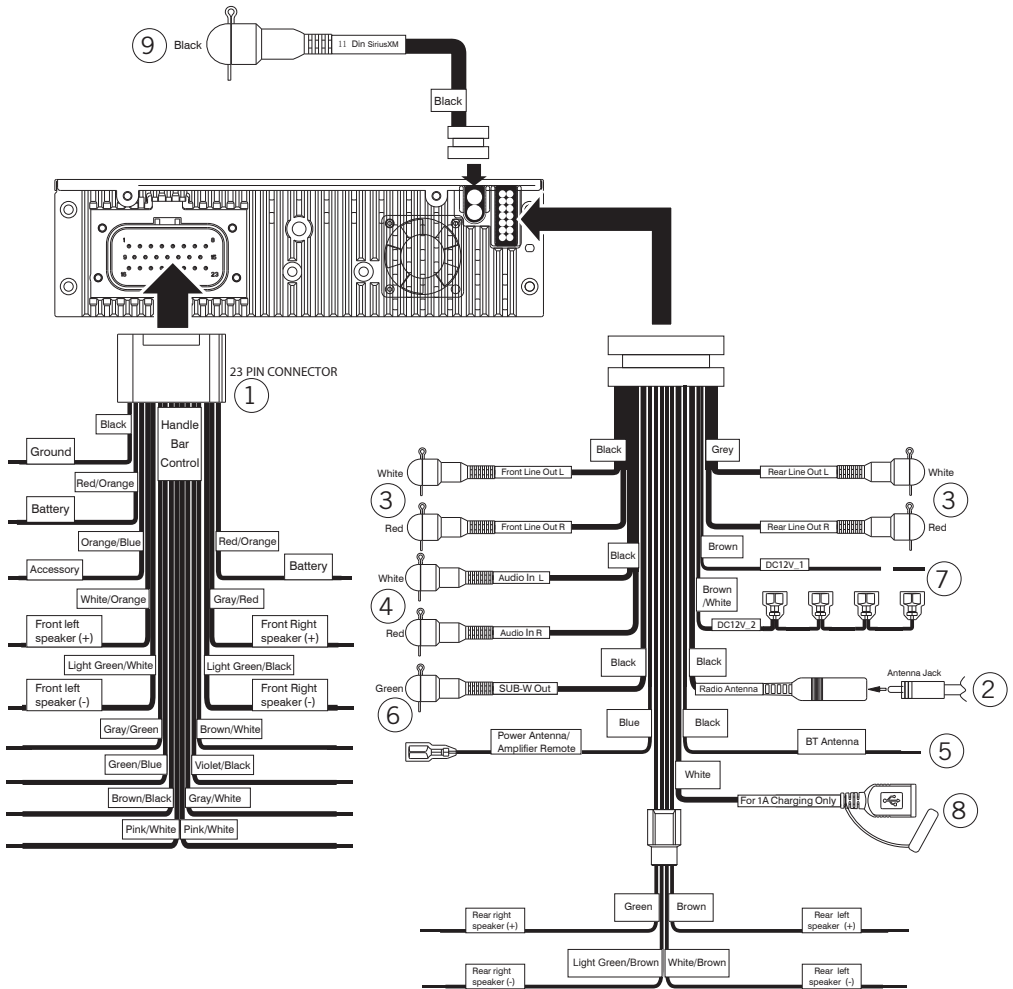
8. USB Charging Input

Charges USB devices when connected.

9. SiriusXM Satellite Radio Input

Allows the connection of the SiriusXM-Connect Vehicle Tuner (sold separately).

1.3 Wiring Diagram



No lower than a 2 Ohm load should be used or damage may occur to the Media Player. Make sure the polarity of speakers are connected correctly.

1.4. Mounting Precautions

Please observe the following precautions:

1. Install the unit where it does not interfere with driving.
2. Check clearances on both sides of a planned installation before drilling any holes or installing any screws.
3. When routing RCA cables, keep them away from power cables and speaker wires.

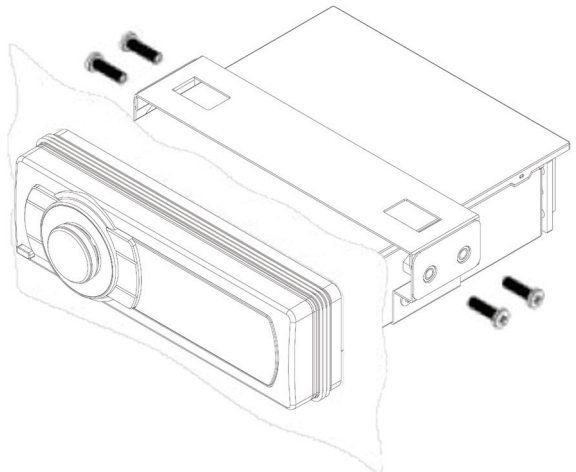
i A common source of noise in the audio system is the motorcycle ignition system. This is usually due to the radio being located close to the ignition system (engine). This type of noise is detectable by a varying pitch with the speed of the engine.

Ignition noise can be removed using a high voltage radio suppression type ignition wire and a suppressor resistor. Your motorcycle may already use this wire and resistor but it may be necessary to check them to ensure they are operating correctly. Alternatively, a noise suppressor could be installed.

1.5 Installing the Media Player if no stereo is already installed

Use the existing Harley-Davidson® factory side mounting brackets and hardware to mount the Media Player.

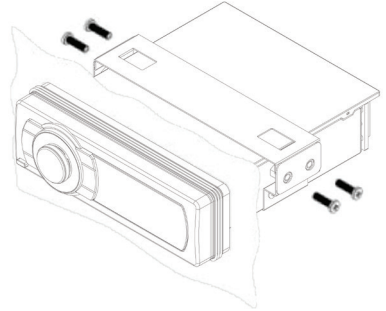
1. Position the Media Player in front of the fairing opening so the wiring can be passed through the opening.
2. Follow the wiring diagram and ensure all connections are secure and insulated with crimp connectors to ensure proper operation.
3. Turn the Media Player on to confirm operation (motorcycle ignition switch must be on) and once correct operation is achieved turn the motorcycle ignition switch off before proceeding with the final mounting of the chassis.
4. Ensure that the unit is supported and secured on the sides using the existing 4 factory screws; failure to do so may allow the unit to move during while riding, causing damage to the mounting area.



1.6 Installing the Media Player if an existing factory stereo is already installed

If replacing an existing Harley-Davidson® factory stereo use the existing Harley-Davidson® factory side mounting brackets and hardware to mount the Media Player.

1. Unplug the 23-pin harness and FM/AM radio antenna from the factory stereo.
2. Remove the factory stereo and replace with the AQ-MP-5BT-HS Media Player using the existing factory mounting hardware.
3. Plug the 23-pin harness and FM/AM radio antenna into the AQ-MP-5BT-HS factory stereo.
4. Turn the Media Player on to confirm operation (motorcycle ignition switch must be on) and once correct operation is achieved turn the motorcycle ignition switch off before proceeding with the final mounting of the chassis.
4. Ensure that the unit is supported and secured on the sides using the existing 4 factory screws; failure to do so may allow the unit to move during while riding, causing damage to the mounting area.



1.7 Connecting Rear Speakers

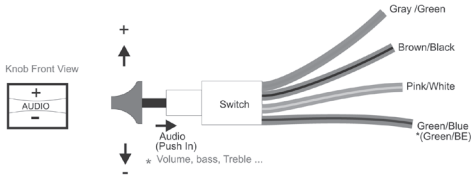
Rear speakers are usually installed on the following Harley-Davidson® Motorcycle models: *Electra Glide Ultra Classic*, *Road Glide Ultra*, *Ultra Limited*. To continue using these speakers with your Aquatic AV Media Player follow the instructions below.

1. Locate the Aquatic AV 4-pin pigtail connector (4-pin molex connector with four speaker wires). The pigtail itself is labelled with Color Code, Function and Description.
2. Locate the stock 35-pin wiring harness that was connected to your OEM radio. This connector will not be connected to your Aquatic AV head unit. Cut the four matching colored wires from the back of the 35 pin harness 3" down from the connector.
3. Strip the 4-pin pigtail wires 1/4" exposing bare wires. Strip the 4 wires that you cut from the 35-pin harness 1/4" exposing bare wires.
4. Connect and crimp using crimp caps or solder the connection, cover the soldered wires with non conductive heat shrink tube.

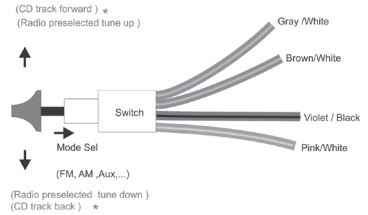
i After following the installation instructions above test your rear speakers for sound. If you do not have output from your rear speakers make sure to check your rear speaker setting in the settings menu and select rear speakers 'ON'.

1.8 Handle Bar Controls

Audio switch (left hand side)



Mode switch (right hand side)



The AQ-MP-5UBT-HS is a plug and play solution for 1998-2013 Harley-Davidson® Motorcycles. Plug the standard Harley-Davidson® 23-pin connector in to the back of the AQ-MP-5UBT-HS and your speakers and hand controls will work the same as the standard factory install (some Harley-Davidson® models may require additional steps).

Some stock Harley-Davidson® features e.g. CB radio will not be supported through the AQ-MP-5UBT-HS.

Below is a matrix of what can be controlled on the AQ-MP-5UBT-HS via the stock Harley-Davidson® hand controls.

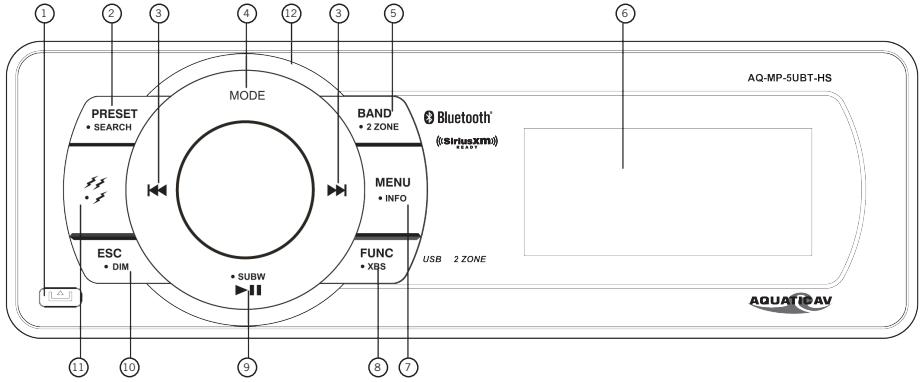
	Hand Control Up	Hand Control Down	Mode Select
AM/FM	Tunes to next station	Tunes to previous station	Switches Mode
Bluetooth/USB	Next Track	Previous Track	Switches Mode
AUX	No function	No function	Switches Mode
SiriusXM	Next Channel	Previous Channel	Switches Mode
	(+)	(-)	Audio
AM/FM	Turns volume up	Turns volume down	Accesses Audio Menu adjustments
Bluetooth/USB	Turns volume up	Turns volume down	Accesses Audio Menu adjustments
AUX	Turns volume up	Turns volume down	Accesses Audio Menu adjustments
SiriusXM	Turns volume up	Turns volume down	Accesses Audio Menu adjustments

1.9 Power On

The AQ-MP-5UBT-HS requires +12V DC to both the red and yellow wires. When both of these wires have power the AQ-MP-5UBT-HS is powered on. Ground is connected to the black wire.

Once all connections are made press the rotary knob and the stereo will turn ON.

2.1 Media Player Controls



- | | | | |
|------------------------|----------------|-------------------------|------------------------|
| 1. Front face release | 4. Mode button | 7. Menu/Info | 10. ESC/Dimmer |
| 2. Preset/Search | 5. Band/2-Zone | 8. Function/XBS | 11. 12V Triggers |
| 3. Fast Rewind/Forward | 6. LCD screen | 9. Play/Pause/Subwoofer | 12. Rotary Select Knob |

2.2 Media Player Control Functions

Button		AM/FM Mode	Aux In	Bluetooth	USB	SiriusXM® Satellite Radio
Rotary Select Knob	Short Press	Mute				
	Long Press	Power Off				
	Short Press	When system is Off, this will power back On				
		In MENU, FUNC: Select				
Mode	Short Press	Enter mode select screen or switches to next source				
	Long Press	No Function				
Rotary Knob Clockwise		Volume increases				
		FUNC mode: Down / MENU: Next				
Rotary Knob Counter Clockwise		Volume decreases				
		FUNC mode: Up / MENU: Previous				
Fast Forward	Short Press	Scans to the next station	No Function	Changes to next song	Changes to next song	Next Station
						Skip forward in Replay Mode
	Long Press	Switches into manual seek mode	No Function	No Function	No Function	Rapid Channel
				Fast Forward		Fast Forward in Replay Mode
Fast Rewind	Short Press	Scans to the previous station	No Function	Changes to previous song	Changes to previous song	Previous Station
						Skip Back in Replay Mode
	Long Press	Switches into manual seek mode	No Function	No Function	No Function	Rapid Channel
				Fast Rewind		Fast Rewind in Replay Mode
Play/Pause/Subwoofer	Short Press	Toggles Mute On/Off	No Function	Toggles Play/Pause	Toggles Play/Pause	Play/Pause SiriusXM
	Long Press	Displays Subwoofer volume				
Band/2 Zone	Short Press	Switches between AM/FM Bands	No Function	No Function	No Function	SXM1, SXM2, SXM3
	Long Press	Toggles 2 Zone selection menu				
12V Trigger	Short Press	Toggles 12V Trigger menu				
FUNC/XBS	Short Press	Toggles applicable functions for each mode				
	Long Press	Toggles XBS ON/OFF				
ESC/DIM	Short Press	Returns you to the Previous Screen				
	Long Press	Toggles between dimmer modes				
PRESET/SEARCH	Short Press	Displays your presets	No Function	Toggles Search feature*	Toggles Search feature*	Displays your presets
	Long Press	Auto Store station preset	No Function	No Function	No Function	No Function
MENU/INFO	Short Press	Toggles system menu				
	Long Press	Changes the information displayed on screen	No Function	Changes the information displayed on screen*		No Function

* iPod & iPhone only



If your music player is connected via the Auxiliary input you will not be able to control track or receive track information.



Turn off DSP to access control of Bass and Treble

3.1 Listening via Bluetooth

The Bluetooth menu is accessible via the in the 'Menu/Info' button and is used to connect or disconnect a Bluetooth device that has already been paired.

IAP (Information Apple Protocol) Bluetooth connectivity allows device information, such as song, playlist and album titles, to be streamed wirelessly and viewable on the AQ-MP-5UBT-HS screen. This feature is available for Apple devices only.

3.1.1 Pair with Bluetooth Device

1. Enable Bluetooth mode by pressing MODE and selecting Bluetooth.
2. Switch on your Bluetooth device.
3. Select 'AQUATIC AV' from the list of available devices to pair (no password is needed).
4. A Bluetooth logo will illuminate on the Media Player LCD to verify Bluetooth is activated.

i *Only one Bluetooth device can be paired with the Media Player at any time.*

3.1.2 Listening via Bluetooth Device

1. Bluetooth mode will be activated once a Bluetooth device is linked.
2. Play the song from device and the sound will play through the Media Player.
3. Press PLAY/PAUSE to play/pause the song.
4. Press FAST REWIND/FORWARD buttons to play previous/next song file.
5. Previous/next track and volume up/down can be controlled directly from your Bluetooth device or directly from the Media Player controls.

3.2 Listening via USB

3.2.1 Listening via USB (Apple Devices)

1. Remove the faceplate and press the lever in the lower right corner of the unit to release the mechanism.
 2. Set the iPod/iPhone in the mechanism and adjust the clamps to hold it secure.
 3. Plug the iPod/iPhone cable into the USB input, and tuck the cable in so the faceplate can be reattached.
 4. Replace the faceplate. If the stereo was previously on it will come back on. If not press the Rotary Knob to power the unit on.
 5. Press the Mode button and select USB Mode.
-

3.2.2 Listening via USB Flash Drives

1. Remove the faceplate and press the lever in the lower right corner of the unit to release the mechanism.
2. Plug the USB drive in the USB port.
3. Replace the faceplate. If the stereo was previously on it will come back on. If not press the Rotary knob to power it on.
4. Press the Mode button and select USB Mode.

3.2.3 USB Search

1. When using an iPhone, iPod or USB flash drive press SEARCH to enter USB searching mode.
2. Once in searching mode the menu will display 'Playlist'. Use the Rotary Knob to scroll through the search modes below:
1) Playlist 2) Artist 3) Album 4) Song 5) Genre 6) Composer 7) Audio Book
3. Press the Rotary Knob to select the desired search mode and continue in this manner to navigate the menu sub-folders.
4. Use and FAST REWIND/FAST FORWARD to navigate through your menu page by page.

3.2.4 Device Charging

When specified USB devices are connected to either the internal USB input or the rear USB charging cable, the device battery will charge.

3.3 Listening via Auxiliary Input (3.5mm Jack)

1. Remove the faceplate from the stereo.
2. Connect your MP3 device to the 3.5mm connector.
3. Re-attach the faceplate.
4. Press the rotary knob to power the Media Player ON (if the faceplate was removed with the stereo still powered on, it will power on by itself).
5. Press (MODE) on the Media Player or remote control to select 'AUX IN-1' mode.

 *Always ensure to connect and disconnect your Media Player with dry hands!*

3.4 Adjust Volume Level

1. Turn the rotary knob clockwise increase the volume.
 2. Turn the rotary knob counter clockwise to reduce the volume.
-

4.1 What is SiriusXM Satellite Radio?

Only SiriusXM® brings you more of what you love to listen to, all in one place. Get over 140 channels, including commercial-free music plus the best sports, news, talk, comedy and entertainment. Welcome to the world of satellite radio.

A SiriusXM-Connect Vehicle Tuner and subscription are required.

4.2 Activating SiriusXM Satellite Radio

The SiriusXM Radio ID is required for activation and can be found by tuning to Channel 0 as well as on the label found on the SiriusXM-Connect Vehicle tuner and its' packaging. The Radio ID does not include the letters I,O,S or F.

i *For more information on how to install the SiriusXM Connect Vehicle tuner, consult the installation guide included with the tuner*

After installing your SiriusXM-Connect Vehicle Tuner and antenna, power on the Media Player, press the MODE button and select SiriusXM mode.

You should be able to hear the SiriusXM preview channel on Channel 1. If you cannot hear the preview channels, please check the installation instructions to make sure your SiriusXM-Connect tuner is properly installed.

After you can hear the Preview channel, tune to Channel 0 to find the Radio ID of your tuner.

As part of the activation process, the SiriusXM satellites will send an activation message to your tuner. When your radio detects that the tuner has received the activation message, your radio will display: "Subscription Updated".

Once subscribed, you can tune to channels in your subscription plan. Note, the activation process usually takes 10 to 15 minutes, but may take up to an hour. Your radio will need to be powered on and receiving the SiriusXM signal to receive the activation message.

4.3 Storing Channel Presets

1. Select the channel you would like to store.
2. Press the FUNC button, then select 'Add Preset' to select one of the 6 presets.
3. When in the main screen, press BAND to select between SXM1, SXM2 & SXM3.
4. Repeat steps above to store up to 18 total stations within SiriusXM mode.

i *A total of 18 channels can be stored in the preset memory.*

4.4 Tuning to Channel Presets

1. Press BAND to select the SXM1, SXM2 or SXM3.
2. Press PRESET then use the encoder and rotate to the desired station.

4.5 Removing Channel Presets

1. Press BAND to select the SXM1, SXM2 or SXM3.
2. Press FUNC, then select 'Remove Preset'.
3. Select the desired preset to be removed.

4.6 REPLAY Playback

- Play/Pause: Using the Play/Pause button will allow the user to Play/Pause live audio.
- Skip Track Backward: Short press the Fast Rewind button.
- Skip Track Forward: Short press the Fast Forward button.
- Fast rewind: Press and hold the Fast Rewind button.
- Fast forward: Press and hold the Fast Forward button.
- Press FUNC then select 'Jump to Live' to resume back to live audio.

4.7 Parental Control

Parental Control allows you to prevent unauthorized access to selected channels you select. When enabled, the Parental Control feature requires you to enter a passcode to unlock any locked channels.

1. Press FUNC then select 'Parental Controls'.
2. To select Parental Controls On/Off press the encoder to 'Enter'.
3. Using the Encoder rotate to select the default code "1111".
4. To lock channels press FUNC then select 'Parental Controls' then 'Lock Channels'.
5. Use the encoder to rotate to selected channels and press 'Enter'.
6. To remove channels from the lock list follow steps 1 to 5 above, but select Unlock instead of Lock.
7. To change Pass Code, Press FUNC then select 'Parental Controls' then select 'Change My Code'.

i If you forget your passcode, press MENU, select SYSTEM, then select RESET. Understand that when you perform a RESET, all previously stored preset channels and audio settings in memory will be cleared. Once a RESET is performed, the Parental Control pass code will be reset to the default code (1111).

4.8 Reset / Restore Factory Defaults

1. Short press MENU then select 'SYSTEM' using the rotary encoder.
2. Select 'RESET' and press the rotary encoder to 'Enter'.
3. Select 'SXM RESET' and press the rotary encoder to 'Enter'.

i Restoring the factory default settings will reset the last channel tuned, preset stations, display settings, locked channels, parental control code and disable parental control. The parental control pass code will be reset to '1111'.

4.9 Direct Tune

Press FUNC then select 'Direct Tune', using the encoder. Rotate to select each number you would like to access (e.g. for channel 101; rotate first digit to 1 then press Enter, rotate second digit to 0 then press Enter, rotate last digit to 1 and press Enter. Channel 101 is now selected).

4.10 Channel Tune

Tuning to a specific channel can be done in three ways:

1. Short press the FAST FORWARD button to go up to the next available station.
2. Short press the FAST REWIND button to go down to the next available station.
3. Press FUNC, CHANNEL then using the encoder, rotate counter clock wise to go down to the next available channel or clockwise to go up to the next available channel.
4. Long press the FAST FORWARD button for Rapid Channel function.
5. Long press the FAST REWIND button for Rapid Channel function.

4.11 Category Tune

1. Press FUNC and select 'Category'.
2. Using the encoder rotate to select the category desired
3. Press Enter, then select the channel desired.

4.12 Troubleshooting

Message	Description
Check Antenna	The radio has detected a fault with the SiriusXM antenna. The antenna cable may be either disconnected or damaged. Verify that the antenna cable is connected to the SiriusXM Connect Vehicle Tuner. Inspect the antenna cable for damage and kinks. Replace the antenna if the cable is damaged.
Check Tuner	The radio is having difficulty communicating with the SiriusXM Connect Vehicle Tuner. The tuner may be disconnected or damaged. Verify that the SiriusXM Connect Vehicle Tuner cable is securely connected to the radio.
No Signal	The SiriusXM Connect Vehicle Tuner is having difficulty receiving the SiriusXM satellite signal. Verify that your vehicle is outdoors with a clear view of the sky. Verify that the SiriusXM magnetic mount antenna is mounted on a metal surface on the outside the vehicle. Move the SiriusXM antenna away from any obstructions. Inspect the antenna cable for damage and kinks. Consult the SiriusXM Connect Vehicle tuner installation manual for more information on antenna installation. Replace the antenna if the cable is damaged.
Subscription Updated	The radio has detected a change in your SiriusXM subscription status. Press the ENTER button to clear the message.
Channel Not Available	The channel that you have requested is not a valid SiriusXM channel or the channel that you were listening to is no longer available. You may also see this message briefly when first connecting a new SiriusXM Connect Vehicle tuner.
Channel Not Subscribed	The channel that you have requested is not included in your SiriusXM subscription package or the channel that you were listening to is no longer included in your SiriusXM subscription package.
Channel Locked	The channel that you have requested is Locked by the radio Parental Control feature. See the section on Parental Control, page 16 for more information on the Parental Control feature and how to access locked channels.

5.1 Enter FM/AM Radio Mode

1. Press MODE on the unit keypad and select RADIO mode.

5.2 Scan or Navigate FM/AM Radio Channels

1. Press FAST REWIND/FAST FORWARD to seek another station.
2. Press and hold either FAST REWIND/FAST FORWARD for manual tuning back or forward.

5.3 Saving Radio Channel to Memory

1. Tune to the station you would like to be saved as a preset.
2. Press the FUNC button to enter the Function menu.
3. Select 'Manually Save Preset'.
4. Using the rotary knob you can choose which preset slot you would like to save the current station to.
5. Upon successfully saving a preset, the preset number that was chosen will be shown in the left corner.

i Presets are only for the current band you are on. Each band FM1, FM2, FM3, AM1 and AM2 has six presets for a total of 30 (18x FM & 12x AM).

5.4 Listening to Saved Radio Memory

1. Once the presets have been set either manually or using Auto Scan press the 'Preset' button to display your presets.

5.5 Switching between US and European FM Modes

1. When in 'RADIO' mode.
2. Press the FUNC button to enter the Function menu.
3. Scroll to 'AREA' then press the rotary knob.
4. Use the Rotary Knob to scroll to the desired tuning Area and select by pressing the Rotary Knob.

i Available Areas USA, OIRT, LATIN, ASIA, JAPAN, MID E, AUS, EURO.

i US mode will increase and decrease the FM frequency in steps of 0.1 MHz, e.g. 88.5, 88.6, 88.7 MHz. EUR mode will increase and decrease the FM frequency in steps of 0.05 MHz, e.g. 88.25, 88.30, 88.35 MHz.

6.1 Audio Menu

From the 'Audio Menu' you are able to change the bass, treble, balance, and fader.

1. To enter the 'Audio Menu' press the 'AUDIO/MENU' button.
2. In the 'Audio Menu' press the 'AUDIO/MENU' to scroll through all options.
3. To change the parameters use the rotary knob to adjust settings.

i Any changes made in the 'Audio Menu' are system wide so it will affect all modes.

6.2. Clock Settings

From the clock settings menu you are able to adjust the time and switch the clock on or off.

1. To change the time press MENU then use the rotary knob to navigate to SYSTEM settings then CLOCK SETTINGS. Use the rotary knob to adjust and set the time.
2. To switch the clock on or off press MENU then use the rotary knob to navigate to SYSTEM settings then CLOCK PRIORITY. Use the rotary knob to select either ON or OFF.

6.3 Local/Distant Tuning

When 'Local' is turned on the Media Player seeks to only the radio channels with strong signal strength. When 'Local' is turned off the Media Player will seek to all radio channels it receives signal from.

1. When in AM/FM mode press FUNC to access the 'Local/Distant Tuning' settings.
2. Use the rotary knob to adjust settings.

i When local is turned on the word 'Local' will appear in the upper right hand corner of the Media Player LCD.

6.4 Stereo/Mono

Change the output mode between stereo and mono. Some applications only accept a mono input.

1. When in AM/FM mode press FUNC to access the 'Stereo/Mono' settings.
 2. Use the rotary knob to adjust settings.
-

6.5 FM Tuning Area

The FM tuning can be set to different areas, using the rotary knob to scroll through to select the desired tuning area.

There are seven different tuning areas: USA, EUR, LAT, ASIA, MIDDLE EAST, AUSTRALIA, RUSSIA.

1. When in AM/FM mode press FUNC to access the 'FM Tuning Area' settings.
2. Use the rotary knob to adjust settings.

6.6 Beep Tone


Beep tone plays when any button is pressed, it can be toggled on and off from this selection.

6.7 Day/Night Mode

Adjust the screen display for better visibility in day or night time operation.

To switch between Day and Night modes:

1. Press MENU button to enter the SYSTEM menu.
2. Use the Rotary Knob to locate and enter the 'THEME' option.
3. Use the Rotary Knob to toggle between Day/Night mode.
4. Short press the Rotary Knob to confirm changes.

 *Clock display will always be Night mode regardless of the Day/Night Mode settings.*

6.8 Dimmer High/Low

Adjust the display brightness from 100% for normal operation to 30% brightness to reduce screen glare during night time operation.


6.9 System Reset

Restores all factory settings.

7.1 External 12V Triggers

Aquatic AV understands the need for more flexible remote applications. With the AQ-MP-5UBT-HS Media Player Aquatic AV has provided two independent 12V 'accessory' trigger, activated from the RF wireless remote. These could activate any 12V based device such as LED lighting.

In any operational mode, press the  (12V TRIGGER) key to activate. Press again to deactivate.

 Aquatic AV strongly recommend you speak to our technical service staff or your local Aquatic AV dealer if you are considering using this feature.

 Load on External Trigger should not exceed 350mA.

7.2 Connecting Multiple Amplifiers or High Current Draw Lighting Systems

Wiring a Single Pull Single Throw (SPST) Relay

The SPST is necessary to protect the stereo in systems with multiple amplifiers. The AQ-MP-5UBT-HS remote and trigger wire provide 350mV. While this enough to power a single amplifier, complex systems with multiple amplifiers will require a SPST relay.

Position 30: requires 12VDC from the main power source (12V battery, power supply etc). This should be the same power source that is powering your stereo.

Position 85: this is where you connect your ground from your power source (12V battery, power supply, etc.) This should be the same ground reference as your stereo.

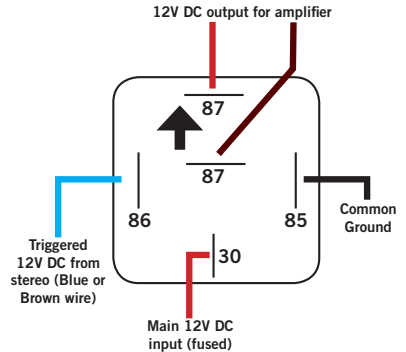
Position 86: position 86 is triggered 12V, and is sent when your stereo is powered on.

For Aquatic AV stereos position 86 can be connected to either the blue remote wire in the harness or the brown 12V trigger on the rear of the unit. The differences are below:

Blue (recommended): The blue (remote wire) provides a 12VDC output when the stereo is powered on. Meaning as soon as the stereo is powered on the blue wire sends 12VDC through the relay powering on the amplifier.

Brown: the brown (12V Trigger) provides 12VDC output when it is triggered via the lightning bolt icon on the faceplate or handheld remote. This setup is more advantageous is a more complex system with several zones, as it gives you control of when an amp is on or off.

Position 87: this is the 12VDC output that you will provide 12VDC to the remote turn on to the amplifiers in your system.



8.1 Specifications

Media

Supported media.....Bluetooth (A2DP & iAP) / USB / MP3 / FM/AM / SiriusXM
Supported media max. dimensions.....107 x 184mm (WxH)
Device charging.....via USB

Inputs

Auxiliary.....1x 3.5mm stereo Jack socket, 1x stereo pair RCA
USB.....1x front (internal), 1x rear (external)

Outputs

Pre-Out.....2x stereo pair RCA (4V)
Subwoofer.....1x RCA (4V)
12V Trigger.....2x 12V triggers (350mA)

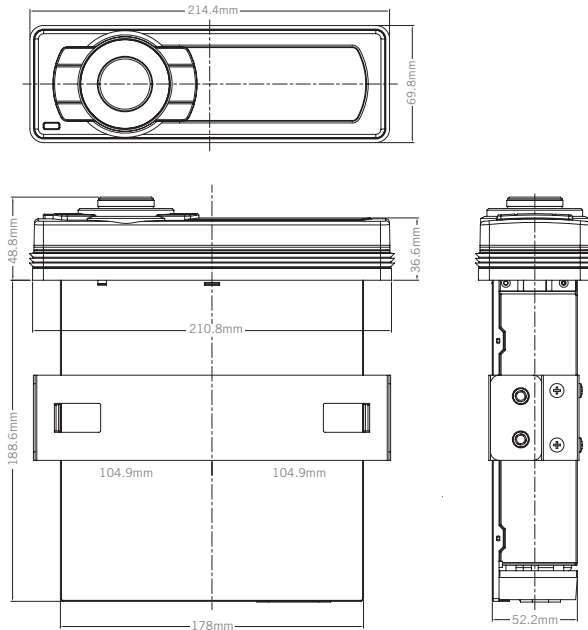
Power

Output voltage @ 2 Ohm.....4x 72W
Output voltage @ 4 Ohm.....4x 45W
Operation voltage.....9.6V - 14.4V DC
Max current draw.....7A
Standby current draw.....6mA

Multi-Environment Certifications

Waterproof / Dustproof.....Yes - IP55
Conformal PCB coating.....Yes
UV protection.....500 hours stable, ASTM D4329 compliant
Salt/Fog protection.....500 hours stable, ASTM B117 compliant
Stainless Steel mountings.....Yes

8.2 Dimensions



AQUATIC AV[®]

products with a watertight reputation

AQ-AD300.2-MICRO 2 CHANNEL WATERPROOF AMPLIFIER for Harley-Davidson[®] Motorcycles

USER / INSTALLATION MANUAL



**PLEASE READ THIS INSTRUCTION MANUAL BEFORE
INSTALLATION AND OPERATION**

1 Getting Started

1.1 Important Information

1.2 Contents

2 Installation

2.1 Installation Precautions

2.1.1 Positioning the Amplifier

2.1.2 Cutting Cables

2.2 Connecting the Amplifier

2.2.1 Connecting Inputs with Low-Level (RCA) Cables

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2.2.3 Connecting Speakers

2.2.4 Connecting Speaker/Subwoofer in Bridged Mode

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3 Setting Amplifier Controls

3.1 Setting the Gain Control

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3.3 Cross-Over Frequency Control (Freq)

3.3.1 High Pass Filter Mode

3.3.2 Low Pass Filter Mode

3.3.3 Full Range Mode

3.4 Boost

4 Troubleshooting

5 Specifications & Dimensions

5.1 Specifications

5.2 Dimensions

Congratulations on your purchase of an Aquatic AV AQ-AD300.2-MICRO amplifier. It has been designed, engineered and manufactured to bring you the highest level of performance and quality, and will afford you years of listening pleasure.

1.1 Important Information

Check your battery and electrical system

Low battery conditions and/or poor electrical systems need to be diagnosed and corrected prior to installation of your amplifier. Old batteries may be good enough to start your engine, but may NOT be adequate to power a high output audio system. Running your amplifier in a low-voltage situation may cause premature distortion, fuse blowout, and system shutdown.

Working safely with your battery

Disconnect the negative battery terminal before doing any electrical work. Always disconnect the negative (-) battery terminal first, followed by the positive (+) terminal. When reconnecting terminals, connect the positive (+) terminal first followed by the negative (-) terminal. This can minimize the chance of sparks and voltage spikes, and is a good general practice when dealing with any DC electrical system.

Ensure proper power and ground connections

Never connect or disconnect the control cables while the amplifier(s) is powered on.

Always disconnect your battery before working with your electrical system, and keep it disconnected until you are ready to test the audio system.

Cover all exposed wires to avoid short circuits.

Make your power and ground connections properly, failure to do so can cause damage to the amplifier.

Grounding

Inadequate grounds are number one cause of problem installations.

The ground wire and power wire are equally important; if either one of them become damaged it could result in damage to the amplifier.

1.2 Contents

When first unpacking your new amplifier please check first that the package contains all of the items below. If something is missing, contact the store where you purchased the product.

- AQ-AD300.2-MICRO Amplifier
 - User/Installation Manual
 - RCA male-to-male Adaptor (x2)
 - Wiring Harness
 - High-Level Input Adaptor
-

2.1 Installation Precautions

2.1.1 Positioning the Amplifier

The AQ-AD300.2-MICRO amplifier dissipates high levels of heat. As a result we suggest keeping the amplifier in a well-ventilated area. We don't suggest keeping the amplifier in enclosed areas.

⚠ Do not install the amplifier on top of, or above, the stereo installed in your Harley-Davidson Motorcycle faring as this could result in over heating of either the amplifier, the stereo, or both.

2.1.2 Cutting Cables

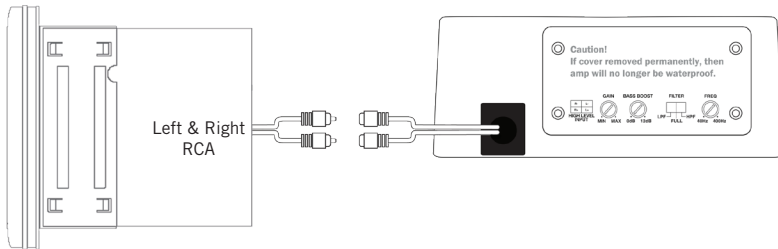
Always route wires and cables safely, avoid sharp edges and burns along the way. Always check the length of a wire before cutting.

2.2 Connecting the Amplifier

Use only cables and the supplied accessories discussed in this manual. Failure do so may cause damage to the amplifier. The cable for speakers can ONLY be used for connecting the amplifier to the speakers. The cable for power can ONLY be used for connecting the amplifier to the battery.

2.2.1 Connecting Inputs with Low-Level (RCA) Cables (recommended)

1. Connect your source unit's RCA outputs (left and right) to the amplifier's left and right RCA input cables.



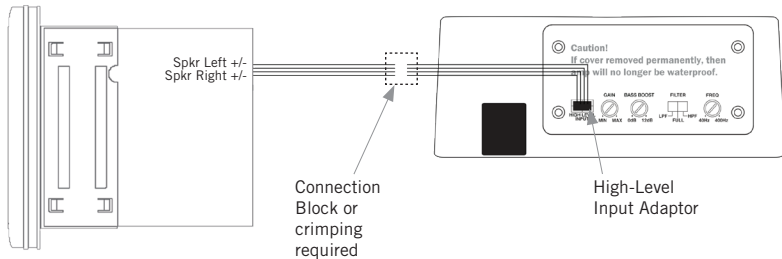
2.2.2 Connecting Inputs with High-Level (Speaker) Cables

⚠ Using High-Level signal inputs requires the removal of the control panel cover and will significantly reduce the amplifiers ingress performance for both water and dust. This will also void warranty cover.

We recommend using Low-Level (RCA) input connections, as detailed in 3.2.1 above, however, should RCA outputs not be available from your stereo the AQ-AD300.2-MICRO allows for signal input using your stereo's speaker output cables.

1. Open the control panel cover by removing the four screws securing the cover and connect the supplied High-Level Input Adaptor.

2. Connect your stereo's speaker output cables (front left +/- and front right +/-) to the corresponding High-Level Input Adaptor cables (FL+, FL-, FR+ and FR-) using either a connection block or by securely crimping the cables together.



2.2.3 Connecting Speakers

1. Verify the impedance of the speakers is 2 Ohms or above.
2. Install the desired speakers if not already installed.
3. Route and connect the speaker wires from each speaker of your system to the corresponding speaker output terminal on the amplifiers wiring harness. Failure to connect properly may damage your speakers.

2.2.4 Connecting Speakers in Bridged Mode

Bridged mode allows for the two output channels to be combined into a single channel with the maximum power output of 300W RMS. This is typically used to drive a subwoofer but can be used to drive a single full-range speaker (in mono).

1. Verify the impedance of the speaker/subwoofer is 4 Ohms or above.
2. Install the desired speaker/subwoofer if not already installed.
3. Route and connect the Left(+) and Right(-) cables from the amplifier wiring harness to the input terminals on the speaker/subwoofer as follows:

Amplifier Left(+) output (grey cable): connect to Speaker/Subwoofer (+) input terminal

Amplifier Right(-) output (white/black): connect to Speaker/Subwoofer (-) input terminal

4. The Left(-) and Right(+) cables (grey/black and white respectively) from the amplifier should then be individually covered up or sealed off to avoid shorting the circuit and damaging the amplifier.

Failure to connect properly may damage your speaker/subwoofer.

2.2.5 Connecting the Remote (Ignition) Wire

1. Connect the blue Remote cable from the amplifier wiring harness to the blue Remote or Ignition terminal on the stereo. Alternatively, you can also connect the blue remote wire to the vehicles ignition switch.

2.2.6 Connecting the Battery

1. Route and connect the power wire from the positive (+) battery terminal to the main amplifier terminal.
2. Route and connect the ground wire from chassis ground to the amplifier terminal.
3. Verify power cables and audio cables are not making contact as they can cause interference.

2.3 Testing the System

You have completed the connection, now it's time to check that the power supply is correct with everything working as one system.

1. Install the fuse into the in-line fuse holder on the power side.
2. Verify the amplifier powers up and the speakers function properly. If they do not, proceed directly to Troubleshooting section.

Setting Amplifier Controls

3.1 Setting the Gain Level

1. Begin by setting the Gain to the minimum value (counter-clockwise).
2. Set gain to 1/3 of the way (approx. 10pm position).
3. Turn on the stereo and verify the amplifier is also turned on. The LED on the amplifier will illuminate green.
4. Set all tones (bass, treble) and equalization controls (balance, fade) on the source unit to "flat" or "0," and turn off any "loud" or "loudness" setting.
5. Slowly increase the gain control until you hear a slight distortion of the audio playback. This will be your usable range.

3.2 Cross-Over Mode Switch (Filter)

This Filter switch allows a specific range of frequencies to be filtered out. Typically, tweeters require filtering of low range frequencies while subwoofers require a filtering of mid to high range frequencies.

1. HPF (High Pass Filter) is best for driving mid and high range speakers or tweeters.
2. LPF (Low Pass Filter) is best for driving subwoofers or low range speakers only.
3. FULL is best suited for driving full range speakers.

3.3 Cross-Over Frequency Control (Freq)

3.3.1 High Pass Filter Mode

The Frequency control knob is used to set the frequency at which the electronic cross-over operates.

When the Cross-Over Filter switch is set to HPF (High Pass Filter) the adjustable frequency range is 40Hz-400Hz.

When in the minimum position (turned fully counter-clockwise) all frequencies less than 40Hz will be filtered from the output signal and all frequencies above 40Hz will be heard from the speakers.

When in the maximum position (turned fully clockwise) all frequencies less than 400Hz will be filtered from the output signal and all frequencies above 400Hz will be heard from the speakers.

The volume will be lower when the frequency is getting close to the minimum position.

3.3.2 Low Pass Filter Mode

When the Cross-Over Filter switch is set to LPF (Low Pass Filter) the adjustable frequency range is 40Hz-400Hz.

When in the minimum position (turned fully counter-clockwise) all frequencies less than 40Hz will be filtered from the output signal and all frequencies above 40Hz will be heard from the speakers.

When in the maximum position (turned fully clockwise) all frequencies less than 400Hz will be filtered from the output signal and all frequencies above 400Hz will be heard from the speakers.

The volume will be lower when the frequency is getting close to the minimum position.

3.3.3 Full Range Mode

When the Cross-Over Filter switch is set to FULL no frequencies will be filtered and the speakers will output all frequencies.

3.4 Boost

The Boost setting allows for additional Bass Boost to be added to the output signal. The boost is applied to 85Hz frequency and allows for 0-12dB of boost.

4 Troubleshooting

Problem	Probable Cause	Solution
Amplifier doesn't power up (LED is off).	Power (+) wire is not providing +12V to the amplifier	Check the wire is connected or that it's not making a proper connection. Verify fuses aren't blown. Check continuity on the cables to verify all cables are still making contact.
	Remote wire is not providing +12 V to the amplifier	Check the wiring for remote turn-on wire. Make sure the turn-on source is providing 12V.
	Ground/Power (-) wire is not providing -12V ground to amplifier	Check the wire connected to ground is making proper connection. Verify there is no additional residue. Check continuity on the cables to verify cables are still making contact.
Amplifier powers up, but makes no sound (LED is illuminated red).	Speaker wires are not connected or shorted	Check wiring from the amplifier to each speaker in the system. Make sure the wire terminals are not shorting.
	Input from source unit is not connected properly	Check High or Low Level input wiring from the source unit to the main amplifier
	Source unit has no output	Check source unit is functioning properly all by itself. Refer to the manufacturer's instructions if necessary.
Speaker output sounds low or distorted.	Input gain level is set incorrectly	Set the gain levels using the 'Test and Tune' section of this manual. If already completed this step, lower the gain slightly until the distortion stops
	Low battery condition	Check your battery for proper charge and replace if necessary.
	Overheating	Turn off the system and let it cool. Resume the system and verify all is well. Make sure the amp is not in direct contact with the stereo use mounting bracket. Warning do not use touch fasteners and do not place the amp on top of the Harley-Davidson stereo.