

XM160-2-98

2-CHANNEL POWER AMPLIFIER DESIGNED AND ENGINEERED TO BE
PLUG AND PLAY FOR SELECT FAIRING-EQUIPPED 1998-2013 HARLEY-
DAVIDSON® MOTORCYCLES

INSTRUCTION MANUAL

JVCKENWOOD Corporation

Take the time to read through this instruction manual.

Familiarity with installation and operation procedures will help you obtain the best performance from your new power amplifier.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your KENWOOD dealer for information or service on the product.

Model XM160-2-98 Serial number _____



US Residents Only

Register Online

Register your KENWOOD product at <https://registerkenwood.us.jvckenwood.com/>

Safety precautions

WARNING

To prevent injury or fire, take the following precautions:

- Mounting and wiring this product requires skills and experience. For safety's sake, leave the mounting and wiring work to professionals.
- To prevent a short circuit, keep coins, tools, and other metal objects away from the unit.
- If the unit starts to emit smoke or strange smells, turn off the power immediately and consult your KENWOOD dealer.
- Do not touch the unit during use because the surface of the unit becomes hot and may cause burns if touched.

CAUTION

To prevent damage to the machine, take the following precautions:

- Be sure the unit is connected to a 12 V DC power supply with a negative ground connection.
- Do not open the top or bottom covers of the unit.

NOTE

- If you experience problems during installation, consult your KENWOOD dealer.
- If the unit does not seem to be working right, consult your KENWOOD dealer.

Protection function

To help protect your bike's electrical system and battery, the amp has a built in feature where it will turn itself off if it sees less than 10.5 volts, whether the bike is running or not. If you're listening to your stereo while not riding, this feature can help protect your battery so the bike can still start. If you're riding and the amp shuts off, this could be showing a potential issue with your charging system. If this feature is activated and the amp shuts off, it will turn the amp back on again if the voltage exceeds the 10.5 volt threshold.

To prevent battery rise

When the unit is used in the ACC ON position without turning the engine ON, it depletes the battery. Use it after starting the engine.

■ Speaker selection

- Using speakers with smaller input ratings than the amplifier's output power would result in smoke generation or equipment failure.
- Use speakers that have an impedance of 2 Ω or greater. When more than one set of speakers are going to be used, calculate the combined impedance of the speakers and then connect suitable speakers to the amplifier.

The XM160-2-98 amplifier is a Class D design. It should be understood that ALL Class D amplifiers, regardless of brand, cause a reduction in FM reception. The XM160-2-98 features a proprietary circuit design that KENWOOD believes gives the BEST FM reception available for any Class D Amplifier designed for a motorcycle. If you add a 2nd model amplifier to your system, reduction of FM reception is increased and is considered normal.

KENWOOD understands that some riders prefer the cosmetics of in fairing antennas, however it should be noted that NOTHING works as well as the factory antenna. If FM is an important part of your riding experience, we strongly advise against the use of any in fairing type antenna. Do not use the rod antenna as an antenna to be mounted inside the fairing.

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Section 1 - Mounting Considerations / Required Adaptor Kits

Depending on the model of bike or what is already installed in the bike, a KENWOOD amplifier adaptor kit may be required.

If you have a Standard, EG Classic, Street Glide or Ultra and this is the only KENWOOD amplifier in the system, the amplifier will adhere to the top of the radio using the supplied “hook and loop” adhesive and no adaptor is needed. If you prefer to not have the amplifier sitting on top of the radio, you can also use the KENWOOD CA-PLT98 mounting plate kit. This kit bolts into your fairing and locates the XM160-2-98 between the radio and the brake side speaker.

If you have a Standard, EG Classic, Street Glide, or Ultra and this will be the 2nd amplifier in the system, the KENWOOD CA-PLT98 mounting plate kit is required.

If you have a Road Glide or Road Glide Ultra, KENWOOD has 2 different RG adaptor kits available:

- 1) If this is the only amplifier in the system**, you will need the KENWOOD CA-PLT98RG mounting plate kit, which bolts the amplifier to the main studs that attach the inner fairing to the frame of your bike.
- 2) If there is already a KENWOOD XM160-2-98 in the bike**, it should be mounted to a plate attached to the main studs that hold the inner fairing to the frame of the bike. The second amplifier will bolt in using the KENWOOD CA-PLT98RG2 mounting plate kit. This will locate the second amplifier off to the extreme brake-side of the inner fairing.

If you do not have the required adaptor, please consult your authorized KENWOOD dealer.

Section 2 - Getting Started

I Installation procedure

1. Remove the seat and both wires (+ and -) from the battery. Remove the outer fairing/headlamp assembly and set it aside. Refer to a service manual if you need help with this.

NOTE: Placing a towel on the front fender can help prevent scratches or "dings" from dropped tools or fasteners, etc.

2. Locate the main power harness and plug it into the matching connector on the amplifier. Locate the 8-pin harness and plug it into the "Audio Input" on the side of the amplifier. If using this amplifier to power front speakers, locate the 4-pin harness ending in a black plug and plug it into the black 4-pin connector on the amplifier. Make sure to plug this into the black plug and NOT the blue plug on the 8-pin input connector.

NOTE: If using this amplifier to power the KENWOOD CA-LID98 6" x 9" speaker lid kit with the KENWOOD XM69R speakers OR as part of the KENWOOD CA-POD98 rear speaker pod kit with the KENWOOD XM50R speakers, the speaker wire harness that comes in those kits will now plug into the 4-pin black plug on the side of the amp.

3A. Mounting the amplifier For Standards, Street Glide, EG Classic, and Ultra Classic

If this is the only amplifier in the system, the amplifier gets mounted to the top of the factory radio using the supplied "hook and loop" adhesive and must sit so if in front of the bike looking down, the power connector is on your left and the amplified output 4-pin black "pigtail" is on your right. The amplifier needs to mount as far back on the radio as possible so the fairing can go back on. On 1998-2005 model bikes, it is a tight fit--but will go. 2006-2013 (Advanced Audio) radios have a "bump" on top of the radio that runs from front to back down the center of the radio. Cut the adhesive in half and apply one piece on either side of this bump, noting that most adhesives work best at room temperature or higher.

NOTE: 2006-2013 Ultras have the CB module on top of the radio. The amplifier will adhere on top of the CB module so it is "half on/half off" this module. The supplied adhesive is plenty strong for this. The amplifier can adhere on top of CB and XM modules without an issue.

3B. Mounting the amplifier For Road Glide or Road Glide Ultra

The amplifier will mount to the plate* and the plate* will mount to the bike as per the plate's instructions.

*If this is the only amplifier being installed, the CA-PLT98RG mounting plate (sold separately) is required. If this is the second XM160-2-98 being installed, the CA-PLT98RG2 mounting plate (sold separately) is required.

NOTE: Be sure to only use the harnesses that come in this kit.

Section 3 - Wiring the Amplifier

1A. Follow this step if this is the only amplifier in the bike.

On the audio input harness, locate the yellow/black pair of wires with the male connectors. Unplug the factory speaker wires on the clutch side of the bike and plug the yellow/black wires into those, noting that they will only go in one way. Also, on the audio input harness, locate the green/black pair of wires with the male connectors. Unplug the factory speaker wires on the brake side of the bike and plug the green/black wires into those.

NOTE: The blue 4-pin plug with black wires on the input harness is an “expansion port” which is used to send music to a second amplifier or is used to send radio power to run other speakers on the bike.

1B. Follow this step if this is the second amplifier in the bike and the first amplifier is also a KENWOOD XM160-2-98.

Locate the blue plug with red/black and white/black wires on it and plug this into the expansion port (also a blue plug) located on the input harness of the “First” XM160-2-98. Take the white/black wires on the bypass plug and plug them into the yellow/black wires on the input harness of the XM160-2-98 being installed. Take the red/black wires on the bypass plug and plug them into the green/black wires on the input harness of the XM160-2-98 being installed.

2. Earlier in the installation, you located the black 4-pin plug with the blue/black and brown/black wires on it and plugged it into the “amplified output” on the amplifier. The blue/black wires will plug directly into the speaker on the brake side of the bike. The brown/black wires will plug directly into the speaker on the clutch side of the bike. Be sure to double-check that this harness is plugged into the BLACK pigtail plug on the amplifier and not the blue 4-pin plug on the input harness.

3. Routing the power harness - For Standards, Street Glide, EG Classic, and Ultra Classic

3A. For 98-06 bikes, the power harness will pass under the inner fairing where the throttle and idle cables pass through on the brake side of the bike. The harness is designed to be routed between the frame backbone and the gas tank on the brake side of the bike and come out just behind the gas tank. You MAY need to undo the back bolt of the gas tank and pivot the tank up to allow the harness to pass through at the back of the gas tank. Be sure to re-install this bolt and torque to factory specs!

Section 3 - Wiring the Amplifier - Cont.

3B. For 2007-2013 bikes, the balance of the main wire harness will pass under the inner fairing where the main wire harness passes through on the brake side of the bike. Loosen the tank console and run the wires up and over the gas tank, but under the tank console. There is a provision on the front of the tank console for wires to pass. Secure the amplifier's harness to the bike's factory harness using zip ties. When correctly installed, the power and ground wires are the right length to connect to the battery.

Now is a good time to "clean up" and secure any wiring inside or your fairing using supplied zip ties. For the best possible FM reception, DO NOT attach any of the amplifier's wiring to any factory antenna wires!

Section 4 - Final System Adjustments

If there is an aftermarket car radio on your bike, its functions will work fine. Please remember that car radios are designed to work in an environment with little or no exhaust or wind noise. Many car radios have features such as equalizers, loudness controls, surround effects, etc. These are all designed for a quiet environment and all of which will hurt the ability to hear your motorcycle system at speed if left on. Please take a minute to turn these features off. With a car radio in your bike, the only adjustments you should be able to access for the best performance are volume, bass, treble, balance, and fader.

KENWOOD LIMITED WARRANTY

This warranty will be honored only in the U.S.A.

HOW LONG IS THE WARRANTY

JVCKENWOOD USA Corporation ("KENWOOD") warrants this product for a period of one (1) year from the date of original purchase.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as specified below, this warranty covers all defects in material and workmanship in KENWOOD products.

The following are not covered by the warranty:

1. Any product which is not distributed in the USA by KENWOOD or which is not purchased in the USA from an authorized KENWOOD dealer or an automobile dealer, unless the product is purchased through the U.S.A. Military Exchange Service.
2. Any product on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
 - a. Any shipment of the product (claims must be presented to the carrier).
 - b. Installation or removal of the product.
 - c. Accident, acts of nature, misuse, abuse, neglect, unauthorized product modification or failure to follow instructions supplied with the product.
 - d. Repair or attempted repair by anyone not authorized by KENWOOD.
 - e. Any other cause which does not relate to a product defect.

WHO IS PROTECTED

This warranty is enforceable only by the original purchaser.

WHAT WE WILL PAY FOR

We will pay for all labor and material expenses for covered items. Payment of shipping charges is discussed in the next section of this warranty.

HOW TO OBTAIN WARRANTY SERVICE

If your KENWOOD product ever needs service:

1. Take or ship it to any KENWOOD Authorized Service Center in the USA along with a complete description of the problem. (if you are uncertain as to whether a Service Center is authorized, please call 1-800-KENWOOD (1-800-536-9663) for the nearest Service Center.
2. Although you must pay any shipping charges if it is necessary to ship the product for warranty service, we will pay the return shipping charges if the repairs are covered by the warranty within the United States.
3. Whenever your units are taken or sent for warranty service, you must include a copy of the original dated sales receipt as proof of warranty coverage.

LIMITATION OF IMPLIED WARRANTIES

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

EXCLUSION OF DAMAGES

KENWOOD'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT AT OUR OPTION. KENWOOD SHALL NOT BE LIABLE FOR:

1. INSTALLATION OR REMOVAL CHARGES, DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN KENWOOD CAR STEREO COMPONENTS, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT; OR
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If a problem develops during or after the Limited Warranty Period, or if you have any questions regarding the operation of the product, you should contact your KENWOOD Authorized Dealer or Authorized Service Center. If the problem or your question is not handled to your satisfaction, please contact our Customer Relations Department at the address listed below:

KENWOOD USA CORPORATION
P.O. Box 22745, 4001 Worsham Avenue, Long Beach CA 90808
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www.us.jvckenwood.com

Important Notes

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For U.S.A.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.
- 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.

Supplier's Declaration of Conformity

Trade Name: KENWOOD
Products: CLASS D 2-CHANNEL POWER AMPLIFIER
Model Name: XM160-2-98
Responsible Party: JVCKENWOOD USA CORPORATION
4001 Worsham Avenue,
Long Beach, CA 90808, U.S.A.
PHONE: 1-800-252-5722

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 UNDESIRE OPERATION.

For updated information (the latest Instruction Manual, etc.),
please visit the following website:

https://manual.kenwood.com/en_contents/search/

