

## XM160-2

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2-CHANNEL POWER AMPLIFIER DESIGNED AND ENGINEERED TO BE  
PLUG AND PLAY FOR 2014-UP HARLEY-DAVIDSON® ROAD GLIDE®,  
STREET GLIDE®, OR ULTRA 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 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  $\Omega$  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 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 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 or 3rd 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 - Single Amplifier Installation in Street Glide / Ultra

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## ■ 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. Over the top of the radio, pull up to release each wire harness from the black plate via the factory “Christmas tree” fasteners. If your bike has factory GPS, the small square antenna will need to be relocated just behind the voltmeter as shown in Fig 1.1 below.

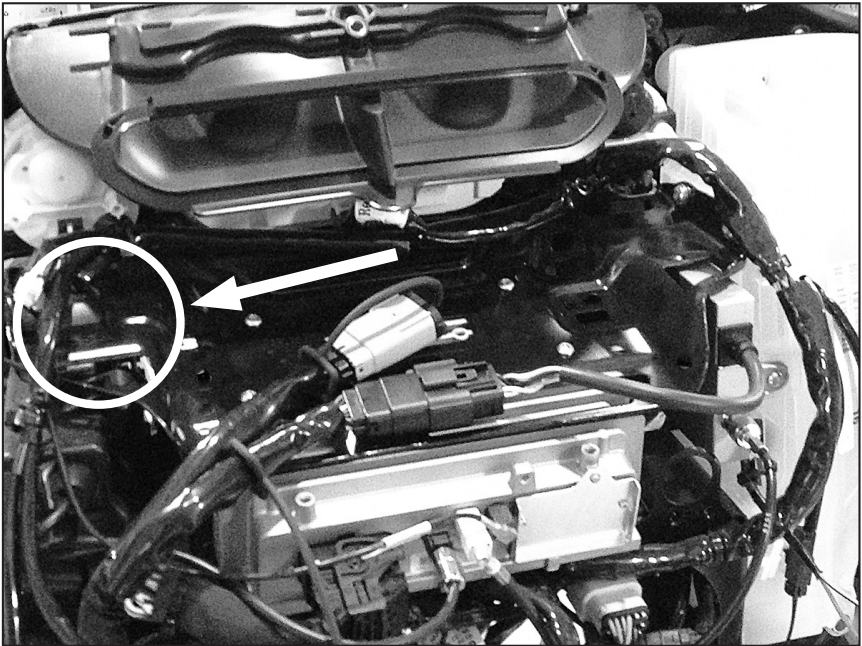


Figure 1.1 - The white circle shows the new location for GPS Antenna if your bike came factory equipped with this feature.

3. Remove the four factory T-20 “Torx” screws that go through the top of the black plate and into the top of the radio.

## Section 1 - Single Amplifier Installation in Street Glide / Ultra - Cont.

4. Sit the amplifier plate over the top of your radio and reinstall the factory screws to secure the amplifier's mounting plate to your bike noting the plate can only go on one way. Locate the supplied input harness and plug it into the "audio input" socket on the side of the amp. Locate the "front output" harness with brown/black and blue/black wires and plug it into the 4 pin BLACK plug on the pig-tail coming out of the amp. Place the amp back on the plate. For reference, if you are standing in front of the bike looking down at the plate, the amp will go to the extreme left so the power harness is closest to you. When sticking the amp in place, position the 4 pin black plug on the pig-tail so it's sitting on top of the amp. This will allow the amp to sit as close to the gauges as possible and allow your outer fairing to go back on. There is a "tab" on the front of the amplifier's mounting plate which allows you to re-attach the wire harness using the factory Christmas tree fastener.

Figure 1.2 - Single XM160-2 amplifier correctly positioned on mounting plate.



5. On the back of each speaker cabinet, you will see pink wires that go to a plug. Separate these plugs on each side of the bike. From the amp, take the 2 pin plug with the blue/black wires and install it into the plug going into the brake side speaker cabinet. Take the 2 pin plug with the brown/black wires and install it into the plug going into the clutch side speaker cabinet.

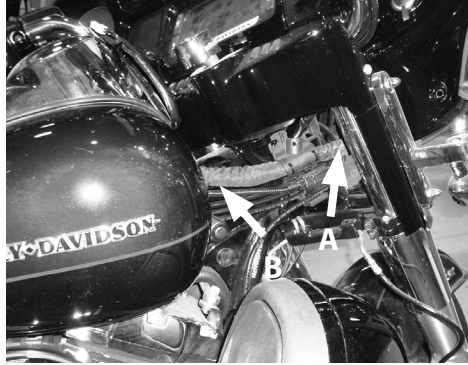
6. From the amp's input connector, take the 2 pin plug with the green/black wires and install it into the mating plug on the brake side of the bike. Also from the amp's input connector, take the 2 pin plug with the yellow/black wires and install it into the mating plug on the clutch side of the bike.

7. Locate the main power harness and plug it into the matching "pig-tail" on the side of the amplifier. If installing 2x XM160-2, run the second power harness at the same time as this step. In addition to the power harness, any other harness running to the rear of the bike (Lids or Tour Pak speakers etc.) should be ran now.

## Section 1 - Single Amplifier Installation in Street Glide / Ultra - Cont.

8. 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 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 correct length to connect to the battery.

Figure 1.3 - Stock Harness and Amplifier's Harnesses Passing From Fairing To Just In Front Of Tank (Arrow A). Cable Tying the 2 Amp Harnesses to the Main Bike Harness Just In Front Of The Tank (Arrow B) Allows The Amp Harnesses To Go Up Towards The Tank's Chrome Console Easier And Makes For a Cleaner Install.



NOTE: Although not necessary, you can run the harness along the backbone of the bike's frame if you choose to remove and re-install the bike's fuel tank.

- Attach the red wire to the positive (+) battery terminal and the black wire to the negative (-) battery terminal. The factory battery wires are also re-installed at this point. Turn the ignition of the bike to the "on" position and play the stereo at low volume to verify the amplifier is working properly.

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! If you are installing a second XM160-2 amplifier, please go to Section 3 of this manual.

**IMPORTANT: With all wires secured, turn the front wheel to each extreme side, making sure that any wires cannot bind or impede the steering of the motorcycle. Failure to do so can cause an accident resulting in serious injury or death!**

If this is the only amplifier being installed, please go to "Final System Adjustments" on page 10 of this manual.

## Section 2 - Single Amplifier Installation in Road Glide / Road Glide Ultra

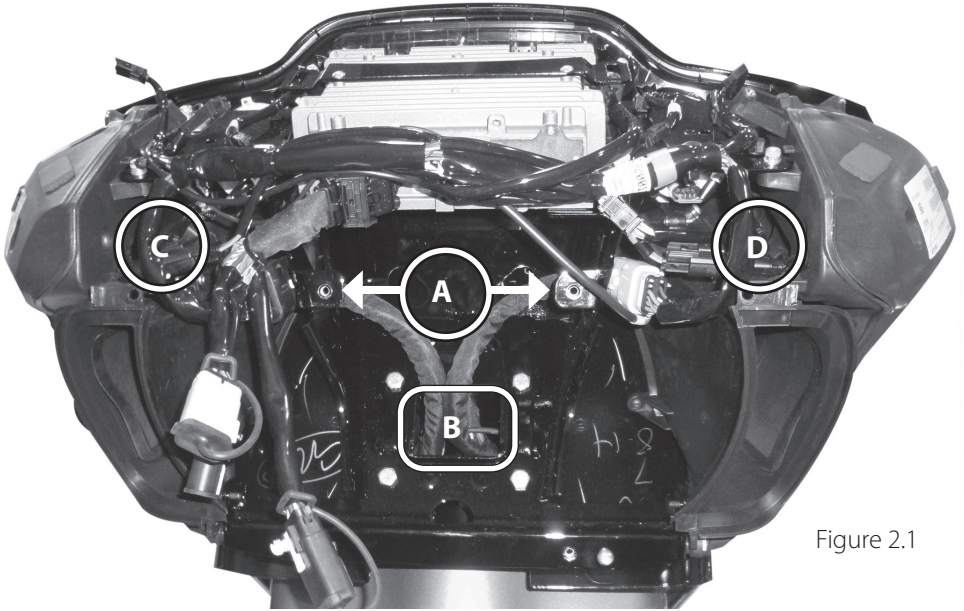


Figure 2.1

Before proceeding, please locate the points in the fairing identified by the letters in Figure .1.

A= Mounting points for headlight assembly

B= Wire passage from fairing to bike

C= Brake side speaker harness (Pink and Pink with Black Stripe wires)

D= Clutch side speaker harness (Pink and Pink with Black Stripe wires)

1. As shown in Fig 2.2, locate the Road Glide specific plate and adhere the amp to the plate so it is in the same orientation as shown. When installed, the amp will be on the back of the plate. The reason for this is so that it is much easier to put a second amp on later if you choose. The second amp sticks to the front of the plate.



Figure 2.2

## Section 2 - Single Amplifier Installation in Road Glide/RG Ultra - Cont.

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2. Locate the power harness for the amplifier. One end has ring terminals and a fuse, and the other has a 2 pin connector. Using Fig 2.1 on Page 6 for reference, to run the “ring terminal end” of the power harness through “B”. We need it so the 2 pin power connector is accessible in the inner fairing and the slack can be adjusted later in the installation. Just in front of the tank, there is a structure that attaches the fairing to the frame of the bike. The power harness will pass through this structure and exit through the rectangular opening where the factory harness also exits the structure on the BRAKE side of the bike. Note: it can be easier to pass the wire harness through the rectangular opening if you “open” the fuse holder and remove the fuse before passing the wire harness. Loosen the tank’s “chrome console” and run wires up and over the gas tank, but under the tank’s chrome console. There is a provision on the front of the tank console for wires to pass.

NOTE: Although not necessary, the power harness can go under the gas tank if you choose to remove and re-install the tank. If installing 2 amplifiers, both power harnesses (and rear or lid harnesses) can be ran now.

With the power and ground wires in the vicinity of the battery, move to step 3 WITHOUT connecting the amp wires to the battery.

3. Locate the “audio in” harness and plug its 8 pin white plug into “audio in” on the side of the amp. Locate the amp’s “front out” harness and plug it into the 4 pin BLACK pigtail coming out of the side of the amp.

NOTE: There is a variable gain on the amplifier that allows you to “tune” the amp in relation to other speakers and/or amps on the bikes if they are added. Access to this adjustment will not be possible once the amplifier is installed in the correct position.

4. Using Fig 2.1 on page 6 for reference, locate the 4 bolts around “B” and remove the top left and top right bolts (only). Also using Fig 2.1 on page 6 for reference, there are 2 large factory harnesses between “A” and “B”. You will have to wiggle the amp on the plate into place around these harnesses so that the holes on the “legs” at the bottom of the plate line up with the holes where the factory bolts around “B” were. With the plate in position, reinstall the factory bolts around “B” which will secure the amp on its plate to the bike.

5. As shown by “C” in Figure 2.1, on the brake side of the bike, there is a 2 pin connector with pink/pink with black stripe wires going through it. The plug is close to where the wires enter the brake side speaker cabinet. Separate the connector so there are 2 plugs. From the amp, take the plug with blue/black wires and plug it into the mating plug you just separated noting it will only go in one way. Also from the amp, take the plug with green/black wires and plug it into the mating plug that was just separated noting it will only go in one way.



## Section 2 - Single Amplifier Installation in Road Glide/RG Ultra - Cont.

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6. As shown by "D" in Figure 2.1, on the clutch side of the bike, there is a 2 pin connector with pink/pink with black stripe wires going through it. The plug is close to where the wires enter the clutch side speaker cabinet. Separate the connector so there are now 2 plugs. From the amp, take the plug with brown/black wires and plug it into the mating plug that was just separated, noting it will only go in one way. Also from the amp, take the plug with yellow/black wires and plug it into the mating plug that was just separated noting it will only go in one way.

7. Attach the black wire to the negative (-) battery terminal and the red wire to the positive (+) battery terminal. The factory battery wires are also re-installed at this point. When attaching the power and ground wires, it is always a good practice to do the negative (black) first. When the positive connector touches the battery, some sparking is normal. This is a function of the capacitors in the amplifiers charging up.

Turn the stereo on at low volume and test to make sure the speakers are working. Now is a good time to "clean up" and secure the wires using the supplied zip ties. DO NOT attach any of the amplifier's wiring to any factory antenna wires!

**IMPORTANT: With all wires secured, turn the front wheel to each extreme side making sure that any wires cannot bind or impede the steering of the motorcycle. Failure to do so can cause an accident resulting in serious injury or death!**

If you are installing a second XM160-2 amplifier, please go to Section 3 of this manual.

If this is the only amplifier being installed, please go to "Final System Adjustments" on page 10 of this manual.

## Section 3 - Adding a Second XM160-2 to the Bike

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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.

2. You will now need to run the second power harness to the battery. For Street Glide/ Ultra, refer to Step #7, on page 4, in Section 1 of this manual. For Road Glide/RG Ultra, please refer to Step #2, on page 7, in Section 2 of this manual for running the power harness. DO NOT re-attach the power wires to the bike at this time!

3. Remove the new amp you are installing off the plate it came on in the box. Put that plate aside as it is not used in this installation. If installing a second amp in a Street Glide or Ultra, the second amp will be installed on the plate already on the bike as shown below in Fig 3.1 below. Make sure to have the 4 pin black "pigtail" sit on top of the amp when sticking it in place.



## Section 3 - Adding a Second XM160-2 to the Bike - Cont.

If installing the second amp in a Road Glide or RG Ultra, the second amp will “stick” to the front of the mounting plate as shown in Fig 3.2 below.



Figure 3.1



Figure 3.2

**IMPORTANT: In this install, we refer to the “1st amp” as the Primary and the 2nd amp as the Secondary. On Street Glide/Ultra, the Primary Amp is on the left side of the plate. On Road Glide/RG Ultra, the Primary Amp is on the back side of the plate. In all cases, the Primary Amp is what is powering your front fairing speakers and the Secondary is powering speakers elsewhere on the bike.**

4. Locate the “input link” harness included in the box. Take the blue 4 pin male plug on the “input link” and plug into the empty blue 4 pin female plug on the Primary Amp’s input harness. The 8pin plug on the input link will now plug into the “input” on the Secondary Amp. This is how we get music from the Primary Amp to the Secondary Amp. When done, you will have a blue 4 pin female plug on the input link that is empty. Although not used for this install, this empty plug could be used to send music to a 3rd amp later on.

5. The last connection to the secondary amplifier (right side on Street Glide or Front amp on Road Glide) is to the second set of speakers in the system.

If you are using replacement lids or modifying the lids to hold a speaker, the harness that comes with the lids will work its way up the bike, and plug right into the 4 pin black amplified out “pigtail” on the Secondary Amplifier.

## Section 3 - Adding a Second XM160-2 to the Bike - Cont.

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If you are using the KENWOOD lower speaker pods, the harness included with the kit will also plug directly into the 4 pin black amplified out “pigtail” on the Primary (front) Amplifier.

In all other cases you will use the “ACC” harness included in this kit that has a 4 pin black plug on one end, and wires on the other. This will plug into the amplified out “pigtail” on the Secondary Amplifier and “hardwire” the second set of speakers to this harness. The wires on the supplied ACC harness are clearly labeled, which will make the wiring easy.

6. Attach the power harnesses black wires to the negative (-) battery terminal and the red wires to the positive (+) battery terminal. The factory battery wires are also re-installed at this point. When attaching the power and ground wires, it is always a good practice to do the negative (black) first. When the positive connector touches the battery, some sparking is normal. This is a function of the capacitors in the amplifiers charging up.

7. Turn the stereo on at low volume and test to make sure all speakers are working. Each amp has a variable gain you can now adjust to tune the volume levels between amps. If there are front speakers and lids, and you want the lids louder, so decrease the gain level on the Primary Amp in correlation to the Secondary Amp. There is no right or wrong way here, just set it how you prefer it.

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

**IMPORTANT: With all wires secured, turn the front wheel to each extreme side making sure that any wires cannot bind or impede the steering of the motorcycle. Failure to do so can cause an accident resulting in serious injury or death!**

## Section 4 - Final System Adjustments

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From time to time, Harely-Davidson will release software updates on their website which can be downloaded and installed on the bike. For the best performance of your audio system, please make sure the downloads are up to date! Earlier versions of the software could cause any brand of aftermarket amplifier to distort prematurely so this is an important point!

How the system sounds when the bike is running is going to differ from how it sounds when the bike is not running. This is a function of the radio’s built-in software. You may find yourself adjusting the bass and or treble controls if you’re listening to the bike without the motor running.

# 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  
Tel: (800) 536-9663  
[www.us.jvckenwood.com](http://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  
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/](https://manual.kenwood.com/en_contents/search/)**

