

LIMITED WARRANTY

If your product does not work properly because of a defect in material or workmanship, Custom Autosound Mfg., Inc. (the Company) will for the length of the period indicated on the chart below, which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or refurbished product. The decision to repair or replace will be made by the company.

Product or Part Name	PARTS	LABOR
All In-dash car radios, radio/tape player combinations.	Two (2) Years	One (1) Year

During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" Limited Warranty period, there will be no charge for parts. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of the original purchase date is required for Limited Warranty service.

To obtain repairs or replacement within the terms of this warranty, the product should be delivered, transportation prepaid, to the Company at the address shown below.

This warranty does not extend to the elimination of car static or motor noise correction antenna problems, costs incurred for removal or reinstallation of product, or damage of tapes, speakers accessories or car electrical systems.

This warranty does not apply to any product or part thereof which has been damaged through alteration, mishandling, misuse neglect, or accident.

ANY IMPLIED WARRANTY IS LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. UNDER NO CIRCUMSTANCES SHALL THE COMPANY BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OR INABILITY TO USE THIS PRODUCT: No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

Some states do not allow limitations on how long an implied warranty last or the exclusion or limitation of incidental or consequential damage to the above limitations or exclusion 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.

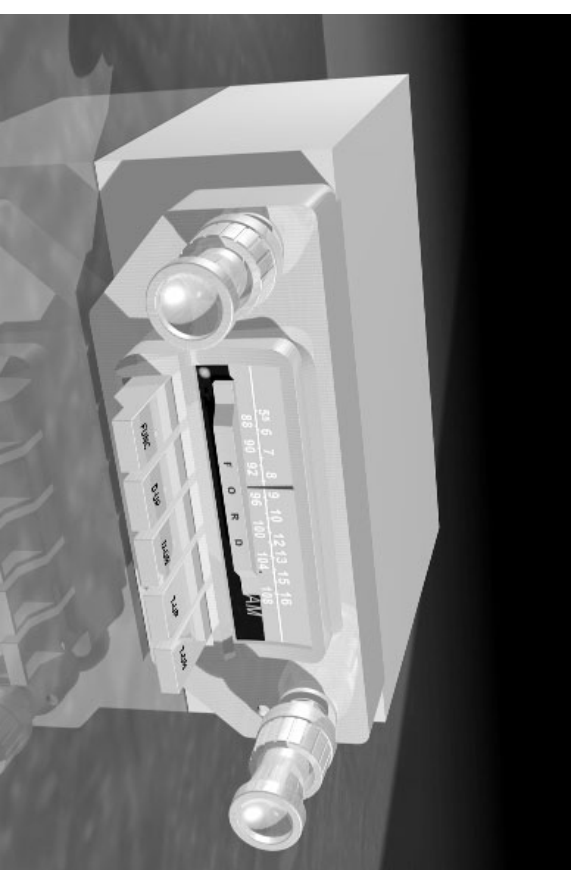


1030 W. Williamson Ave. Fullerton CA. 92833
800-888-8637 714-773-1423 FAX 714-773-1523



Owner's Manual

MANUAL TUNED AM/FM RECEIVER,
CD CHANGER CONTROLLER
CUSTOM MADE FOR
"Classic Mustangs!"



- ◆ CHANGER CONTROLLER
- ◆ AUXILIARY IN
- ◆ AUTO- ANTENNA DRIVE LEAD
- ◆ HIGH POWER 200 WATTS (50 x 4)
- ◆ RCA PRE-AMP OUTPUTS
- ◆ POWER ON/OFF & VOLUME
- ◆ FRONT/ REAR FADER
- ◆ LEFT/RIGHT BALANCE

USA-66

A CUSTOM MADE REPLICA
OF THE 1966 Mustang AM-FM OPTION
(WITH ADDED FEATURES!)



Table of Contents

- Introduction 2
- General Installation 3
- Radio Connections 4
- Low Level Output Connection 4
- Wiring Diagram. 5
- Controls and Display 6
- Receiver Basic Operation 7
- CDC Changer Operation 7
- Aux Input Operation 7
- Noise Suppression 8-9
- Trouble Shooting 10
- Specifications 10

Radio Specifications

FM Section		
Tuner Type	..... PLL	IF Frequency 10.7MHz
Frequency Range	..... 87.5-1 08 MHz	Sensitivity 2.6V
Image Rejection	..... 50dB	S/N Ratio 60dB
Quieting Sensitivity	..... 4uV	Capture Ratio 1.5dB
TH.D	..... 1%	Separation 35dB
IF Rejection	..... 60dB	

AM Section		
Frequency Range	..... 530-1710KHz	IF Frequency 450KHz
S/N Ratio	..... 50dB	Sensitivity 20uV
Selectivity	..... 25dB	

Audio Section		
Output Channel	..... 50 X 4	System Power 200 Watts
Output Impedance	..... 4ohm per speaker	THD 0.5%
Response	..... 30Hz-1 8KHz	

General	
Power Supply	..... 12VDC Negative Ground
Speaker Impedance	..... 4-8 ohm
Stand-By Current	..... 0.02A
Chassis	.... 180mm(7 7/8")(W) X 70 (2 -1/4")mm X 150 (5 5/8")mm(D)

Problem	Cause	Solution
NO Lights, NO Sound	Power Lead:Red Wire not connected or Power not getting to radio	Check fuse in filler box:Check all connections on this wire and verify that radio is getting 12V on this wire.
Lights but No Sound	Power Lead:Orange Wire not Connected or power not getting to radio	Check fuse in filler box:Check all connections on this wire and verify that radio is getting 12V on this wire
Lights Displayed but No Sound	Problem with a speaker or speaker wire	Verify all speakers used are 4ohm or greater. Verify that none of the speakers are going to ground. Verify that none of the speaker wires are shorting to themselves or ground.
Sound only heard on one side	Speaker wires disconnected Balance control set to one side	Check all connections Adjust balance control to center position
Noise with Radio Reception	Antenna not fully extended Car underneath Fluorescent lights	Extend antenna to full length. Back vehicle out of garage and test again

Introduction

Thank you for your purchase of a Custom Autosound radio.

This AM/FM receiver is specifically designed and manufactured for your classic Mustang. It is a reflection of over 29 years of customer feedback regarding preferred features, vehicle compatibility, cosmetics and quality components.

The quality of the components and various parts that are used in our radios were developed in a California audio research laboratory. The laboratory researched and assembled the finest affordable CD controller radio tuner and amplifier sections.

Custom Autosound and its staff own over 16 classic special interest cars and trucks. These vehicles are used for research and development, car shows meets and much personal pleasure. We find that our custom radios only sound as good as the speakers they are matched with and a quality installation.

We also manufacture a full line of Mustang rear, dual front and dual voice coil speaker assemblies to fit in the original speaker areas. Also available are replacement Kick panels with built in speakers and a custom sub-woofer assembly (backseat driver) for trunk mounting. All of these speaker assemblies are made to be mounted without permanent vehicle modifications. Check out our web site!

Your Custom Autosound authorized dealer has information regarding our speakers and special speaker assemblies, as well as information regarding custom radios for vehicles other than yours. We offer over 300 different 'conversions' for various makes, year groups!

Again, we thank you for your purchase! You have increased the value and "Driving Pleasure" of your classic Mustang without damaging the originality.

Regards, Carl Sprague
President
Custom Autosound

It is advised that you do NOT return defective units to your dealer. There is generally no "exchange" e.g.(as is standard Electronics Industry Policy). Also, most dealers do not have radio technicians, test benches, etc and a return to factory through a dealer can extend turn-around times by weeks!

Please call Custom Autosound, requesting technical assistance if a problem occurs. We will gladly trouble shoot/advise, step by step.

After calling if your unit is in need of repair/return, Please ship to us, UPS preferably. We will repair or replace and return ASAP! Normal turn around time is 7 business days plus shipping time.

Custom Autosound Mfg, Inc. 800-888-8637 (8:00AM-4:00PM PST)
1030 West Williamson Ave Fax 714-773-1525
Fullerton, CA 92833 www.custom-autosound.com

Antenna Noise

A static or crackle heard through the speakers, usually when the car is running, but sometimes present with the ignition off. If a crackling static is present, follow the steps outlined below to confirm the antenna as the source of the noise.

1. Start the car engine.
2. Switch on the USA-66.
3. Adjust the volume so that noise is audible.
4. Reduce volume setting of the car stereo but do not switch it off. If noise decreases or disappears, the signal is most likely being picked up by the car antenna. If the noise persists after following the steps listed below, proceed to Ignition Noise.

Elimination

1. Test or have tested the antenna lead for any breaks or shorts. Signs of crimping, kicking fraying or rust usually indicates damage to the cable. Replace the antenna or cable if necessary.

Ignition Noise

A popping or crackling noise heard through the speakers. The noise will vary as the engine rpm varies. The noise will only be present with the engine running

Elimination

1. Install an L.C. Filter Network in the power lead of the USA-66. The filter should be rated at a minimum of 3 amps.
2. Inspect spark plug and distributor cable for signs of wear or damage. Replace as necessary using resistor cable only. Metal conductor ignition cables increase static interference.

NOTE: Do not use spark plug or distributor noise filters as these can create more problems than they can solve. They decrease the quality of the spark generated by the spark plugs and they may create more static than they eliminate.

Accessory Noise

A popping heard when the lights, turn indicators, windshield wipers, cigarette lighter, etc. are switched on indicate a vehicle wiring deficiency. Most occurrences are minor and present no risk to the stereo system other than the annoyance to the listener. However, severe cases may damage the speakers, minor occurrences can be remedied. A professional must attend to severe occurrences, as they present a threat to not only the stereo system but to the vehicle wiring itself.

Elimination

1. Install an L.C. Filter Network in the power leads of the USA-66. The filter should be rated at a minimum of 3 amps.
2. If the noise persists, consult a professional automotive service technician.

Mustang Installation

Thank you for your purchase of this Custom Autosound product!

Owner- Installer: Please review installation instructions and owners manual.

Keep in mind that your radio and/or speakers are custom equipment designed specifically for your year vehicle. It should be handled carefully and installed preferably by an auto radio specialist. We suggest that you "BENCH TEST" the unit before installation, as we do, prior to shipment. This is to insure that the equipment functions properly before the time is spent for installation. This way, if a careless installation occurs and the unit becomes "fried" or some other possible damage, the installer is responsible. Shipping damage does occasionally occur. If you should suspect shipping damage, please contact the delivery company at once.

Please read the owners manual thoroughly before using your radio.

It is recommended that you disconnect the negative lead from the battery before installing any electronic equipment in your vehicle. Reconnect when wiring is complete.

First, you will need to remove the original knobs and shaft nuts. Unplug the main wire harness and speaker leads from the back of the radio. Disconnect antenna lead and remove mounting strap from the back of the radio. The radio is now ready to be removed from the dash. Check the original radio for signs of water or oil damage from leaks. If leaks are present, do not install the new radio. Water, oil or any other liquid damage is not covered under the new radio warranty.

REAR MOUNTING STRAP OMISSION VOIDS WARRANTY!

Attach the rear mounting strap to rear of radio. Install the radio from behind the dash. Now attach the mounting strap to the dash or firewall using an existing bolt or screw. Now attach shaft nuts to secure the radio in the dash. Once the radio is centered and secured, you can install the metal reproduction knobs.

Please refer to wiring instructions on page 4&5.

Plug in antenna lead. On speaker hook up make sure the positive lead goes to the positive terminal and the negative lead to the negative terminal of the speakers. A minimum of two speakers is required for this stereo radio. **DO NOT CONNECT ANY TWO SPEAKER LEADS TO EACH OTHER OR TO VEHICLE GROUND.** Radio damage will occur. If less than four speakers are used, tape off remaining speaker leads to prevent a short.

Plug in or wire the red power wire to a switched 12volt source. Plug in or wire the orange memory wire to a constant 12volt source. Wire the black ground wire to a clean, solid chassis point or original ground wire from the factory radio.

Good Listening! Audio quality is only as good as speaker quality!

Noise Suppression

All CAM Systems are designed for maximum electrical noise rejection. In some installations however, electrical noise may affect the quality of sound reproduction. The procedures described under Noise is present after installing the USA-66, identify the source of the noise using the descriptions under Sources Of Electrical Noise. To eliminate the noise follow the procedures described under Elimination of the specific noise source.

Noise Suppression

- 1-Check all ground connections. Remove paint away from painted surfaces to secure a good electrical ground.
- 2-Check battery posts. If contacts are corroded or loose, clean and tighten both terminals.
- 3-Check battery or add fluid.
- 4-Check condition of spark plug and distributor leads. Worn or damaged leads will generate noise than can be very difficult to eliminate.
- 5-Check installation of factory noise suppressor(s). Verify that the connections are solid. Refer to the vehicles service manual for noise suppressor location or allow a qualified mechanic to inspect the device (s) for you.
- 6-(Optional) Some professional installers will install a simple L.C. noise filter even if there is no noise present in the system. This is a simple and relatively inexpensive device available at your nearest Autosound dealer or electronic supply store. Most filters designed for car stereos carry a current rating of 3 amps or more. Follow the manufacturer's installation instructions. This filter is installed in the power lines of the car stereo.

Sources Of Electrical Noise

Alternator Noise

This noise is generally a high pitch whine present when engine running. The pitch of the whine will vary as engine RPM varies. Alternator noise usually becomes more apparent with an electrical load to the system. Switching the headlights on usually increases the noise.

Elimination

1. Install an L.C. noise filter (available from your Autosound dealer or your nearby electronic or automotive supply store) in the power lines of your USA-66. This filter should be rated at 3 amps minimum.
2. Start the car's engine, switch on the lights (to accentuate the noise) and switch on the USA-66. If noise is still present, proceed to step 3.
3. Install an alternator noise filter (available from your Autosound dealer or your nearby electronic or automotive supply store). Follow manufacturer's installation instructions.

Receiver Basic Operation

1. Switch the receiver "ON" by rotating the VOLUME CONTROL (1) clockwise.
2. Select the receiver mode by switching the AM/FM Slide Bar SELECTOR (5) to the desired position.
3. Tune the receiver by rotating the TUNING CONTROL (7) in either direction. View the station selected on the TUNING DIAL (4).
4. Adjust the left to right speaker balance by pushing in and rotating BALANCE CONTROL (1)
5. Bench test radio before installing-FADER +BALANCE CONTROLS must be set in "NEUTRAL" positions.
6. Depress the FUNC button (8) to toggle the functions of the receiver.

The sequence indicator will be: Radio (Red LED[®])—CDC(Blue LED[®])—AUX(Green LED[®])—"Radio(Red LED[®]).

CD Changer Operation

1. With CD magazine in place in changer, press the FUNC button (8). The receiver will go into CD mode (Blue LED[®]).
2. To select a disc, press CD- UP (9) or CD- DOWN (10) until the desired disc is selected.
3. To select a track, press T-UP (11) or T-DOWN (12) to the desired track.

AUX Input Operation

This feature is for connecting an optional portable audio device such as:

CD/MP3/T.V./DVD/Satellite radio etc. The USA-66 radio comes with an AUX cable that can plug directly into a headphone connector of a portable device. If this is not the style of connector on your portable device, you may need to purchase the appropriate cables or parts separately.

Once you have connected your portable device to the USA-66, turn on the USA-66 and the portable device.

1. Depress the FUNC button (8) on the USA-66. "AUX" indicator until [®] LED light is Green.
2. Adjust the Volume (1) on the USA-66 to the desired level. If the volume level of the radio and the portable device are not the same, you may need to adjust the volume level of the portable device.
3. Control your portable device in the way you normally would. The portable device should be playing through the speakers in your vehicle.

Power and Speaker Connections (Refer to Wiring Diagram on page 5.)

A-Main Power-Red Wire B+

Connect the RED wire (B+) to an accessory fuse that is switched OFF when the key switch is in the OFF position and is switched ON when the key switch is switched to the ON or accessory position. (This does not apply to cars with 6volt system)

B-Memory Back-Up-Orange Wire B+

Connect the orange wire (memory B+) to an accessory fuse that is always ON regardless of the position of the key switch. The lead supplies power to the program memory and the clock circuit when the USA-66 is switched off. (This does not apply to cars with 6volt system)

C-Power Antenna (Auto-Antenna) - Yellow Wire

This wire can be connected to the positive switch terminal of the relay for the auto antenna (if your car is equipped)or to the remote on switch of the amplifier or booster (if equipped). NOTE:DO NOT connect this wire to a negative position or to any device that requires high current Otherwise the radio may fail or become "fried". If your car is not equipped with an auto antenna,leave this wire sealed and do not allow it to short to any other positions.

D - Ground Wire - Black

Connect the black ground wire to any clean paint and contaminant free area of vehicle chassis.

NOTE: Proper grounding is essential for optimum performance of your radio.

E - Speaker Wires

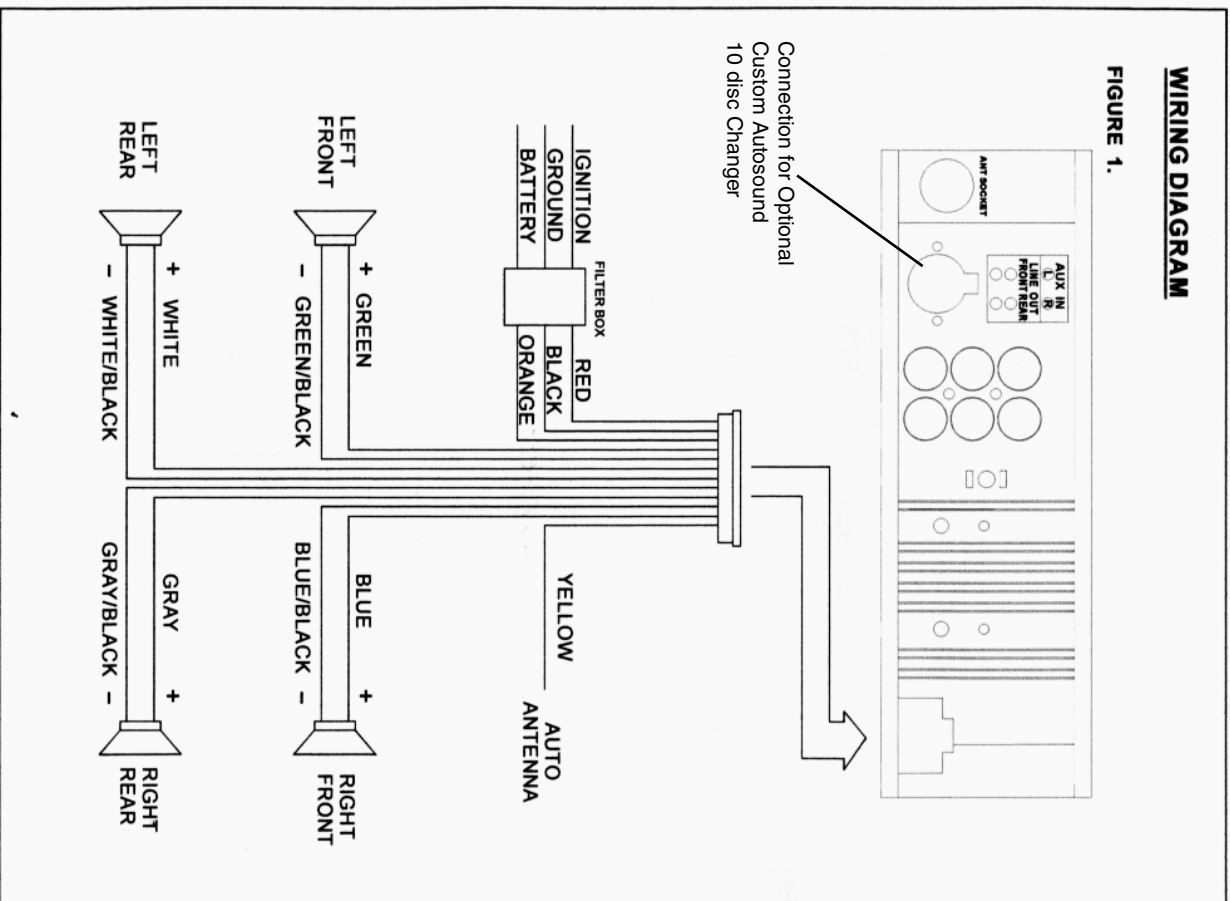
Connect the speaker wires as shown in Figure 1.

Low Level Output (Line Out Jacks) Connection

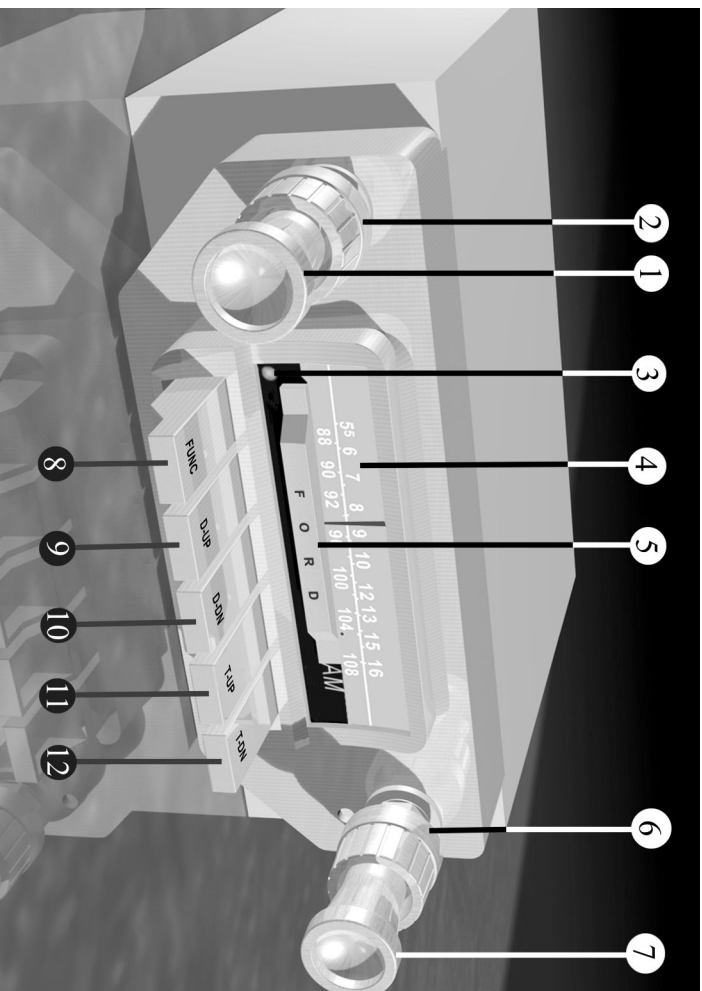
The USA-66 is equipped with low level, high impedance outputs. The low level outputs (RCA type Line Out Jack) will not drive speakers. If you are connecting an amplifier or plan on it in the future, it is recommended to use these leads. It makes for a cleaner and easier Installation.

WIRING DIAGRAM

FIGURE 1.



CONTROLS



1. ON/VOLUME/PUSH BALANCE CONTROL
2. TREBLE/PUSH-BASS CONTROL
3. RADIO-CDC_AUX INDICATOR LED
Green=AUX-IN Blue=CDC Red=Radio
4. TUNING DIAL
5. AM/FM SLIDE BAR SELECTOR
6. FRONT / REAR SPEAKER FADER
7. UP DOWN TUNING CONTROL
8. RADIO FUNCTION SELECT (RADIO-CDC-AUX)
FANC DUB D-ARK T-SP T-DM
9. CDC DISC UP
10. CDC DISC DOWN
11. CDC TRACK UP
12. CDC TRACK DOWN

Once you become familiar with the button features remove the button labels to get that OEM look you want.

NOTICE! Pushbuttons do not 'pull out' as in the original '66 AM-AM. They do not allow presetting of stations. Pushbuttons only control function number 8 thru 12. **DO NOT PUSH BUTTONS WITH FORCE!**

COMPACT DISC OPTION

By adding Custom Autosounds 10 disc CD changer part # USA-CD10, you can enjoy many hours of music and operate all controls of the CD changer from the buttons on the radio. Normally the CD changer is mounted out of sight in the trunk.