custom autosound MANUFACTURING, INC.

# User's Manual

THE ORIGINATOR OF CLASSIC
VEHICLE OEM FIT RADIOS
SINCE 1977

# USA 630
# RADIO

## *AM/FM WITH RDS TUNER VA DISPLAY*

- HIGH POWER 300 WATTS
- AM/FM with RDS & 25 Pre-sets
- 7 LCD Color Choices (selectable)
- CD Controller
- Auxiliary In
- Front/ Rear Fader
- Left/Right Balance
- Bass / Mid / Treble Control
- Clock
- USB Jack charge for mobile phones
- USB MP3/WMA/FLAC/WAV Player
- Loudness Function
- Last Volume Memory
- RCA Pre-out 6v (2 Pair)
- Auto Antenna lead
- DSP EQ

READY TO INSTALL IN YOUR ORIGINAL DASH
NO ASSEMBLY REQUIRED!

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## Introduction

Thank you for your purchase of a Custom Autosound radio.

This AM/FM receiver is specifically designed and manufactured for your classic vehicle. It is a reflection of over **48** 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 radio for your classic car.

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 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 2.1 amplified system with satellite speakers that look like AC vents. 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, all radios are ready to install, no assembly required.

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

Regards,Sandra Sprague
President
Custom Autosound Mfg.

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.

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# Radio 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 gets "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 from your original radio if present. Unplug the main wire harness and speaker leads from the back of the original 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. Attach the mounting strap to the dash or firewall using an existing bolt or screw. Attach shaft nuts to secure the radio in the dash (DO NOT OVER TORQUE THE SHAFT NUTS - SLIGHTLY MORE THAN HAND TIGHT IS SUFFICIENT). Once the radio is centered and secured, you can install the knobs.

Please refer to wiring instructions on page 4&5.

Plug in antenna lead, For 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.

Connect the red power wire to a switched 12volt source. Connect the yellow 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!

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

**Note: Both Red and Yellow wires must be connected for radio to operate.**

### 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.

### B-Memory Back-Up-Yellow Wire B+

Connect the YELLOW 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 radio is switched off. If there is no power on this lead the radio will not turn on.

### C-Power Antenna (Auto-Antenna) - Blue 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.

**Important Notice For Semi Auto Antenna**

Do Not Connect the power antenna lead to this radio unless it is a fully automatic antenna. If your antenna was controlled by a switch or knob on the original radio (ex. 1958-68 Cadillac radios) it is not a fully automatic it is a semi automatic antenna. If you connect the antenna actuator lead of a semi automatic antenna to this radio you will burn the circuit board in the radio. This can cause unrepairable damage.

### 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 2.

### AUX Input

There is an input on the back of your radio. Use these to listen to any portable device with standard headphone outputs (MP3 player, Nav unit, portable CD etc.)
The radio will control the volume level only of this input.

### Low Level Output (Line Out Jacks) Connection

The radio is equipped with low level, high impedance outputs. The low level outputs (RCA type Line Out Jacks) for front / rear 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.

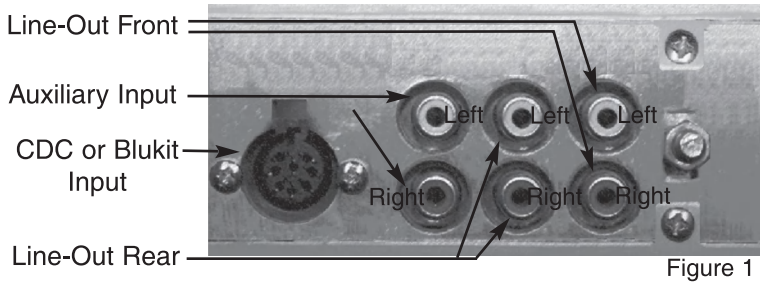
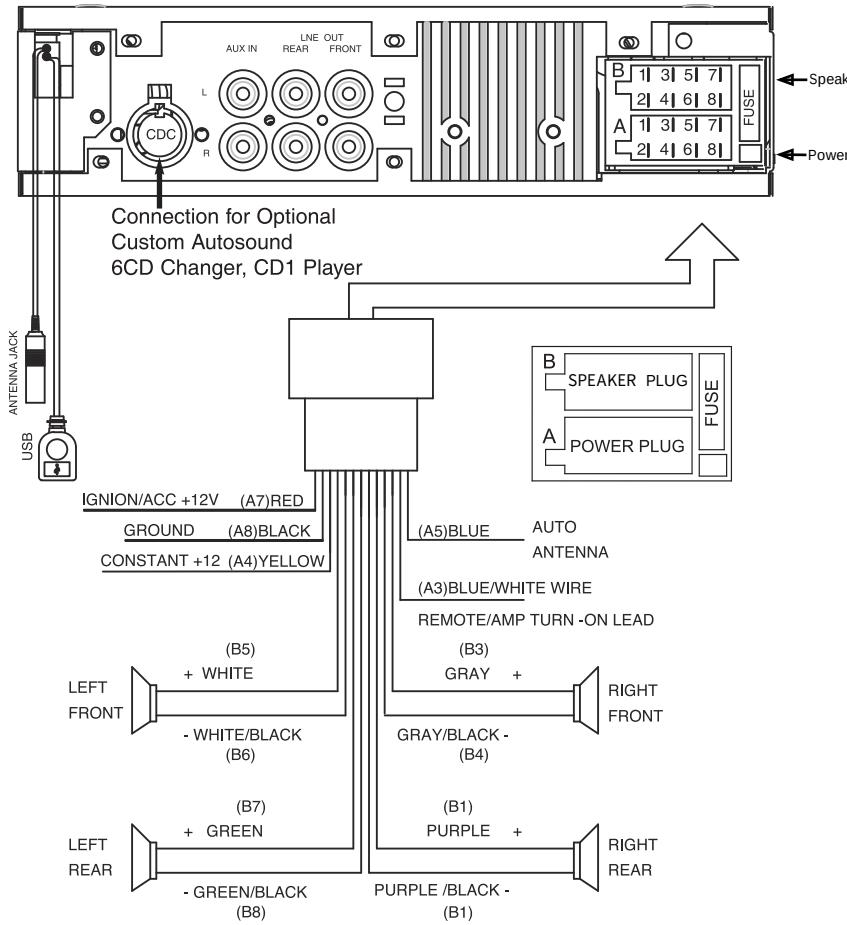



Figure 1

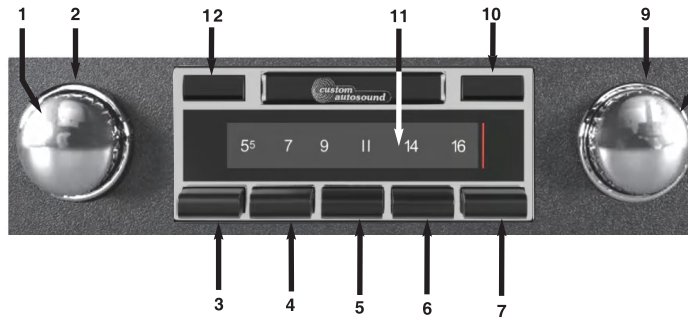
# WIRING DIAGRAM

Figure 2




# CONTROLS

Figure 3



| Function See FIG.3 | | Radio Mode | USB/CDC |
|---|---|---|---|
| **Power On/Off** | **1** | Press the left front knob to turn the unit on. Look for CUSTOM AUTOSOUND ON POWER UP<br><br>Press the left front knob to turn the unit off. The LCD display will show GOODBYE for your confirmation | |
| **Volume** | **1** | Turn the left front knob to adjust the volume attenuation between 0~45 (Min/Max). 14 is the default turn-on level. | |
| **Mode** | **2** | Turn the left rear knob clockwise to select from an available listening source: Radio, USB, CDC or AUX | |
| **TA** | **2** | Turn and hold the left rear knob clockwise to turn On/Off the Traffic Announcement function (FM Only) if supported by the station. TA will blink on the LCD | |
| **Clock On** | **2** | Turn the left rear knob counter-clockwise to activate the clock on-screen feature.. When you turn the left rear knob counter-clockwise the Clock is displayed for a few seconds. Turn and hold the left rear knob counter-clockwise while displaying Clock and “Hour Adjust” mode is activated for a few seconds. During the mode turn the left front knob to adjust the hour, turn the left rear knob counter-clockwise during “Hour Adjust” mode and “Minute Adjust” mode is activated for a few seconds. During this mode, turn the left front knob to adjust the minute. | Turn the left rear knob counter-clockwise to toggle and view artist, album, title information. |
| **View Song Info/ Clock** | **2** | | |
| **Preset 1 Recall/ Store** | **3** | Press to select the #1 radio pre-set.<br><br>Press and HOLD to store preset 1 into memory. | Press to play/pause file playback on USB / CDC. |
| **Play/Pause** | | | |

| Function See FIG.3 | | Radio Mode | USB/CDC |
|---|---|---|---|
| **Pre-set 2 Recall/ Store**<br>**Preview Scan** | **4** | Press to select the #2 radio preset.<br><br>Press and hold to store preset 2 into memory. | Press to play 10 seconds of each track on the flash drive or CDC<br>Press again to cancel the preview scan function. |
| **Pre-set 3 Recall/ Store**<br>**Random** | **5** | Press to select the #3 radio preset.<br><br>Press and hold to store preset 3 into memory. | Press to randomly play all digital tracks on your flash drive or CDC. |
| **Pre-set 4 Recall/ Store**<br>**Select Folder Select Disc** | **6** | Press to select the #4 radio preset.<br><br>Press and hold to store preset 4 into memory. | Press to move UP through folders on your flash drive. The first file in the selected folder will play. The screen will display FOLDER NAME, etc.<br><br>ON CDC: DISC UP |
| **Pre-set 5 Recall/Store**<br>**Select Folder Select Disc** | **7** | Press to select the #5 radio preset.<br><br>Press and hold to store preset 5 into memory. | Press to move DOWN through folders on your flash drive. The first file in the selected folder will play. The screen will display FOLDER NAME, etc.<br><br>ON CDC: DISC DOWN |
| **Next/Previous** | **8** | Turn the right front knob to tune to the next or previous AM/FM frequency. | Turn the right front knob to change to the next/previous track this function. |
| **Audio Adjust** | **8** | Press the right front knob to activate the SEL(Select)function. Press repeatedly to cycle through the DSP(Digital Signal Processing)EQ. Bass, Mid, Treble, Balance, Fader, Loudness.Turn the left front knob to select a value. | |

| Function See FIG.3 | | Radio Mode | USB/CDC |
|---|---|---|---|
| **System Menu** | **8** | Press and hold the right front knob for 3 seconds to access the sub-menu system where you can adjust: DIMMER,LCD Color,DISPFUN/CLK,SCR OFF/CLK,Auto/Manual turning,DX/LOCAL,STEREO/MONO,A STORE,AREA USA/EUR/AUS/JAP/RUS, BEEP OFF/ON,CT ON/OFF,PTY Search,Vol Adjust/Vol Last and volume default level, TA Seek/Alarm, PI Sound/MUTE, Mask DPI/ALL. Toggle the selection by turning the left front knob and pressing the right front knob to go the next mode. | |
| **Preset 6 Store**<br>**Repeat Play** | **9** | Turn the right rear knob counter-clockwise to select the #6 radio preset.<br>Turn and hold the right rear knob clockwise to store preset 6 into memory. | Turn and release the right rear knob counter-clockwise to repeat the current track (RPT TRK) or repeat all tracks (RPT ALL). |
| | **9** | Turn and hold the right rear knob clockwise to turn On/Off The AF function.(FM Only,Disabled in USA) | |
| **Band**<br>**Track/Directory Search** | **9** | Turn the right rear knob clockwise to toggle through 5 radio bands (2 AM and 3 FM). NOTE: When tuning to a station, a stereo indicator (two ovals) will show in the upper right side of the radio's LCD screen. If there is no stereo icon seen, the station is in mono. | Turn the right rear knob clockwise once to select "FOLDER" search mode, turn the front left knob clockwise or counter-clockwise to select folders (directories) on the usb drive. Press and release the front right knob to select the folder, the first song in that directory will be heard. |
| **Preset Scan** | **9** | Turn the right rear knob counter-clockwise to scan stations stored in the current band the unti will pause for the seconds at each preset station Turn the right rear knob counter clockwise again to sotp scanning when the desired station is reached. | |
| **Seek** | **10** | Press this key is operate as RADIO SCAN the operation is similar as nomal search but different thing is holding 5 seconds on every station detected in RADIO Mode. | |
| **LCD / DISPLAY** | **11** | LCD DISPLAY | |
| **MUTE** | **12** | Press this key serves to switch the "muted" state on/off | |

**Adjusting the sound properties:**

1. Press the right front knob, then release, to access the sound properties menu.
2. Repeatedly press and release the front right knob to scroll through the available menu options.
3. Turn the left front knob right or left to select a value for the chosen menu option.
4. Press and release the right front knob repeatedly to move to the next function desired, or do nothing and the menu will revert to the current source display.

**EQ SETTING**

When you first access this menu, EQ is set to OFF, Turn the left front knob to view and select from the 5 preset equalizer options.

FLAT setting offers sonic adjustments that lend themselves to classical music.

CLASSIC setting offers sonic adjustments that lend themselves to classi cal music.

POP setting accentuates the bass and treble settings. This is suitable for bass heavy popular music.

ROCK setting accentuates the treble settings. This is suitable for rock music.

**BASS / MID / TREBLE** selections do not come up when the EQ is set to anything other than OFF.

*BASS*

The bass adjustment function allows you to boost or cut the low frequencies from -12 to +12.

*MID*

The mid-range adjustment function allows you to adjust the middle frequencies -12 to +12.

*TREBLE*

The treble adjustment function allows high you to boost or cut the high frequencies from -12 to +12.

*BALANCE*

The balance adjustment function allows you to adjust or pan the stereo sound from the left or right, This position or the driver in relation to the speakers. Adjustment range is 0-20 between the left and right speakers.

**FADER**
The fader control allows you to fade the sound from the front pair of speakers to the rear pair of speakers. Adjustment range is 0-20 between front and rear speakers.

**Loudness**
This function boosts bass and treble according to the volume. You will know this function is active when you see "LOUD" on your display. This function boost bass and treble for low listening volume and should be turned off at higher volumes.

**BASS / MID / TREBLE** This Menu does not come up when the EQ is set to anything other than OFF.

**BASS**
Use this function to make a more detailed boost or cut adjustment of bass (low) frequencies as follows:60/80/100/120Hz.This is a very useful mode for making very specific tonal adjustments. When selecting one of these 60/80/100/120Hz points, any changes to the prior BAS Menu settings on page 10 (-12 to +12) will boost or cut at the selected frequency setting chosen in this menu.

**MID RANGE**
Use this function to make a more detailed boost or cut adjustment of midrange (vocal) frequencies as follows:0.5K/1.0K/1.25K/1.5KHz.Default setting is 1.0KHz.This is a very useful mode for making very specific tonal adjustments. When selecting one of these 0.5K/1.0K/1.25K/1.5KHz points, array changes to the prior MID menu settings on page 10 (-12 to +12) will boost or cut at the selected frequency setting chosen in this menu

**TREBLE**
Use this function to make a detailed boost or cut adjustment of treble frequencies as follows; 7.5K /10.0K/12.5K/15.0K. Default setting is 10.0KHz.When selecting one of these 7.5K /10.0K/12.5K/15.0K points, any changes to the prior TRE menu settings on page 10 (-12 to +12) will boost or cut at the selected frequency setting chosen in this menu. This is a very useful mode for making very specific tonal adjustments.

## Accessing the sub-menu system menu:

1. **Press and hold the right front knob for 2 seconds**, then release, to access the sub-menu system.
2. Repeatedly press and release the front right knob to scroll through the avail able menu options.
3. Turn the left front knob right or left to select a value for the chosen menu option.
4. Press and release the right front knob repeatedly to move to the next function desired, or do nothing and the menu will revert to the current source display.

## Sub-Menu Options

**DIMMER**

Use this menu option to switch the LCD brightness between 0 to 7 ,Turn the left front knob clockwise or counter-clockwise to make your selection.

**(LCD DISPLAY COLOR)**

Select the desired color preset. By default, the LCD lighting will White. Available color options include WHITE, RED , GREEN, BLUE, CYAN, YELLOW, PINK. When you selected the User Mode, the LCD lighting will alternate between all colors within 10 seconds.

**DISP FUN/CLK**

The unit default setting displays function info on the screen.
Select “DISP CLK” to show the clock as the priority screen view without any operation in 10 second.Turn right front knob either clockwise or counter-clockwise to select “DISP CLK” or “DISP FUN”

**SCR OFF/CLK**

The unit default setting displays nothing on the screen when the radio power off.Select“SCR CLK” to show the clock as the priority Screen view when the radio power off. Turn right front knob either clockwise or counter-clockwise to select “CR OFF” or “SCR CLK”

**AUTO SEEK**

Access to MENU, go to AUTO SEEK (by default setting)then.Turn outer left knob clockwise, the screen will show “ MANUAL”, press outer right knob to confirm. After that radio will stay active

in Manual Tune until we reset it back to Auto Seek.Short cut : while the radio is on AM/ FM mode, turn and hold the inner right knob counter-clockwise for 2 seconds, the screen shows “ Manu Tune”or" Auto Seek " after that, the radio will stay active in Manual Tune or Auto Seek.

**LOCAL/DX**

When listening to the FM turner, you can access the LOCAL or DX (default)option. Selecting between the LOCAL and DX settings can aid in listening to weak FM radio stations or compensate for stations that have too strong of a signal.

**STEREO/MONO**

When listening to the FM turner, you can access the STEREO (default)or MONO option.Selecting between the stereo and mono settings can set up a stereo or mono output.

**A STORE**

This function will automatically fill presets with the strongest stations found for the current band. Turn the right front knob clockwise to activate this feature.

**AREA (USA/EUR/JAP/AUS/RUS)**

The radio has the capability to receive AM/FM broadcast frequencies in other countries. To modify the default setting. (default), turn the left front knob.

**BEEP**

This function controls the audible beep confirmation that sounds during radio operation. With the beep function displayed, turn the left front-knob to select BEEP OFF, BEEP 2ND or BEEP ALL. If you selected the BEEP 2ND, press and hold the knob for 1 seconds will hear the audible beep confirmation only.

**CT ON/OFF**

If supported by the station, adjust to turn the CT (Clock Time) function on/off. This feature can synchronize the clock with the radio station’s clock.

**VOLUME ADJUST/LAST**

Factory default for this menu option is VOL LAST,which maintains the last volume the radio was at when you turned it off. When you select ADJ, you can set the default turn-on volume at any level(ADJ VAL 00-45), regardless of what the volume level was when you last turned off the unit.

**PROGRAM TYPE (PTY) (Works in EURO Mode only)**

This function will allows you to Searching a special PTY Station in FM Mode. Turn the left front knob clockwise or counter-clockwise to select the PTY which you want, And then, Turn the right front knob clockwise to activate the Search process.

**TA SEEK (Works in EURO Mode only)**

This function allows you to select the tuner working in TA Seek or TA Alarm mode. Turn the left front knob clockwise or counter-clockwise to select TA Seek or TA Alarm.

**PI Sound (Works in EURO Mode only)**

This function allows you to select the tuner working in PI Sound or PI Mute mode. Turn the left front knob clockwise or counter-clockwise to select PI Sound or PI Mute.

**MASK DPI (Works in EURO Mode only)**

This function allows you to select the tuner working in Mask DPI or Mask All mode. Turn the left front knob clockwise or counter-clockwise to select Mask DPI or Mask All.

RDS tuners can automatically tune in stations according to the style of music (or talk) they broadcast. Some RDS tuners can even break in with traffic alerts or emergency broadcasts.

RDS enables your receiver to display text messages (usually call letters and format info that many FM stations include on a subcarrier signal within their normal broadcast signal.

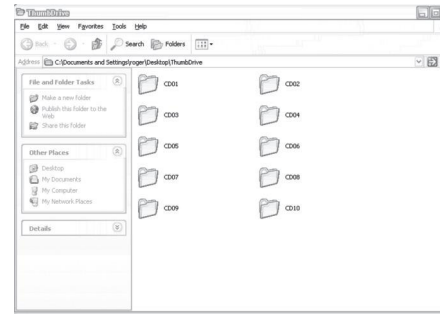
**USB Player**

The USB decoder is compatible with **MP3** (MPEG Audio Layer-3)**FLAC**,**WAV**and **WMA** (Windows Media Audio) files. It is preferable to set up your flash drive/thumb drive with a folder system. This way you can advance to another set of songs (folder) by pressing the disc up or disc down buttons. Similar to having multiple disc in a CD changer.

**1**. Insert your flash drive/thumb drive into the USB jack (located on 18" extension from the back of radio).
**2.** Turn and release the left rear knob clockwise until USB PLAY is displayed on the screen. The radio will automatically start playing your files starting with the first file on the flash drive.
**3.** To change songs, turn clockwise/counter-clockwise button (8). Use the disc up disc down buttons (6)(7) to change folders if your drive is set up with folders.

Note: The folder name or number does not appear on the LCD Display. Track numbers for songs in the folder are determined by the order in which they were recorded to the flash drive.

The player will not play MP4 or files with copy protection.




## CD Changer Operation

This radio is only compatible with the Custom Autosound USA-CD60 6 disc changer or the 1disc CD1 player.
The CD magazine for the CD60 changer requires the CD's be loaded with the label **facing down.** If you get an error message or the changer can not find the CD please check the loading position of the CD in the magazine. CD1 loads with label facing up.

**1.** With CD magazine in changer, **Rotate** and **Release** the **Left Rear Knob (**2) **Clockwise** Until CDC is displayed on the LCD.
**2.** To select a disc press CD up (6) or CD down (7) until the desired disc number is shown on the LCD display (11).
**5.** To skip to the next track, turn knob (8) clockwise .To go to the previous track, turn knob (8) counter clockwise.
**6.** To change the mode to another source, **Rotate** and **Release** the **Left Rear Knob Clockwise** until the desired source is shown on the LCD displ y (11).

## Noise Suppression

All CAM electronics are designed for maximum electrical noise rejection. In some installations however, electrical noise may affect the quality of sound reproduction.
If electrical noise is present after installing your Slidebar radio, 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.

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 if needed.
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 nose 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 manufacturers 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 pitched whine present with 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 radio. 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-630. 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.

### 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 if 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 radio.
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 decreas es 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.

### Antenna Noise cont.

### Elimination

1. Test or have tested the antenna lead for any breaks or shorts.Signs of crimping, kinking, 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 radio. The filter should be rated at minimum 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 preset 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 **630** radio. The filter should be rated at a minimum of 3 amps.
2. If the noise persists, consult a professional automotive service technician.

## Radio Specifications

**FM Section**

Tuner Type . . . . . .PLL
Frequency Range . . . . . .87.5-107.9 MHz
Usable Sensitivity . . . . . .12.5dBf
Quieting Sensitivity . . . . . .4uV
T.H.D . . . . . 0.8%

**AM Section**

Frequency Range . . . . . .530-1710KHz
S/N Ratio . . . . . .50dB
Selectivity . . . . . 25dB

**Audio Section**

Output Channel . . . . . 45 X 4
Output Impedance . . . . . .4ohm per speaker
Response . . . . . .30Hz-I8KHz

**General**

Power Supply . . . . . .12VDC Negative Ground
Speaker impedance . . . . . .2-8 ohm
Stand-By Current . . . . . .<2mA
Chassis ....200mm(7-¾")(w) X 50mm (2")H
X 150mm (5-⅞")(D)

IF Frequency.....10.7MHz
Sensitivity .....2.6V
S/N Ratio .....67dB
Capture Ratio.....1.5dB
Separation.....35dB

IF Frequency.....450KHz
Sensitivity..... 20uV

System Power.....Max 300 Watts
THD .....1%

To charge mobile phones through to USB interface .....max 1500 mA

Note: All specifications are subject to change without notice.

**This radio is for 12volt negative ground vehicles only**. If your electrical system is 6volts and or positive ground Custom Autosound has power inverters #PGPI-HC (positive ground power inverter) and voltage boosters #NGVB-HC (negative ground voltage booster) for use with this radio.

| Problem | Possible Cause | Solution |
|---|---|---|
| Radio Will Not Turn On NO Lights, NO Sound | Power Lead: Red Wire (switched) not connected or Power not getting to radio | Check all connections for proper voltage. Voltage range 12-14.7 Volt |
| | Power Lead:Yellow Wire (constant) not Connected or 12 volt not getting to radio | Check all connections for proper voltage. Voltage range 12-14.7 Volt |
| | Ground wire not connected | Check for good ground connection on Black wire. |
| | Fuse on the back of the radio blown | Replace blown fuse |
| Lights Displayed but No Sound | Problem with a speaker or speaker wire | Verify all speakers used are 4 to 8 ohm. Verify that none of the speakers are going to ground.<br>Verify that none of the speaker wires are shorting to themselves or ground. |
| Sound only heard on one side | Speaker wires disconnected<br>Balance control set to one side | Check all connections<br>Adjust balance and fader control to center position |
| | Bad Speaker | Reverse speaker leads at radio. If still no sound on the same speaker the speaker is bad. If no sound on other check wiring and fader control on radio. |
| Lights Dim and Radio Distorts at High Volume | Poor Ground Connection | Reconnect Ground wire to a solid chassis ground |
| Noise with Radio Reception | Antenna not fully extended<br>Car underneath Fluorescent lights | Extend antenna to full length.<br>Back vehicle out of garage and test again |

**System Reset:**

Remove all power from the radio for 2 minutes, reconnect power and all settings will be at factory default.

# 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 | 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 the length of an implied warranty 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.

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