TRA-4100
AM/FM Fender-Mount Radio

TRA-4300
AM/FM Cassette Fender-Mount Radio

Using Your Radio

Features

• Self contained outdoor audio product including radio, antenna and speaker
• 6 to 12V operating voltage (TRA-4100)
• Impact resistant ABS housing construction
• Latching hinged front weather cover
• Full range 5x7 speaker
• Heavy-Duty rubber mast antenna
• Two-wire hook-up, automatic vehicle polarity detection
• Corrosion resistant hardware
• UV stable
CONGRATULATIONS on your purchase of the Heavy Duty Systems AM/FM Fender-Mount Radio. This product has been designed to give you many years of enjoyment. Please read the directions that follow to familiarize yourself with the product operation and installation procedures.

SAFETY INSTRUCTIONS

1 Read Instructions - All the safety and operating instructions should be read before operating the AM/FM Fender-Mount Radio.

2 Retain Instructions - The safety and operating instructions should be retained for future reference.

For your protection, record the model and serial numbers of your radio here. In the event your player requires servicing or is stolen, you may need this information. You may also wish to clip or staple your sales receipt to this page.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>TRA-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number:</td>
<td></td>
</tr>
<tr>
<td>Date Purchased:</td>
<td></td>
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<tr>
<td>Store's Name and Address:</td>
<td></td>
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</tbody>
</table>

PACKAGE CONTENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>SPECIFICATIONS</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hex Bolt</td>
<td>M8x18 (P=1.25)</td>
<td>4 pcs</td>
</tr>
<tr>
<td>Tooth Washer</td>
<td>M8.0</td>
<td>4 pcs</td>
</tr>
<tr>
<td>Plain Washer</td>
<td>M8.0</td>
<td>4 pcs</td>
</tr>
<tr>
<td>Terminal</td>
<td></td>
<td>2 pcs</td>
</tr>
<tr>
<td>Wire Tie</td>
<td></td>
<td>2 pcs</td>
</tr>
<tr>
<td>Extension Wire</td>
<td></td>
<td>1 pc</td>
</tr>
<tr>
<td>Antenna</td>
<td></td>
<td>1 pc</td>
</tr>
</tbody>
</table>
1. Select a mounting location (usually on fender) that is convenient for operator use and will not interfere with the antenna.
2. Verify the underside of the mounting area is accessible for mounting bolt installation.
3. Once area is selected, remove the two bolts securing the mounting base to the housing.
4. Use the mounting base as a template and mark the center of the four mounting holes.
5. Carefully drill four 3/8" diameter holes in the four marked locations.
6. Place mounting bracket over the four holes and align.
7. Secure mounting bracket using four hex head bolts, washers, and lockwashers provided.
   **Note:** DO NOT TIGHTEN BOLTS FIRMLY AT THIS TIME.
8. Place housing in mounting bracket and replace the original bolts and lockwashers. Adjust housing for proper angle and tighten the two bolts firmly.
9. Now tighten the four mounting bolts securely.
10. Thread the antenna mast onto the antenna base on the rear of the housing and tighten firmly.
ELECTRICAL CONNECTION

1 BLACK WIRE
Select a good grounding area near the radio housing to secure the ground wire to. If necessary, drill a 3/32" hole and secure the wire using the screw and washer provided. To insure a good ground, remove any paint around the drilled hole.

2 RED FUSED WIRE
On most older vehicles it will be necessary to connect this 12 volt power lead to the 'ACCESSORY' side of the ignition switch. (Newer vehicles may have a fuse block or electrical terminal strip with an 'Accessory' position to connect his wire to).
Note: The Special Dual Polarity circuit in this radio automatically corrects for either negative or positive ground vehicles.

OPERATION NOTES

1 ON-OFF CONTROL
Always turn the knob 'off' when not in use. Do not rely on the ignition switch to turn the radio off.

2 HEADPHONE JACK
Your radio has a headphone jack (located on the left side of the housing under a dust cap). You can use stereo headphones. When headphones are connected, the built-in speaker will not operate. Always remove headphone and replace dust cap cover when headphones are not in use.
Caution: NEVER USE HEADPHONES DURING ELECTRICAL STORMS.

3 FRONT DUST COVER
Caution: This cover must be closed and latched whenever severe dust or rain conditions exist (use headphone) or whenever the radio is not in use. For your own safety, the cover, when open, must be latched open as a severe jolt may cause the cover to snap shut unexpectedly.
1 ON-OFF SWITCH/VOLUME CONTROL
Rotate this knob to the right to turn the unit on. Continue rotation until desired volume level is obtained.

2 TONE CONTROL
Rotate this knob to the right or left to adjust the bass and treble levels to suit your listening preference.

3 AM/FM BAND SELECTOR
Press this button to change the radio band from AM to FM. FM broadcasts will be received with the switch in the 'in' position, and
AM broadcasts will be received with the switch in the 'out' position. AM broadcasts will be received with the switch in the 'out' position.

4 MANUAL TUNING CONTROL
Rotate this knob to the left or right to select the desired radio station. When tuning in the station, always adjust the control so that you are receiving the full signal and are on the center of the broadcast frequency. If the radio is off frequency, you could experience noise and reception problems. The dial pointer will move along the dial to indicate the frequency to which you are tuned.

5 AM ANTENNA TRIMMER
It is very important to adjust the Antenna Trimmer for optimum AM reception. (The antenna trimmer for the TRA-4300 is located at the back of the tape slot). Adjust it as follows:

1 Tune in a weak station around 1400 KHz on the AM band.
2 Using a small screwdriver, slowly adjust the trimmer for maximum output from the radio.

Note: The Antenna Trimmer only affects AM reception, and will have no effect on FM reception. The Trimmer only needs to be adjusted when the radio is first installed and at any time a change is made to the vehicle antenna (replacing the mast, etc.).

6 FM LOCAL/DISTANT SELECTOR
This selector switch is incorporated to allow maximum reception in both weak and strong FM signal areas. For normal reception conditions and when receiving a wide range of signals including weak or distant stations, the switch should be set to the 'in' position, which will allow maximum signal to the receiver. When in an extremely strong (local) signal area, set the switch to the Local setting ('out' position). This will eliminate weak signals and suppress overly strong signals so as to avoid overloading the receiver input. When moving out of the strong signal area, return the switch to the Distant ('in') setting.

Note: The Local/Distant Selector only affects FM signals, and will have no effect on AM reception.
FRONT PANEL CONTROLS CONTINUED

TRA-4300 ONLY

7 CASSETTE DOOR
Hold the cassette with the exposed tape edge to the right and insert it into the cassette door. Depress fully until the cassette is engaged and begins playing.

8 FAST-FORWARD/EJECT BUTTON
This button performs two functions. To eject a cassette, simply depress the button fully then release. The cassette will eject and radio operation will resume. To fast-forward the tape, depress the button half-way in to the locked position. To stop fast-forward and resume normal tape playback, depress the button slightly and release. Do not press fully in or the cassette will be ejected.

Note: Never leave a cassette engaged in the player when not in use. Doing so can cause damage to the cassette and/or mechanism of the unit. Always press the eject button and remove the cassette when leaving the vehicle.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Operating Voltage</th>
<th>• 12 volts DC</th>
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<tbody>
<tr>
<td>Output Power</td>
<td>• 20 watts maximum</td>
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</table>
| Tuning Range       | • AM: 540 – 1,710 KHz  
                     |   FM: 88 – 108 MHz |
| Sensitivity        | • AM: 15 uv  
                     |   FM: 2.5 uv |
| Tape Frequency Response | • 50 – 10,000 Hz |
| Tape S/N Ratio     | • 50 dB |
| Wow & Flutter      | • 0.25% WRMS |