

### Operating Your Radio

**Band selection:** If your radio has an AM/FM switch, set it for the desired band. If it does not, it will power up in the FM stereo mode the first time it is turned on. To switch to AM, turn the radio off, and then back on again. To switch back to FM, turn the radio off, wait 5 seconds, then turn the radio back on.

**Tuning:** Radios that only have an AM dial will tune the FM band from 88 (low end) to 108 (high end) MHz. Since 1100 kHz is approximately the center of the AM band, it will correspond to about 98 MHz on the FM band. You can set your pushbuttons for either AM or FM stations.

**Tone:** The tone control (usually behind the volume control) provides flat bass and treble near the center position. Turning the control clockwise boosts treble, and counter-clockwise boosts bass.

**Balance:** If your radio originally had a balance control, it will operate normally. If your radio was not so equipped, and it has more than one speaker, a balance control has been added. See page 1 for your option. **If an external** balance control has been added, set it for the most pleasing sound. **If an alternate (Alt)** control is programmed, tune to an FM station and set the tone for the best sound. After you've listened for a few seconds, tune rapidly to the bottom of the dial. The LED in the dial (where applicable) will begin to flash, and the last station you were listening to will start playing again. Use the tone control to adjust the balance. When you tune away from the bottom, the radio will resume normal operation, and the tone control will no longer affect balance. **If use fader** is programmed, the original "front/rear" fader will instead control left/right balance. This option is typically used for 2 speaker systems when the radio was originally equipped with a front/rear fader.

**Fader:** If your radio has more than two speakers, and had an original fader, it will operate normally. If not, a fader has been added. See page 1 for your option. **If an external** fader has been added, set it for the most pleasing sound. **If an alternate (Alt)** fader is programmed, tune to an FM station and set the tone for the best sound. After you've listened for a few seconds, tune rapidly to the top of the dial. The LED in the dial (where applicable) will begin to flash, and the last station you were listening to will start playing again. Use the tone control to adjust the fader. When you tune away from the top of the dial, the radio will resume normal operation, and the tone control will no longer affect the fader function.

If either the Alt balance or Alt fader option is used, the settings are permanently stored (until you change them). Every time you turn on the radio, the balance and/or fader values you last set will be re-loaded.

(5)

### INSTALLATION GUIDELINES

A major consideration will be speakers. If you only have room for one speaker, use one full range speaker instead of the "dual" speakers made to fit one opening. Because those dual speakers have small cones, they can't produce any bass, and you won't be able to hear stereo separation because they are mounted so close together.

Use one 4 ohm speaker for each channel you want to connect. Make sure it can handle the wattage! Unless you crank it all the way up regularly, 30 or 40 watt RMS ratings should be sufficient. The higher the SPL rating of the speaker, the better it is. Look for an SPL of 88 or better. A good full range speaker should have a frequency range from less than 40 Hz to better than 20 kHz.

Pay attention to polarity! Speaker terminals will be marked with a + and -, or a red dot on the + terminal. If all speakers are connected to the proper polarity, they will operate in harmony. If they are not properly phased, you will not hear the full fidelity of the radio. Note: - does not mean ground! This is a high power radio in which both speaker lines are driven with high currents! **Never** allow any speaker lead to become grounded when the radio is on!

Pages 3 and 4 show several possibilities for speaker arrangements. If your car is a convertible or station wagon, it may not be possible to mount speakers in the rear. You might consider kick panel speakers, or mounting speakers under the dash where they're out of sight.

Unless your radio is mono with the speaker built in, it has a 12 pin connector for the speakers, power, and options. It may have a red (fused) wire. This is for power input. If this wire is not included, your radio has a separate (original) power input that connects directly to a plug in the wiring harness. It may also have a green wire that is used for the dial light. If the green wire is not installed in the 12 pin plug, it is either part of the original power plug or was not separately wired originally. The orange wire is a switched 12 volt output that may be used to power options like MP3, IPOD, or CD players, or satellite receivers. It can also be used to control power antennas. See page 7 for more details. The wiring for the front speakers includes a blue and violet pair for the left front speaker and a gray and white pair for the right front speaker. Each front pair will have a yellow band around it. The rear speaker wiring also has a blue and violet pair for the left rear speaker and a gray and white pair for the right rear speaker. Each rear pair will have a green band around it. There is no ground wire. The ground connection is made when the radio is bolted into the dash.

(2)