1953 and 1954 CHEVROLET
AM/FM STEREO
RADIO INSTALLATION
AND
OPERATING INSTRUCTIONS
AM/FM9.2
150/210/BEL AIR

.Model 152314B (Radio With Speakers)

Add our Bluetooth® adapter kit option! Answer incoming calls and place outgoing calls with compatible phones — all without having to fumble around for your cell phone. You can also stream music from any compatible phone or tablet — use the dedicated keys to skip or replay tunes. Built in USB 2.1 Amp charger. NFC simple pairing function.

ANTIQUE AUTOMOBILE RADIO, INC.
700 TAMPA RD. Palm Harbor, FL 34683 USA (727) 785-8733
For HELP, Questions or Comments **email:**
support@radiosforoldcars.com

CONGRATULATIONS! You have one of the most unique and sophisticated radios ever built! It is designed for a long trouble free life and quality sound. Our objective is to preserve the original fit, functions and appearance of your radio while providing superior sound using the best of the latest digital technology. The more modern features that were not available when your vehicle was new are cleverly disguised so that they are functional and easily accessible, but not visible. The face, knobs and pushbuttons are manufactured and to look just like the original. The AM dial scale is made to look like the original. There is a smaller and less noticeable FM dial scale at the bottom of the dial window. Please take a few minutes to read this manual and familiarize yourself with all of the features of this radio. **Note: The dial pointer and pushbuttons are electrically operated and will not function without power.**

Although this radio is considerably smaller than the original, it will fit in the dash without any alterations. The radio is designed to work well with the original antenna. **Do not use original speakers**. They can't handle the power or the frequency range of this radio.

Before you begin installation: Be Safe! Disconnect one battery terminal and leave it disconnected until installation is complete. Make sure you are familiar with the options and features programmed into this radio. Locate the antenna jack and the Aux inputs before you mount the radio. If you want to "bench test" the radio use a fully charged battery. **DO NOT** operate this radio directly from a battery charger. Serious damage may result!

Be sure your radio voltage and polarity matches your car. This radio is built for 12 volt negative ground systems only! If your vehicle has the original 6 volt electrical system the radio can be operated with a voltage booster, but with reduced power output. The radio has several protection circuits to help prevent serious damage from wiring errors and power faults in the vehicle electrical system. Never use a fuse rated for more than 10 Amps!

A major consideration will be speakers, since you now have an option of running 4 speakers instead of the single speaker originally mounted in the radio. You will have to decide what will work best for your application. For maximum sound you might consider putting speakers in the doors or behind the seat. You can add an external amplifier and/or a sub woofer (see next page).

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 sounds. Look for an SPL of 88 or better. A good full range speaker will have an audio 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!

Operating Your Radio

Band Selection: your radio will always start with the last band and station you were listening to when the radio was turned off. To change bands turn the radio off, then on again quickly. If the radio has been off for more than 5 seconds it will start with the last band.

Tuning: Your radio has an AM dial made to look like the original. In the background there is also an FM dial scale. Both are illuminated at night. There is a small LED in the dial background that will be red when the radio is set to the AM band, green when the radio is set to the FM band, and yellow when the receiver locks on to a stereo signal. Turning the tuning knob will move the dial pointer up or down the dial scale. The radio is digitally tuned for stability, but has the look and feel of an analog radio.

Tone: The tone control (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: Your radio has a balance control behind the tuning control. Turning the balance knob will shift the audio between the left speaker(s) and the right speaker(s). In a stereo system, the audio information sent to the right channel is often different than the left channel. When you set the balance to the extreme left or right, the radio will automatically switch out of the stereo mode and all of the information for both channels will be present in the speaker that is selected (Mono mode). Applies to 2, 3 or 4 speaker settings only.

Fader: In order to allow adjusting the front/rear speakers without adding visible controls, your radio has a software control that is shared with the balance control. To access the fader, tune to an FM station and set the balance control for the best sound. After you've listened for a few seconds, tune rapidly to the top of the dial. After a few seconds, the last station you were listening to will start playing again. Use the **balance** control to adjust the front/rear fader. When you tune away from the top of the dial, the radio will resume normal operation, and the balance control will no longer affect the fader function. The fader settings are permanently stored (until you change them). Every time you turn on the radio, the stored fader will be re-loaded. **Note: The fader is only operational in the 4 speaker setting.**

Setting pushbuttons: Your radio has 5 presets for FM, and 5 presets for AM. A major difference between the original radio and this one is the way the pushbuttons are set. *Never* pull out on the buttons! When you push a button, the radio will start playing the selected station, and the dial pointer will move to the selected location. To set a button to a different station: **(1)** Tune in the desired station. **(2)** Press and hold the button you want to set. The tuner will move to the previous setting. **(3)** After about 2 seconds, the radio will begin playing the newly selected station. The dial pointer may cycle to locate the correct position. The dial pointer will stop at the new station. **(4)** Release the button. Be aware it takes a couple of seconds to write the new pushbutton data to permanent memory. You can continue to set other buttons or tune stations, but if the radio is turned off before the write cycle is completed, the new stations may not be saved.

Your radio has a 12 pin connector for the speakers, power, and options. See inset below for more details. There is one **red** (fused) wire. This is the main power input. It should be connected to the 12 volt Accessory circuit. There is a **green** wire that is used for the dial light. It should be wired to the dash light circuit ahead of the dimmer rheostat so that the radio lights come on when the other gauge lights are turned on. The front speakers are pre wired on this radio. The rear speaker wiring 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. Your system may not use all of the speaker connections. Be careful to tape up any unused wires where they can not touch anything. The **orange** wire is a switched 12 volt output used to provide power for options like remote turn-on for power amplifiers, power antennas, etc. Do not use it to power loads greater than 4 amps. The **black** wire is the system ground. This wire should be connected to a solid chassis ground.
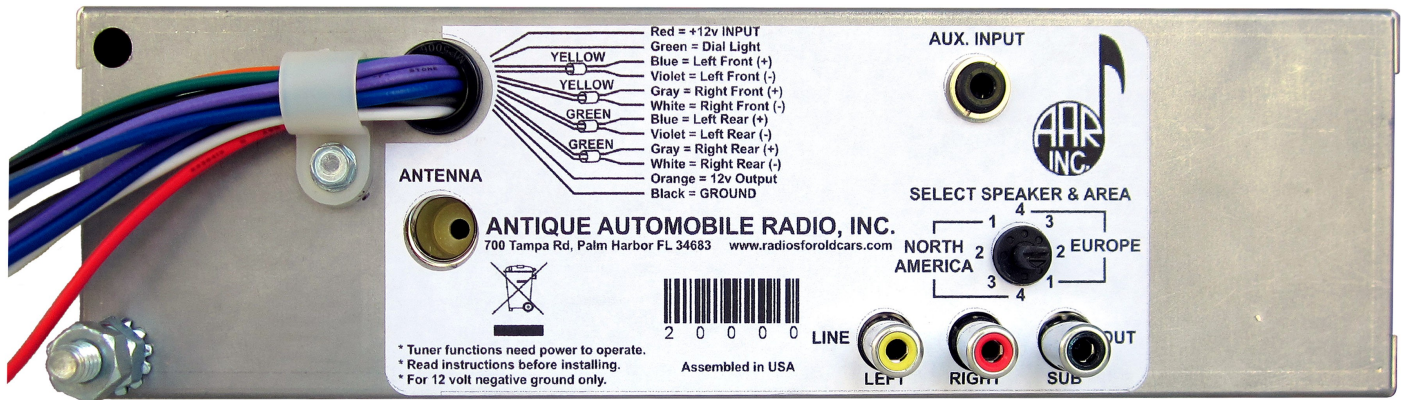
The **ANTENNA** jack is located beneath the wiring harness exit. It will accept your original antenna plug.

The **AUX. INPUT** jack in the upper right is a standard 3.5 mm stereo jack. It is provided to allow accessories like MP3 players to be added to your system. Our **Bluetooth® adapter kit option** includes a panel mount extension cable that allows you to move this jack to a more accessible position. To switch to the auxiliary input mode, tune the radio to the extreme low end of the dial in either band. (Hint:Set a pushbutton at this point to allow rapid switching). The radio will resume playing when you tune towards the middle of the dial. The volume, tone, and balance controls will be functional in the AUX mode, but the alternate fader control will not be accessible. If the accessory is powered by the **orange** wire, when the radio is turned off, the accessory will automatically turn off. You should adjust the accessory audio level to match the level of the radio. Check the instruction manual for your specific option for how to set the audio level.

Below the Aux. input there is an 8 position switch that allows you to select certain options. You can customize your radio for 1, 2, 3, or 4 speakers, and choose reception for American or European broadcast frequencies. The AM broadcast band in the Americas is 530 to 1710 kHz in 10 kHz steps, and for all of Europe, the UK and Japan it is 531 to 1629 kHz in 9 kHz steps. The FM broadcast band in the Americas is 87.5 to 107.9 MHz in 200 kHz steps, and for western Europe and the UK it is 87.5 to 108.0 MHz in 100 kHz steps. Japan and eastern Europe FM frequencies are not compatible with this receiver. Your radio is shipped with 4 speakers and North America selected. The switch has an arrow and a screwdriver slot molded into it. It is intended to be set (if necessary) before installation. It is only read when the radio is powered on. Any further changes will be ignored until the next time the radio is powered on. In the 4 speaker position all 4 speakers are active and the balance and fader controls work as described. In the 3 speaker position, the left front speaker is turned off, the right front speaker is always on. The balance control shifts between the left rear and right rear speakers and there is no fader. In the 2 speaker position both rear speakers are turned off, the balance control is active but there is no fader. In the 1 speaker position, only the right front speaker is functional and neither the balance or fader controls have any effect. In this setting the receiver and the aux inputs operate in mono mode so that the information from both the right and left channels will be heard in the single speaker. The stereo indicator will not function.

Below the speaker switch are 3 color-coded RCA jacks. These are line outputs for an external power amplifier. The Left (white) and Right (red) jacks are stereo line outs, and the black one is for a sub-woofer amp input. While a discussion of external amplifiers and their myriad of options is beyond the scope of this manual, we have had excellent results testing this radio with a JBL model GTO-3EZ power amplifier. It is ready to plug in and play right out of the box, the instructions are clear and easy to follow, and it sounds great! While we do not sell or endorse any particular amplifier or brand, we found this one to be readily available on line and well suited to our requirements in the testing department.

There is a ¼ 20 stud on the back of your radio with a 7/16" nut. In the box that your radio came in is a 9" backstrap that can be easily shaped to support your radio. It will provide a better ground and help support the radio while taking some of the stress off of the control shafts. It should be bolted to the steel dash brace below the radio (see next page).

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INSTALLATION DRAWINGS

If you intend to use our **Bluetooth® adapter kit** install the extension cable provided with the kit. Refer to the Bluetooth® instructions

The front of your new radio is a dimensionally exact copy of the original, so it will install the same way that the original radio did. The radio is much smaller when viewed from the back than the original was, so the original mounting bracket won't fit. Included with your radio is a 9 inch Backstrap that can be easily cut and bent to any shape or size. It should be attached to the threaded ¼ -20 stud on the back of the radio near the antenna jack and to the lower lip of the dash. Pull the outer knobs from the control shafts. Remove the backrings and the outer shaft nuts. Remove the dash plate. Do not remove or loosen the inner shaft nuts! Position the radio in the dash place the chrome dash plate over the control shafts and secure in place with the shaft nuts. Do not over-tighten! Replace the backrings and outer knobs.
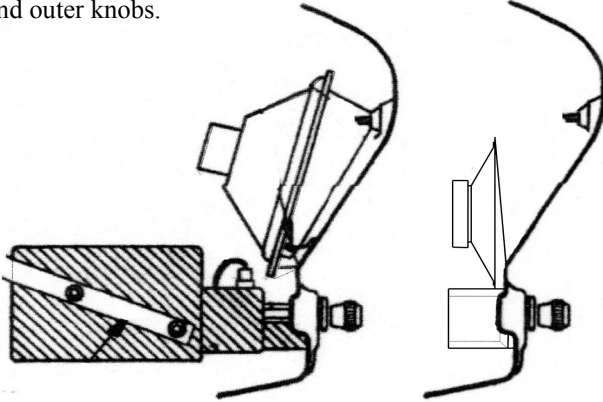
Original Radio   **New Radio**   **As seen from front of dash**

DIAGNOSTICS

No Sound: Check for a good fuse with proper rating. When the radio is turned on, the orange wire should have 12 volts present. Radio will mute when no station is received. Make sure antenna is plugged into the proper jack. If an option is plugged in, make sure it's not on. Before installation make sure the switch on the back of the radio is set for the correct speaker option and country.

Weak or No Reception: Check continuity between the center pin of the antenna plug and the antenna mast. It should read 0 ohms (like a short) Next, check continuity between the center pin of the antenna plug and the car body. It should not read (like an open circuit). If you're in a metal building, reception may be limited. Try it outside.

Ignition Noise: Usually caused by an ungrounded antenna shield. The base of the antenna must make good contact with the car body. This problem often shows up after a good paint job! Make sure the engine grounding straps are in place, clean and tightly bonded to the frame.

Distortion: Check to see if your speakers can handle at least 45 watts RMS. Small speakers that can only reproduce high frequency will distort on bass notes. Make sure speakers are properly installed. Make sure that no speaker is grounded. Every speaker lead should measure about 6 volts to ground with the radio on and volume low. Resistance in the DC power input wiring can cause the amplifiers to "starve". If distortion seems to increase with volume, measure the voltage on the orange wire. If the voltage drops when the volume is raised, it is an indication of resistance between the battery and the radio – usually at the fuse block, but sometimes in the ignition switch. If the backstrap is not bolted to a clean metal ground, try running a heavy ground wire from the ground lug on the radio directly to the firewall.

Radio shuts off after a few minutes: The radio has thermal protection built in to prevent damage from excessive heat. Possible causes are shorted or grounded speaker wires. See if any unused wires can touch anything. Make sure the heater or defroster duct isn't blowing directly on the radio.

Dial pointer issues: If the dial pointer gets stuck at one end or if it is misaligned, hold down one of the 5 preset buttons for 5-10 seconds to realign or free dial pointer. If the dial pointer is stuck at one end of the dial, turn the tuning knob. The dial pointer should try to move while you're turning the knob. Continue to turn the tuning knob until the pointer resets itself.

Specifications

11-16 Volts DC Negative ground only
Output: 180 W. RMS (45 W x 4 speakers @ 4Ω 14.4 V, 1kHz)
10 Presets (5 AM, 5 FM) Digitally tuned w/analog display
Dimensions: 8.25" W x 2.55" H x 3" D (behind dash)
3.5mm stereo input jack, Standard (Motorola) antenna jack
Left, right and sub woofer outputs use standard RCA jacks
1/2" shafts on controls are identical to original
Memory retention (presets and user settings) more than 40 years