

LIMITED WARRANTY PARTS AND LABOR

Craig Corporation warrants this product to be free from defects in material and workmanship for a period of **ninety (90) days** from date of sale to the original consumer purchaser. Craig will repair free of charge this Craig product if it has proven to be defective within the **ninety (90) day** period, when said product is returned at customer expense to Craig or one of Craig's Independent Authorized Warranty Stations within the warranty period. In addition, Craig will replace any covered part of this product which proves defective during the next **nine (9) months** after the first **ninety (90) days**, as noted above. **This warranty does not cover any expenses incurred in the removal and re-installation of this product.**

This warranty does not apply to any Craig product damaged by accident, misuse, abuse, improper line voltage, fire, flood, lightning, or other acts of God, or any parts or service furnished by anyone other than Craig or one of its Independent Authorized Warranty Stations. This warranty is void if any parts or service covered by this warranty are furnished by anyone other than Craig or its Independent Authorized Warranty Stations. This warranty does not cover cartons, carrying cases, batteries, broken or marred cabinets, magnetic tapes, or any other accessories used in connection with the product or consequential damages due to a defect in the product.

All implied warranties are limited to the duration of this warranty. This is the complete warranty by Craig and no other expressed warranty is valid against Craig. Some states do not allow limitations on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

If this unit should prove defective within the first **ninety (90) days**, either return it to the nearest Craig factory branch, as noted hereafter, or call 800-325-6400 (in Missouri, 800-342-6600) toll-free for Western Union Responsephone. On request they will give you the name and location of the nearest Independent Authorized Warranty Station. (Responsephone referral service is not presently available in Alaska or Hawaii. In these areas, contact your dealer.) If a part, except as noted above, in this unit should prove defective during the next **nine (9) months** following the first **ninety (90) days**, you may either return the complete unit, along with your sales slip, to Craig or one of Craig's Independent Authorized Warranty Stations for service, paying only for labor, or return the defective part to Craig Corporation, Compton, California and the part will be replaced. Your dated sales slip or other proof of purchase will establish your eligibility for warranty service. Craig will be responsible only for service rendered under this warranty and not the loss of any unit delivered to an Independent Authorized Warranty Station.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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— KEEP YOUR SALES SLIP WITH THIS WARRANTY STATEMENT —

CRAIG CORPORATION
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Printed in Japan

This is your Owners Manual



CRAIG

S101

**QUICK-MOUNT EIGHT-TRACK STEREO-MATRIX
PLAYER**

Your Craig S101 Quick-Mount Eight-Track Stereo-Matrix Tape Player is a compact underdash unit featuring Craig Matrix Circuitry. The reproduction of all your stereo tapes will be enhanced by the four-channel effect produced by the matrix circuitry when four speakers are used. Two speakers may be used for conventional stereo reproduction.

Performance features include automatic and manual program changing. In addition, a cartridge will automatically eject whenever power is removed from the unit to protect your valuable tapes. The tape plays automatically when an eight-track cartridge is inserted. The illuminated cartridge door dims with the car dash lights and aids in finding the cartridge door during night driving. A Fast Forward button allows for rapid cartridge scanning. The Repeat button allows for continuous playing of your favorite tape program.

The compact size and the reversible slide-out bracket allows the S101 to be mounted under the dash or on top of the console of most cars. The smooth-acting brackets make it easy to remove the S101 for safe storage in the glove compartment, trunk or transfer to another vehicle.

Your Craig S101 is identified by a serial number on the bottom case of the unit. Take the time now to copy the serial number in the space provided below. Be sure to keep this owners manual and your sales slip.

Model Number S101

Serial Number _____

SPECIFICATIONS

Tape Speed:	3-3/4 ips
Wow and Flutter:	Better than 0.3% rms
Audio Output:	4 W Average Continuous Sine-Wave Power Per Channel (14.4 V, 5% THD, 4-ohm load, both channels driven)
Frequency Response:	40 to 10,000 Hz
Stereo Separation:	Better than 30 dB
Crosstalk:	Better than 35 dB
Signal/Noise Ratio:	Better than 40 dB
Integrated Circuits:	Audio, 2
Diodes:	Auxiliary, 2
Transistors:	Audio, 4

Here is a brief operating guide . . .

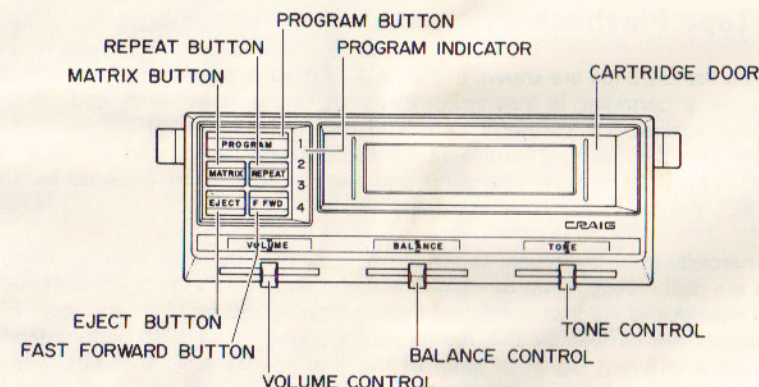


Figure 1

To Play a Tape

1. Push the cartridge (tape end first) against the cartridge door. Slide it fully in until it snaps into place.
2. Select the desired program by pressing the PROGRAM button. The numbered indicators show which program is being played.
3. To locate a particular program, depress the locking FAST FORWARD button.
4. Depress the REPEAT button for continuous playing of your favorite cartridge program.
5. Adjust the VOLUME, BALANCE and TONE controls as desired.
6. Use of the MATRIX button is explained on the following pages.

You will get the greatest enjoyment from your S101 if you fully understand its many features. For more information read the following pages.

but here are the complete details.

For Tape Playback

Controls for the S101 are shown in Figure 1. Power is turned on automatically whenever a cartridge is inserted. Place the front (tape slot) end of the cartridge against the cartridge door and insert the cartridge by pushing it straight into the opening until a numbered indicator lights and a "click" is heard. The S101 is now operating and the sound can be adjusted by the VOLUME, BALANCE and TONE controls.

Commercially-available music tapes are normally recorded in stereo. Newer tapes are deliberately made to include ambient sound for matrix enhancement when reproduced via four speakers. Even your older stereo tapes and most FM broadcasts will benefit by this matrix reproduction. The S101 automatically channels a different signal to each of the four speakers, so that not only is there localization of the sound source from left to right but also from front to back. The S101 circuitry enfolds you in wrap-around sound.

The numbered indicator lamps (located to the left of the cartridge door) show which program is playing. At the end of each program, the S101 will automatically switch to the next program. Depress the PROGRAM button to change programs manually at any time. Depress the FWD button for rapid cartridge scanning. Depressing the REPEAT button will play your favorite tape program continuously. Release the REPEAT button to return to playing in sequence.

To Shut Off All Power

Depress the EJECT button to release the cartridge. The S101 will automatically shut off all power.

Mounting The Unit

First, determine the most suitable location. Assemble the S101 to its mounting bracket and hold the assembly in the approximate location desired. Position it so that the unit is in a safe user-oriented position and may be easily removed without interfering with any parts of the vehicle. Note the relationship of the mounting bracket to the mounting surface.

Remove the mounting bracket from the unit and, using the bracket as a template, mark the locations where the mounting holes are to be drilled. Always use at least three mounting screws, and preferably four. Drill 7/32" diameter holes at the marked locations, and fasten the bracket in place with the #10 screws supplied. Slide the S101 into place and make certain it operates freely without interference.

Loudspeaker Connections

To take advantage of the matrix reproduction of your stereo tapes through the built-in matrix circuitry, it is necessary to install four matched speakers: two in the front and two in the back left and right areas of your car. If desired, two speakers may be installed for conventional stereo reproduction. For proper operation of the matrix circuitry, it is very important that the wiring diagram in Figure 4 be followed carefully. Note the speaker wire colors for identification and follow the diagram carefully to assure correct stereo reproduction.

Electrical Connections

Electrical connections should be made as shown in Figure 4. The red lead from the fuseholder should be connected to the accessory terminal of the ignition switch or other terminal where power is controlled by the ignition switch. This will assure that the cartridge is released when the ignition switch is turned off.

The cartridge door lights are connected to a separate wire (yellow) in the 9-pin connector. This wire should be connected to the car dash lamp circuit so the lights will dim with the rest of the car dash. See Figure 4.

After the connections are made, re-install the fuse in the fuseholder.

Keep your unit in top condition

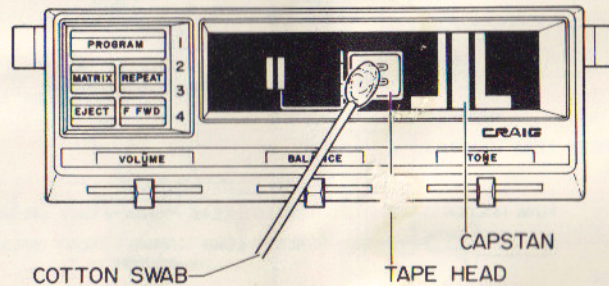


Figure 2

Direct sunlight, dust, and extreme heat can dry out the lubricant or warp the cartridge and cause your expensive tapes to age prematurely. Always replace a cartridge in its protective slip and store it in a cool, clean, dry place. To prevent permanent damage, don't expose tapes to temperatures above 130°F such as you might find at the back deck of a car.

Tapes stored at temperatures below 20°F may become brittle and break during playback. Allow it to return to "normal" temperature (about 70°F) for 15 to 30 minutes before playing it. To prevent erasing the recording, keep any tapes at least one foot away from strong magnetic fields (motors, TV sets, etc.).

Periodic Maintenance

Residue buildup from the constant contact of tape to capstan and head is unavoidable. The tape head and capstan should be cleaned about once a month or after every 100 hours of operation. If a loss of brilliance (high frequency response) is noticed, the tape head probably needs cleaning. See Figure 2. A cotton swab moistened in isopropyl alcohol or special head-cleaning fluid should be inserted into the cartridge slot (with the power off), and rubbed across the surface of the head and capstan. Care should be taken not to scratch the head surface.

Your player should be cleaned and lubricated each 1000 hours of use. This should only be performed by a qualified service technician equipped with the proper tools and instruments.

Making the Best Installation

Craig has prepared an illustrated step-by-step booklet to guide you in installing your new car stereo. It contains many valuable tips to make your installation easier. Ask your local Craig dealer or write directly to the address given on the back of this owners manual.

- CAUTION:** (1) Read the installation instructions through completely before beginning.
 (2) This unit will work only on 12-volt negative-ground systems.
 (3) Remove the fuse from the fuseholder in the red lead wire before making electrical connections.

WARNING: Before drilling mounting holes in the floor, check for clearance from the location of any brake, fuel or transmission fluid lines. When drilling, do not permit the drill to penetrate beyond the floor into the transmission housing or any other object.

Preparation For Mounting

As supplied by the factory, the bracket is assembled for under-dash mounting (See Figure 3). The bracket may also be reversed to install the S101 on the top of the console in your car. Follow the instructions below to prepare for console mounting:

- (1) Note that additional mounting holes for the plastic glides are provided on each side of the chassis. Remove the screws and relocate the glides to the bottom set of holes.
- (2) The connector on the back of the bracket must be reversed. From the back of the bracket remove the two screws holding the connector in place. (**Do not remove the two screws holding the cable clamp or the two special screws on the inside of the bracket.**) Reverse the connector and reinstall the screws.

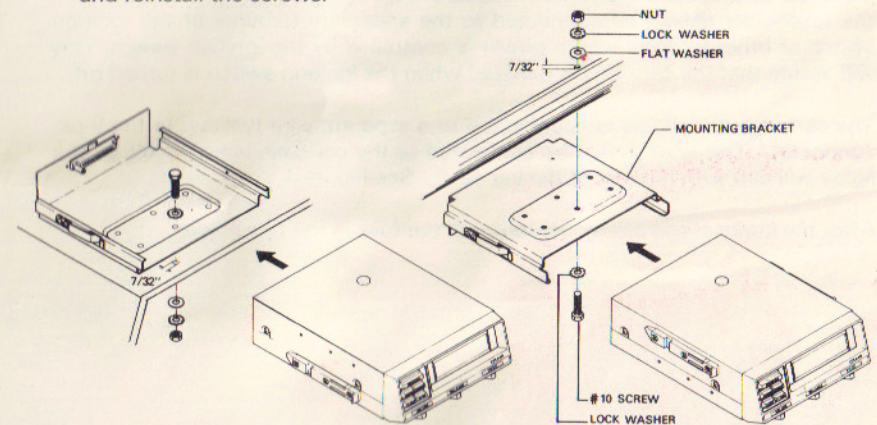


Figure 3

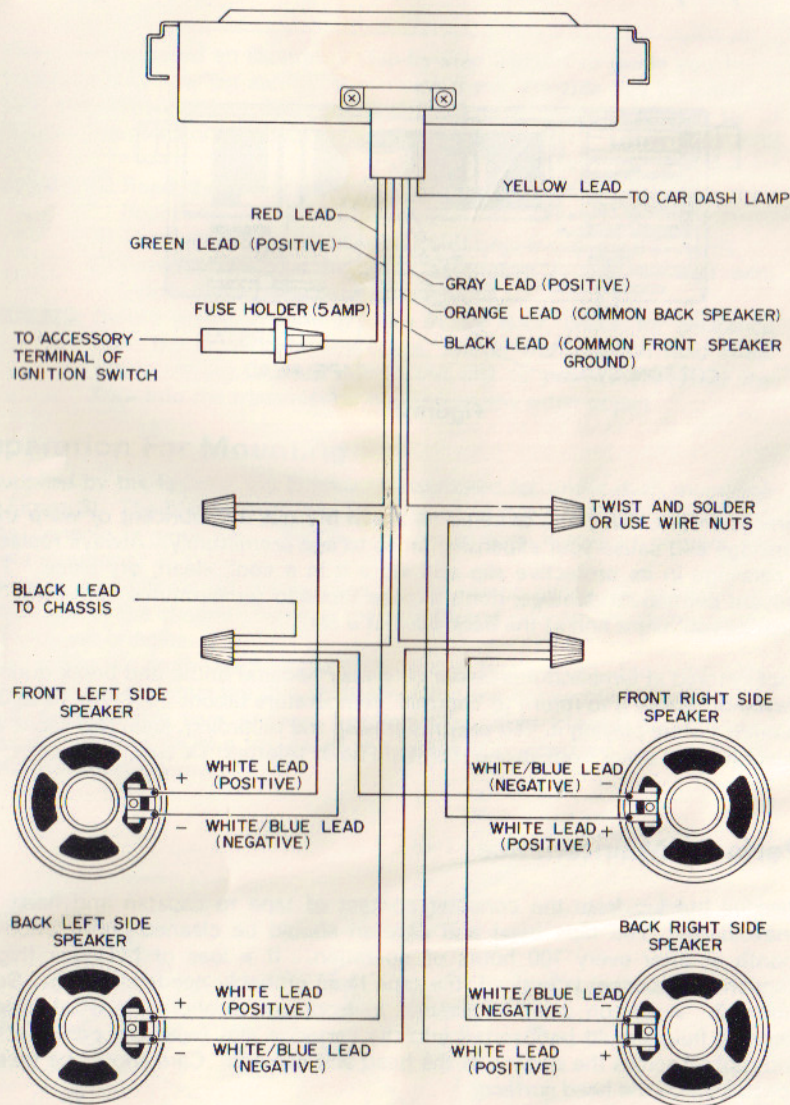
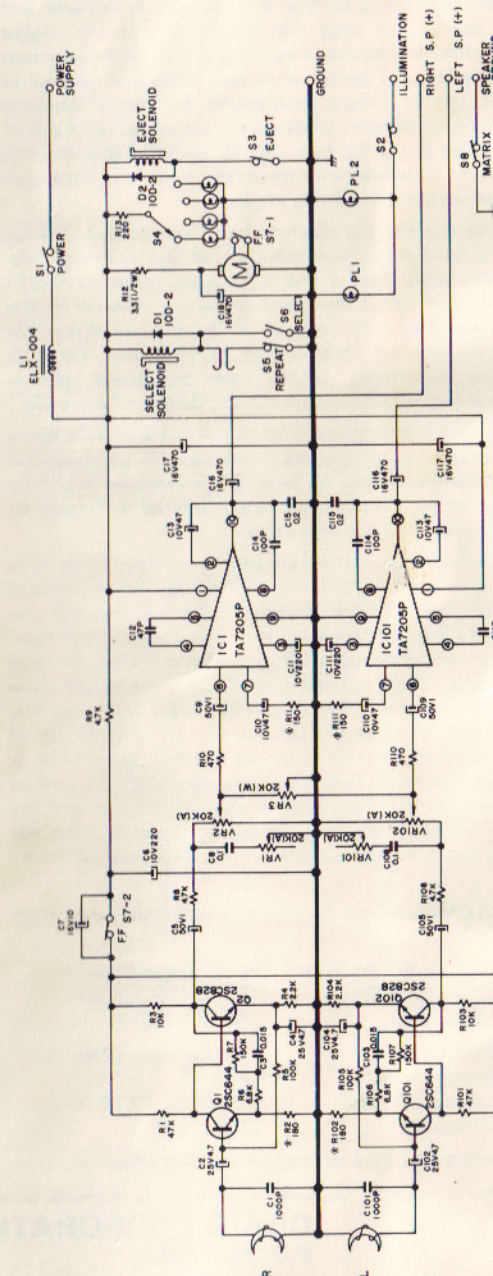
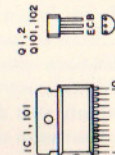


Figure 4

SCHEMATIC DIAGRAM



- NOTES
- 1) ALL RESISTANCE VALUES IN OHMS AND 1/4 WATTS UNLESS OTHERWISE SPECIFIED.
 - 2) ALL CAPACITANCE VALUES IN MICRO FARADS EXCEPT P FOR PICO FARADS.
 - 3) VOLTAGES TAKE FROM GROUNDING METAL AT NO SIGNAL INPUT.
 - 4) X MARKS INDICATE ADJUSTABLE IN PRODUCTION. (Tester by 20K/V)
- * SUBJECT TO MINOR CHANGE WITHOUT NOTICE.



IC 1, 101									
PIN NO	1	2	3	4	5	6	7	8	9
VOLTAGES	14	13	4	84	14	28	34	13	0