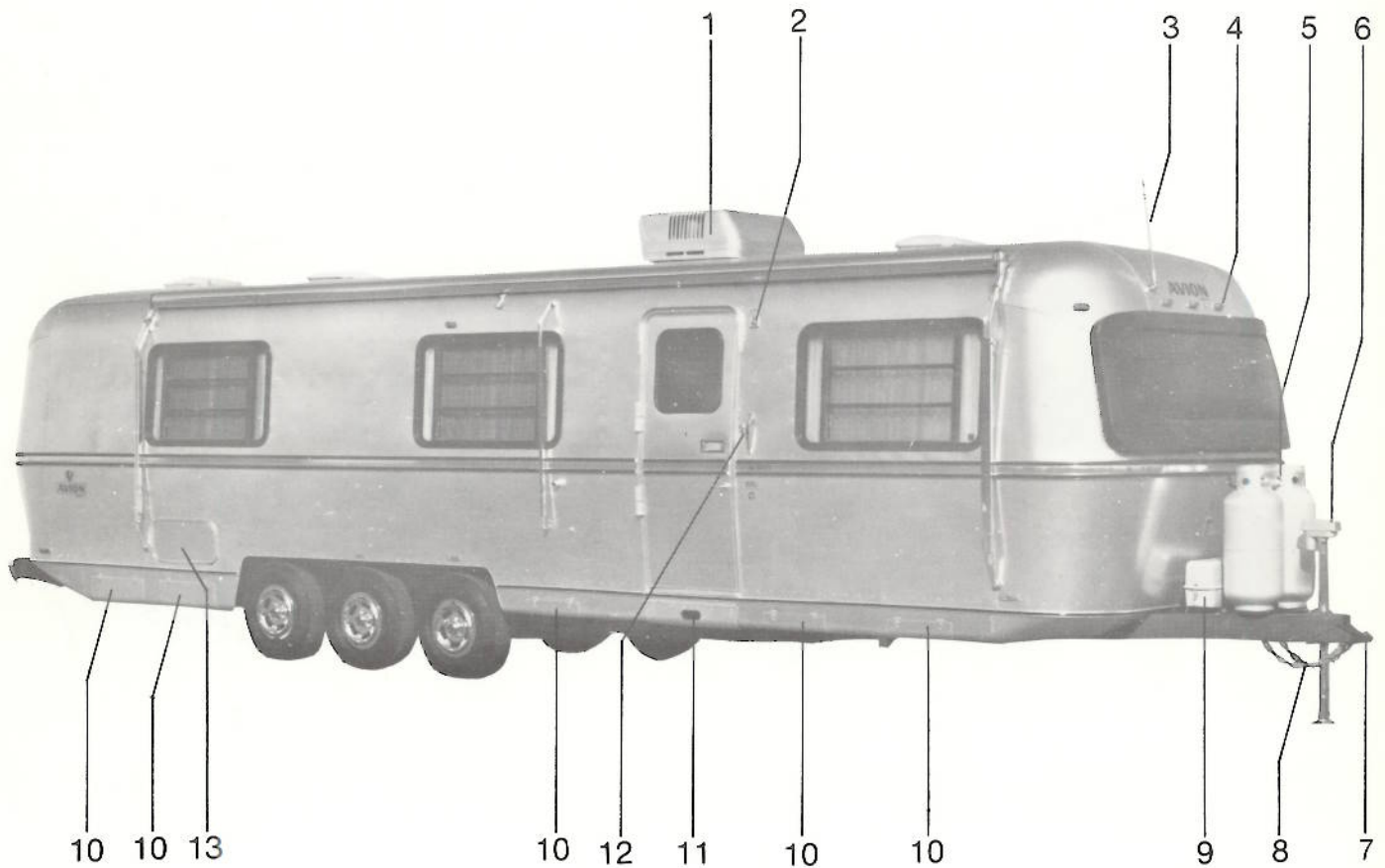


Exterior

Exterior Identification	28
Care of Exterior Surfaces	30
Features	30
Tires and Wheels	35
Braking System	38
Suspension System	41

Exterior Identification

28

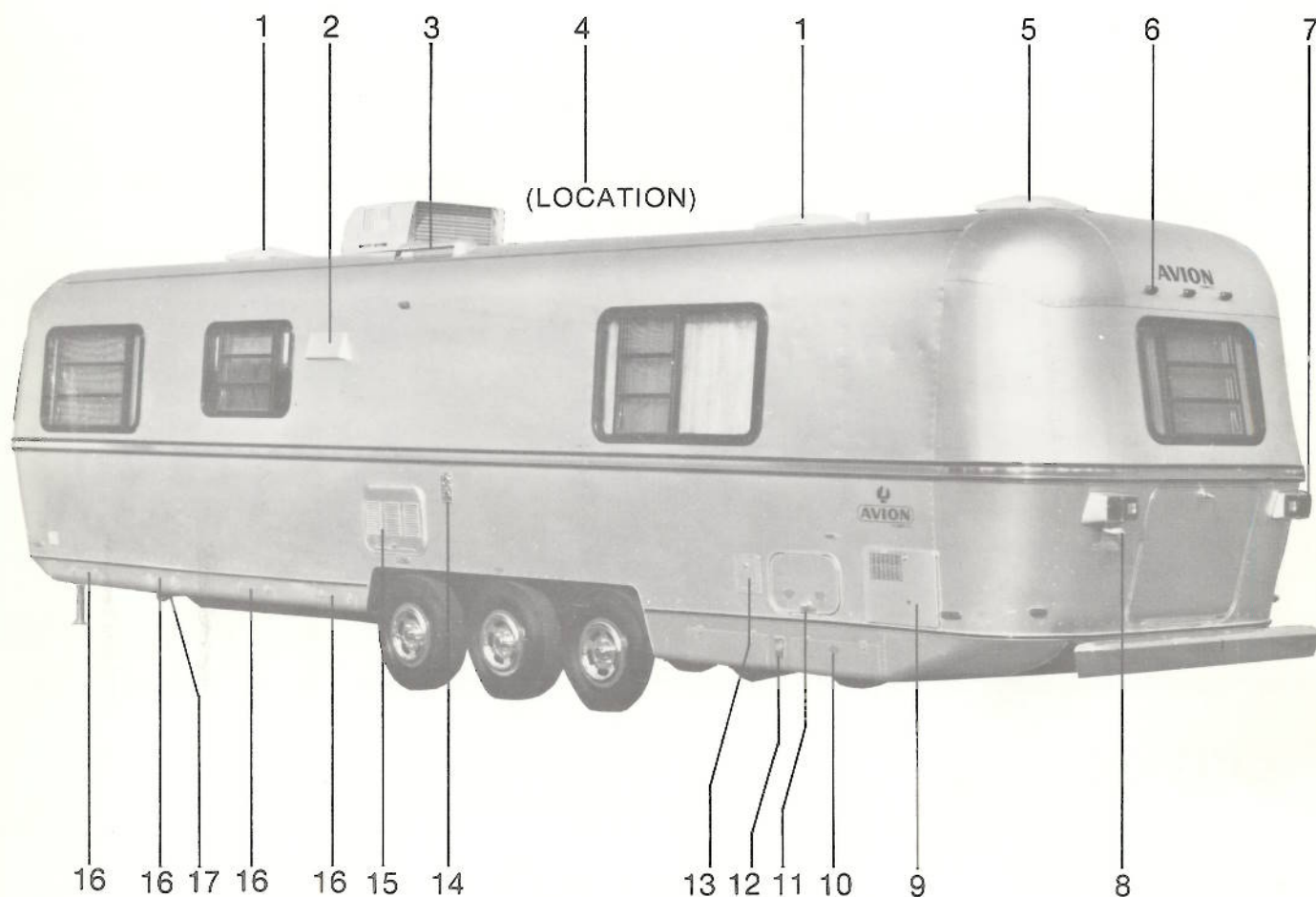


No. Description

Page No.

1. Air Conditioner (Optional)	98
2. Patio Convenience Light	108
3. Radio Antenna	34
4. Running Lights	108
5. LPG Tanks And Regulator	60
6. Electric Jack (Optional)	32

7. Hitch	2
8. Safety Chains	10
9. Batteries	74
10. Storage Compartment	—
11. Folding Step	32
12. Dead Bolt Lock	—
13. Trunk Door	—

**No. Description****Page No.**

1. Roof Vent	48	10. Waste Outlet	68
2. Range And Oven Vent	88	11. Utility Access	21
3. Refrigerator Vent	—	12. Utility Convenience Light	108
4. T.V. Antenna (Optional)	33	13. Water Fill Compartment	62
5. Bathroom Exhaust Fan	51	14. Furnace Vent	92
6. Running Lights	108	15. Refrigerator Access Compartment	82
7. Stop, Tail, Turn And Backing Lights	108	16. Storage Compartment	—
8. Licens Plate Light	108	17. Stabilizing Jacks (Optional)	32
9. Water Heater Access Compartment	95		

Care of Exterior Surfaces

The exterior skin of your Avion is fabricated of anodized aluminum for long-lasting beauty and resistance to corrosion or discoloration. You can keep it looking like new by giving it the same care as a fine automobile.

The trailer should be washed periodically with a warm solution of mild detergent or soap. **Avoid strong detergents, solvents or any abrasive cleaners.** The aluminum skin should be cool when you wash it. Pick a shady area or wait for an overcast day, but never wash it in direct sunlight.

Make sure all vents, windows, storage compartments, access panels and the main door are closed tightly, then apply the cleaning solution with a large sponge or soft cloth. Starting with the roof, wash one section at a time and rinse immediately to prevent the cleaning solution from drying on the surface. Road tars, sap, resin and other such materials should be removed as soon as you notice them, before they can harden. Use kerosene, turpentine or naphtha with a soft cloth, taking care not to scratch the surface. Rinse thoroughly with clear water and re wax the affected areas

to protect the finish. **Never use abrasive powders or strong chemicals to remove caked-on foreign matter.**

The aluminum skin should be waxed every three to six months, depending on exposure to the elements. We recommend an aircraft polish, but you may also use any good automotive paste or liquid cleaner/wax. Periodic waxing will increase the life of the finish by protecting it from salt air in coastal regions, as well as from air pollution and minor scratches. It will also make subsequent cleaning easier.

The trailer hitch A-frame and back frame can be kept looking as new as the aluminum skin by painting them as needed, using a brush-on or spray lacquer.

Occasionally inspect all exterior seams for holes and cracks, which can sometimes develop from shrinkage of the sealer after prolonged exposure. A good sealant is available from recreational vehicle dealers and automotive supply stores.

30

Features

Main Door and Screen Door

The main door is located on the curb side of the coach and opens outward. It can be opened 180° and secured flush against the side of the trailer. Swing door open fully, then push on it until the doorstop pin engages the doorstop receptacle on the outside of the coach. The inside door handle is operated by pivoting it either up or down from its horizontal position. The outside recessed lever is operated by pulling it outward from the door.

A key-actuated lock is built into the main door for maximum safety and security when locking the trailer from the outside. To operate, insert the key and turn it **clockwise**, locking the bolt in the extended position. The bolt must be fully engaged for the door to lock, and once in that position, it cannot be accidentally retracted or vibrate back into its recessed location inside the door.

Note: Do not turn the key while door is still open; the extended bolt will then hit the door frame and prevent closure.

To unlock, turn key **counter-clockwise** one-half turn and use handle to open.

The main door lock is operated from inside the coach by a lever at the lower left corner of the door handle panel. Lift upward on the lever to lock the door and push downward to unlock it. Moving the inside handle either up or down will automatically release the lock.

For added security, a dead bolt lock has been installed in the entrance door. It is operated by a key from outside, and by a turn button inside.

Each dead bolt lock is individually keyed. Be sure to keep spare keys outside the trailer for emergency use

Your Avion is also equipped with a screen door, which can be opened and closed independently of the main door or coupled with it to operate as a unit. To link them together, simply push the screen door against the main door. To uncouple, press down on the release latch next to screen door handle. When joined together, access to the main door's inside handle is through a sliding aluminum panel on the screen door.

The main door is closed properly when there is no play in the handle. If you have difficulty locking the door, push or pull it gently to allow full travel of the bolt.

Important: Always close and lock the main door with dead bolt before towing. Road vibration may cause an unlocked door to unlatch and swing open while the trailer is in motion, resulting in possible damage.

Windows and Screens

All windows are made of tinted high-strength safety glass. The louvered vent panes are operated by a knob located at the bottom corner of the window frame. Turn the crank clockwise to open and counterclockwise to close. **The emergency escape window is not louvered and should never be opened except in emergencies or during practice drills.** For operation of this window, see Interior section, page 50.

Windows may be washed with the same solution used on the exterior skin, or with any type of household window cleaner. Never clean heavily soiled window glass with a dry cloth, which can cause scratches, and do not use strong solvents that can damage the rubber window seals. You can keep these seals flexible and weather-tight with an application of silicone lubricant after the windows have been washed and dried.

The window screens are made of fiberglass for durability and easy care. They can be taken out for cleaning by first removing the vent pane crank handle, then lifting the screen straight up until it clears the lip on the bottom channel. Swing the bottom of the screen outward and pull down to remove.

Lightly soiled screens may be hosed off or cleaned with a damp cloth or sponge. If they have heavy



Main Door Handle and Lock



Screen Door



Handle Access, Doors Latched Together



Window Opening

accumulations of dirt or other foreign matter, wash or soak them in a warm solution of detergent and water, then rinse and dry. Do not bear down on the screening material, to avoid stretching it out of shape or possibly warping the aluminum frame. **Never subject it to high heat, such as a lighted cigarette, which will cause the fiberglass to melt at point of contact.**

Water Leaks

Water can sometimes collect inside the lower portion of window frames, usually as the result of driving in heavy rainstorms. Two or more "weep slots" in the bottom of the frame provide drainage to the outside. Keep them free of dirt, leaves and other obstructions.

If water collects and overflows the bottom channel while driving, even when the weep slots are clean, it is possible that a vacuum has been created inside the coach, drawing water through the window and preventing normal drainage.

In the event water enters around a non-opening window, remove the glazing bead and check condition of the sealing tape. Replace the tape, or caulk with a liquid sealer, if necessary.

It is also possible for leaks to occur at places other than window frames, such as through seams in the exterior skin or around outside light fixtures. You may be able to detect and seal possible areas of leakage by inspecting the seams as recommended earlier in this section, under **Care of Exterior Surfaces**, page 30.

Folding Step

A folding step is housed directly below the doorway to facilitate entry and exit from the coach. To extend the step, grasp the handle cutout on the hinged cover panel and pull straight out as far as it will go, then let it swing down. Pivot the step out into full horizontal position. Reverse the procedure to store the folding step for travel.

For your safety, the step comes with a non-skid rubber surface. An assist grip is located to the right of the doorway for added convenience in entering and leaving the trailer.

Storage Compartments

Your Avion features numerous storage compartments conveniently located all around the coach exterior. Some are positioned along the bottom edge of the trailer on the curb and road sides. They are hinged at the bottom and are secured with two latches at the top. A large locking trunk at the rear end of the coach can be used to store a spare tire, various jacks, lug wrench and other gear. The trunk is bottom-hinged and swings down for easy access. Another storage compartment is located directly behind the rear bumper. It may be used to stow the sewer hose and other miscellaneous equipment.

Power Jack

Raising and lowering the trailer will be easier and faster with the optional power jack, which is operated by a spring return switch with center "off" position. Familiarize yourself with the direction of travel of the jack post and the corresponding switch direction. Raise or lower the coach by removing the switch cover and activating the switch in the appropriate direction. Internal limit switches automatically shut off the motor when the post is either fully extended or retracted. The power jack is protected by a 20 amp fuse located in the battery box on the trailer tongue.

The power jack can also be operated manually in the event of electrical failure. Remove the power head from the jack post by loosening the two allen set screws with the wrench provided, then insert the emergency handle into the coupling on top of the jack post.

Important: It is essential to carry out the following procedure **before** replacing power head on the jack post. Ground the power head to the trailer A-frame with 12 volts connected, then operate the switch in **post retracting** direction until the motor stops automatically. Using the emergency handle, crank jack post **clockwise** until fully retracted, then rotate handle one turn **counterclockwise**. Replace power head on post, making sure drive pin is engaged with the post coupler, then tighten allen set screws.

Minimum regular maintenance will keep the power jack operating up to design specifications.

1. **Once each year:** Remove the power head and apply a high-melting-point grease to the post coupler. **Do not** pour oil on top of the post. When replacing the power head, always carry out the synchronizing procedure outlined above.
2. **Once every two years:** Remove the housing cover and inspect gears for proper lubrication. Spread a high-melting-point grease on gear teeth. Grease is not required on the nylon timing gears. Before replacing cover, be certain the plate and limit switch unit are located correctly. Apply a small amount of sealing compound around the mating

surface of the cover before engaging the screws. Check synchronization if power head has been removed from jack post for maintenance.

Stabilizing Jacks

Stabilizing jacks are permanently installed on the frame under the coach and are deployed only after the trailer has been leveled side-to-side and front-to-rear. To operate, position the end of the crank handle over the stabilizer nut and turn until the jack is resting firmly on the ground. Start with the **low** or "downhill" side, then repeat the procedure on the opposite side, putting slightly less pressure on the "uphill" side jacks after they have made contact with the ground. To raise the stabilizing jacks for travel, crank them up as far as they will go, to assure maximum ground clearance.

Caution: Never use stabilizing jacks to level or raise the trailer or to change a tire.

Sway Control Device

Some types of trailer sway can be moderated by taking preventive measures, such as maintaining proper tire pressure and sound suspension systems, and distributing weight loads in accordance with design specifications.

The primary causes of sway, however, are strong wind gusts and the compression and displacement of air by large passing vehicles. These effects can be reduced by the installation of a friction-type sway control device. It attaches easily to most weight-distributing trailer hitches and can be activated or disengaged at will. Sway controls are available from most recreational vehicle supply stores and trailer hitch installers.

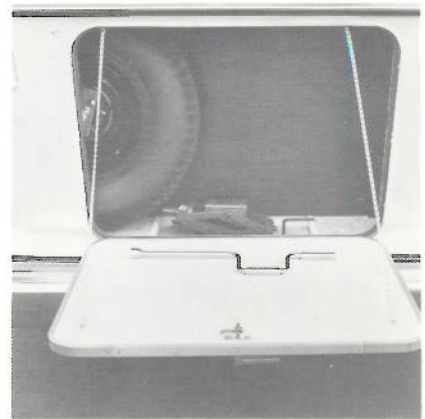
Important: Anti-sway hitches are required by law in some states. Make certain you comply where applicable.



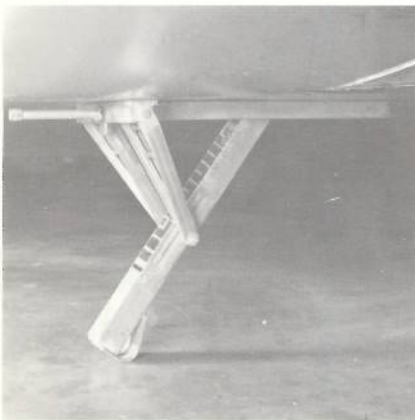
Folding Step Extended



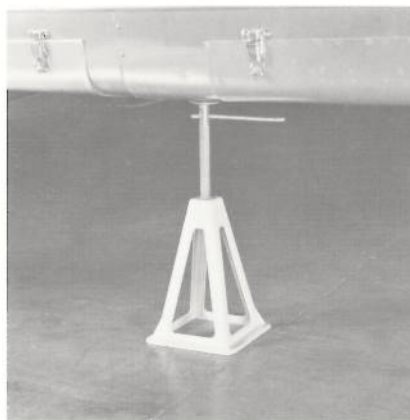
Main Door Assist Grip



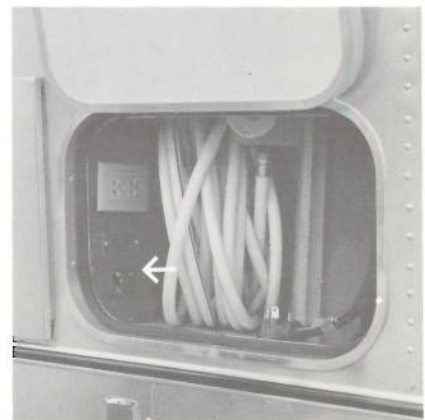
Rear Trunk, Spare Tire Storage



Attached Stabilizing Jacks



Freestanding Stabilizing Jacks



Cable TV Terminals

Television Reception System

Your Avion has been pre-wired to receive television signals over-the-air and by cable. Two hookups are located conveniently inside the coach. They feature a combination TV antenna jack/12-volt electrical outlet, and a separate cable TV jack. Your trailer is also equipped with the roof-mounted, all channel Braund television antenna, made by the Braund Manufacturing Company. The main hookup location will include an amplifier switch and "power on" red light.

While staying at trailer parks or other facilities that offer cable television, you can take advantage of this service by hooking up to their coaxial line. A two-connection Cable TV terminal block is located in the 110-volt power cord compartment outside the trailer. Use a coaxial adaptor to connect the cable to the terminal screws, then unplug TV set lead-in wire from the TV antenna jack and plug into the adjacent Cable TV jack.

TV Antenna Operation

Before extending the antenna, check for overhead obstructions such as tree limbs. Raise the antenna by pulling the ceiling crank downward and rotating the knob **counterclockwise** until the "stop" is reached, then back off the crank handle approximately one-half revolution. Push the crank body upward and with a slight **clockwise** turn, to engage the rotation pin. The antenna can now be rotated in either direction with the crank body for best reception.

Important: The antenna is prevented from rotating 360° in either direction by "stops." Do not attempt to rotate it beyond these points. Instead, turn in **opposite** direction.

Whenever practical, you should select a parking place that allows line-of-sight reception from the television transmitter. If you are located in a canyon or mountainous terrain, TV picture quality will be adversely affected. Poor pictures or sound can be caused by other factors, as well. Check all wiring for loose or dirty connections and possible short circuits. Also make sure the TV antenna's power amplifier switch is turned on.

When you are ready to lower the antenna for traveling, first rotate it clockwise to a "stop" position, thus placing it in line to be retracted into the travel support. Pull down the crank handle to disengage the rotation pin and then turn the crank handle knob **clockwise** until it reaches the lower "stop." The sound of the antenna making contact with the travel support will be audible when this happens.

Important: Force is not required to operate the antenna. If it does not extend, rotate and retract easily, check the installation manual.

The antenna has been fully lubricated, but it is recommended that you use a silicone spray occasionally and add a good grade of grease to the gears once a year, if needed. Consult your Braund antenna installation manual for detailed instructions.

Important: Never travel with the television antenna in the raised position. Any contact with overhead obstructions can damage the gears and the antenna itself.

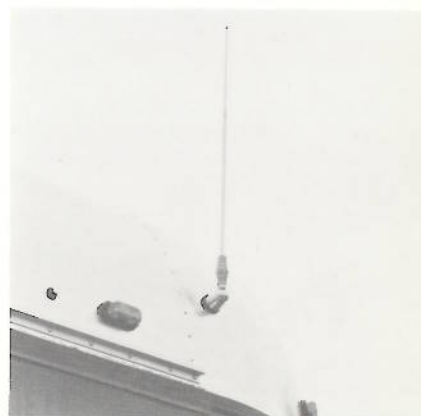
Radio Antenna

Standard equipment includes an AM/FM radio antenna mounted outside the coach at the front end. While the AM band is relatively unaffected by terrain, for optimum FM reception you should look for the same kind of line-of-sight location as television requires.

Note: The metal construction of your Avion acts as a shield against all radio and television signals. For satisfactory reception, therefore, you must always use an outside antenna or plug into a cable television source, where available.



TV Antenna Controls



Radio Antenna

Tires and Wheels

Your Avion is equipped with name-brand tires built to give thousands of miles of worry-free driving at sustained highway speeds. They are covered by the tire manufacturer's standard warranty. Any adjustment must be made by an authorized tire dealer who handles that particular brand.

Tire Care

Tires that run either under-inflated or over-inflated will not perform as intended and will suffer erratic and premature tread wear. Consequently, you should check air pressure frequently with an accurate gauge. Inexpensive gauges that will give precise readings every time are readily available. **Never rely on pressure indicators that are built into service station air hoses.**

Always check air pressure when the tires are **cold**; that is, after the trailer has been stopped for three or more hours, or has been driven less than one mile from a cold start. Never bleed air from a hot tire (one that has been driven 10 or more miles at speeds in excess of 50 mph). It is normal for tire pressure to increase as much as six pounds per square inch (psi) when hot. Recommended tire pressure can vary according to model, type and size of tire and by the weight load being supported. **Inflate as close to the maximum recommended tire pressure as possible for best tread life and trailer stability. Maximum tire load and cold inflation pressure information may be found on the tire sidewall.**

Tire life can also be affected by frequency of rotation and adjustment of toe-in. Regular inspection and maintenance of these items can add many miles of tread life. See **Suspension**, page 41.

Tread is not the only part of a tire that can wear out prematurely. Sidewalls can weaken and crack from improper inflation, weight loads beyond design specifications, or the effects of air pollution and ultraviolet radiation. Park in shaded areas whenever possible and use tire covers in desert regions to block harmful rays from the sun.

If the trailer is to be out of service for any extended period, including winter storage, block up the axles to remove weight from the tires and to keep them from developing flat spots. Also reduce the air pressure to 10 psi in each tire.

Important: Inflate all tires to normal pressure before removing the blocks.

One additional tire care tip: Every time you check air pressure, also check tire valve stems for cracks, and tighten the valve cores. Air leaks from these sources can flatten a tire as quickly as a puncture.

Wheels

All wheels are balanced at the factory. If the tire is removed from the wheel (such as to repair a flat), place reference marks on the sidewall and rim, so that the tire can be lined up again to retain balance. See following section on **Tire Changing** for more information.

Wheel bearings should be repacked with grease and adjusted every 10,000 miles. Lug bolts should be torqued to 90-95 foot-pounds. Recheck them after the first 100 miles and before starting each trip.

Examine all suspension mounting bolts periodically to be certain they have not backed off and are snug. The axle bushing bolt should be torqued to 120-150 foot-pounds. Tighten spring hanger bolts and rocker arm link bolts until snug and then back off one half to three quarters turn. All suspension mounting bolts are self-locking.

Tire Changing

Changing a tire on your Avion is no more difficult than changing one on your automobile, but there are some notable differences.

1. Place a jack **under the axle** of the tire you are removing. Then chock all other wheels and raise the jack until the tire barely touches the ground. This will take most of the weight off the wheel but will give you enough leverage to break the lug bolts free without the tire spinning.
2. Break the lug bolts free with lug wrench, but do not loosen.
3. Raise jack until tire is completely off the ground, unscrew all lug bolts, and remove wheel.
4. To reinstall the tire, first make sure that drum and hub are free of dirt, then lift wheel into place and line up lug bolt holes.

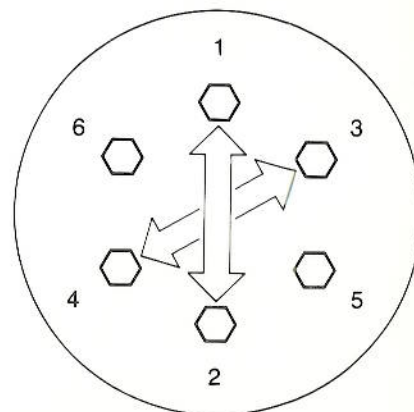
5. Start all lug bolts and then tighten by hand.
6. Lower the jack until tire barely contacts the ground, then finish tightening the bolts with lug wrench, using a criss-cross pattern. Bolts should be tightened to a torque of 90-95 foot-pounds.
7. Lower the jack completely and remove it. Also remove wheel chocks.
8. Recheck tightness of lug bolts after 100 miles and before each trip.
9. Handle wheels with care to avoid damaging their appearance.

Tire Rotation

Trailer tires should be rotated every 5000 miles to promote even tread wear and long life. Rotate them sooner if irregular wear develops. The rotation pattern varies, depending on whether radial-ply tires or bias-ply tires are being used.

1. **Radial-Ply Tires.** Move front tires to the rear and rear tires to the front on the **same side** of the coach. For dual axle trailers move front tires to center position, center tires to rear and rear tires to the front on the **same side** of the coach.
2. **Bias-Ply Tires.** For double axle trailers move front tires to the rear on the **same side** of the coach. The rear tires **cross over** to the front; that is, left rear tire moves to right front and right rear tire moves to left front. For triple axle trailers move front tires to center positions, center tires to the rear on the **same side** of the coach. The rear tires cross over to the front.

The identical pattern should be used every time you rotate the tires, otherwise you will be nullifying the intended benefits.



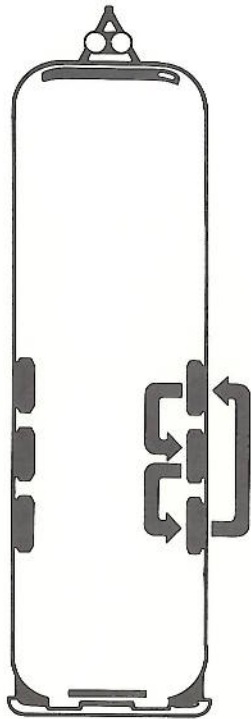
Lug Bolt Tightening Sequence

Note: The riding characteristics of radial and bias-ply tires differ. We recommend that you do not mix the two types on the trailer.

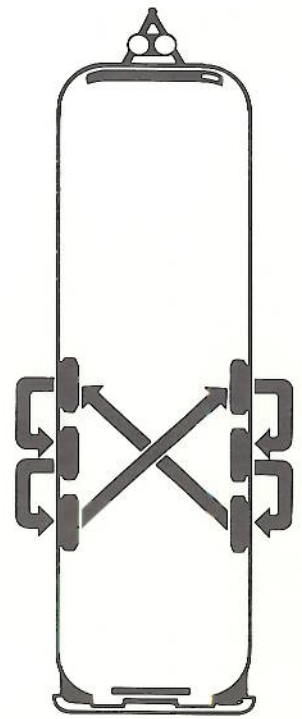
Wheel Balancing

The wheels on your Avion were balanced at the factory for a precision ride. Therefore, whenever a new tire is installed on a wheel, it must be balanced. Do this as soon as possible for smoothest, safest ride. Refer to **Tire Changing**, earlier in this section, for more details.

Tire Rotation



Radial-Ply Tires



Bias-Ply Tires

Braking System

The Kelsey-Hayes Company electric brakes on your trailer are operated by 12-volt direct current from the tow vehicle. The brakes have been factory-calibrated for smooth, positive response. Routine periodic adjustments should be performed only by an Avion dealer service technician or other qualified mechanic.

Components of the Braking System

The wiring system connecting trailer brakes with the tow car's electrical power begins and ends at the car battery and includes several major components, all of which must function properly for safety and responsive braking.

1. **Car Battery.** The connection is made at the starter solenoid's battery terminal or the positive post of the battery itself.
2. **Brake Controller.** The electric trailer brakes are automatically applied by the brake controller, which is mounted within easy reach of the tow car driver. When the car's brake pedal is depressed, the trailer brakes are actuated slightly before the tow car brakes, to keep the two vehicles in alignment. The lag time can be adjusted by turning the brake controller knob in accordance with instructions provided with the controller. **The new setting will be retained until a further adjustment is made.** The brake controller also has a manual

feature, which allows you to apply the trailer brakes independently of the tow car brakes. To operate, move the control lever all the way to "manual" and hold it in that position. The lever is spring-loaded and will return to the "automatic" setting when released.

Select a brake controller that will be compatible with your Avion's electric braking system, such as Kelsey-Hayes or equivalent.

Caution: Do not install a fuse in the circuit between tow car battery and brake controller. A blown fuse would cause the controller to cease functioning both automatically and manually, causing loss of trailer braking power with no advance warning.

3. **Connector Plug.** The 7-way connector on the trailer hitch transfers electrical power from the tow vehicle battery to the trailer brakes and exterior lighting system. Keep the plug clean, tight, and protected from the elements.

4. **Break-Away Switch.** This fail-safe device is one of the most vital components in your Avion's braking system. It automatically actuates the trailer brakes instantly in the event tow car and coach accidentally uncouple while in motion. The break-away switch goes into operation when a pull pin linked by cable to the tow car is separated from the switch. This allows two contacts in the switch to close and complete an electrical circuit, which instantaneously applies the trailer's brakes and brings it to a stop. Power for this sequence is automatically switched to the on-board trailer batteries from the tow car battery, which stops furnishing power when the 7-way connector disengages during vehicle separation.

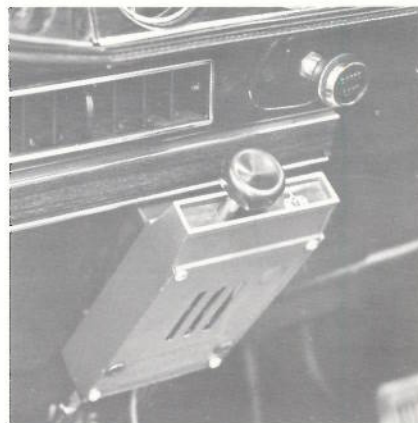
The steel cable attached to the break-away switch pull pin must be anchored to the tow car at time of hookup. We recommend securing this cable loop to the permanent frame of the tow car hitch, not the removable section of the hitch.

The pull pin should be removed and lubricated with light household oil every three months, to assure that it will operate as intended. Before reinserting the pin, spray the inside of the break-away switch with an electrical contact cleaner to prevent corrosion.

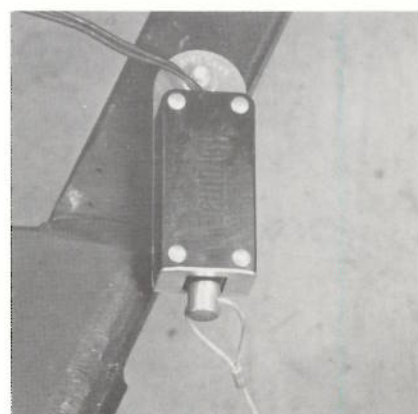
Caution: Do not leave pull pin out of the break-away switch for more than a few minutes, or it will run down the trailer batteries. For the same reason, never use the break-away switch as a parking brake.

5. **Trailer Brakes.** Your Avion's brakes are actuated by electrical energy, which is converted to mechanical energy to provide the braking power for smooth, safe stops. The greater the braking effort from the brake controller, the greater the braking force applied to trailer brake drums. You can monitor the application of this braking force either by using a brake controller with built-in indicator light, or by installing a separate indicator light on the tow vehicle dashboard. The light will glow whenever trailer brakes are activated, and will become increasingly brighter as braking power is intensified.

6. **Grounding.** The electrical circuit that operates your trailer brakes can be completed only by proper grounding back to the tow car battery. **A poor ground circuit from brakes to battery can be as detrimental to efficient braking as a poor primary circuit from battery to brakes.**



Brake Controller



Break-Away Switch

Adjusting the Brakes

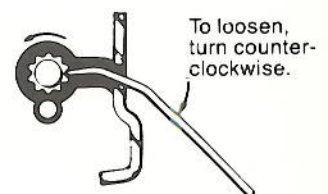
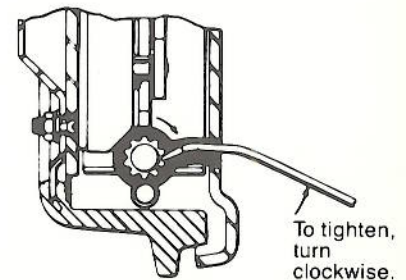
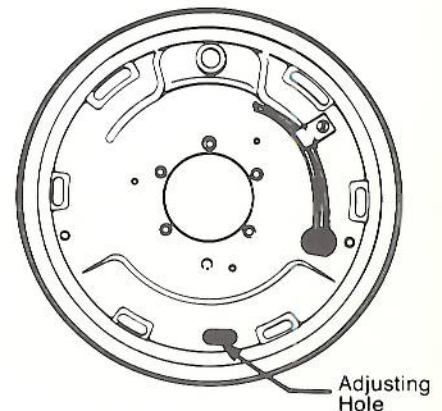
While it is recommended that brake adjustments be handled by qualified technicians, the following procedure should be used if you find it necessary to perform the job yourself.

1. Remove rubber plug from the adjustment hole at base of brake drum backing plate.
2. Raise wheel off ground with a lifting jack placed under the axle (see **Tire Changing**, earlier in this section).
3. Tighten brakes by inserting a brake adjustment tool or screw-driver blade into the backing plate hole. Turn adjustment screw while spinning the wheel. When wheel begins to drag heavily, back off just enough for it to spin freely. Replace adjustment hole plug, then lower and remove the jack and repeat the previous steps with all other trailer wheels.

Braking Tips

1. **Never use trailer brakes alone for extended periods.** They were designed to stop the coach, not the tow car. Such action would place excessive loads on the brakes, causing overheating, loss of braking power (fading), and premature wear of shoe linings and drums.
2. **Never use the tow car brakes alone.** The added weight of your trailer more than doubles the load placed on car brakes, leading to the same results as using trailer brakes alone: Overheating, brake fade and rapid wear. Driving control is also hampered when tow vehicle brakes are used alone, due to the force of the trailer pushing against the car hitch. This is especially true on slick pavement or loose gravel, and can cause jackknifing.
3. **Always use the automatic brake controller.** This synchronized braking system enables you to drive in the manner recommended by the experts: Both hands on the steering wheel. The brake controller is properly adjusted when there is a slight "lead" on the trailer brakes. This braking resistance, combined with the tow car's engine pulling power, will keep the two vehicles correctly aligned and bring them to a safe, straight stop every time.

Brake Adjustment



Suspension System

Avion's exclusive Adjust-A-Ride™ All-Wheel Independent Suspension represents a significant advancement in trailer suspension systems, combining European-type independent suspension at each wheel with adjustable split axles, to meet a variety of traveling conditions. Adjust-A-Ride™ was subjected to thorough testing by an independent testing agency before being introduced as standard equipment on all Avions.

Adjust-A-Ride's split axles absorb road shocks and vibrations right at the wheel, instead of transmitting them to the opposite wheel and then through the entire coach frame and body, as happens with standard one-piece axles. Heavy duty springs and single shocks at each wheel work in unison with the split axles to further cushion the smooth ride.

The result: Adjust-A-Ride™ keeps your new Avion tracking straight and true even over irregular surfaces, with less "whipping" action. The split-axle configuration also reduces trailer lean on turns, resulting in improved handling characteristics. This provides a stable, controlled, glass-smooth ride that makes your Avion what we believe to be the easiest-towing travel trailer ever built.

The unique Adjust-A-Ride™ system also permits toe-in/toe-out adjustment, a feature not found on solid axle coaches.

Toe-In Adjustment

Toe-in simply means that the wheels on a given axle are closer together at the front end than at the back. For **accurate tracking, maximum tread life and greatest fuel economy, your Avion should have a toe-in of zero to plus or minus 1/16-inch on each wheel.** Avion's Adjust-A-Ride™ allows you to make wheel alignment corrections yourself with minimal equipment. You will need a scissor jack and a 15/16-inch socket wrench or large adjustable-end wrench.

1. Pull the normally-loaded coach forward with a tow vehicle a minimum of 25 feet on a reasonably level surface. Let it roll to a stop without applying the brakes. This will allow the wheels to assume a normal towing position.

2. Starting with any wheel, mark a point on the tread at the front of the tire. Measure the distance between that point and the chassis rail. Locate a corresponding point on the tread at the rear of the same tire, and measure the distance between it and the chassis rail. (See Figure A. Repeat this step for each wheel.

If the difference between the front and rear measurements of a wheel is 1/8-inch or less, the wheel is properly aligned; if it is greater than 1/8-inch, a correction should be made.

3. Place a scissor jack under the inboard end of the axle, and raise it just enough to be snug. This takes the weight off of the bolt on which the axle is hinged. (See Figure B.) Note that several spacer washers are positioned on both sides of the axle bushing. The wheel is aligned by moving one or more washers from one side of the axle bushing to the other. (See Figure C.) The number of washers to be switched is determined by the difference

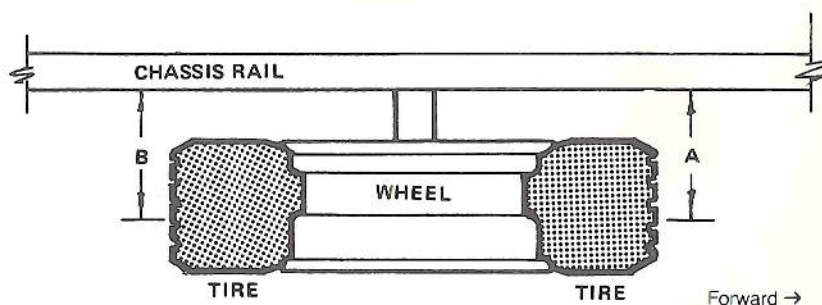


Figure A

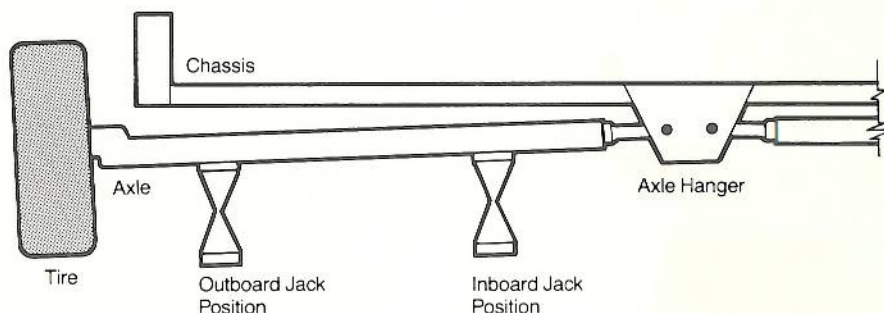
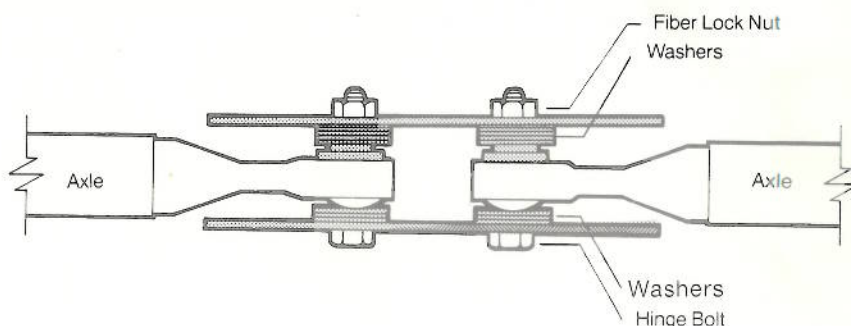


Figure B



between measurements taken in step 2. (See Figure A.) One washer is moved for each $\frac{1}{8}$ -inch difference. For example, if the measurements were $7\frac{3}{8}$ inches at the front of the tire and $7\frac{7}{8}$ inches at the rear, the difference of $\frac{1}{4}$ -inch would represent two washers. The wheel is toed-out if the front measurement is greater, and is toed-in if the rear measurement is greater. (See Figure D.)

4. After determining how many washers are to be moved and where, count the number on each side of the axle.
5. Remove fiber lock nut and tap out the hinge bolt with a hammer and punch. If the bolt does not dislodge with a little effort, raise or lower the jack until bolt is freed.
6. Relocate washers as indicated in step 3. A large screwdriver may be required for leverage when installing the last one. (See Figure E.)
7. Replace the hinge bolt and fiber lock nut. Torque to 125 foot-pounds.
8. Lower the axle, remove scissor jack and check toe-in adjustment by repeating steps 1 and 2.

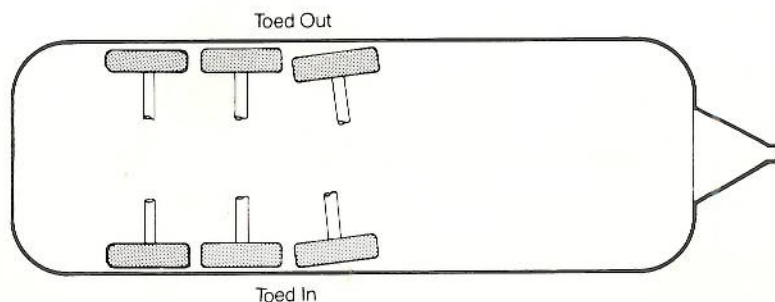


Figure D

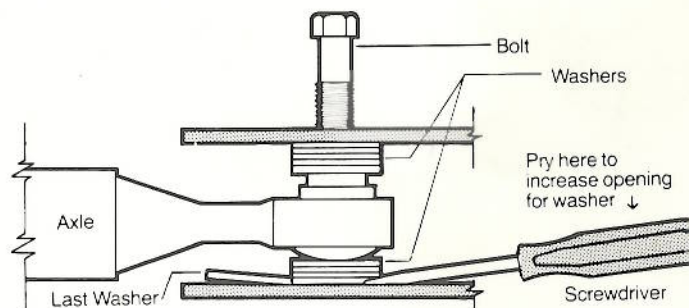


Figure E

