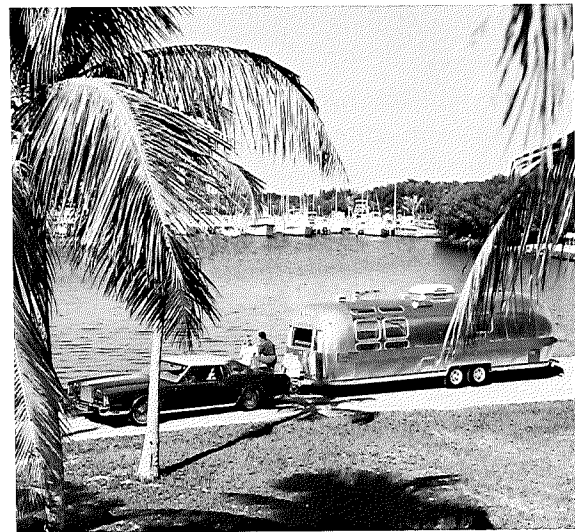
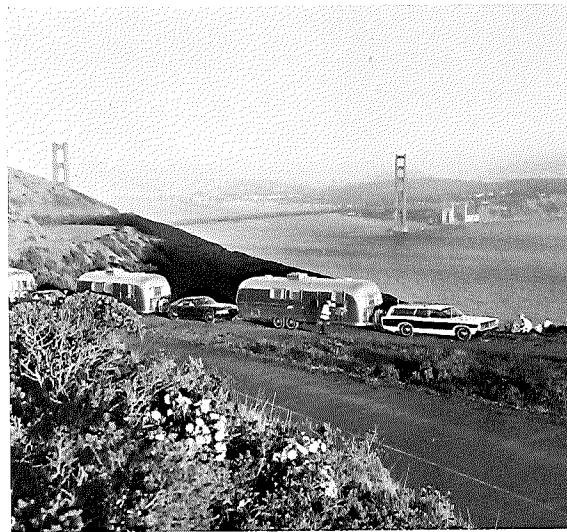
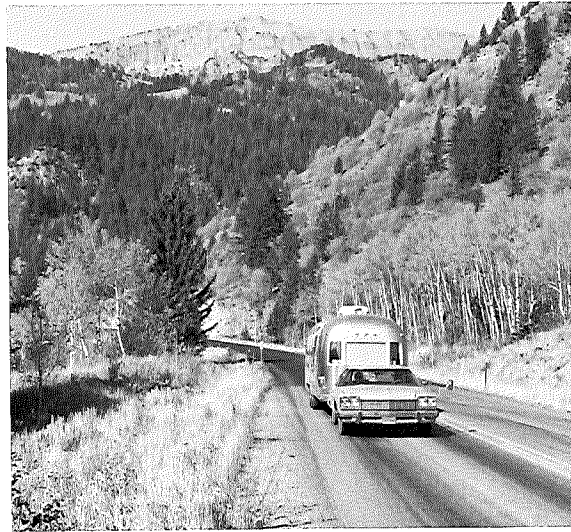


*Excella* 500

1978



# 1978 Excella 500 Owner's Manual





# Introduction

An Airstream travel trailer offers you excellence in travel luxury and mobility. This owner's manual is your key to care-free travel fun. It contains information necessary to avoid problems. Consult it when you have a question about your new Airstream. It has been designed to aid you in knowing your trailer better. All information, illustrations and specifications contained in this literature are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time without notice. Should you trade or sell your Airstream, please leave the manual with the trailer. Go Airstream and make this your year for carefree vacations.

**Note: If and when new materials and production techniques are developed which can improve the quality of its product or material substitutions are necessary due to availability, Airstream reserves the right to make such changes.**



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# Wally Byam Caravans, Rallies and Clubs

When you bought your Airstream, you bought a whole new way of life. Airstream owners enjoy endless opportunities for friendship, fun and adventure. You may join every **Airstream Wally Byam Caravan and Airstream Company Rally**, we arrange for such rallies to various areas each year. You also become eligible to join the **Wally Byam Caravan Club International**, the largest single make trailer club in the world. The **WBCCI** is made up of 26,500 family memberships and 166 local chapters or units throughout the United States, Canada and Mexico. They meet at monthly rallies, or where weather conditions prevent year round rallies, Caravanners come together for pot luck dinners to plan events for the good seasons.

Since the first Wally Byam Caravan in 1951, 115 Airstream Caravans have gone to most parts of the world. Caravans to Canada and Mexico are now so popular that there are several each year. Many a lifelong friendship was started on these trips. Old-timers and new owners share experiences and find a new kind of fellowship, and there is no better way to learn to use your Airstream. Caravanners enjoy many advantages: the security of traveling in a group, planned entertainment and exceptional sightseeing opportunities. The prestige and good will established over many years by our Caravans adds further benefit to Caravanner membership.



The "**Caravanner**" is the Airstream publication and the "**Blue Beret**" is the official Caravan Club publication. The "**Caravanner**" is for general distribution to owners and prospective buyers, while the monthly "**Blue Beret**" is for WBCCI members only.

Several months before a Caravan rolls, the "**Caravanner**" and the "**Blue Beret**" publish a description and a registration coupon. Everyone who registers receives a detailed bulletin with complete information on the caravan. When going abroad, all official matters such as insurance, tourist cards and border crossing formalities are handled for you by the Caravan staff. On every Airstream Caravan, the route is carefully planned, and a day by day itinerary, including mail stops, is given to all



Caravanners in advance. Our staff also makes all the arrangements for parking, entertainment, tours, etc. well ahead of the starting date. Airstream Caravan Programs always take caravanners of all ages into account. Airstream provides the Caravan Staff: a leader, a recreation advisor, a service representative and an advance representative. This staff is backed by committees composed of interested Caravan members who assist in the day-to-day operations.

**Wally Byam**, pioneer trailer traveler, and founder of the Airstream Company, was born on July Fourth and the first **International Rally** was in the form of a huge birthday party for him at Bull Shoals, Arkansas. It was patterned after the International Rallies in Europe which Wally and his wife Stella had attended



for many years. Everyone enjoyed this first big rally so much that the club decided to make it an annual event. Since then, International Rallies have grown and grown. Some 3949 Airstream Travel Trailer families recently gathered at Bozeman, Mont., for the 1977 International Rally.

Only Airstream Wally Byam Caravanners and WBCCI members are entitled to have an official **Trailer Number** and be listed in the **1979 Annual Directory**. This directory contains a schedule of all major WBCCI activities and Airstream Wally Byam Caravans and Rallies for the year. It also lists such things as Freewheelers Club membership, C.B. Radio and Amateur Radio Club memberships and call signs, members who offer courtesy parking, and a

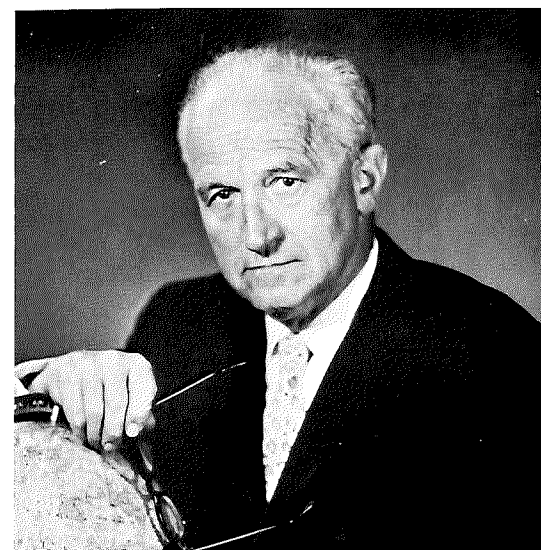


complete list of Authorized Service Centers.

Along with the fun, Airstream owners recognize the need for better legislation, more and better overnight parking facilities, more sanitary stations and other travel conveniences.

They are alert to adverse bills governing travel trailers and have achieved much through the actions of the strong **WBCCI National Legislative Committee**.

**The Way of Life Department**, of the Airstream Company dedicates its full time staff to improving the owners' fun and makes use of all the information and experience gained by owners over the years to help develop even better



Airstreams and Way of Life programs for the enjoyment of all Airstream owners.

**Become part of the Airstream Way of Life.** Join our WBCCI activities and we believe you will enrich your life. Owners join through a local unit of WBCCI. All operate autonomously, elect their own officers and fix their own dues. Annual International dues are paid with the unit dues at the time of application. These are at present: International dues, \$7.50 per trailer and unit dues from \$1 to \$10. If you are interested, please write to the following address for information regarding units in your area:

WBCCI Headquarters Office  
15939 Piuma Avenue  
Cerritos, California 90701





Please place your Registered Warranty over this Facsimile with the folded edge on top. There is a glue strip on the back for this purpose.

## AIRSTREAM LIMITED WARRANTY

When you buy a new Airstream Travel Trailer from an authorized dealer, Airstream warrants to you that, except for tires and battery, it will pay for the repair or replacement of any part of your trailer or any component equipment installed by the factory that is defective in material or workmanship. This warranty extends for a period of two (2) years from the date of original purchase.

All that we require is that you use your trailer in a normal manner and properly maintain and service all component parts requiring scheduled maintenance, and that all repairs and replacements be made by an Airstream factory or any Airstream Certified Dealer Service center. Any warranty defect will be corrected without cost upon return of the trailer, or defective part, to an Airstream factory or Airstream Certified Dealer Service center.

All warranties of merchantability and fitness for a particular purpose, whether written or oral, express or implied, shall extend only for a period of two (2) years from the date of original purchase. There are no other warranties which extend beyond those described on the face hereof and expressly excludes conditions resulting from normal wear, accident, abuse, exposure or overload. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. Airstream will not be responsible for any consequential damages incurred as a result of any defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For additional information regarding your Airstream Warranty, refer to the materials entitled "Explanation of Airstream Warranty" provided with this warranty.

**AIRSTREAM**®

Ohio Factory: 177 West Church Street, Jackson Center, Ohio 45334  
California Factory: 15939 Piuma Avenue, Cerritos, California 90701

# Warranty and Service

Airstream offers the most complete and explicit warranty in the industry. Your valuable warranty covers every item in your trailer (except tires and battery) against failures resulting from defects in either material or workmanship for two years from date of original purchase.

**Please read the facsimile warranty carefully. As soon as the factory has received your signed check-out and acceptance sheet, a formal warranty is issued to you, together with an owner's identification card. As soon as you receive your warranty, please attach it over the facsimile for safekeeping. In order to qualify for service without charge under the Airstream Warranty Program, your owner's identification card or authorization for Interim Warranty must be presented to the service representative.**

**The Airstream Certified Performance Checkout, or C.P.C.,** is an exclusive Airstream program. Before leaving the factory, each and every vital part of an Airstream is tested for performance. Each test is signed and certified by an inspector. After the Airstream arrives on your dealer's lot, all of these vital parts and systems are again tested. When you take delivery of your new Airstream, a factory trained trailer expert personally gives you a complete check-out on the trailer.

C.P.C. does not stop here. After you have traveled with your Airstream for 1000 miles (or 60 days, whichever comes first)

you can make an appointment with any one of the 156 Airstream dealers or service centers for still another check-out of your trailer. At that time, a specified list of performance checks on your trailer equipment will be conducted and any deficiencies you have experienced since taking delivery will be corrected. Give the C.P.C. card overleaf to the dealer when you take your Airstream for the 1000 mile check.

Please contact your dealer if you need service. Major service under your Airstream Warranty is available through our nationwide network of factory trained specialists at Airstream Certified Dealer Service Centers listed on pages 8-12 of this manual. **All centers operate on an appointment basis for the utmost efficiency.** When you require service from the Airstream factory or a certified service center, please contact the service manager for an appointment, and kindly inform him if you are unable to keep the appointment date or wish to change it.

Airstream factory service may be arranged by contacting the service manager at:

Airstream  
15939 Piuma Avenue  
Cerritos, California 90701  
(213) 860-4411

Airstream  
Jackson Center, Ohio 45334  
(513) 596-6111



# Explanation of Airstream Limited Warranty

The Airstream Limited Warranty applies for a period of two (2) years from the date of original purchase, and the applicable date of all warranties is that indicated on the owner's I.D. card. (Owner's identification.) Warranty defects (except tires and battery) will be corrected without cost upon the return at the owner's expense of the trailer or defective part to any Airstream factory, Airstream Certified Dealer Service Center, or participating Argosy Certified Dealer Service center.

The Airstream axle is manufactured to a tolerance of 1° camber and 1/8" toe-in. These tolerances will only change if the trailer is subjected to abuse, such as dropping off a sharp berm, striking a curb, or hitting a deep hole in the road. Such damage would be considered as resulting from an accident which risks are not covered under the warranty. Abnormal tire wear and/or wheel alignment resulting from such damage is not covered under the terms of the warranty.

The tire and battery warranties will be handled by their respective service points and according to their written policy.

**Caution: Your Airstream is equipped with the all new Excella-Vac brake system which for the first time brings all of the advantages of full disc braking to travel trailers. It is extremely important to note, however, that Excella-Vac uses an entirely different system for**

**controlling brake operation. It is not compatible in any way with the old electric brake control system. If you do not use the control system designed for use with the Excella-Vac disc brakes, the terms of your Airstream Limited warranty will be voided with respect to any damages incurred as a result of the use of a noncompatible system. In addition, many advantages of the exclusive Airstream disc brakes will be lost if the Excella-Vac control system is not used.**

Inasmuch as this warranty covers defective material and/or workmanship, adjustments and checking are excluded. All adjustments are made at the factory prior to shipment, and rechecked by the dealer prior to delivery to the customer. An additional check-up, including adjustments, is given at the 1,000 mile or 60 day inspection. Adjustments thereafter become a customer responsibility.

Each Airstream exterior (not including the underside) is sprayed with a plastic coating material to prevent oxidation. This application is covered by the two year warranty against peeling. Prolonged exposure to salt air or industrial fall-out will permit penetration through the coating material, causing damage to the exterior metal. Since Airstream has no control over these conditions, it is necessary for the owner to wash his trailer as instructed in the Owner's Manual.

Damage to enameled or porcelain

surfaces resulting from abrasion or blows is the result of accident or abuse, and is not covered by warranty. Window glass breakage, and what is termed by the automotive industry as "mysterious explosions," although not covered under this limited warranty, is covered by the comprehensive clause of most insurance policies.

This limited warranty does not include failure caused by accident, abuse, normal wear, overload, or any cause not attributable to a defect in original material or workmanship of the trailer or component equipment as installed by the factory.

## **Exclusions:**

### **1. Normal Wear.**

Items such as tires, water heater flints, water purifier packs, curtains, upholstery, floor coverings, window, door and vent seals will show wear or may even wear out within the two year warranty period depending upon the amount of usage, weather, and atmospheric conditions.

### **2. Accident.**

We can all recognize damage caused by accident because it is visible, and we strongly urge our dealers and customers to inspect the trailer upon receipt of delivery for any damage caused by accident while being delivered to the dealer, or while it is on the dealer's lot. Damage of this nature becomes the dealer's or customer's responsibility upon acceptance of

delivery, unless Airstream is notified and the damage is verified by the person making the delivery.

### **3. Abuse.**

Lack of customer care and/or improper maintenance will result in early failure for which Airstream cannot be held responsible.

### **4. Exposure.**

Not unlike a car, the steel parts of a trailer can and will rust if subjected to prolonged exposure to moisture, salt air, or corrosive air-borne pollutants without repainting. Aluminum oxidizes when unprotected under similar conditions, and refinery chemicals of a sulfurous nature are harmful to finishes if not washed off periodically. Extremely hot or direct sunlight will deteriorate rubber and fade curtains and upholstery. Conditions of this nature, although they may be normal for the area, are beyond Airstream's control and become the responsibility of the owner.

One other type of exposure is that resulting from an accident, rain or plumbing leak. Although it is our obligation to correct a rain or plumbing leak within the terms of the limited warranty, it is the owner's responsibility to use reasonable, prudent care to minimize foreseeable secondary damage, such as a delaminated floor, stained upholstery, carpeting, drapes, etc.

### **5.**

#### **Overload.**

Damage due to loading, either beyond capacity or to cause improper towing because of improper balance, is beyond Airstream's responsibility. The Airstream trailer is engineered to properly handle the gross vehicle load rating on the certification label. Load distribution has a definite effect upon the towing characteristics and attitudes of the trailer. Level hitch installations are a necessity, and very important on a tandem axle trailer. There are limits to the amount of load that can be safely transported depending upon speed and road conditions, and reasonable cause to believe these factors have been exceeded could void the Airstream warranty. For additional information on the loading of your trailer, consult your Owners Manual or gross vehicle weight rating plate.

Airstream will not be responsible for any consequential damages incurred as a result of any warranty defect. Consequential damages include, but are not limited to, travel expenses, gasoline, oil, lodging, meals, telephone tolls, loss of work and loss of use of the trailer.

In the event of a warranty defect, the warranty holder should take corrective action to lessen the damages which might result from such defect. Airstream will not be responsible for resulting damages which could have been avoided.

The full extent of Airstream's warranty is set forth in the "Airstream's Limited Warranty" and this "Explanation of Airstream Warranty." Airstream will not be responsible for additional representations or implied warranties made by any of its dealers to the extent those representations are not a part of, or are contrary to, the terms and conditions of the Airstream Limited Warranty and Explanation of Limited Warranty.

If you believe your trailer needs repairs under the terms of the Airstream Limited Warranty, you should contact the Service Manager at any Airstream factory. Airstream Certified Dealer Service center or participating Argosy Certified Dealer Service center. The trailer or defective part must be returned to a factory or authorized service center at the owner's expense.

This limited warranty is transferrable to subsequent owners for the duration of the warranty period. Warranty transfer application forms are available from your dealer or any Airstream factory.

# Factory Authorized Certified Service Centers

## Alabama

*Alabama Auto Carriage Inc.*  
2359 West Fairview  
P.O. Box 2763  
Montgomery, Alabama 36105  
205-262-3563 or 262-3564

*R & S Camper Sales*  
2405 Jordan Lane  
Huntsville, Alabama 35806  
205-837-5241

## Arkansas

*Fred and Jack Trailer Sales*  
10318 New Benton Highway  
I-30 West  
Little Rock, Arkansas 72209  
501-565-0131

## Arizona

*Robert Crist & Company*  
2025 East Main Street  
Mesa, Arizona 85203  
602-834-9410

*Robert Crist & Company*  
8833 North Black Canyon Hwy.  
Phoenix, Arizona 85021  
602-944-2288

*O'Rielly RV Center, Inc.*  
4780 E. 22nd Street  
Tucson, Arizona 85711  
602-748-1414

## California

*Adventure Recreational Vehicles*  
5810 S. Union Avenue  
Bakersfield, California 93307  
805-831-5451

*Caswell's Vacation Vehicles*  
700 East Foothill Boulevard  
Pomona, California 91767  
213-331-0163

*Coastline Trailer Sales*  
303 North Ventura Avenue  
Ventura, California 93001  
805-648-1772

*Haller Trailer Sales*  
15711 South Lakewood Boulevard  
Paramount, California 90723  
213-634-3553

*Holiday Trailer Sales*  
770 East Baseline  
San Bernardino, California 92410  
714-889-8918

*Manteca Trailer Sales*  
9862 E. Yosemite Avenue  
Manteca, California 95336  
209-239-1267

*Murray's RV Center*  
1201 E. Washington  
Escondido, California 92025  
714-743-2422

*Nelson's RV Enterprises, Inc.*  
28001 Mission Boulevard  
Hayward, California 94544  
415-582-9433

*Pulmobile Trailer Sales*  
4563 San Fernando Road  
Glendale, California 91204  
213-241-0310 or 245-6068

*Ralph's Trailer Sales and Supply*  
1025 East Main  
El Cajon, California 92021  
714-442-4435

*Santa Rosa Airstream*  
3534 Santa Rosa Avenue  
Santa Rosa, California 95401  
707-525-8330

*Toscana Recreation Center*  
617 W. Pacheco Boulevard  
Los Banos, California 93635  
209-826-4923

*Valley Trailer Sales, Inc.*  
1650 El Camino Avenue  
Sacramento, California 95815  
916-929-2200

*Valley Motors Camperland*  
2370 S. Broadway  
Santa Maria, California 93454  
805-925-8617

## Colorado

*Chisman Trailer Sales*  
2500 East Boulder Street  
Colorado Springs, Colorado 80909  
303-473-7043

*Trailerland*  
8200 W. Colfax Avenue  
Denver, Colorado 80521  
303-237-9591

*Trailerland*  
2515 E. Mulberry Street  
Ft. Collins, Colorado 80215  
303-493-3676

## Connecticut

*A-1 Trailer and Motorhome Sales*  
Route 66 & Jackson Hill Road  
Middlefield, Connecticut 06455  
203-344-0338 or 344-0339

*Camperama, Inc.*  
Mill Plain, Route 6,  
Btw. Exit 1 & 3, I-84  
Danbury, Connecticut 06810  
203-743-2726

## Delaware

*Marty's Travel Trailers, Inc.*  
2343 South DuPont Highway  
Dover, Delaware 19901  
302-697-3173

## Florida

*General R.V.*  
5610 Okeechobee Road  
West Palm Beach, Florida 33406  
305-686-3707

*Airstreams by General*  
1881 St. Rd. 84  
Ft. Lauderdale, Florida 33315  
305-525-3374

*Bell's Trailer Park and Sales, Inc.*  
6401 W. Tennessee St. Hwy 90W  
Tallahassee, Florida 32304  
904-576-2915

*Camptown USA, Inc.*  
23905 SW 132nd Avenue  
6 mi. S. of Perrine on US 1 at Princeton  
Miami, Florida 33032  
305-245-2353

*Carpenter's Campers, Inc.*  
8450 Pensacola Boulevard  
US 29 North, Between I-10 & 90  
Pensacola, Florida 32504  
904-477-6666

*Fallin Camper Sales, Inc.*  
100 Edgewood Avenue, S.  
Jacksonville, Florida 32205  
904-783-0630

*Indian River RV Sales, Inc.*  
5855 US Highway 1  
Between Cocoa and Titusville  
Cocoa, Florida 32922  
305-636-1422

*Kropf Eldorado, Inc.*  
6915 14th Street West  
US 41, S.  
Bradenton, Florida 33507  
813-755-1586

*C.J. Stoll, Inc.*  
5985 34th St. N  
US 19  
St. Petersburg, Florida 33714  
813-527-2189

**Georgia**  
*Three-Way Campers, Inc.*  
1660 Cobb Parkway, N.W.  
Marietta, Georgia 30062  
404-422-9300

**Idaho**  
*Wheels Unlimited*  
709 N. 5th, P.O. Box 4685  
Pocatello, Idaho 83201  
208-233-4230

**Illinois**  
*Crystal Valley, Inc.*  
4220 Northwest Highway  
US 14 at Route 31  
Crystal Lake, Illinois 60014  
815-459-6611

*Four Winds of America, Inc.*  
U.S. 51 N, RR #1  
Maroa, Illinois 61756  
217-794-2292

*Rocket Trailer Sales*  
528 W. Route 30  
Rock Falls, Illinois 61071  
815-625-6245

*Wilderness Lake Campground, Inc.*  
Route #2  
Martinsville, Illinois 62442  
217-279-3396

**Indiana**  
*Berning Trailer Sales, Inc.*  
5220 New Haven Avenue  
Fort Wayne, Indiana  
46803  
219-749-9415

*Four Seasons Trailer Sales, Corp.*  
8225 W. Washington Street  
Indianapolis, Indiana 46231  
317-241-8348

*Mid-West Trailer Mart, Inc.*  
2409 Corydon Pike  
New Albany, Indiana 47150  
812-945-1173

**Iowa**  
*Barrows Camp-O-Rama*  
1912 Washington Boulevard  
Camanche, Iowa 52730  
319-259-8391

*Ace Fogdall, Inc.*  
5424 University Avenue  
Cedar Falls, Iowa 50613  
319-277-2641

*Imperial RV Center*  
1727 South Ankeny Blvd. Hwy. 69  
Ankeny, Iowa 50021  
515-964-1424

**Kansas**  
*Scholfield Winnebago, Inc.*  
11516 East Kellogg  
Wichita, Kansas 67207  
316-684-0236

**Kentucky**  
*Crouch Campers & Trailers*  
5081 Reidland Rd., Route 4  
Highway 62 - 68 S.E.  
Paducah, Kentucky 42001  
502-898-7373

*Murphy Sales Company, Inc.*  
Winchester Road (US 60W)  
Box 404  
Mt. Sterling, Kentucky 40353  
606-498-1168

**Louisiana**  
*Camper Village, Inc.*  
705 Florida Boulevard, S.W.  
Denham Springs, Louisiana 70726  
504-664-7104

*Superior Pontiac GMC, Inc.*  
200 Wright Avenue  
Gretna, Louisiana 70053  
504-368-5640

**Maryland**  
*B & J Trailer Sales*  
Box 369, US Route 40  
Aberdeen, Maryland 21001  
301-575-6840

*Koons Ford of Annapolis, Inc.*  
2540 Riva Road  
Annapolis, Maryland 21401  
301-224-2100

**Massachusetts**  
*Donahue's Trailer Sales*  
88 Mountain Road, Box 126  
Off Route 128 at Exit 41-S  
Burlington, Massachusetts 01803  
617-272-9830

**Michigan**  
*Bay Valley RV Center*  
2717 Delta Road, RR #4  
Bay City, Michigan 48706  
517-684-0930

*Caswell and Company*  
243 South Dexter  
Ionia, Michigan 48846  
616-527-3310

*Ewing Trailer Sales*  
4251 W. Columbia Avenue  
Battle Creek, Michigan 49017  
616-965-0597

*Kolbe Trailer Sales*  
4401 East Eight Mile Road  
Warren, Michigan 48091  
313-536-0265 or 754-8310

*Moore's Recreation*  
1222 E. North Territorial Road  
U.S. 23 - 5 miles N. Ann Arbor Exit 49E  
Whitmore Lake, (Ann Arbor) Michigan 48189  
313-662-4548

*Northwoods Recreational Vehicle Ctr.*  
G—6369 North Dort Highway  
Mt. Morris, Michigan 48458  
313-686-4330

*Vicars Trailer Sales, Inc.*  
9080 Pelham at Wick  
Taylor, Michigan 48180  
313-291-9000 or 291-1980

*Woodland Travel Center, Inc.*  
5190 Plainfield Road  
Grand Rapids, Michigan 49505  
616-363-9038

**Minnesota**  
*Hart Trailer Sales*  
Highway 71  
Long Prairie, Minnesota 56347  
612-732-6106

*Minnesota Trailer Sales, Inc.*  
11350 Highway 65 N.E.  
Blaine, Minnesota 55434  
612-757-1420

*Rochester RV Center*  
Airport Overpass and Highway 63S, Rt. 2  
Rochester, Minnesota 55901  
507-285-9102

**Missouri**

*Kansas City Trailer Sales, Inc.*  
11530 South 71 Highway  
Kansas City, Missouri 64137  
816-761-3322

*Bill Thomas Camper Sales, Inc.*  
5217 N. Lindbergh Boulevard  
Bridgeton, (St. Louis) Missouri 63044  
314-731-2217

**Montana**

*Big Sky Airstream*  
1923 Old Hardin Road  
Billings, Montana 59101  
406-259-5571

*Bretz Trailer Sales*  
1023 Kensington  
Missoula, Montana 59801  
406-543-5721

**Nebraska**

*Autosport RV Center, Inc.*  
6101 "L" Street  
Omaha, Nebraska 68117  
402-734-1133

**Nevada**

*"95" Trailer Sales*  
3105 E. Sahara Avenue  
Las Vegas, Nevada 89104  
702-457-5544

**New Hampshire**

*Ray's Marina, Inc.*  
Route #16  
Milton, New Hampshire 03851  
603-652-4523

**New Jersey**

*Airstream by Angell, Inc.*  
Route 78 & 173 Interchange  
Box 94  
Bloomsbury, New Jersey 08804  
201-479-4118

*South Jersey Travel Trailer Center, Inc.*  
Route 47 and Leonard Cake Rd.  
Franklinville, New Jersey 08322  
609-694-1700 or 694-1701

**New Mexico**

*Wayne's Recreational Vehicles, Inc.*  
12020 Central Ave., S.E.  
Albuquerque, New Mexico 87123  
505-296-0507

**New York**

*Bailey-Momot, Inc.*  
RR 1, Box 316  
Plattsburgh, New York 12901  
518-563-2440 or 563-2441

*Ballantyne Trailer City, Inc.*  
7447 Route 96  
Victor, New York 14564  
716-924-3264

*Ralph Bubbs Sport Center*  
RD 5, Route 57  
Fulton, New York 13069  
315-695-5020

*Maroone Family Travel Center, Inc.*  
2550 Walden Avenue, Exit 52  
E from NY Thruway  
Buffalo, New York 14225  
716-681-1700

*Niblack Trailer Sales*  
691 McLean Avenue  
Corner NY Thruway  
Yonkers, New York 10704  
914-965-5685

*O'Malley Enterprises, Inc.*  
Traffic Circle - Route 9 & 7  
P.O. Box 116  
Latham, New York 12110  
518-785-6654

*Walker's Four Seasons*  
Route 17, Box 265  
Big Flats, New York 14814  
607-562-8731

**North Carolina**

*College Park*  
4208 New Bern Avenue  
Raleigh, North Carolina 27610  
919-833-7015

*College Park*  
North Church Street Extension  
US 301 and 301A North  
Rocky Mount, North Carolina 27801  
919-446-7166 or 446-9233

*Hawley's Cycle and Camping Ctr., Inc.*  
4784 Raeford Road  
Fayetteville, North Carolina 28304  
919-425-3145

*Out of Doors Mart, Inc.*  
I-40 at Sandy Ridge Road Exit  
Drawer 799  
Kernersville, North Carolina 27284  
919-993-4518

**North Dakota**

*McLaughlin Equipment Co.*  
320 27th Street, South  
Fargo, North Dakota 58102  
701-237-6046

**Ohio**

*Avalon Travel Center, Inc.*  
11761 Portage Road  
Canal Fulton, Ohio 44614  
216-854-2222

*Bickeye Airstream Service & Sales, Inc.*  
Baltimore Road, Box 13  
N. of E. I-70 on 310 at Rt. 40  
Etna, Ohio 43018  
614-861-6389

*Coachmen Camping Center*  
410 East Sandusky Street  
Findlay, Ohio 45840  
419-423-1912

*Jerry Greer Airstream Argosy, Inc.*  
4855 Groveport Road  
Columbus, Ohio 43207  
614-491-8544

*H & H Recreational World, Inc.*  
Box 108, N. County Road 25A  
Piqua, Ohio 45356  
513-773-2212

*Murphy Travel Trailers of Ohio*  
11526 Chester Road  
3 Doors N. of Windjammer  
Cincinnati, Ohio 45246  
513-771-5771

*Frank B. Ricketts Travel Trailers*  
P.O. Box 683  
I-77 at US 40  
Cambridge, Ohio 43725  
614-432-4040

**Oklahoma**

*Brassfield Travel Trailers*  
7227 N.W. 39th Expressway  
Bethany, Oklahoma 73008  
405-789-4941

**Oregon**

*Cascade Trailer Sales*  
1876 Highway 99, North  
Eugene, Oregon 97402  
503-688-8505

*Spencer's RV Center, Inc.*  
9341 S.E. 82nd Avenue  
Portland, Oregon 97266  
503-777-1484

**Pennsylvania**

*Farnsworth Camping Center, Inc.*  
Route 54  
Elysburg, Pennsylvania 17824  
717-672-2332

*Glasgow Recreational Vehicles, Inc.*  
1650 Lincoln Way East  
Chambersburg, Pennsylvania 17201  
717-264-9551

*Robison Trailer Sales*  
Route 198 at Blooming Valley  
R.D. #3  
Meadville, Pennsylvania 16335  
814-724-8129

*Trav-L-Homes*  
Lewis Road  
Royersford, Pennsylvania 19468  
215-948-5900

*Turner Airstream Sales*  
472 Lincoln Highway W., Adamsburg  
Jeannette, Pennsylvania 15644  
412-523-6545 or 523-6546

*Wise Trailer Sales*  
Division of F.W. Wise Gas Co.  
1501 Airstream Way  
Clearfield, Pennsylvania 16830  
814-765-7801

*Wiles Trailer Sales*  
1030 North Main Street  
Route 8 & 422  
Butler, Pennsylvania 16001  
412-287-4745

*Village Green Trailer Sales Co.*  
Route 452, Pennell Road  
Media, Pennsylvania 19063  
215-494-4155 or 494-4035

**Rhode Island**

*Arlington Trailer Sales*  
966 Quaker Lane, Route 2  
Warwick, Rhode Island 02818  
401-884-7550

**South Carolina**

*Dixie Lee Trailer Sales*  
Highways US 1 & 78  
P.O. Box 306  
Clearwater, South Carolina 29822  
803-593-2162

*Camping World, Inc.*  
U.S. Hwy 17 South  
Myrtle Beach, South Carolina 29577  
803-238-5532

*Wray Frazier Camping Center*  
3630 Fernandina Rd., and I-26 West  
Columbia, South Carolina 29210  
803-798-0450

**South Dakota**

*Spader Camper Center*  
5500 North Cliff, Box 963  
Sioux Falls, South Dakota 57101  
605-339-3230

**Tennessee**

*Cullum & Maxey Camping Center*  
Music Valley Drive  
2 Miles North of Opryland  
Donelson (Nashville), Tennessee 37214  
615-889-1600

*Jewell's Camping Center*  
Route 4, Highway 45  
Trenton, Tennessee 38382  
901-855-9590

*Bobby Jones Trailer Sales*  
4222 James Road (In Raleigh)  
Memphis, Tennessee 38128  
901-386-5833

*Murphy Motor Manors*  
3163 Airport Highway  
Alcoa, Tennessee 37701  
615-984-2380

**Texas**

*A & A Trailer Sales*  
118 Arnold Boulevard  
Abilene, Texas 79605  
915-692-1555

*A-1 Inc.*  
2619 E. 8th Street  
Odessa, Texas 79761  
915-563-0544

*Lloyd's Trailer Sales, Inc.*  
350 Twin City Hwy.  
Port Neches, Texas 77651  
713-727-1666

*Abbott Trailer Sales*  
408 Avenue Q  
Lubbock, Texas 79401  
806-763-4747

*Frank Gillman Travel Trailers*  
7620 Bellaire Blvd.  
Houston, Texas 77036  
713-776-7111

*Buchanan's Campers & Trailer Sales, Inc.*  
4109 Forest Lane  
Garland, Texas 75042  
214-276-2244 or 276-8524

*D & M Trailer Sales, Inc.*  
3900 I-40 East  
Amarillo, Texas 79103  
806-374-1211 or 374-3789

*Land Yacht Trailer Sales, Inc.*  
4616 Titanic Avenue  
El Paso, Texas 79904  
915-751-0591

*Bear Trailer Sales*  
South of Dallas on I-35  
Bear Creek Road Exit  
Lancaster, Texas 75146  
214-223-6025

*Otis Thomas Sales, Inc.*  
2606 Jacksboro Highway  
Wichita Falls, Texas 76302  
817-767-1234 or 767-0220

*South Texas Trailers & Supplies*  
Highway 77 S., P.O. Box 880  
Sinton, Texas 78387  
512-364-1118

*South Texas Trailers & Supplies*  
11210 Interstate 35 N.  
San Antonio, Texas 78233  
512-653-4161

*South Texas Trailers & Supplies*  
101 Expressway 83  
P.O. Box 457  
Donna, Texas 78537  
512-464-3432

**Utah**

*B & K Sales*  
3371 S. State  
Salt Lake City, Utah 84115  
801-466-5501

**Virginia**

*James River Camper Sales, Inc.*  
Box 834, US 460E  
Lynchburg, Virginia 24505  
804-845-6127 or 846-7444

*Poquoson Motors, Inc.*  
4116 West Mercury Blvd.  
Hampton, Virginia 23666  
804-826-1100

*Koons Pontiac-Oldsmobile, Inc.*  
7105 Sudley Road  
Manassas, Virginia 22110  
703-631-9500

*Travel Trailers of Va.*  
2211 South Main Street  
P.O. Box 1089  
Harrisonburg, Virginia 22801  
703-434-9676

**Washington**

*Central Trailer Exchange*  
14433 Pacific Highway, South  
Seattle, Washington 98168  
206-244-9600

*Devon Lee RV Center*  
11257 Kirkland Way, P.O. Box 464  
Kirkland, Washington 98033  
206-822-2211

*Al Lundgren Traveland*  
P.O. Box 2949  
Yakima, Washington 98903  
509-248-4700

*Tveten Motor Company*  
45th and Pacific Avenues  
Tacoma, Washington 98408  
206-472-1600 or 472-7112

*Spokane Travel Center*  
N. 216 Dyer Road  
Spokane, Washington 99206  
509-535-3675

**West Virginia**

*Airstream by Stanley*  
1400 N. Eisenhower Drive  
Box 1545  
Beckley, West Virginia 25801  
304-252-6121

*Don's Travel Trailers, Inc.*  
459 Winfield Road  
St. Albans, West Virginia 25177  
304-727-2153

**Wisconsin**

*Northside Trailer Sales, Inc.*  
N56 W13180 Silver Spring Road  
1 mi. W. of Hwy 100 on Silver Spring Rd.  
Menomonee Falls, Wisconsin 53051  
414-781-9646 or 781-9647

*Sweet Trailer Sales*  
US 2 and US 51  
Hurley, Wisconsin 54534  
715-561-4887

*Motor Vacation Unlimited of Wisconsin*  
Route 2, Box 201  
Edgerton, Wisconsin 53534  
608-884-3396

**Wyoming**

*Bundy's Marine and Ski*  
3201 CY Avenue  
Casper, Wyoming 82601  
307-237-2509

**Canada**

*Barber Motors, Ltd.*  
19 2nd Street  
Weyburn, Saskatchewan  
306-842-5421

*Can-Am Trailers Ltd.*  
Box 370  
Hwy 4, 1/2 mile N. 401, Exit 19  
Lambeth, Ontario N0L 1S0  
519-652-3284

*Claynor Trailer Sales*  
4053 208th Street  
Langley, B.C. V3A 2H3  
604-530-9141

*Go Camping Limited*  
Route #4, Highway 7  
Brampton, Ontario L6T 3S1  
416-794-0031

*Maurice Gareau, Inc.*  
7695 Henri-Bourassa E. Blvd.  
Montreal, Quebec H1E 1N9  
514-321-7933

*Kanata Trailer Sales*  
Div. of K. Dilawri Automobiles, Inc.  
Highway 7, Box 900  
Stittsville, Ontario  
613-836-1421

*Pik-A-Dilly Trailer and Marine Sales, Ltd.*  
34th Street & Victoria Avenue  
Brandon, Manitoba R7B 0M0  
204-728-8570

*Totem Trailers, Ltd.*  
1035 Howard Road  
Burlington, Ontario  
416-632-0703

*Travel Trailers Southern*  
2620A Barlow Trail, N.E.  
Calgary, Alberta T1Y 1A1  
403-285-8666

*Travel Trailers Western, Ltd.*  
5934 104th Street  
Edmonton, Alberta T2N 2K3  
403-434-6555 or 434-6939

*Twin City Trailer Sales, Ltd.*  
Dartmouth Highway, Box 395  
Bedford, Halifax Co., Nova Scotia  
B0N 1B0  
902-835-8375

# Wally Byam Stores

To make trailering more enjoyable, there are Wally Byam Stores established at the majority of Airstream dealers. All Airstream dealers have the opportunity of purchasing for you the necessary equipment which would enable you to enjoy your new Airstream trailer to the utmost. The Wally Byam Stores authorized dealerships stretch from coast to coast, and these dealers stock hundreds of items which are tested and approved by travel experts. Be sure and get a Wally Byam Stores Catalog from your dealer or write to:

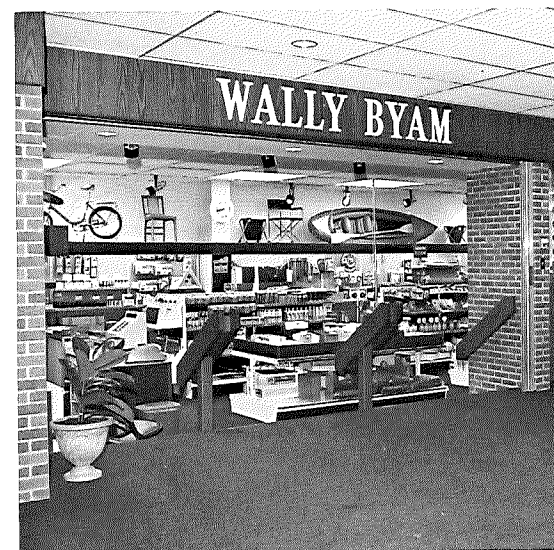
## Wally Byam Stores

Ohio Building  
Ohio Avenue  
Sidney, Ohio 45365

The following is a list of equipment we recommend:

1. First aid kit
2. Flashlight
3. Emergency road flares
4. Pop rivets (3 sizes) plus pop rivet gun
5. Battery booster cables
6. Tire gauge (up to 100 lbs. P.S.I.)
7. Hitch ball lube
8. Small bi-directional spirit level
9. Heavy-duty turn signal flasher
10. Leveling ramps and chocks to fit against and under tires for leveling, and to prevent trailer from moving while parked

11. One 50 ft., one 25 ft. length of 5/8" high pressure water hose, spare rubber washers and two "y" connections with caps which enable two trailers to be hooked up to one faucet
12. Two plastic pails for carrying fresh water
13. Quick disconnect garden hose coupling
14. One 10 ft. or 20 ft. sewer hose and coupler
15. One rubber sewer elbow, plus two 2-1/2 to 3-3/4 adjustable hose clamps
16. One Thetford sewer hose adaptor (elbow or straight)
17. One 1/2 gal. holding tank cleaner and deodorizer
18. 25 ft. electric cord (#12-3 wire)
19. Cord adapter, 30-15 amp
20. Spare fuses & light bulbs, refer to pages 86 & 87
21. Can of Spra-Kleen
22. Short handled shovel (G.I. type, Army surplus)
23. One 10 gal. Tote Tank



# Tow Car Equipment

**If you plan to buy a new car to tow your Airstream, we suggest that you include in your purchase the trailer towing options offered by most automobile manufacturers.** These include such things as a heavy duty generator and radiator, heavy duty springs and shock absorbers, automatic transmission cooler, heavy duty fan, heavy duty flusher unit and others, depending on the make of the vehicle.

Transmissions may be manual or automatic, but an automatic transmission will prolong your car's engine life and does a better job of controlling engine loads than the average driver using a manual shift.

Having adequate power is very important when considering the purchase of a new car or the trailer towing capability of your present one. Emission controls that are required by the Federal Government have reduced overall engine power. To determine generally what the tow capability of your car is, divide the total weight of your trailer by the cubic inch displacement of your automobile engine. This ratio should be between 10 and 20 pounds of trailer weight per cubic inch of engine displacement with 15 pounds per cubic inch considered optimal. For example, with a 31' Airstream weighing 7000 pounds totally loaded for travel and a car with 400 cubic inch displacement engine, divide 7000 by 400 giving a value of 17.50 pounds of trailer

weight per cubic inch engine displacement. This is very close to the optimal value and the automobile should have adequate power for towing the trailer. Remember that engine power is only one indication of the car's towing capabilities; the axle ratio and cooling capabilities certainly must be considered. We suggest you review the owner's manual of your present car and discuss your automobile towing capabilities with your Airstream dealer and your automobile dealer.

Inspect your vehicle's hitch regularly for loose bolts or nuts, cracked welds, loose ball mounts, worn parts, etc.

The majority of new trailerists carry more food and other supplies than really needed. Remember that every item you take along is one more thing to stow and adds weight to the total load you must pull. Consolidate items in shelves, lockers, and in the refrigerator. It is better to have one full and one empty locker than two half empty ones. Special care must be taken not to overload the front and rear ends of the trailer.

See tire section for correct tire sizes and pressures for your trailer and load on page 26.

# Brakes

The **Excella-Vac disc brake system** is operated by 12 volt negative ground current and engine vacuum from your tow vehicle. The system's controller and trailer disc brakes improve brake balance, braking control, reliability, and reduce brake fade from high speed stops or frequent brake application.

Disc brake components consist of a controller, power brake booster, brake release valve, disc brake calipers, and hub and rotor. Tow vehicle's and trailer's vacuum lines, brake hoses and brake lines should be checked periodically for abrasion and signs of leakage at fittings.

The **Excella-Vac** system controller furnished in your disc brake tow vehicle kit must be installed in your tow vehicle for proper brake operation. The controller is activated when you apply the brakes of the tow vehicle. This sends a modulated electrical signal to the power **brake booster** assembly located on the tongue. Trailer brakes may be applied manually, independent from your tow vehicle brake system, by moving the controller's lever to the right. (see photo)

**Note:** The tow vehicle's engine should be warm (near operating temperature) to insure maximum braking.

A **Trailer brake sensitivity lever** located on the top of the controller (see photo) provides adjustment to synchronize the trailer brakes with your tow vehicle's

brakes. It is designed to balance the trailer brakes with your car brakes. Move the lever away from you to increase or toward you to decrease the sensitivity of your trailer brakes. Set the sensitivity adjustment to the maximum setting, then reduce sensitivity setting as required to obtain smooth braking.

There are **two indicator lights** on your controller. During brake application, the green light glowing indicates normal system operation. A red light will glow if the brake electrical wiring is faulty. Loss of electrical input to your controller will be indicated by neither light glowing when brakes are applied.

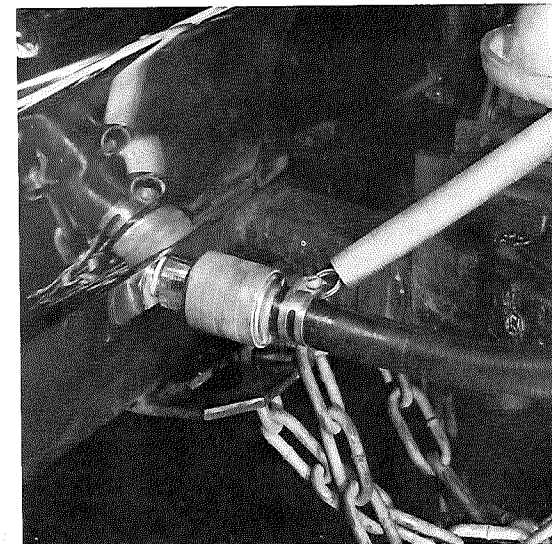
## Do not use a selective resistor.

A **vacuum line assembly** furnished in your disc brake tow vehicle kit must be installed in your tow vehicle, which provides vacuum to the power brake booster assembly located in your trailer. Vacuum is supplied to the trailer by coupling the trailer vacuum hose (see photo) to tow vehicle vacuum connector. To couple, push knurled coupling sleeve forward, firmly insert trailer's vacuum hose fitting and pull sleeve back. Check for proper locking by firmly pulling trailer's hose fitting.

**Important:** A coupling plug must be inserted in the tow vehicle's vacuum connector, when the trailer is disconnected. Operating your engine without the plug will result in a vacuum leak. This may re-



*Excella-Vac System Controller*



*Trailer Vacuum Hose Connection*

sult in engine misfiring, inoperative vacuum boosted accessories (brakes, emissions, etc.) and engine damage. An extra plug is supplied in the kit.

The **power brake booster** located on the tongue behind the L.P.G. tanks supplies hydraulic pressure to the disc brake calipers. The fluid level in the booster's master cylinder (see photo) should be checked twice a year. If necessary, add fluid to bring level to within  $\frac{1}{4}$  inch of the top of the reservoir. With disc brakes, fluid level can be expected to fall as the brake pads wear. Only brake fluid conforming to DOT 3 should be used. Use only fresh brake fluid that has been in a tightly closed container to avoid contamination from foreign matter or moisture.

When the **trailer vacuum hose** is disconnected from the tow vehicle, the trailer brakes are automatically applied. This provides break-away protection should the trailer break away from the tow vehicle. Disconnecting the supply line engages the trailer brakes. The trailer brakes must be disengaged by pushing and holding knob on brake release valve for 10 seconds. (see photo) Blocking or chocking wheels is necessary when parking your trailer. Do not use trailer brakes as parking brakes by disconnecting the trailer vacuum line.

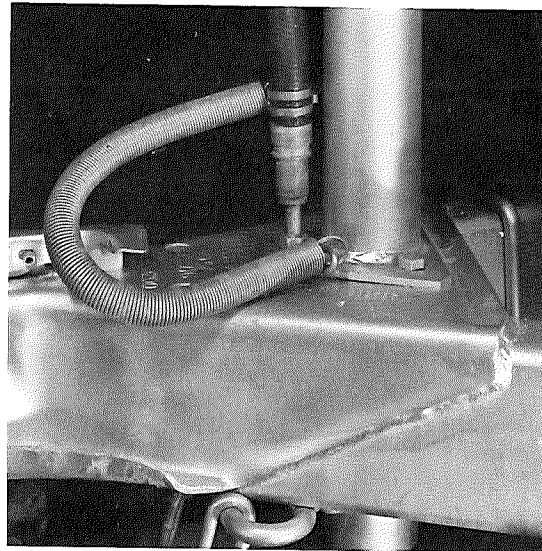
The self-adjusting **disc brake calipers** should be inspected for wear any time



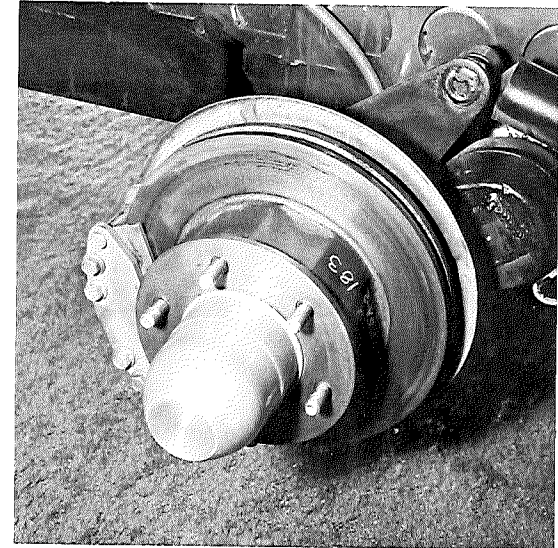
*Power Brake Actuator and Breather*



*Brake Release Knob*



*Trailer Vacuum Hose Storage*



*Disc Brake Calipers, Hub and Rotor*

the wheels are removed for tire rotation, wheel bearing maintenance, etc. The lining will need replacement if there is evidence of brake fluid leakage or if there is less than  $\frac{1}{16}$ " between the liner and liner's steel backing plate. See your Airstream dealer for all trailer braking service.

# Loading

For over 40 years, Airstream has been building trailers and has rarely found an instance where people have overloaded their trailer. Because it can happen we are giving you instructions for weighing your trailer. We are also providing you with an alternate method of determining the weight of your trailer without the use of scales. The following weight information and form will help you determine the actual weight of your trailer, with all its options and variable weights, and how much personal cargo weight can be added, staying within the weight ratings of your trailer.

Per Federal regulations, your trailer is placarded on the front roadside area with a gross vehicle weight rating and a gross axle weight rating. The gross vehicle weight rating is the maximum the trailer can weigh when it is being towed. The gross axle weight rating is the maximum load that can be on each axle when the trailer is being towed.

The **Dura-Torque axle** is designed to last the life of your trailer without service, except for lubrication of the wheel bearings. **Under no circumstances should welding be done on or near the axle.**

The diagrams on the following pages illustrate the use of scales in determining (1) your trailer's total weight, (2) weight on axle assemblies and (3) weight on tongue.

MFD. BY: AIRSTREAM INC.	
DATE OF MFR.	1 / 78
G.V.W.R.	8500
G.A.W.R. FRONT	4000 WITH 7.00x15
TIRES,	7.0x15 RIMS, AT
60	PSI COLD SINGLE
REAR	4000 WITH 7.00x15
TIRES,	7.0x15 RIMS, AT
60	PSI COLD SINGLE
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.	
V.I.N.	E31 D8-S1103
TYPE:	TRAILER

Gross Vehicle Weight Rating

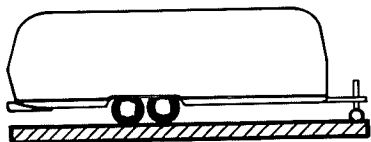
The allowable personal cargo, and placement within the trailer, may be determined by the following methods.

Before weighing trailer **add all trailer's variable weights** which are full water tank, LPG tanks and water heater.

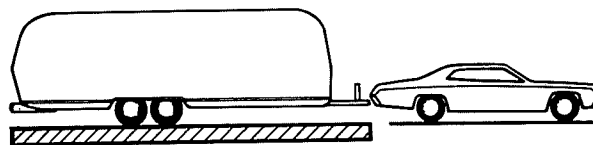
**Note:** The variable weights of the main and auxiliary holding tanks are not used because, under typical usage, if the water tank is full, there is storage capacity in the holding tanks. As the water tank is emptied, the holding tanks are filled.

**Remove personal cargo** which includes food, clothing, kitchen utensils, etc. from trailer. Your trailer is now ready for weighing.

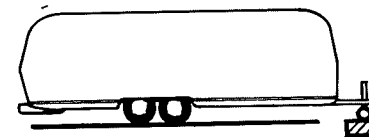
## Trailer Weighing



**1. Trailer's Total Weight**  
(cannot exceed G.V.W.R.)



**2. Trailer's Weight on Axle Assemblies**  
(cannot exceed G.A.W.R.)



**3. Weight on Trailer's Tongue**

The **trailer's total weight** is determined by placing the trailer, without tow vehicle, on a scale. This weight indicates your trailer's total weight without personal cargo. The allowable personal cargo that you add to your trailer **shall not exceed** the difference between the Gross Vehicle Weight Rating (G.V.W.R.) and this weight. Example: if the G.V.W.R. rating on the placard is **8500 lbs** and the trailer's total weight is **7500 lbs**, your personal cargo may not exceed 1000 lbs ( $8500 - 7500 = 1000$ ).

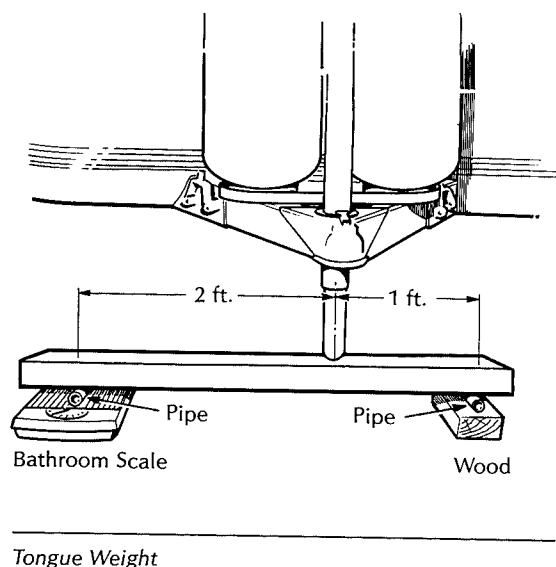
The **allowable personal cargo**, determined above, must be distributed in your trailer in such a manner that the **Gross Axle Weight Rating (G.A.W.R.)** is not exceeded.

To determine this, it is necessary to load all of your allowable personal cargo (example above 1000 lbs total) and variable weights. Then hitch trailer to tow vehicle with load equalizing hitch properly adjusted, see diagram page 27.

Place trailer on scale with both axles only on scale, see (2). If the weight on the axles exceeds the axle system G.A.W.R. then some personal cargo must be redistributed forward in order to place some of this weight on the tongue.

The **tongue weight** should be between 10%-15% of the trailer's total weight but **must not exceed 1000 lbs**. Some tow vehicle manufacturers may restrict the amount of tongue load to a lower value. To determine tongue load, unhitch tow

vehicle and place tongue hitch post on scale, see (3). The trailer must be properly loaded, as determined above, with your allowable personal cargo and variable weights.



A scale which has a lower weight limit than your tongue load, such as a bathroom scale, may be used to check the tongue weight by using the following method (see illustration):

Place a piece of wood of approximately the same thickness as the bathroom scales on the ground in line with the trailer hitch jack as shown. It should be so spaced that a short piece of pipe or other round piece will lay exactly one foot from the center line of the jack extension. Place the scales so that another round piece can be exactly two feet from the center line of the jack extension in the other direction. Place a 4x4 on the two round pieces and screw the jack extension down on the top of the 4x4 until the tongue of the

trailer is supported by it. Multiply the scale reading by three. This will be the tongue weight of your trailer. If you exceed the capacity of the bathroom scales, increase the two foot dimension to three or four or more feet but always multiply the scale reading by the total number of feet between the wood and scales.

**Caution:** Be sure trailer is level when you read scales.

**An alternate method for determining the weight of your trailer**, without the use of scales, is by using the following information and form.

Before you fill in the blank form that pertains to your trailer, please read the sample form, page 22, to see what type of information will be needed.

First enter the model length, type of beds, and type of bathroom of your trailer on the first line (i.e. **Excella Twin Rear Bath**).

#### Column A

Column A represents the Total Maximum Personal Cargo weight that can be added to your trailer. Personal Cargo includes food supplies, clothing, other personal items, etc. Find the Factory Weight of your trailer, Chart A, page 24 and enter it across from ITEM 1 Column A (Factory Weight = weight without options and variable weights (i.e. **5634 lbs.**).

Next fill in the total weights of the options and variable weights with which your trailer is equipped. This information is on Charts B and C, page 25. Add all of the weights together and this total becomes ITEM 2, Column A (i.e. **736 lbs.**).

Next add ITEM 1 and ITEM 2. This becomes ITEM 4, Column A (i.e. **6370 lbs.**). This is the sum total of your trailer's Factory Weight plus the Options and Variable Weights.

Next enter in ITEM 5, Column A (i.e. **8500 lbs.**), your trailer's Gross Vehicle Weight Rating (G.V.W.R.). This information is on the placard located on the front road side area of your trailer which corresponds to information on Chart A, page 24. The Gross Vehicle Weight Rating is the maximum the trailer can weigh when it is being towed. Next subtract ITEM 4, Column A from ITEM 5 Column A; this amount indicates the Total Maximum Personal Cargo that can be added to your trailer (i.e. **2130 lbs.**). Under no circumstances shall the G.V.W.R. be exceeded.

#### Column B

Column B represents the Recommended Personal Cargo that can be added to your trailer's tongue. Find the Factory Tongue Weight of your trailer and enter it in ITEM 1 Column B (Factory Tongue = weight without options and variable weights (i.e. **713 lbs.**). This information is on Chart A page 24. Column B has +

weight and — weight. Due to the location of optional items within the trailer, their weight will either have a + weight or — weight effect on the tongue. If the option is behind the axle system, or rear of trailer, it will tend to have a — weight, or lifting effect on the tongue; if the option is forward of the axle system, or the front of the trailer, it will have a + weight or loading effect on the tongue. Next fill in + weights or — weights of the options and variable weights with which your trailer is equipped, indicated in the Tongue Weight Columns on Chart B, or C.

Next total both the + weight (i.e. **94 lbs.**) and — weight (i.e. **32 lbs.**) columns and find the difference between the two columns; this becomes ITEM 2 Column B (i.e. + **62 lbs.**). Next add ITEM 1 Column B and ITEM 2 Column B; this becomes ITEM 4 (i.e. **775 lbs.**). This is the total of your trailer's Factory Tongue Weight, plus the weight of the Options and Variable Weights on the tongue. Next enter in ITEM 5 Column B  $12\frac{1}{2}\%$  of your trailer's G.V.W.R. or 1000 lbs., whichever is smaller (i.e.  $.125 \times 8500 = 1063$ , therefore use **1000 lbs.**). This information is located on Chart A, page 24.

Next subtract ITEM 4 Column B from ITEM 5 Column B and the amount indicates the amount of Recommended Personal Cargo that can be added to your trailer's tongue (i.e. **225 lbs.**).

The maximum tongue load must not exceed 1000 pounds. Some tow vehicles may restrict the amount of tongue load to a lower value. The tongue load is a total of the weight in ITEM 4 Column B plus your personal cargo.

### Column C

Column C represents the Maximum Personal Cargo that can be added to your trailer's axle system. Find the Factory Axle Weight of your trailer and enter it in ITEM 1 Column C (i.e. **4921 lbs.**—Factory Axle Weight = weight without options and variable weights). This information is on Chart A page 24. Next fill in the axle system weights of the options and variable weights with which your trailer is equipped from the Axle System columns on Chart B or C, page 25. Add all of the weights together and this total becomes ITEM 2, Column C (i.e. **674 lbs.**).

Next calculate 34% of ITEM 5 Column B (i.e.  $.34 \times 1000 = 340$ ). This becomes ITEM 3 Column C and represents the amount of tongue weight that is transferred to the trailer's axle system when properly hitched with a load equalizing assembly. (The remaining 66% is transferred to the tow vehicle.) Next add ITEM 1 Column C, ITEM 2 Column C, and ITEM 3 Column C; this becomes ITEM 4 Column C (i.e. **5935 lbs.**). This is the sum total of your trailer's Factory Axle Weight, the weight of the Options and Variable Weights on the axle system; and 34% of the tongue weight. Next

enter in ITEM 5 Column C, the sum of your trailer's Gross Axle Weight Rating (G.A.W.R.—i.e. **4000 + 4000 = 8000 lbs.**).

This information is on the placard on the front roadside area of your trailer which corresponds to information on Chart A page 24.

The Gross Axle Weight Rating is the maximum load that can be carried on the axle system when the trailer is being towed. Next subtract ITEM 4 Column C from ITEM 5 Column C. The remainder is the amount of total Maximum Personal Cargo that can be added to your trailer's axle system (i.e. **2065 lbs.**).

Under no circumstances shall the G.A.W.R. be exceeded.

## Sample Form

	Column A		Column B			Column C	
Model: EXCELLA TWIN REAR BATH	Maximum Personal Cargo Total (includes axle systems & tongue)		Recommended Personal Cargo on Tongue			Maximum Personal Cargo per Axle System	
Factory Weight (without options and variable weights)	Item 1	5634					
Factory Axle Weight (without options and variable weights)	----->					Item 1	4921
Factory Tongue Weight (without options and variable weights)	->----->		Item 1	->	713		
<b>Options:</b>							
Bunk Bed (each)	90		+Weight	-Weight			
Microwave Oven	66		8	-10		100	
Spare Tire Bracket	13		10			3	
Spare Tire	52		40			12	
L.P.G. 10 Gal. (tank and liquid)							
<b>Variable Weights:</b>							
Water Heater	50			-22		72	
Water Tank	425					425	
L.P.G. Std. 7½ Gal. (tank and liquid)	40		36			4	
Item 2	Total	736 ->	736	+94	-32 = 62	674 ->	674
Item 3	34% of Item 5 Column B ----->						340
Item 4	Items 1 & 2	Total	6370	Add Items 1 & 2	775	Add Items 1, 2, 3	5935
Item 5	G.V.W.R.		8500	Enter 12½% G.V.W.R. or 1000 lbs. whichever is smaller.	1000	G.A.W.R.	8000
Enter Item 4 and subtract from Item 5		- 6370		- 775			-5935
Maximum Personal Cargo		2130					
Recommended Personal Cargo on Tongue		>----->		225			
Maximum Personal Cargo per Axle System		>----->		2065			

	Column A		Column B			Column C	
Model:	Maximum Personal Cargo Total (includes axle systems & tongue)		Recommended Personal Cargo on Tongue			Maximum Personal Cargo per Axle System	
Factory Weight (without options and variable weights)	Item 1						
Factory Axle Weight (without options and variable weights)	— — → — — → — — → — — → — — →					Item 1	
Factory Tongue Weight (without options and variable weights)	→ — — → — — →		Item 1	— →			
<b>Options:</b>			+Weight	-Weight			
Bunk Bed (each)							
Microwave Oven							
Spare Tire Bracket							
Spare Tire							
L.P.G. 10 Gal. (tank and liquid)							
<b>Variable Weights:</b>							
Water Heater							
Water Tank							
L.P.G. Std. 7½ Gal. (tank and liquid)							
Item 2	Total	→	+	-	=	→	
Item 3	34% of Item 5 Column B — — → — — → — — → — — → — — →						
Item 4	Items 1 & 2	Total		Add Items 1 & 2		Add Items 1, 2, 3	
Item 5	G.V.W.R.		Enter 12½% G.V.W.R. or 1000 lbs. whichever is smaller.			G.A.W.R.	
Enter Item 4 and subtract from Item 5		—				—	
Maximum Personal Cargo							
Recommended Personal Cargo on Tongue		→ — — → — — →					
Maximum Personal Cargo per Axle System		→ — — → — — → — — → — — →					

## Chart A—Weights and Ratings

		Gross Vehicle Weight Rating G.V.W.R.	Factory Weight Without Options or Variable Weights	Allowable Additional Total Weight Incl. Personal Cargo	Gross Axle Weight Rating G.A.W.R. (Axle System)	Factory Axle Weight (Axle System)	Allowable Additional Weight (Axle System)	Factory Tongue Weight Without Options or Variable Weights
<b>Rear Bath</b>	<b>T</b>	8500	5634	2786	8000	4921	3079	713
	<b>D</b>	8500	5704	2796	8000	4980	3020	704
<b>Center Bath</b>	<b>T</b>	8500	5610	2890	8000	4900	3100	710
	<b>D</b>	8500	5600	2900	8000	4890	3110	710

\*Allowable additional weight includes all options and accessories, L.P.G. water, waste, food supplies, clothing, other personal cargo, etc.

T-Twin Bed Models  
D-Double Bed Models

## Chart B—Rear Bath

Optional Equipment & Variable Weight	Total Weight	Twin		Double	
		Axle System	Tongue	Axle System	Tongue
Bunk Bed	45 each	50	-5	50	-5
Spare Tire Bracket	13	3	10	3	10
Spare Tire	52	12	40	17	40
Microwave Oven	66	58	8	58	8
Water Tank—Liquid Only	425	425	0	425	0
Water Heater—Liquid Only	50	72	-22	72	-22
L.P.G. 7½ Gal. Tank (Std.)—Liquid Only	40	4	36	4	36
L.P.G. 10 Gal. Tank (Opt.) & Liquid	66	7	59	7	59
Lounge Chair	28	21	7	21	7

## Chart C—Center Bath

Optional Equipment & Variable Weight	Total Weight	Twin		Double	
		Axle System	Tongue	Axle System	Tongue
Spare Tire Bracket	13	3	10	3	10
Spare Tire	52	12	40	17	40
Microwave Oven	66	58	8	58	8
Water Tank—Liquid Only	425	425	0	425	0
Water Heater—Liquid Only	50	61	-11	61	-11
L.P.G. 7½ Gal. Tank (Std.)—Liquid Only	40	4	36	4	36
L.P.G. 10 Gal. Tank (Opt.) & Liquid	66	7	59	7	59
Lounge Chair	28	21	7	21	7

Liquid weights indicate full container. \*The total weight is the difference between the standard and optional tanks plus liquid.

# Tires

Your Excella is equipped at the factory with steel radial tires. Airstream dealers cannot make adjustments to tires. This must be done by a dealer who handles that particular brand. If you ever have tire problems, check the local telephone directory for the nearest dealer.

To get the maximum performance from your tires check the air pressure often, but only when the tires are cool. Never bleed out air immediately after driving.

It is also important to periodically check on the tightness of lug bolts. They should be tightened to a torque of 90-95-ft.-lbs. on both the steel and forged aluminum wheels. Care should be taken at all times when handling the forged aluminum wheel because of possible damage to its appearance.

In a warm climate, park out of the sun whenever possible. In desert regions use the tire covers to prevent ultraviolet deterioration to tires.

**To change a tire with a jack,** see the label affixed to the underbelly just to the rear of the wheels. This indicates the proper jack placement. On tandem axle models a flat tire may be changed without the aid of a jack. Drive the unit up a ramp 8" wide, 6" high and about 3 feet long at the base so that the flat tire is hanging free. (see photo)  
All tire, wheel, hub and drum assemblies are dynamically balanced at the factory.

**Be sure to rebalance the tire, wheel, hub and drum assemblies each time a tire is changed or rotated.**

In an emergency remove the flat tire. The independent suspension of the Dura-Torque Axle allows a four wheel unit to be safely towed on three wheels for a short distance (100 miles maximum) and only at a low speed (30 MPH). Be especially cautious in crossing holes or dips in the road. It is good practice to set your rear view mirrors so that you can observe your tires at all times.

## Tire Load and Inflation Pressure Notes

1. Tire inflation pressure may increase as much as 6 pounds per square inch (PSI) when hot.
2. Cold tire inflation pressure: after vehicle has been inoperative for 3 hours or more, or driven less than 1 mile. Hot tire inflation pressure: after vehicle has been driven 10 miles or at speeds of more than 60 miles per hour.

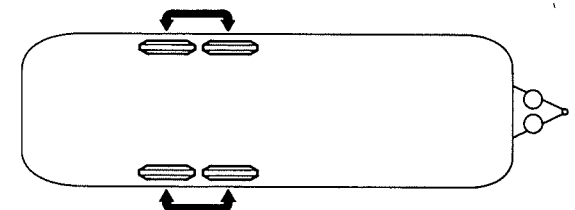


*Tire Changing*

## Minimum Tire Pressure (cold inflation)

Tire Size	Load Per Axle (pounds)	Pressure
7.00-15XC	up to 2820	35 p.s.i.
Steel radial	2820-3130	40 p.s.i.
Load range D	3130-3440	45 p.s.i.
	3440-3600	50 p.s.i.
	3600-3780	55 p.s.i.
	3780-4000	60 p.s.i.

## Tire Rotation (steel radial)



# Hitching Up

Hitching up your Airstream trailer is something that will become almost second nature with practice. The following section includes proper hitch load distribution and a procedure for hitching up.

Your electric jack makes hitching and unhitching a much easier operation. A two position toggle switch on the underside of the jack motor operates the jack. Emergency manual operation is made possible by removing the electrical jack head and engaging a manual crank handle in the post coupler.

## To Remove the Electrical Head

1. Disconnect trailer battery.
2. Disconnect jack motor positive lead from solderless connector located under "A" frame coupler.
3. Loosen two Allen Lock Screws securing jack head to jack post. Remove jack head. (NOTE: Use care when removing jack head lead wire from wire channel to prevent the sharp edges of the channel from cutting into the wire insulation.)

## To Install Electrical Head

1. With 12V lead temporarily connected, ground the jack head assembly to "A" frame and operate motor in a "lowering" direction until it stops.

2. Manually crank jack post clockwise until fully retracted. Turn crank one complete turn counterclockwise.
3. Reinsert motor electrical connection into wire channel and replace jack head on jack post. Make sure that drive pin on motor assembly is engaged in post coupler.
4. Tighten Allen Lock Screws, re-connect lead wires and stow under coupler assembly. Re-connect battery.

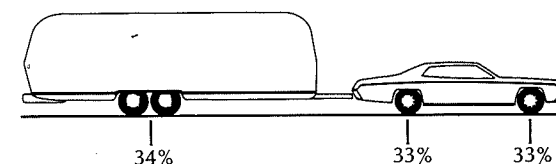
## Equalizing Hitch Load Distribution

When a trailer is hitched up properly to a tow vehicle, with a load equalizing hitch, 1/3 of the trailer's tongue weight will be on the trailer's axles and 2/3 will be transferred to the tow vehicle. 1/3 of this weight transfer will be carried by the front wheels and 1/3 by the rear wheels of the tow vehicle (see diagram). Thus, the tire loading of each wheel on the tow vehicle will be increased by 1/6 of the trailer's tongue weight. The tire air pressure of the tow vehicle should be increased to compensate for this additional weight. Refer to the tow vehicle owner's manual for this information.

The **tongue weight** should be between 10%-15% of the trailer's total weight but **must not exceed 1000 lbs.** and under no condition exceed the hitch rating. Some tow vehicle manufacturers may restrict amount of tongue load to a lower value.

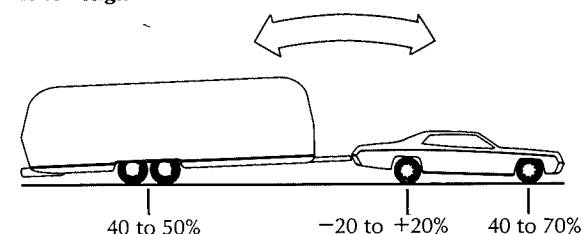
## Equalizing Hitch Load Distribution

### Proper Installation

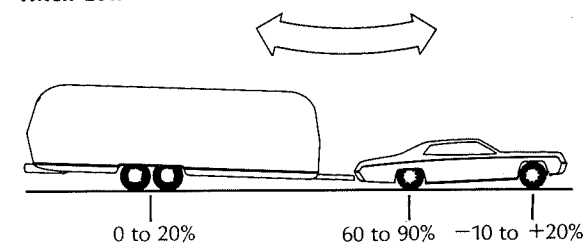


Percentage of Tongue Load distributed to car and/or trailer wheels

### Hitch High

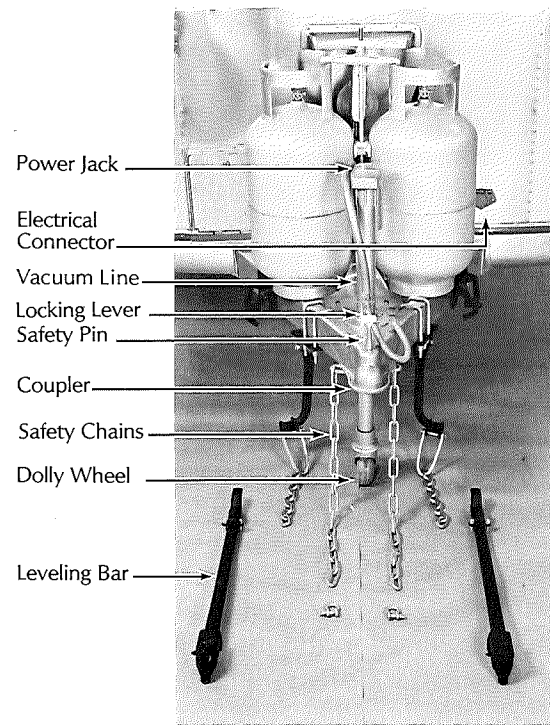


### Hitch Low



### Steps for Hitching Up

1. Jack up the trailer hitch until there is clearance for the **hitch ball** to slide under, remove safety pin and raise the **locking lever**. Back the car straight back to the hitch. This can best be accomplished through the use of pre-arranged hand signals with the help of another person, but if you are hitching up by yourself we recommend the use of a **hook-up view mirror**.
2. Lower the trailer hitch onto the hitch ball; then close the locking lever and insert safety pin.
3. Now raise the trailer and car to the full height of the hitch jack and then attach the **leveling bars**. Lower the car and trailer. The hitch ball should be level to slightly higher (see photo). Re-adjust leveling bars until this condition is correct. This will result in the best balance for towing and steering control as the weight equalizing hitch distributes the hitch load. Approximately 1/3 of the load is distributed onto the front wheels of the tow vehicle, 1/3 onto the rear wheels of the tow vehicle and 1/3 onto the trailer axle assembly. With proper hitch installation and hitching up the bar should have a noticeable amount of deflection or bending (see photo 3.d.). A little practice with your rig will teach you how far to pull up the bar, and you may wish to mark the chain links that match your rig. Always choose level ground for checking correct hook-up. For further information

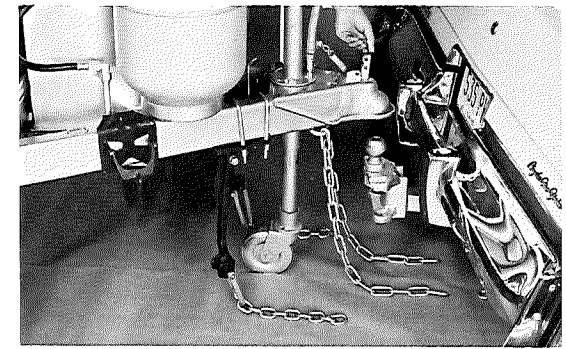


Hitching Up Equipment

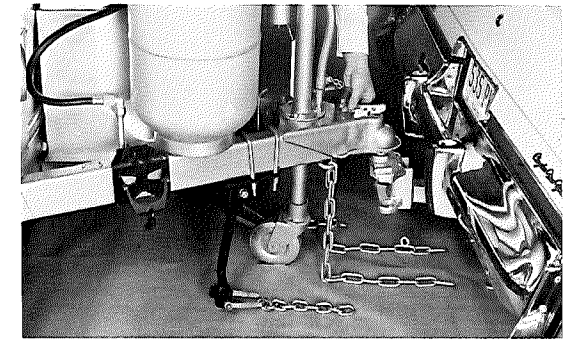
see hitch manufacturers' literature.

**Note:** If your car is equipped with adjustable load leveling air shocks, you must load the car first with typical luggage and passengers and bring it back to level. Then attach the trailer and adjust the load leveling bars. Otherwise the air shocks on your car will overload the rear wheels.

The hitch ball on your car should be installed at a height of 19-1/2" to the top of the hitch ball, measured when the car is loaded. A low hitch ball increases tail-



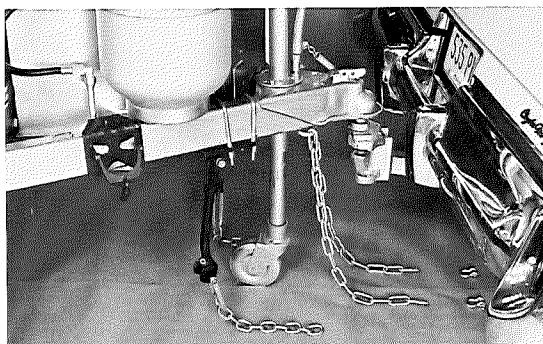
Hitching Up Step 1.



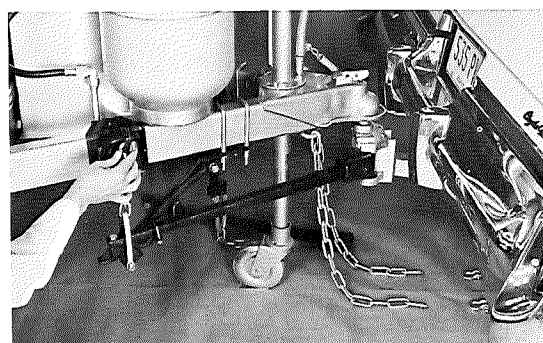
Step 2.

wagging tendencies by lowering the nose of the trailer thus changing the center of support for the trailer and reducing the weight on the front wheels of the car.

4. Plug in the electrical connector cord and check running, directional, and brake lights. The electrical connector cord should be completely removed and stored when not in use. Remove plug from tow vehicle's vacuum coupling and insert trailer's vacuum line plug. To couple, push knurled coupling sleeve forward, firmly insert trailer's vacuum hose fitting and pull



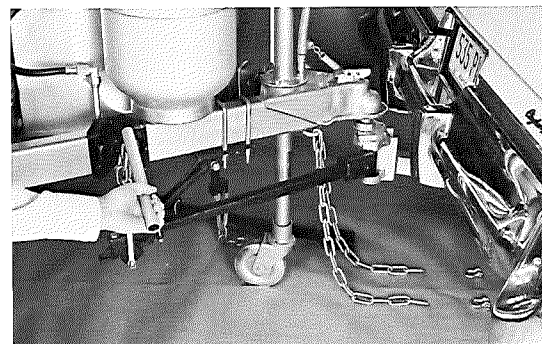
Step 3a.



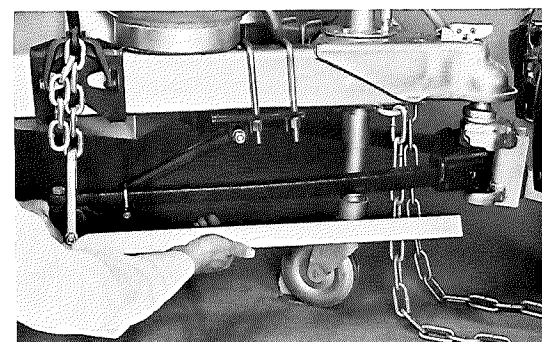
Step 3b.

sleeve back. Check for proper locking by firmly pulling trailer's hose fitting. Attach the safety chains to the welded portion of the hitch or the car's frame, but never to the removable ball mount. Cross the safety chains under the hitch.

5. Retract the hitch jack completely for maximum ground clearance. Remove the dolly wheel and jack pad, and stow them in the car's trunk, along with leveling jack and other gear used when stopped. Never tow your trailer with the jack down or the dolly wheel on. Check that the fold-away step is



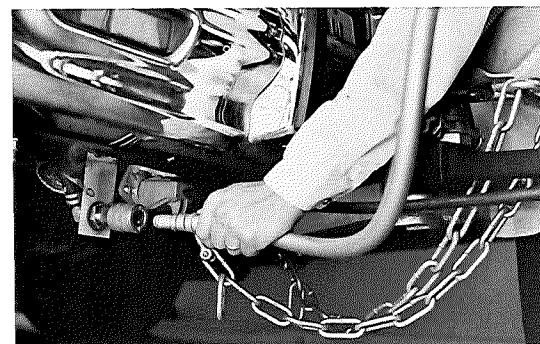
Step 3c.



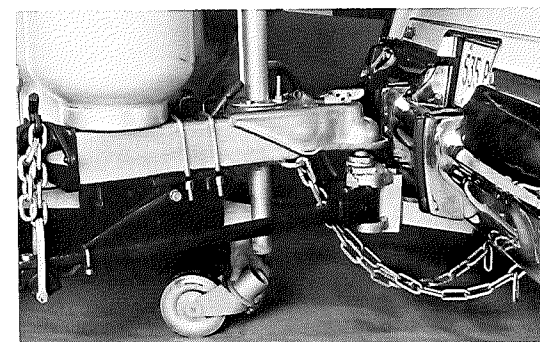
Step 3d.

up and that the main door is completely closed and locked for towing. If it is not locked the constant vibration of travel may cause it to open with possible damage.

6. Move the rig ahead about 50 feet and test the trailer brakes, then check the ground for forgotten objects. Regularly check the condition of your tires, air pressure, and the tightness of the lug bolts. For specific tire pressures refer to page 26.



Step 4.



Step 5.

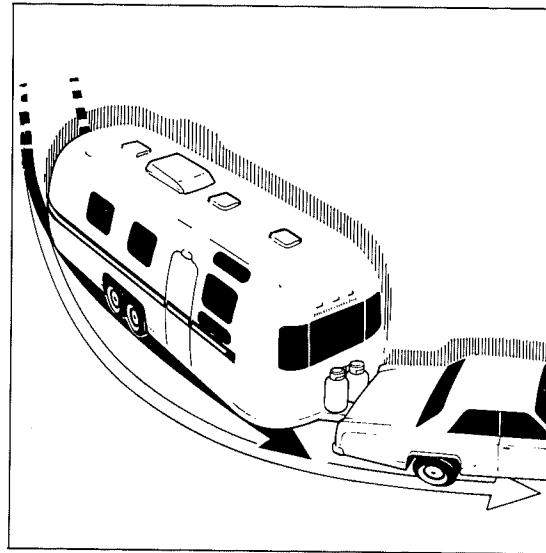
# Towing Tips

We want every Airstream owner to be a safe and courteous driver.

A few hours of towing practice in a large empty supermarket parking lot will make pulling your Airstream over the road much easier. Line out two corners for both left and right turns. You may also use these corners to practice backing and parking. **Observe that the tracks made by the trailer wheels are distinctly different from those made by your car.** Studying this will make it easier for you to correct mistakes. Truck or trailer type fender or door grip rear view mirrors are a must for maximum visibility and in most states they are required by law.

After thoroughly inspecting your hitch, brakes and tires you should be ready to tow. Check traffic, signal that you are about to pull away, and start slowly. Look often in your mirrors, and observe the action of the trailer, then carefully move into the proper lane of traffic. Remember that the trailer wheels will not follow the path of the car's wheels, therefore, **wider turns are necessary when turning to the left or to the right.**

**On freeways or expressways** try to pick the lane you want, and stay in it. Always maintain plenty of space between you and the car ahead, at least the length of the car plus trailer, for every ten miles per hour. Remember that in order to pass another vehicle, you will need longer to accelerate. You must also allow for the

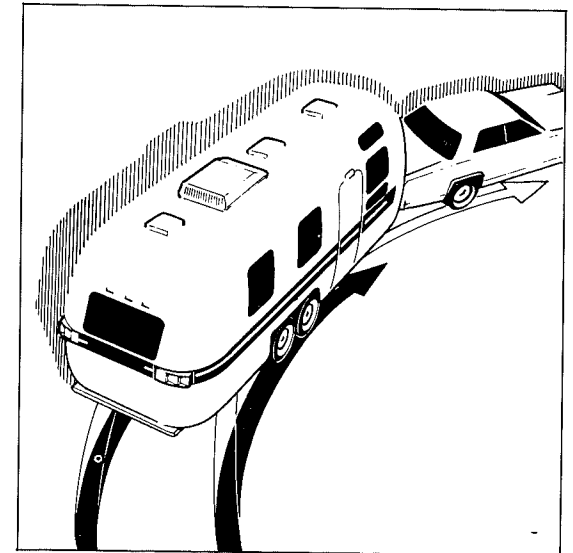


Tracking

length of the trailer when returning to the right hand lane.

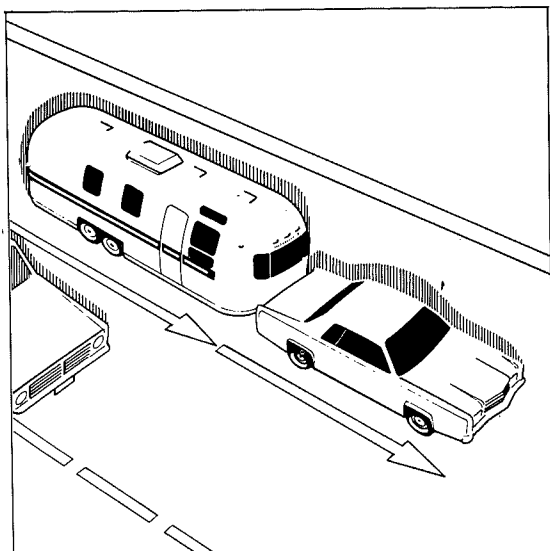
On a two lane road, cars will be lining up behind you because you travel at a lower speed. It is both courteous and sensible to signal, pull onto the shoulder, and let them pass. Your Airstream is designed to be towed easily at any legal speed, so if you are not careful you may be inclined to forget it is there.

The **brake controller** is activated when you apply the brakes of the tow vehicle. This sends a modulated electrical signal to the **power brake booster** assembly located on the tongue. Trailer brakes may be applied manually, independent from your tow vehicle brake system, by moving the controller's lever to the right.



**Note:** The tow vehicle's engine should be warm (near operating temperature) to insure maximum braking.

When trailering, you might encounter a temporary cooling system overload during severe conditions—such as hot days when pulling on a long grade, when slowing down after higher-speed driving, or driving long idle periods in traffic jams. If the hot indicator light comes on or the temperature gauge indicates overheat and you have your air conditioning turned on, turn it off. Pull over in a safe place and put on your emergency brake. Don't turn off the engine. Increase the engine idle speed. Lift the engine hood and check for fluid leaks at the radiator hoses, radiator or radiator overflow outlet. Check to see that all drive belts are

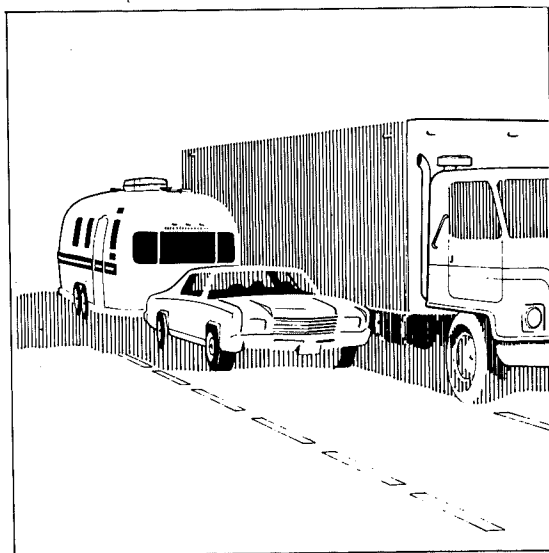


Passing

intact and the fan is turning. If you have a problem, have it fixed at the next opportunity. If there is no problem, light should go off or temperature should come down within one minute. Proceed on the highway a little slower. Ten minutes later resume normal driving.

Caution: Never open a radiator cap when the car is hot! Check the car coolant level when the car is cool.

**When going downhill in dry weather,** down shift so that engine compression will slow the whole rig down. Take dips and depressions in the road slowly and do not resume normal driving speeds until you are sure that the trailer wheels are clear of the dip.



**On slippery pavement** do not use engine drag to help slow down as this may cause the rear wheels of the car to skid. On icy pavement drive slowly and if you feel the car is skidding, gently apply the trailer brakes only. This will bring the car and trailer back into a straight line. Chains do not help trailer wheels.

**When driving in mud and sand** let the momentum carry the rig through. Apply power gently and use as little as possible. Stay in the tracks of the vehicle ahead and keep the car in the highest possible gear. If you do get stuck it is best to tow out both car and trailer together without unhitching.

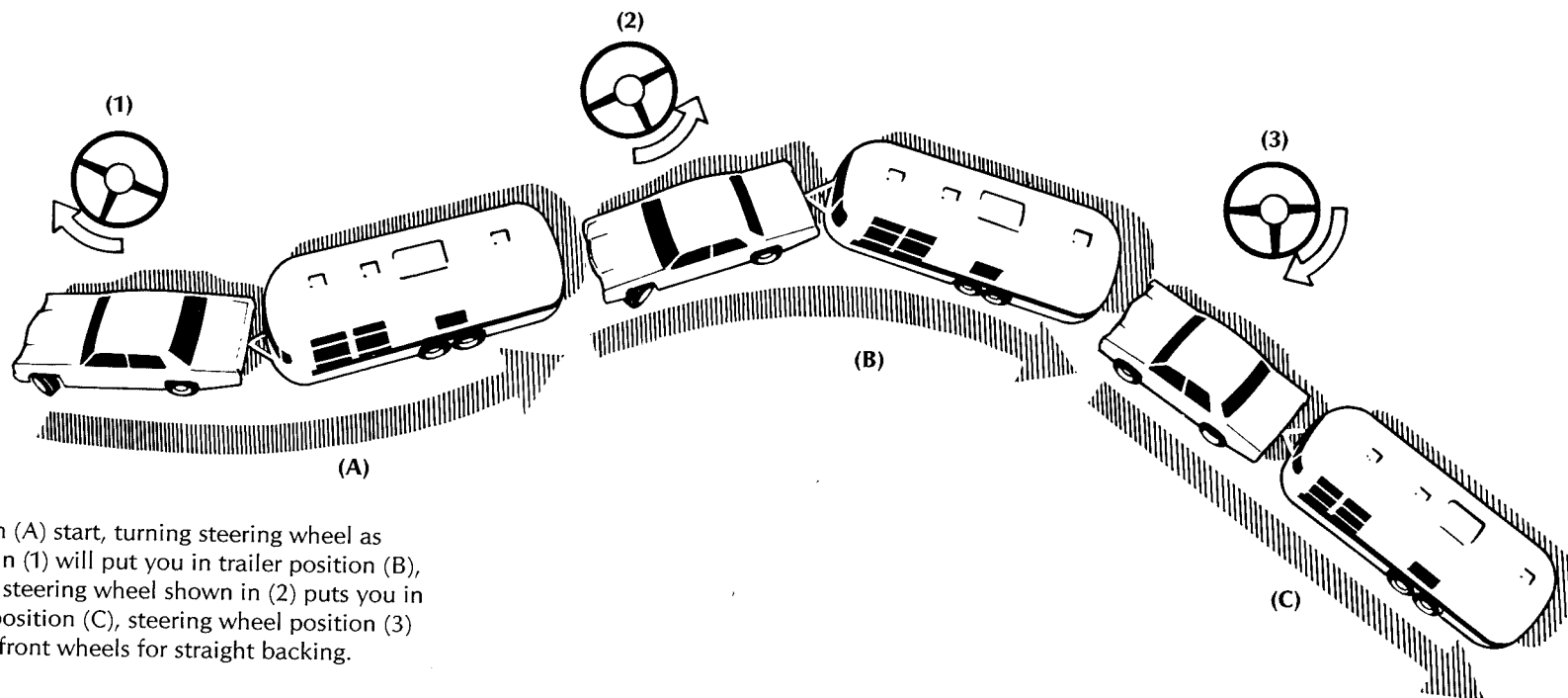
If you have to tow long distances over bad roads, the stones and gravel thrown

back by your tires will dent and scratch the aluminum finish of your Airstream. To prevent this, use masking tape to secure heavy sheets of cardboard to the lower front end of the trailer.

Despite the best hitch, you will notice that whenever a large bus or truck overtakes your rig the displaced air first pushes the trailer rear slightly to the right and then affects the front. It may be necessary to steer very slightly, momentarily, toward the bus or truck, to help compensate for the sway induced by the passing vehicle. Do not apply the vehicle brakes, as this can tend to exaggerate the situation. You may find, however, that briefly applying the trailer brakes with your manual control will help eliminate sway.

When stopping on a hill or slope, leaving your car in gear is not enough for stand-still-safety. **Chock the trailer wheels** to be double sure. Do not use trailer brakes as parking brakes by disconnecting the trailer vacuum line.

## Backing Up



Position (A) start, turning steering wheel as shown in (1) will put you in trailer position (B), turning steering wheel shown in (2) puts you in trailer position (C), steering wheel position (3) returns front wheels for straight backing.



Indicates steering direction

**In backing up**, the important thing to remember is to **do everything slowly** and to correct immediately if you see the trailer turning the wrong way. Concentrate on the rear of the trailer. With your car and trailer in a straight line, back up slowly and turn the bottom of the steering wheel in the direction you want the

trailer to go. Watch out the window or in the mirror until the rear of the trailer is pointing in the desired direction. Then turn the steering wheel in the opposite direction.

Your car will be following the trailer in an arc. Straighten the car and trailer by

turning the steering wheel more sharply, then when they are in line, straighten the steering wheel. **Always try to back to your left because the visibility is much better.** (See illustration.) When you don't make it on the first try it is usually much easier to pull forward to your original position and start over.

# Overnight Stop

Airstream owners have parked virtually every place imaginable from filling stations to farm lands. In time you will develop a knack for spotting wonderful little roadside locations by turning off the main highway and exploring.

There are many modern trailer parks including State, County and Federal parks with good facilities, where you may obtain hook-ups of electrical, water and sewer connections. Directories are published which describe in detail these parks and tell what is available in the way of services and hook-ups.

**On overnight or weekend trips**, chances are you will not use up the capacity of the sewage holding tank, deplete the water supply or run down the battery which supplies the 12 volt current.

**On a longer trip**, when you have stayed where sewer connections and utility hook-ups were not available, it will be necessary for you to stop from time to time to dispose of the waste in the holding tank and replenish the water supply. Many gas stations (chain and individually owned) have installed **sanitary dumping stations** for just this purpose. Booklets are available which list these dumping stations.

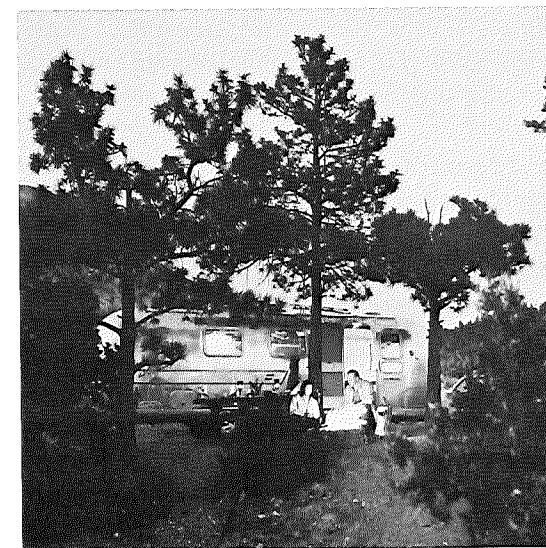
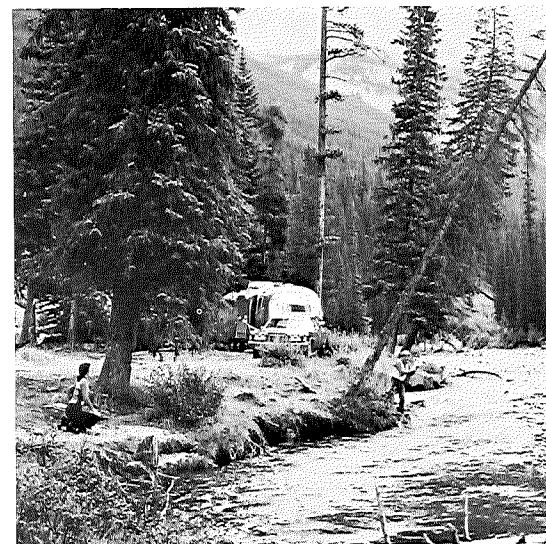
When stopping for the night your Airstream is built to be safely parked in any spot that is relatively level and where the ground is firm.

**Your facilities are with you, you are self-contained.** Unless the car is needed for transportation, it is not necessary to unhitch. Try to pick as level a parking spot as possible. **Stabilizing jacks or blocks** probably won't be required for an overnight stay; however if you put the jack pad on the hitch jack and run the hitch jack down to take the weight off the car's springs this will provide some stability. If you must park on a slope, **park facing downhill**; it is easier to level the Airstream this way.

All you need to do to enjoy the self-contained luxury of your Airstream is to:

1. Light the water heater and refrigerator pilots if required. See pages 56-66 for complete details on LPG system and gas operated appliances.
2. Turn on the range gas supply and light the pilot.

Before moving on, check your campsite, both for cleanliness and also to be sure you haven't left anything behind, turn off the gas supply petcock to the range and make sure everything is properly stowed. Use your Pre-Travel Check List on page 88 and you are ready for more travel adventure.



# Extended Stay

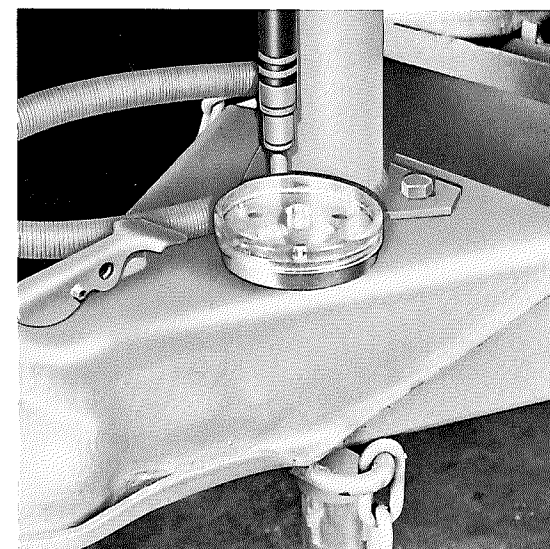
Making a long trip in your Airstream is not very different from making a weekend excursion. Since everything you need is right at hand you are at home wherever you go. When packing for an extended trip take everything you need, but only what you need.

When you plan to stay in the same place for several days, weeks, or months, you will want your trailer to be as level and steady as possible. Check the attitude of your Airstream with a small spirit level set on the inside work counter or the trailer hitch "A-Frame." If a correction is necessary then **you must level from side to side first**. This can be done most easily up a small ramp consisting of 2"x6" boards about four feet long and tapered at both ends. (See photo.) We do not recommend placing tires in a hole for leveling.

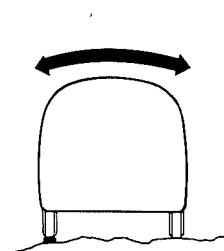
**Level from front to rear** by disconnecting the hitch from the car, putting the jack pad under the hitch jack and adjusting the jack up or down until you are level. Block or chock the wheels to keep the trailer from rolling. Use the wrench, located in the hose carrier, to lower the two **B.A.L. stabilizing jacks** on the low side. Bring the trailer to a level position side to side. Lower opposite stabilizing units to a firm position. **Note:** Whenever the trailer must be lifted with a jack as when changing a tire or leveling on very rough terrain, **always place the jack under the main frame rail**. A label is provided to indicate the proper position for the jack. **Never**



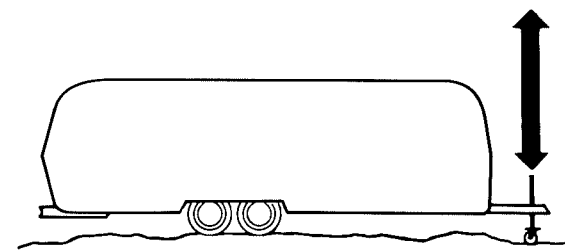
Trailer Leveling



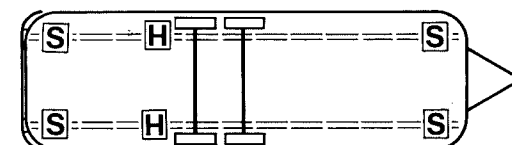
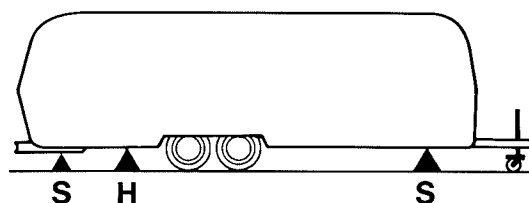
Spirit Level



1. Level from Side to Side



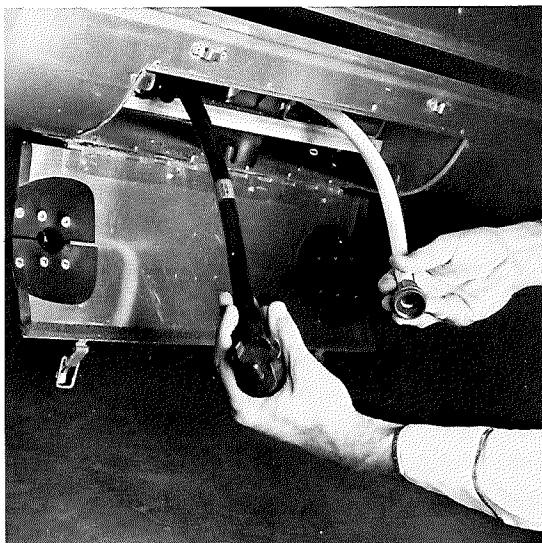
2. Level from Front to Rear



H—Hydraulic Jack Positions  
S—B.A.L. Stabilizers



B.A.L. Stabilizing Jack



City Water and Power Inlets



Waste Drain Hose Hook-Up (Center Bath)

### use stabilizing jacks to lift the trailer.

When you stay for extended periods where electric or water are not available, you must make regular checks on the condition of your 12 volt battery and the contents of your water tank. Try to conserve electricity. You can recharge your battery by hooking up the car/trailer electrical connector and running the car engine at a fast idle. 45 minutes per day should provide about 3-4 hours of power. Carry drinking water in a clean bucket to refill your tank. When your tank nears capacity, move to a dumping location.

**The water line connection for city water and electrical connection for 120 volt, 60 cycle city power is located on the road-**

**side of the trailer** in back of the wheels. Unlatch the access cover and pull the connections out to the desired length. They will automatically lock in this position. The access door can now be closed to prevent the entry of any foreign objects. On the electrical connection, be sure you have the wire **grounded** and have the **proper polarity** (see pages 66 and 72 for water and electrical system details).

To stow the electrical cable when leaving, unlatch the access cover, unhook the electrical cable from its connection, give a slight pull on the cable, and it will automatically wind up. To stow the water hose, move the release lever to its left hand position. Caution: Keep a light hold on the cable and hose as they are winding up so that they do not whiplash against the side of the trailer.

Hook your **waste drain hose** into the sewer disposal facility and attach to the drain outlet in your trailer. For details on this procedure refer to page 69.

Turn on gas supply; light the range and oven pilots, light the water heater and refrigerator pilots. See pages 56-65 for complete details on L.P.G. system and gas operated appliances.

# Winter Airstreaming

Traveling in an Airstream during the cold winter months can be one of the most exhilarating experiences in all trailering. When we speak of cold, we are talking about temperatures on zero to -10 degrees. Airstreams properly outfitted with dual-pane windows have been cold-soaked at -20 degrees with no adverse effects and with no real discomfort. Dual-pane side windows which are offered as an option, do not require storm windows. Dual-pane side windows, galley, bathroom and optional window shades improve the efficiency of the heating system.

There are of course certain precautions which must be taken as you would in your own home in low temperatures.

1. There should be heat in the trailer at all times\*.
2. You must have a plentiful supply of propane gas.
3. If your stay is longer than overnight, then you should endeavor to have 110 V electricity available. The battery (fully charged) will not last more than about 10 hours in zero weather. Of course you can always run your car to recharge the battery and normally the battery will attain sufficient power to run another 3-4 hours by running

\* Some states do not allow L.P.G. to be turned on while moving. While traveling in these states it will be necessary to take other precautions to prevent freezing of the water and waste drain systems. (See "Storage and Winterizing") Additionally, L.P.G. should always be shut off as a safety precaution when gasoline is added to the tow vehicle.

your engine for approximately 45 minutes to one hour at fast idle. For more detailed information on the battery see page 74.

4. Minimize use of electricity if 110 volt power source is not available.
5. Your Airstream has forced air heating in the holding tank area. There is also heating around the water tank.
6. Leave cabinet doors, bed doors and wardrobe doors slightly open at night to allow circulation of air around all furniture components.
7. For extended stays in cold weather, insulate the water line outside the trailer.

You should remember that low temperatures in combination with high winds cause an equivalent chill temperature much below what your thermometer is reading. For instance, with an outside temperature of zero degrees and the wind velocity of 10 miles per hour, the equivalent chill temperature is minus 20 degrees F. Whenever possible, experienced winter campers try to park their trailer so it heads into prevailing winds. Use trees and other natural barriers as wind breaks. Be sure to check all tires before setting out. There should be plenty of tread left on each one for safety and maximum traction.

It is also important to **guard against excessive humidity** inside your trailer during winter camp-outs. When windows and window frames fog up or

"sweat", it means that there is too much moisture in the air. Moisture comes from water vapor, and water vapor is the direct result of water evaporating. Many things such as baths and showers, boiling foods, washing dishes, mopping the floor, washing clothes, even breathing, contribute to evaporation. The inside air can only absorb so much of this moisture before it becomes saturated. At this point, it can hold no more, and any additional water vapor condenses back to liquid water in the form of droplets on any available cool solid surface. Temperature has a direct effect on the air's saturation point. Cold air holds less moisture than warm air. For this reason, the air immediately adjacent to cold outside walls and windows cools down and causes water vapor to condense and form moisture droplets even though warmer inside surfaces are still dry.

**The best way to keep condensation under control** is to reduce moisture producing activities. It is also important to provide adequate ventilation and keep the air circulating as much as possible. Use your exhaust fans to remove moisture before water vapor mixes with the air. Open windows slightly once in a while, while operating fans to bring in drier outside air and aid in overall air circulation. In extremely cold weather, when outside ventilation is not practical, it may be necessary to use a small de-humidifier to aid in reducing condensation.

# Storage and Winterizing

**When storing your trailer** for short or long periods use the same precautions as you would in your own home in regard to perishables, ventilation and rain protection. In addition, for prolonged storage periods, flush out all the drain lines and the holding tanks. Also, drain the entire water system including the water heater and the water storage tank. Instructions for draining the water system are explained in the following paragraphs.

Twice a year or after a long storage period, we suggest you take your unit in for a check-up and cleaning of the gas operated appliances.

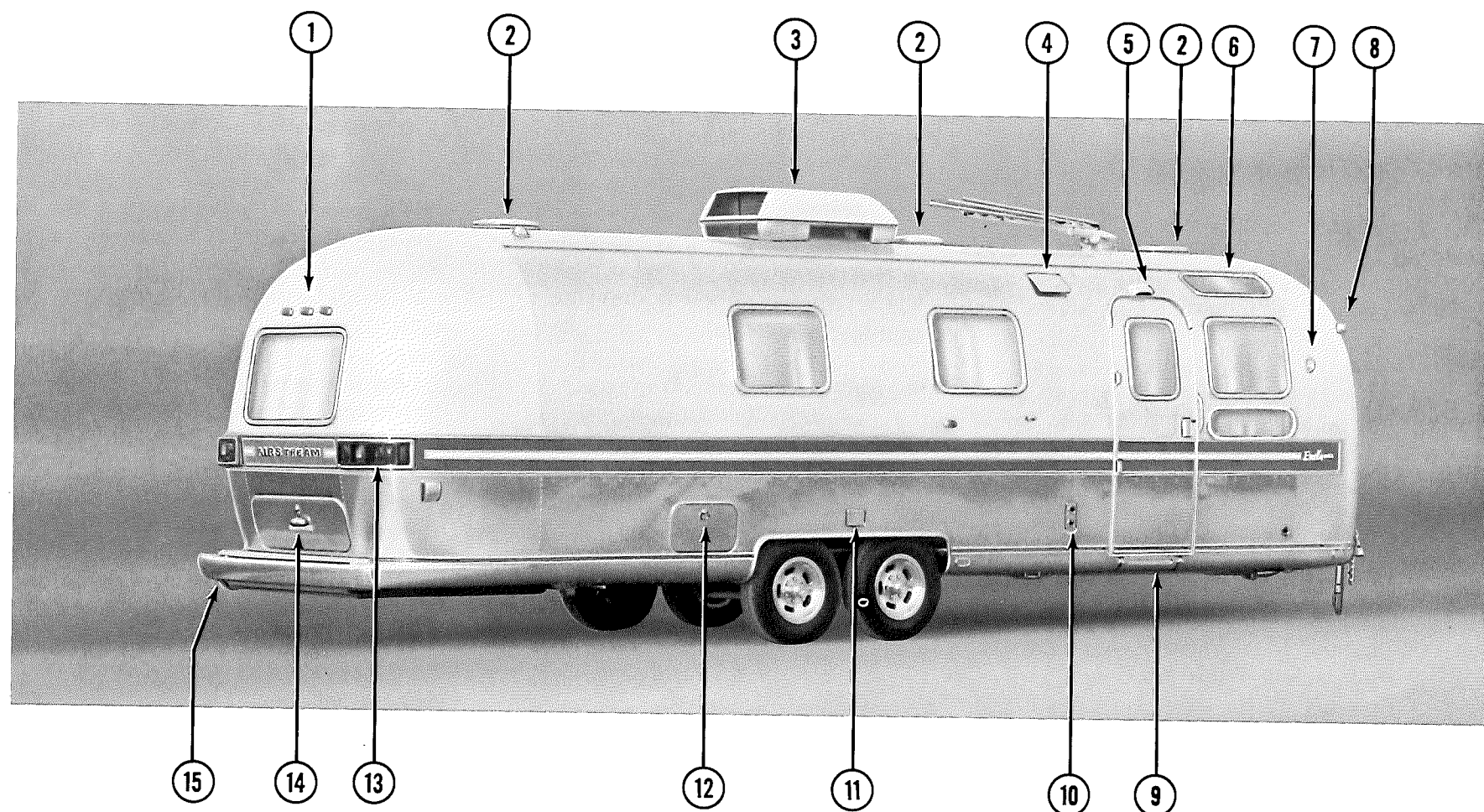
**The main consideration in winterizing is to guard against freezing damage to the hot and cold water systems, the waste drain system (including the traps), the waste-holding tanks, the water heater and the battery.** To completely winterize your Airstream, follow this procedure:

1. Level the trailer from side to side and front to rear. Open all faucets.
2. Turn the water pump switch to the ON position to expel water from the storage tank.
3. Open all drain valves. Two are located in the rear trunk on rear bath models and in the wardrobe on center bath models. On all models one is located on the water heater accessible through the exterior access panel. Fully uncoil hose on ground to allow complete draining.
4. While the water is draining from the system, open and flush the toilet flushing valve. Depress hand spray lever while holding the spray head down inside the bowl. Depress hand spray thumb button on the telephone shower head while holding down inside the tub and drain all water from the flexible hose. Unscrew the heads on both spray units and store.
5. After pump has removed all water from the storage tank, turn the pump switch OFF.
6. Remove exhaust hose from water pump.
7. Disconnect the water pump inlet connection, and with check valve removed, turn the pump by hand until all the water is expelled.
8. Lower the front of the trailer as far as the jack will allow until water ceases to drain, then crank the jack up as high as it will go and let any remaining water drain out the rear drain valves.
9. Pour a cup of nontoxic antifreeze into the lavatory, sink, and tub drains to prevent trap freeze-up.
10. Be sure to open the waste-holding tank drain valves and drain and flush the tanks thoroughly. **(This is very important as the sewage in the tanks, if frozen, could seriously damage the tanks.)**
11. Remove the cartridge of the water purifier and leave the purifier valve in the open position.
12. Remove the batteries from your Airstream and store in a cool dry place where there is no danger of freezing. It is very important for optimum life of a battery to check it periodically and to keep it fully charged.
13. Remove any items (food, cosmetics, etc.) from trailer interior that might be damaged by freezing—or might damage the trailer if containers break.

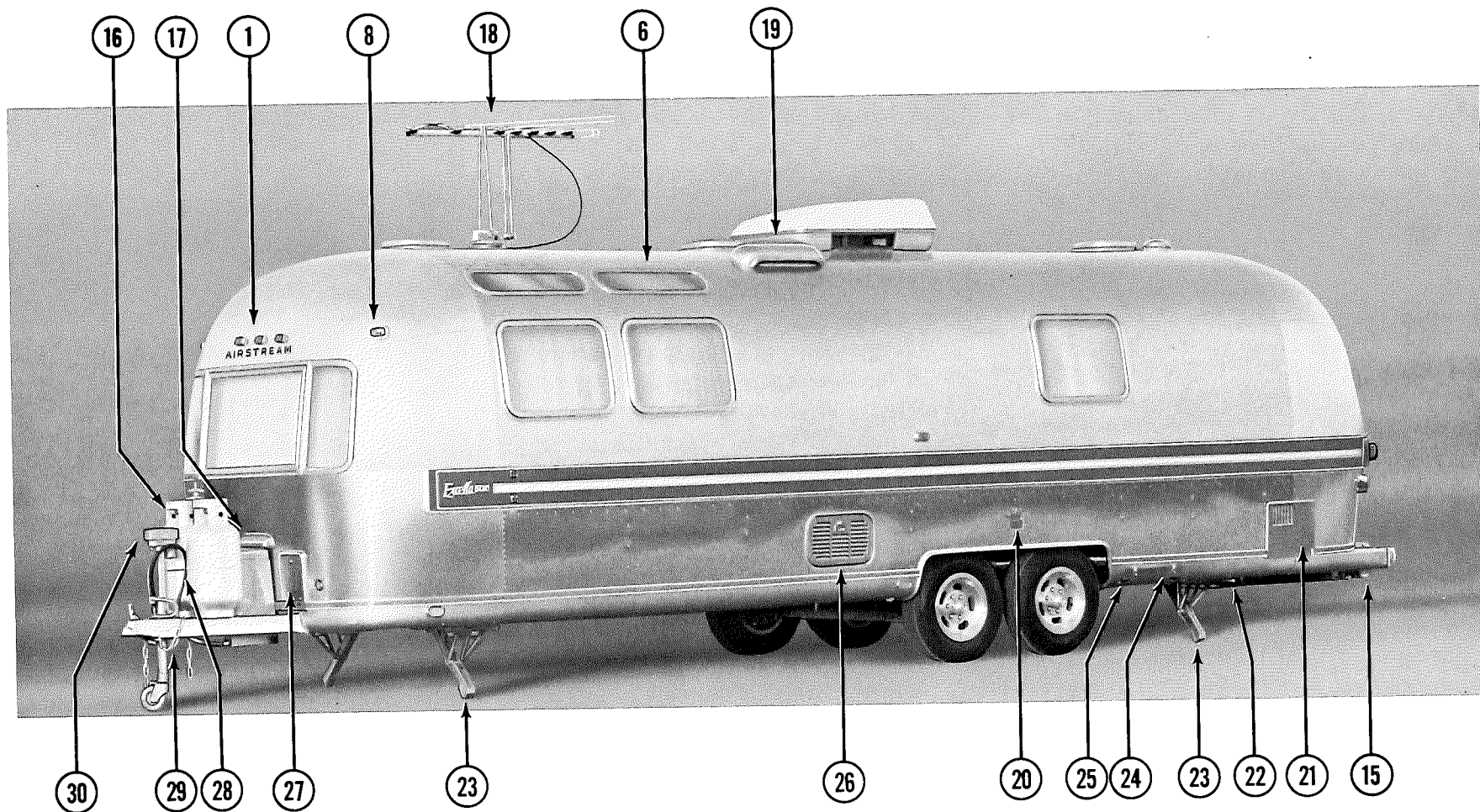
For additional winterizing protection add a nontoxic antifreeze (approved for drinking water systems) to the water lines using the following procedure:

1. Reconnect all lines except the hose to the pump inlet port. Close all drain valves (see step No. 3).
2. Attach a length of hose to the pump inlet port. This piece of hose should be long enough for the free end to be inserted into and reach the bottom of the antifreeze container.
3. Dilute the antifreeze solution in accordance with the manufacturer's instructions.
4. Open all water faucets.
5. Insert hose length into the antifreeze container, turn the pump switch on, and run the water pump until the antifreeze solution fills all water lines and the water heater. Flush toilet, work hand spray while holding down in bowl. Work hand shower spray while holding down in tub.
6. Shut off the pump and close all faucets.
7. Disconnect the hose length from pump inlet fitting and reconnect water system inlet line.

# Exterior Identifications



No.	Description	Page No.
1.	Cluster lights .....	86
2.	Roof vent .....	53
3.	Air conditioner .....	51
4.	Range exhaust vent .....	62
5.	Main door light .....	86
6.	Vista view window .....	41
7.	Exterior light .....	86
8.	Clearance light .....	86
9.	Main door step .....	40
10.	Furnace vent .....	63
11.	120 Volt outlet .....	72
12.	Exterior storage .....	
13.	Stop, tail, turn and back up lights .....	86
14.	License plate light .....	86
15.	Waste outlet (rear bath) .....	69



# **No. Description**

## **Page No.**

16. L.P.G. tanks and regulator .....	56	21. Water heater access panel .....	65	26. Refrigerator access door .....	58
17. Univolt vent .....	73	22. Waste outlet (center bath) .....	69	27. Battery compartment .....	74
18. T.V. antenna .....	41	23. B.A.L. stabilizing jacks .....	34	28. Brake vacuum hose .....	15
19. Refrigerator vent .....	58	24. Electrical inlet (city) .....	72	29. Safety chains .....	28
20. Water inlet (tank) .....	66	25. Water inlet (city) .....	66	30. Power jack .....	28

# Exterior

The Airstream exterior has been covered by an acrylic lacquer finish providing years of environmental protection. Washing the exterior of your Airstream is similar to washing an automobile. Both have high quality finishes and certain precautions must be taken to protect them. Oil, grease, dust, and dirt may be removed by washing with any mild non-abrasive soap or detergent. Automatic dishwasher detergents and acid etch cleaners are too strong and should never be used. **Always clean your Airstream in the shade or on a cloudy day when the aluminum skin is cool.** Cleaning should be followed by a thorough clean water rinse. Spots and streaks may be prevented by drying the unit with a chamois or a soft cloth.

After cleaning and drying, a good grade of nonabrasive automotive paste or liquid wax will increase the life of the finish, especially in coastal areas where the finish is exposed to salt air or in polluted industrial areas. It will also protect the shell from minor scratches and make subsequent cleaning easier. Wax should normally be applied every three to six months. The first application should not be sooner than 90 days after purchase to allow acrylic finish to cure.

It is important to remove sap, seeds, gum, resin, asphalt, etc., as soon as possible after they appear by washing and rewaxing. Sunlight and time will bake-harden these materials making them almost impossible to remove without

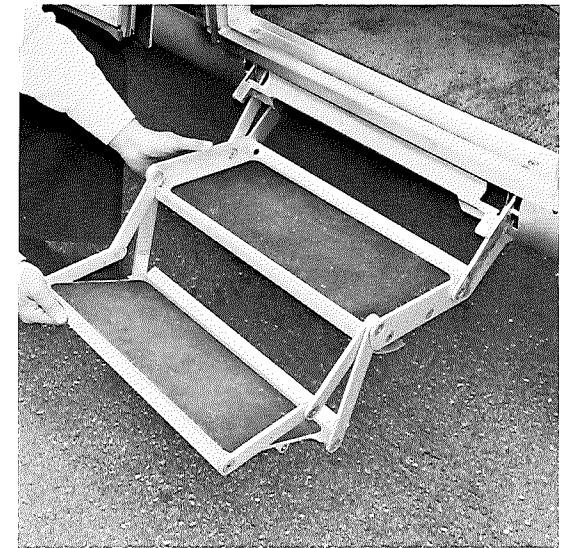
heavy buffing. If asphalt remains on the trailer after washing, use a small amount of kerosene on a rag and wipe the spots individually, being careful not to scratch the aluminum.

For small areas of damage to the acrylic protective coating, or where oxidation is beginning to occur, remove all traces of the acrylic coating with a good grade of lacquer solvent and then thoroughly clean the aluminum with an aluminum cleaner. Respray the area with clear acrylic lacquer. **All items needed for these minor repairs to the exterior shell are available at Wally Byam Stores.** For extensive refinishing we recommend that you contact an Airstream Service Center or the factory for instructions. To keep your trailer looking new, paint the "A" frame, L.P.G. tanks, and rear frame periodically, by brushing on aluminum lacquer or, if possible, by spraying.

Each time you connect the **7-way electrical connector** check for dirt and corrosion. Keep the contacts clean with "Spra-Kleen."

**It is important that the main door be completely closed and locked during towing.** If it is not locked the constant vibration of travel may cause it to open with possible damage.

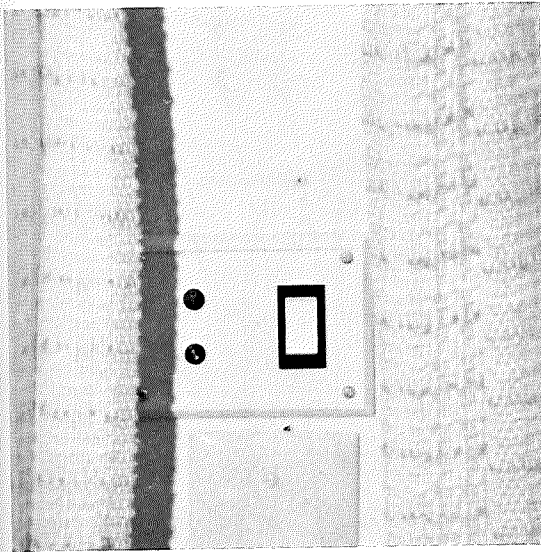
**For your security the lock has been designed as a dead bolt.** For this reason never try to shut the door when it is locked. The door is properly closed



*Fold-Away Step*

when the handle is firm. If the door is difficult to open, push or pull in to release the latch. When the door swings all the way open it will automatically latch against the trailer. An optional dead bolt lock installed on the inside of the door frame, provides added security. This lock operates by twisting the knob clockwise to lock, counter-clockwise to open.

The **screen door** latches to the main door using a manually operated slide bolt latch. It can be released from the main door to operate independently. Velcro strips on the screen door and main door jamb hold the screen door closed. A second slide bolt latch on the door frame can be used to provide positive screen door locking while inside the trailer. To operate the **fold-away step** just



*Motorized TV Antenna Controls*

press down the latch on either side and the step will automatically drop into position. To stow the step simply lift the front edge and then push it up under the trailer to its stowed position.

The **extension step** is permanently attached to the main step and when needed it is simply flipped out.

**Never travel with step lowered.**

The **exterior windows** in your trailer are of heat strengthened safety plate glass. To open: release the two lever locks at the bottom, pull the two side operator handles toward the center and pull down until the window is in the desired position and place the operators into one of the five positioning holes. To close: pull the two side operator handles toward the center and slowly lift.

The high strength safety glass **front center window** is cleaned in the same manner that ordinary windows are. Clean the seals with a damp cloth or mild detergent every three to six months taking care not to use strong solvents as they will damage the seals. A coat of natural silicone lubricant applied after the seal has dried will keep it flexible.

Spread the lubricant evenly with a brush or finger, working it into the surface. This is a good practice for all rubber seals in your Airstream. For replacement of a damaged window contact an Airstream Service Center or the factory.

The **double paned side windows** include mylar tint. They eliminate the need for storm windows and improve the efficiency of the air conditioning system.

**Screens** are made of plastic for hard wear and easy maintenance. Clean with a damp cloth. **Note: They will melt at the point of contact if touched by a cigarette.**

**Vista view windows** are double paned, allow for interior lighting while maintaining privacy and are equipped with integral shades.

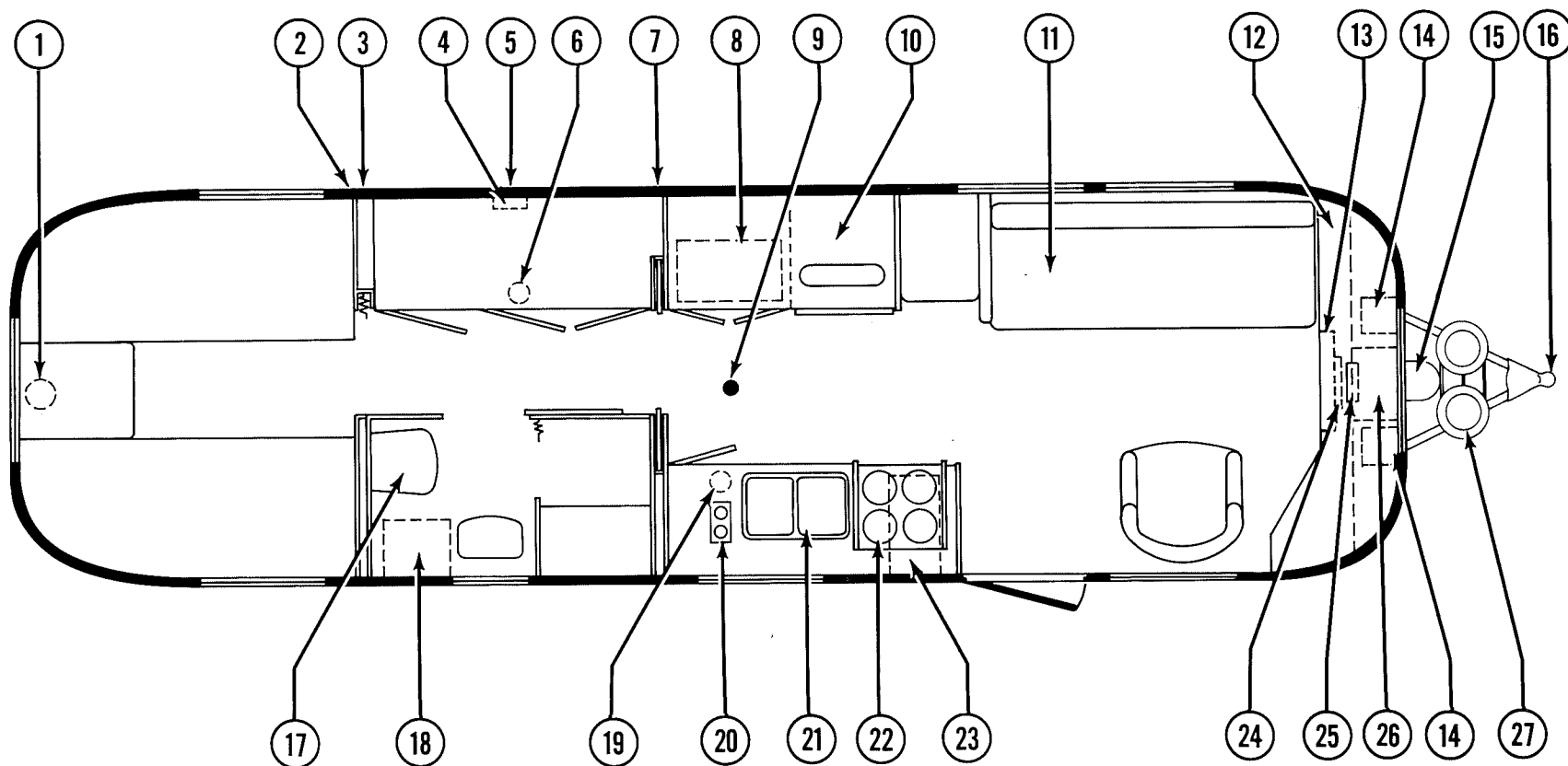
**Factory recommended awnings** give shade during trips and rallies. They are easy to operate and can be installed by your dealer.

The aluminum construction of your trailer creates a radio-shield and you will need outside antennas for good reception. This can be accomplished by a whip radio antenna or T.V. antenna with an auto coupler.

The **motorized radio/T.V. antenna** is connected to an auto-coupler. This enables you to utilize your T.V. antenna in the raised position for AM-FM radio reception.

The control panel is located on the curb side wall just above the arm rest. A two position rocker-type switch is used to control the antenna. When the upper portion of the switch is pushed, the antenna raises to the full "up" position then starts to turn in a clockwise direction. When the strongest signal point is reached, antenna rotation is stopped by pushing the bottom portion of the switch rocker to bring it to the center or "off" position. Counter-clockwise rotation and antenna lowering are accomplished by pushing the rocker bottom portion all the way in. A green light on the switch panel indicates when antenna is in motion. The antenna must be fully stowed for travel.

# Floor Plans

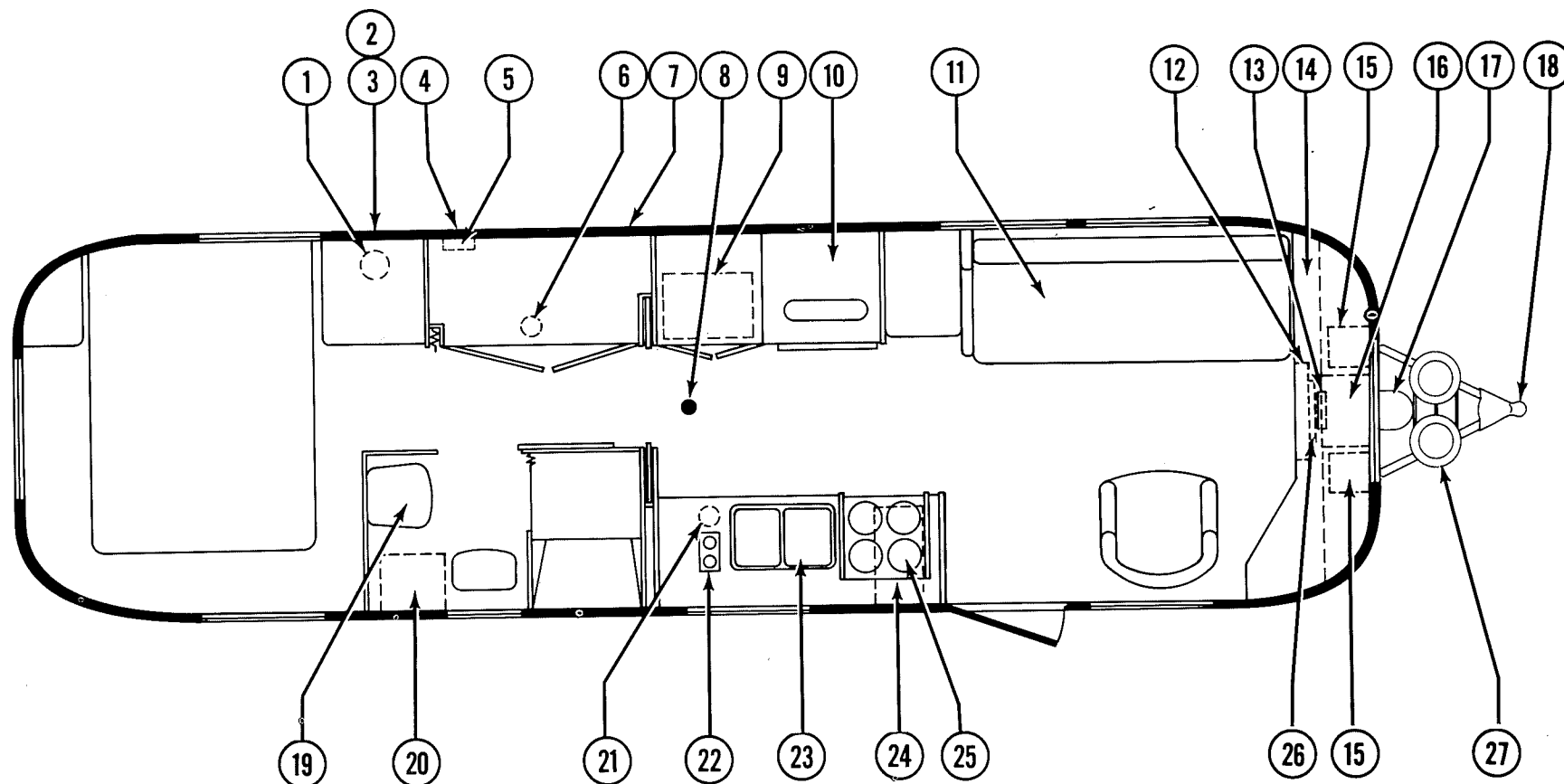


## Center Bath

### No. Description

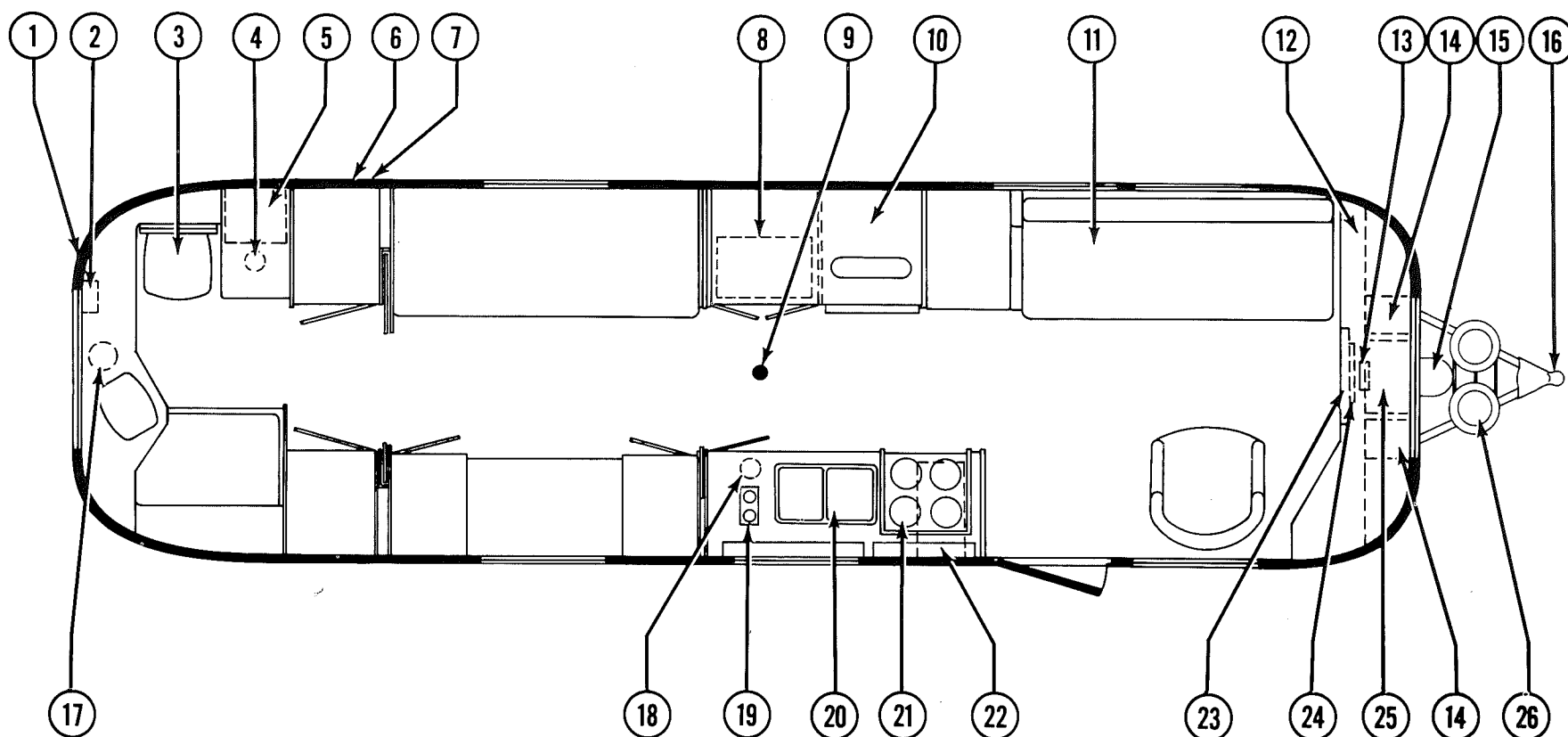
### Page No.

1. Vacuum cleaner .....	55	10. Refrigerator .....	58	20. Appliance center .....	53
2. Water inlet - city .....	66	11. Front lounge .....	46	21. Sink .....	51
3. Electrical inlet - city .....	72	12. Entertainment center .....	48	22. Range and oven .....	61
4. 120 volt circuit breaker panel .....	72	13. Table .....	50	23. Furnace .....	63
5. Waste outlet .....	69	14. Battery .....	74	24. 12 volt distribution panel .....	83
6. Water pump .....	66	15. Power brake booster .....	15	25. Digital clock .....	48
7. Water inlet - tank .....	66	16. Hitch .....	27	26. Univolt .....	73
8. Microwave oven (optional) .....	60	17. Toilet .....	70	27. L.P.G. tanks and regulator .....	56
9. Air conditioner .....	51	18. Water heater .....	65		
		19. Water purifier .....	67		



## Center Bath

No.	Description	Page No.
1.	Vacuum cleaner .....	55
2.	Electrical inlet - city .....	72
3.	Water inlet - city .....	66
4.	Waste outlet .....	69
5.	120 volt circuit breaker panel ....	72
6.	Water pump .....	66
7.	Water inlet - tank .....	66
8.	Air conditioner .....	51
9.	Microwave oven (optional) .....	60
10.	Refrigerator .....	58
11.	Front lounge .....	46
12.	Table .....	50
13.	Digital clock .....	48
14.	Entertainment center .....	48
15.	Battery .....	74
16.	Univolt .....	73
17.	Power brake booster .....	15
18.	Hitch .....	27
19.	Toilet .....	70
20.	Water heater .....	65
21.	Water purifier .....	67
22.	Appliance center .....	53
23.	Sink .....	51
24.	Furnace .....	63
25.	Range and oven .....	61
26.	12 volt distribution panel .....	83
27.	L.P.G. tanks and regulator .....	56



## Rear Bath

No.	Description	Page No.
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1.	Waste outlet .....	69
2.	120 volt circuit breaker panel .....	72
3.	Toilet .....	70
4.	Water pump .....	66
5.	Water heater .....	65
6.	Electrical inlet - city .....	72
7.	Water inlet - city .....	66
8.	Microwave oven (optional) .....	60

9.	Air conditioner .....	51
10.	Refrigerator .....	58
11.	Front lounge .....	46
12.	Entertainment center .....	48
13.	Digital clock .....	48
14.	Battery .....	74
15.	Power brake booster .....	15
16.	Hitch .....	27
17.	Vacuum cleaner .....	55

18.	Water purifier .....	67
19.	Appliance center .....	53
20.	Sink .....	51
21.	Range and oven .....	61
22.	Furnace .....	63
23.	Table .....	50
24.	12 volt distribution panel .....	83
25.	Univolt .....	73
26.	L.P.G. tanks and regulator .....	56



# Interior

The Airstream interior has been designed for comfort, convenience, durability and appearance. An understanding of the operational procedures and maintenance techniques of the interior appointments will add to your pleasure as well as the long life of your trailer.

**Drapery, upholstery and mattress covers** must be professionally dry cleaned with a mild, pure, water-free solvent. Frequent vacuum cleaning is recommended.

Your Airstream upholstery is treated with Scotchgard® and will repel moisture. Minor spills should be removed by blotting. Avoid rubbing as this will cause a stain to work itself into the fabric.

Professional carpet cleaning methods should be used for heavy carpet cleaning. However, you can clean your carpet more frequently with a broom or vacuum cleaner. Consult a professional carpet cleaner for hard to remove stains.

The counter areas around the sink are of a high-pressure laminate and can be cleaned with soap and water, or you can use a common cleaning solvent on tough spots. Be sure no abrasive cleaner is used as there is the possibility it could scratch the surface. A protective pad should always be placed under hot utensils.

The walls can be cleaned with any vinyl cleaner or mild household detergent with

water. But, again, no abrasives.

The high-pressure laminate wood of the wardrobes and cabinets may be waxed, if desired, or may be cleaned simply with a damp cloth.

See the bathroom section for cleaning and maintenance suggestions for the ABS plastic surfaces.

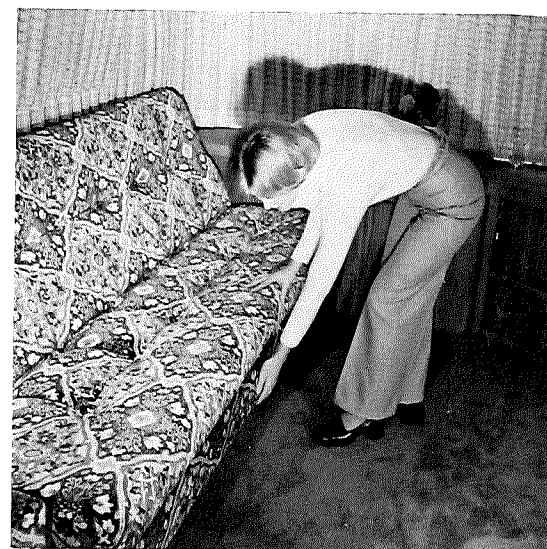
**To convert the lounge into a bed**, grasp the front edge of the seat lift up slightly and pull lounge assembly out until it stops and the lounge back is in a horizontal position.

To return bed to lounge position, push lounge back toward wall until seat back is in upright position.

The **bunk beds** (optional), located in the bedroom, serve as the bolster for the bed when not in use.

In order to place bunk into sleeping position:

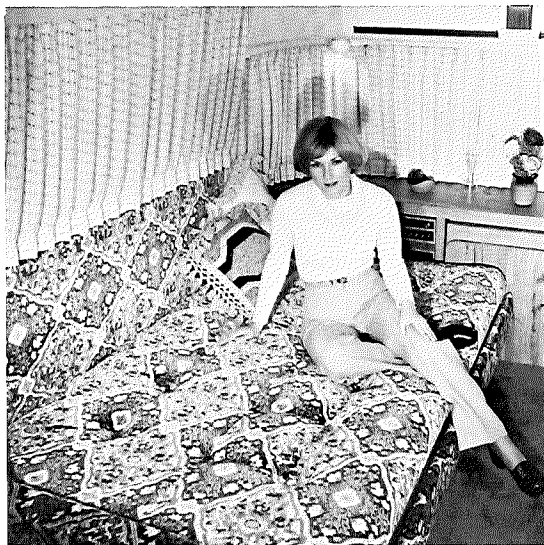
1. Depress latch located on the center back side of the bolster.
2. With latch depressed pull up on fabric loop located on the center front bottom of bolster. This will allow bolster filler to hinge down.
3. Bring bolster filler up to horizontal position and attach both straps onto bracket on ceiling.



*Lounge Into Bed*



*Central Control Panel*



2.

To lower bunk:

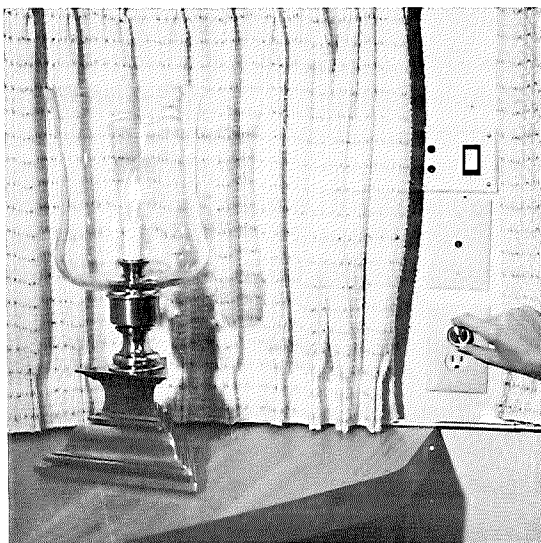
1. Release straps.
2. Rotate bolster filler into latched position.
3. Lower bolster down against wall.

To make fixed twin beds, lift mattress slightly, pull it away from the wall and then tuck bedding in along wall. Note: Please do not launder mattress ticking; it has to be dry cleaned to prevent shrinkage.

The **Central Control Panel**, located in the galley roof locker of your unit, monitors your Airstream systems.

The **panel display** button lights up the indicator lights. The AC power light indicates that you are operating on 120V AC.

The **battery condition tester lights** indicate whether the trailer batteries are in good, fair, weak or bad condition. When they show weak or bad condition, you should take every reasonable step to conserve power by using as few lights as possible and switching off appliances. The battery should be charged as soon as practical with the tow vehicle charging system or by connection to 120 volt power.



Lamp with Dimmer Switch

The charging system in your trailer is much like the charging system in your car. The univolt package performs a similar function to the car alternator by constantly recharging your battery as power is used. It is important to remember, however, that if the total current draw is greater than the univolt's capacity to recharge, your battery may become discharged even though the univolt is attempting to keep it charged. In this event, it will be necessary to reduce current usage.

The **water pump switch**, when on, also lights the indicator light. For a complete discussion of the pump, please refer to page 66.

The **water tank, main holding tank and auxiliary holding tank indicator lights** show the amount of liquid in their respective tanks. Measurements are made by means of a series of electronically controlled probes located at various levels in each tank. The gauge lights will indicate in one of the five positions (see diagram).

Accumulation of oxides, dirt, etc. on the probes may result in inaccurate readings. In this case remove probes from the tank and scrape clean. Apply sealant to thread area only and replace probes. Care must be taken to keep the probes free of sealant.

The **L.P.G. gauge lights** indicate the amount of liquid in each tank. To check the level, press the test switch near the L.P.G. gauge on the Central Control Panel and read the amount of liquid in either the roadside or curbside tank.

The **power-on light** will glow automatically when you are hooked up to city power. This light and the polarity warning light are your checks on a proper 120 volt connection.

The optional **electronic digital clock** operates at all times whether you are on self-contained battery power or hooked up to 120 volt city power.

To operate the clock, push display switch to ON. To set correct time, push set switch to SET MINUTES and then to SET HOURS.

To conserve electricity, the display switch may be turned OFF. (See Fig. 1.) The correct time is held in memory until the display is turned back on. If, when the display is turned back on, the time shown is incorrect, there has likely been a power interruption.

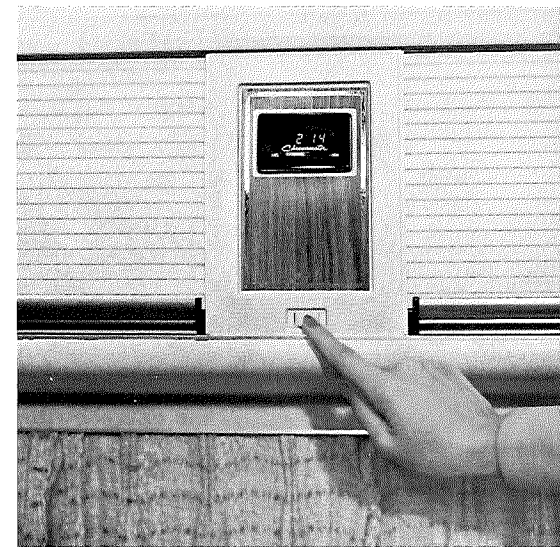
After some time you may experience what appears to be a malfunction in the set switch; that is, the displays may not turn on at all or they may "rapid fire." This is caused by dust on the switch

contacts and is easily corrected by moving the switches back and forth 10-20 times.

A combination Motorola Stereo AM-FM radio with separate 8 track stereo tape player is available. The "fader" control allows the front speakers to be turned on by themselves, or the rear speakers by themselves, or any combination of front and rear speakers.

### Operating Instructions

1. Switch power on by pressing POWER button to "in" position. Switch power off by pressing POWER button again, releasing it to "out" position.
2. Turn SELECT control to desired mode of operation (AM, FM, FM STEREO, FMLC, or TAPE) NOTE: FMLC position is useful only in strong FM signal areas, especially where many FM stations may tend to interfere with each other. FMLC position minimizes this type of interference. For best FM reception under normal conditions the "FM STEREO" position should be used. The "FM" position is useful in fringe areas to lock receiver into monaural mode, thus eliminating stereo threshold noise.
3. Turn TUNING control to select desired station.



*Electronic Digital Clock*



*Stereo Tape and AM/FM Radio*

## Stereo Operation

The indicator light will go on automatically when selected FM station is broadcasting in Stereo. The light is not on when monaural broadcasts are being received, or when a stereo signal drops below a predetermined level. The radio is designed to reproduce weak stereo signals monaurally to provide more noise free reception. When the signal increases beyond the threshold level, the stereo indicator will light again.

## Tape Deck Operation

Insert tape cartridge into slot (behind hinged panel, see Fig. 2) to a fully seated position to switch tape deck on. Receiver SELECT switch must be in TAPE position to operate tape deck. Retracting tape cartridge approximately one inch from seated position or removing tape cartridge completely switches tape deck off.

The program indicator lights indicate which tape program is playing.

When REPEAT button is in "IN" position, the tape deck will continue playing the same program that is playing until another program is selected or button is released to "OUT" position.

Press and release PROGRAM button to position tape deck pick-up head to the next program on the tape. NOTE: If PROGRAM selector feature is not used, the four programs will play in sequence except when "REPEAT" button is in "REPEAT" position. The tape deck will play continuously in this manner until tape cartridge is pulled out from its seated position.

In time, oxide from recording tape will accumulate on the tape head and capstan shaft which can cause tape hiss and erratic operation. The more often the tape player is used, the more often it should be cleaned.

Clean the head with a cotton swab moistened with isopropyl alcohol. **Do not use carbon tetrachloride.**

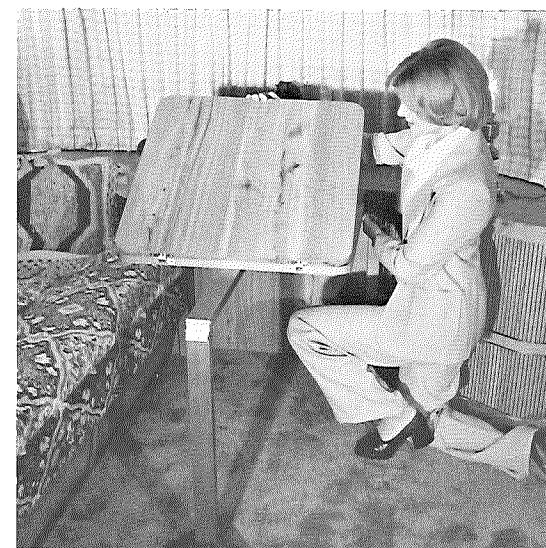
To clean the capstan shaft, first turn on the motor by depressing the motor switch (next to the capstan shaft) with the eraser end of a pencil. Use a cotton swab moistened with alcohol on the shaft.

The fuse for the radio, or radio/tape is located behind the unit. To gain access to the fuse, lift up the table. The fuse is secured with an inline fuse holder.

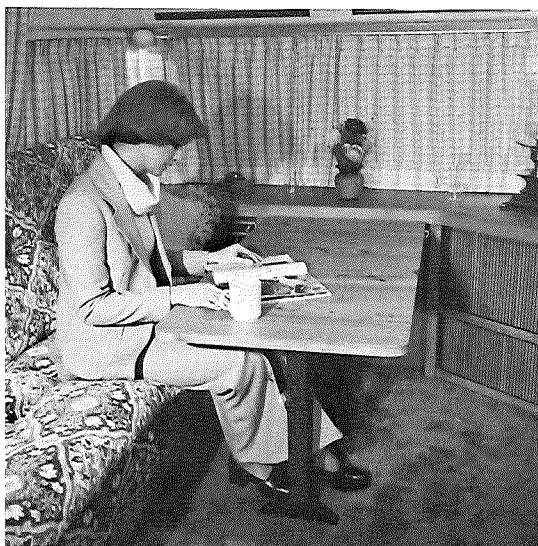
**To open the table**, lift the table into a horizontal position and pull the folding leg down until it locks in position. **To extend the table** pull the extension frame and leg out as far as they will go. Release the catch on the forward curbside edge of the extension table leaf and rotate the leaf over onto the extended frame. To stow simply reverse the procedure.



Table Opening 1.



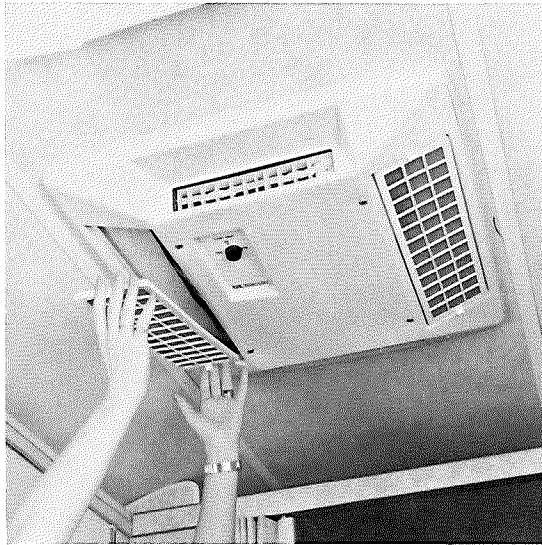
2.



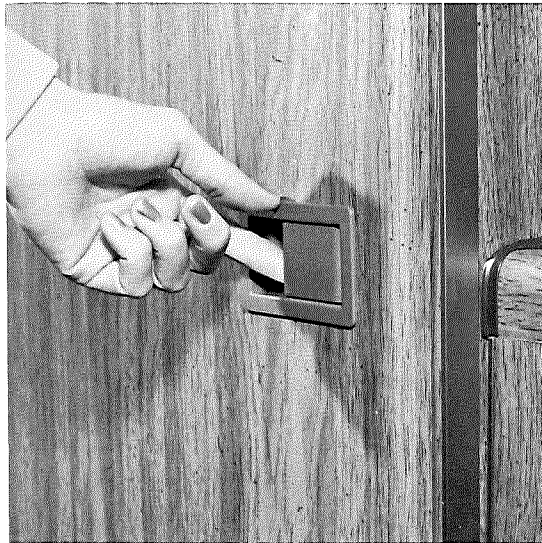
3.



TV in Credenza



Air Conditioning Ducts and Filter



Wardrobe Catches

The **Armstrong air conditioner** can be used for cooling or heating your trailer or for air circulation only.

**To operate for cooling:**

1. Close doors, windows and ventilators.
2. Set wall thermostat to "COOL" position and set thermostat indicator to your desired comfort level.
3. Set system switch (located at ceiling cover of air conditioner) to your preferred speed setting.

Note: The air conditioner will not operate until speed selection is made. The recommended cooling speed for various outdoor temperature ranges are:

Hi—Cool	70—120 F
Med—Cool	60—110 F
Lo—Cool	50—100 F

**To operate for heating:**

1. Set wall thermostat to "HEAT" position and set thermostat indicator to your desired comfort level.
2. Set system switch to your preferred speed setting.

Note: The heater will not operate until speed selection is made.

**To use for air circulation,** set wall thermostat to "OFF" position and system switch to any of the three speed selections. To shut unit off, set system switch to "OFF" position.

Shut unit off to clean or replace the filters. Clean both filters with vacuum cleaner once a week. Once a month, remove filters and wash in warm soapy water.

**Stainless steel sinks** cannot be harmed by boiling water. However, salt, mustard, mayonnaise and ketchup can cause pitting. Stubborn stains will yield to paste made of water and slightly abrasive household cleaner. Be sure to work in the direction of the polish-lines on the steel, to keep the original finish. Fingerprints are sometimes a problem. They can be minimized by applying a cleaner that leaves a film of thin wax: simply wipe it on and remove the excess with a dry cloth. After this, fingerprints can be wiped off with a soft dry cloth, or one moistened with a little wax cleaner. The surface should always be washed before wax is applied. Regular cleaning will prevent build-up of scale and film. Ordinary soaps or detergents are best for routine cleaning of the stainless steel sinks. Rinse thoroughly with warm water and wipe dry with a cloth to avoid streaks and spots.

For further information on galley equipment refer to page 58 for the refrigerator and page 61 for the range and oven.

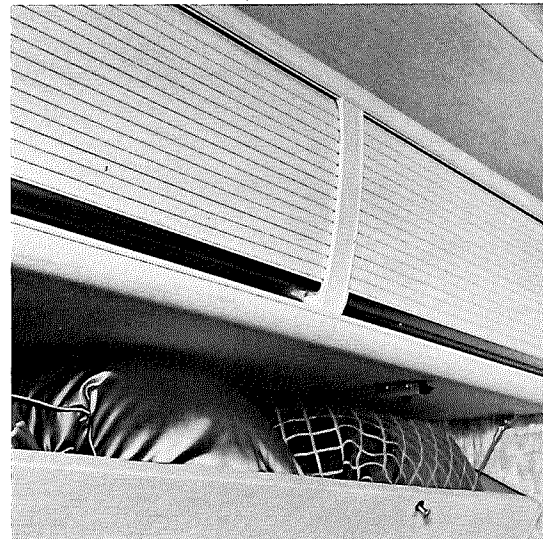
All the **drawers** are removable allowing you storage flexibility and ease of packing and unpacking. Wardrobe catches are self-locking and they may be opened by lightly pulling the cover plate toward you.

The **below bed storage** is provided for added storage of bedding and linen or fishing and hunting gear.

When attaching **wall hung improvements**, like hooks for clothing, bookshelves and extra towel racks, secure with half-inch No. 8 sheet metal screws ~~(1/2" x 1/2")~~ with flat binder heads. Make holes in the aluminum inner walls with a small hand drill (No. 30 drill bit).

A **space locker** attached to the bedroom roof locker is provided in rear bath models. This provides additional storage space for bedding, etc.

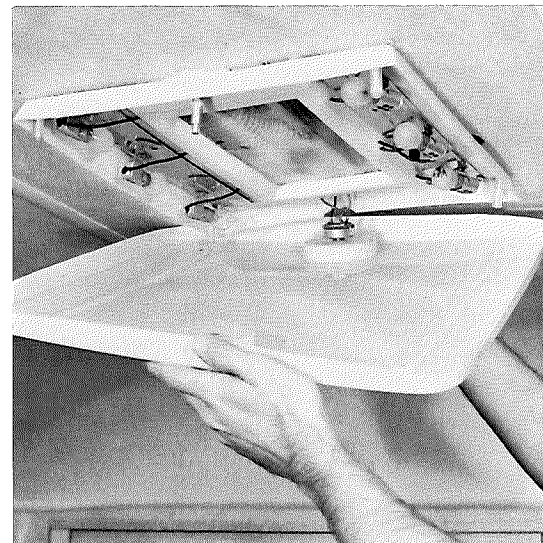
**Bed-lights** are operated by a switch in the center of the lens. To replace bulbs remove screws securing lamp top frame, and remove frame. Lift up foil covered insulation pad to reveal bulbs and sockets. Carefully pull burned out bulb and its socket from plastic retainer clip. Pull bulb from socket and replace. Replacement bulbs are available from your Airstream dealer. **Area lights** have switches on the rim.



*Space Locker*



*Bed Lights*



*Ceiling Light Fixture*



*Nu-Tone Appliance Center*

**Bath Lights** are operated by a switch on the rear wall above and just roadside of the sink. Access for bulb replacement is inside the cabinet (above toilet) for the roadside light, and on the upper rear panel of the shower stall for the curbside light.

**Ceiling light fixtures** are incorporated with the ceiling fresh air vents. To operate the lights turn the forward control knob clockwise; first position 2 lights, second position 4 lights, third position 6 lights, fourth position off.

To remove the lens and replace the bulbs, pull knob from light switch shaft and remove nut. Remove the screw from the vent control handle. Remove 4 screws attaching lens to lamp base. This will release the lens.

The **fresh air vents** are operated by the control handle. Turning clockwise will raise the vent and at the maximum extension vents with fans will automatically turn on. For maximum air without fan, open until fan starts and back up just enough to turn fan off. Turning counterclockwise will close the vent.

Airstream vents are designed to allow air circulation while still keeping out rain and can be used in any weather. Screens should be removed for periodic cleaning.

The **NuTone Food Center** allows you to operate several appliances with just one

built-in power unit. Your Excella is equipped with three attachments, mixer, blender, and knife sharpener. Other appliance attachments are available.

Your power unit was oiled at the time of manufacture but a storage period may have permitted oil to drain back into the reservoir. Before using it for the first time, please run the power unit for one to two minutes to insure lubrication... before attaching an appliance. At intervals of from one to two months, depending on the amount of use, a few drops of ordinary household oil should be placed around the motor shaft opening.

The unit will warm up in proportion to the length of time it's run and the load it carries. If you run it unusually long or hard, give it a rest before putting it to work again.

The **mixer** was designed for convenience and efficient operation. The bowl rests on a turntable directly connected to power unit. The motor, not the beater, turns the bowl—automatically keeps it revolving during mixing, regardless of the consistency of the batter. This feature eliminates hand-turning the bowl. And, while the bowl revolves automatically, the beater turns in the opposite direction. This 'counter-motion' feature helps prevent lumpy, incomplete mixing.

#### **To operate the mixer:**

1. Place turntable in position on the power unit.

2. Lock the turntable in place by pressing the locking lever clockwise.
3. Place the mixing bowl on the turntable.
4. Push the beater blade into the beater head. Blade will 'click' when it's locked in position.
5. Insert beater head shaft into center tube of bowl. Place it in one of six positions until it snaps into turntable.
6. Turn dial to desired speed.

**Note:** To remove beater head, turn counter-clockwise, and lift it out of mixing bowl. If the turntable should become locked into power unit and cannot be easily removed, insert beater head and turn it counter-clockwise.

The **blender** makes meal preparation and entertaining less work and more fun. It performs, quickly and easily the time-consuming and tiring tasks of grating, chopping, shredding and mincing; it even liquefies solids and blends them to perfection.

#### **To operate the blender:**

1. Place blender in position on power unit, and turn clockwise to lock securely in place. Never attempt to place blender in position while power unit is running.
2. Put food in blender. Cover. Turn dial to desired speed. Or...
3. When adding solids, cover, then turn dial to desired speed. Remove insert from lid. Add food through opening while blades are in motion.

4. To remove contents from blender, use a long-handled rubber bottle and jar scraper or a wooden spoon or fork. Don't use a metal spatula or spoon.

The **knife sharpener** will allow you to sharpen your knives in just seconds.

**To operate the knife sharpener:**

1. Place sharpener in power unit; turn clockwise to lock in position. Be sure sharpening stone is on left as you face the knife sharpener.
2. Turn control dial to speed 3. Be sure knife is clean and dry.
3. Place heel of knife blade into guide slot next to sharpening stone (left or right). Hold knife firmly by the handle and draw it slowly toward you with cutting edge against stone. Allow weight of the knife and the guide slot to apply necessary pressure and positioning.
4. Repeat operation, alternating to left and right side of stone with each stroke, until desired sharpness is obtained.

**Caution:** Don't test blade edge with fingers. Don't place hands, fingers or other objects on spinning sharpening stone.

Don't sharpen knives with an irregular edge such as serrated, scalloped, fluted, corrugated or hollow edges...and don't sharpen scissors. **Don't clean sharpener while attached to power unit.** Be sure speed control dial is turned 'off' before attaching or removing sharpener.

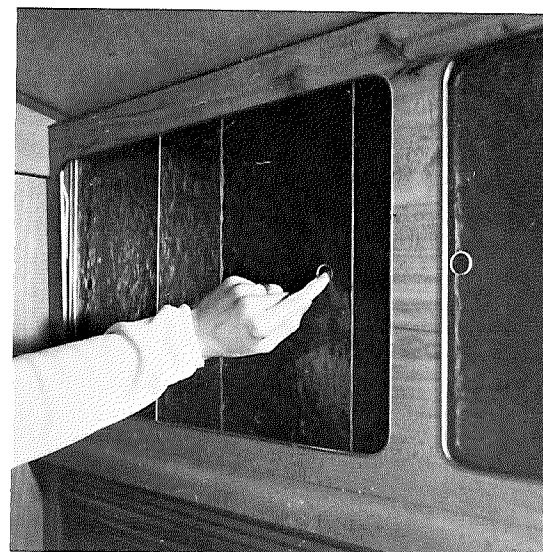
The area above the refrigerator and refrigerator cabinet incorporates a **built-in china cabinet** for the handy storage of dishes and glassware. Decorative translucent by-pass sliding doors provide easy access and their design compliments the overall interior decor.

A **12 volt two-tone door bell** is installed on the forward side of the main door with the chimes located under the credenza,

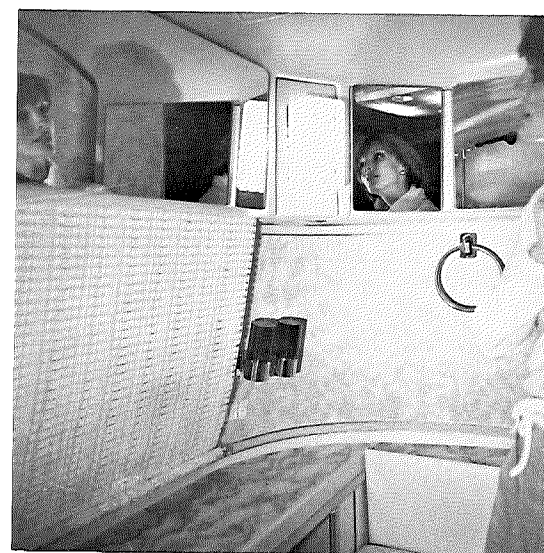
The **bathroom exhaust fan** is in the bathroom ceiling and is operated by a switch on the rear bathroom wall above and roadside of the sink.

The **lavatory bowl, counter top, tub or shower pan** in your Airstream bathroom are made of a special ABS long-wearing, light weight, high strength plastic material. When cleaning, use soap or detergent only—never use scouring powder. Always rewax the ABS plastic surfaces after each heavy cleaning with a good grade paste wax (without solvents or cleaners). The wax will protect the surfaces from discoloration and stains. When you first purchase your trailer, Airstream recommends that you give all ABS plastic surfaces a heavy coating of paste wax. This will assure easier cleaning and lasting beauty.

The **telephone shower head** is designed to give maximum flexibility in usage and provide for water saving techniques when



*China Cabinet*



*Bath*



*Vacuum Cleaner*

using your trailer on self-containment. When using the shower head, it should be held in the hand and moved about the body. Normally the best water conservation procedure is to wet the entire body and then turn the water off with the push button at the shower head. Apply soap, lather thoroughly, then rinse the soap off. The shower can be turned on and off without disturbing the hot-cold adjustment. The telephone shower head is also used to fill the tub for taking a bath.

The **120 volt and 12 volt outlets** in the rear bath are located on the under surface of the rooflocker near the window. In the center bath, the 120 volt and 12 volt outlets are located behind the mirror.

The **Vacuum Cleaner dust canister** is located in the center of the rear trunk (exterior access only) on both Rear Bath and Center Bath twin bed models. The dust canister on the Center Bath double bed model is located in an exterior roadside compartment behind the forward nightstand. To remove the canister for cleaning, release the two latches near the top of the canister and lift out. You will see a filter on the air inlet to the vacuum motor, this should be checked and cleaned, if necessary, each time you empty the dust canister (about every three months under normal use).

The **vacuum outlet** is below the center of the rear bathroom cabinet on the Rear Bath model and in a like location in the rear nightstand (between beds) on the Center Bath twin bed model.

The outlet for the Center Bath double bed model is located in the forward roadside nightstand next to the bed.

The **Vacuum Cleaner Switch** is located inside the undersink cabinet on rear bath models, adjacent to the rear nightstand on center bath twin models, and inside the roadside nightstand on center bath double models.

# L.P.G. System

Your Airstream is equipped with two tanks for LPG (Liquid Petroleum Gas). LPG burns with a clean blue flame. There are two basic types of LPG in common usage: **Butane and Propane**. Butane is widely used where temperatures are normally above freezing the year round and Propane is used where subfreezing temperatures are common, since Butane freezes at 32° as compared to -40° for Propane. **All of the orifices in your Airstream LPG appliances are of the universal type which will burn either fuel.**

How long a full tank of gas will last is dependent on usage. In cold weather when you are using the furnace, large amounts of hot water, and are doing extensive cooking, you will naturally use more than you will in warm weather when you may do limited cooking. On the average, with normal cooking and other appliance use, you can probably count on three weeks service from each 30-lb. tank.

The Excella is equipped with an **automatic gas regulator**. Both tanks are connected to this regulator and when turned on, gas is drawn from only one tank at a time. When the tank being used is depleted the regulator automatically switches to the full tank. An indicator on the regulator points toward the tank being used to give you a visual reminder when one tank is empty. Note: The tank in use is not completely

empty until the red warning flag is fully visible in the indicator window. The empty tank can be removed for refilling without disturbing the tank being used.

Simply close the tank valve, disconnect it, have it refilled and reconnect.

The vent at the bottom of the regulator must be kept free of any obstruction. Inspect the vent opening regularly.

The LPG gas bottles are securely mounted on the front "A" frame of your trailer. If these bottles must be removed for service or replacement, it is important that they be reinstalled correctly in order to prevent any possibility of their falling off or becoming dislodged during travel. The following step by step procedure gives you the proper method for removing and installing these bottles:

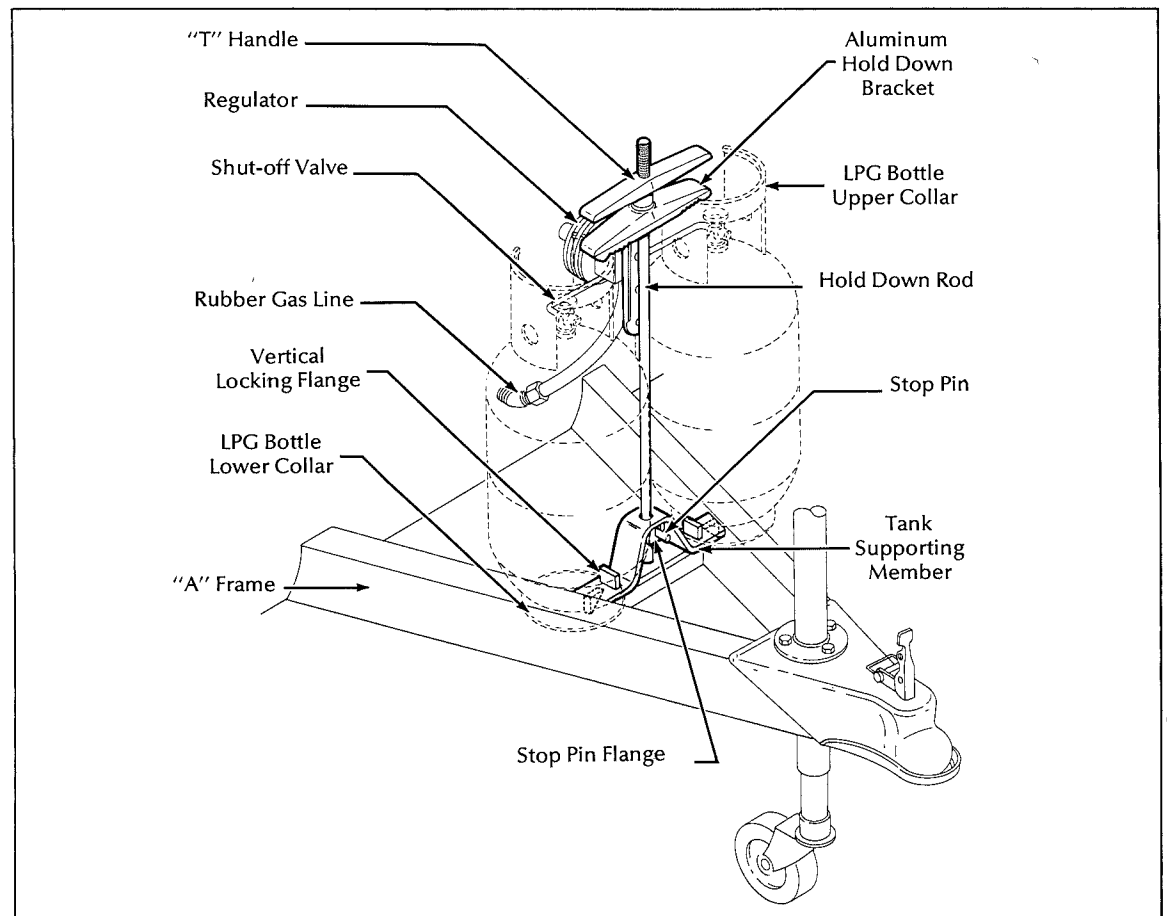


Fig. 1 - LPG - Bottle Installation

1. Turn the knob on your automatic regulator so the arrow points to the tank opposite the one to be removed. Shut off the gas valve on the bottle to be removed.
2. Disconnect the rubber gas line at the bottle to be removed. (This fitting has a left hand thread and turns in the opposite direction to most threaded fittings).
3. Turn the large clamping "T" handle counterclockwise until the hold down bracket is loose enough to remove the bottle.

### **DO NOT REMOVE THE CENTER HOLD DOWN ROD.**

#### **To install:**

1. Place the bottle in position on the "A" frame and bottle crossmember so that the vertical locking flange (See Fig. 1) projects up inside the bottle lower collar and the open gap in the upper collar faces the rear of the trailer.
2. Place the cast aluminum hold down bracket in a position so that it rests on the upper collar of both bottles with the collar rims engaged in the grooves on the underside of the bracket.
3. Make sure that the stop pin in the lower end of the hold down rod (See Fig. 1) passes through the opening in the stop pin flange and protrudes at

approximately 1/4" past the flange front face.

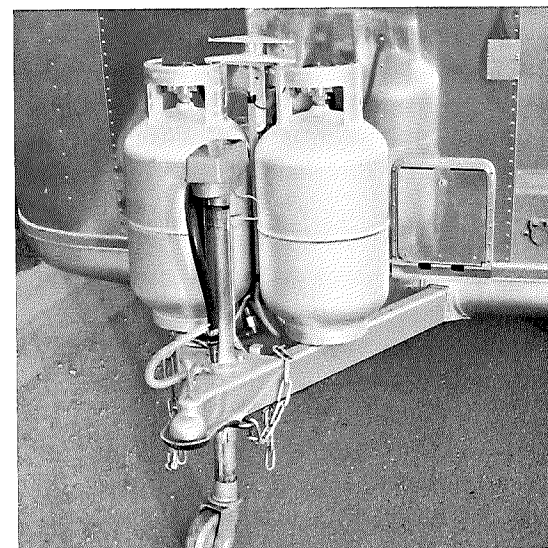
4. Replace the "T" handle and tighten down until the bottles are held firmly in place.
5. Reattach rubber gas lines, turn on gas shut off valves and test all fittings for leaks. To test, paint fittings with a soap suds or detergent solution and watch for bubbles.

If you have allowed both tanks to run out, air may have gotten into the lines. In this event, the air must be forced out through the lines by gas pressure before you will be able to light the pilots. Hold a match to the pilot of the appliance closest to the tanks until it lights and stays lit. Then move to the next closest, etc. For complete appliance operating instructions, refer to pages 58-65.

**Close the shutoff valves on the gas tanks if you smell LP-gas, or if appliance pilot light fails to stay on.** Contact an LP gas company service man to correct the problem.

**Note:** In some states it is illegal to leave gas tanks turned on while towing a trailer.

Additional information on the LPG system will be available in the Airstream Service Manual.



*L.P.G. Tanks and Regulator*

# Refrigerator

Your Airstream is equipped with an **A.G.A. approved Dometic gas-electric refrigerator**. These are the finest refrigerators available for trailer use and will give you many years of faithful service.

**For best operation of this refrigerator it is important to level your trailer.** When parking try to avoid having a strong wind blowing directly against the vent outlet for most efficient operation.

**Controls for both gas and electric operation** are located inside the food storage compartment, at the bottom of the unit, and in the Outside Access Compartment. (See photos.)

**For gas operation**, follow these instructions:

1. Open refrigerator door, all controls for gas operation are located at bottom of unit.
2. To start the refrigerator turn the valve knob (A) to gas position. The gas valve is now open and the electric circuits are not in use. Set thermostat knob (C) to setting No. 4.
3. Pull knob (D) of the automatic pilot, and keep it out for 15 seconds. Press in knob (E) of the piezo lighter. The pressing may have to be repeated.
4. After the burner is lit, which can be seen through reflector window(F), keep the knob (D) pulled outward for an additional 15 seconds.
5. Release the knob (D) and check that the burner is operating.

If the burner is not operating, repeat the lighting procedure.

After a replacement of a gas bottle or a long shut-off period the gas lines are likely to be filled with air. In such cases the lighting procedure has to be repeated until the air is pushed out of the lines and the gas has reached the burner.

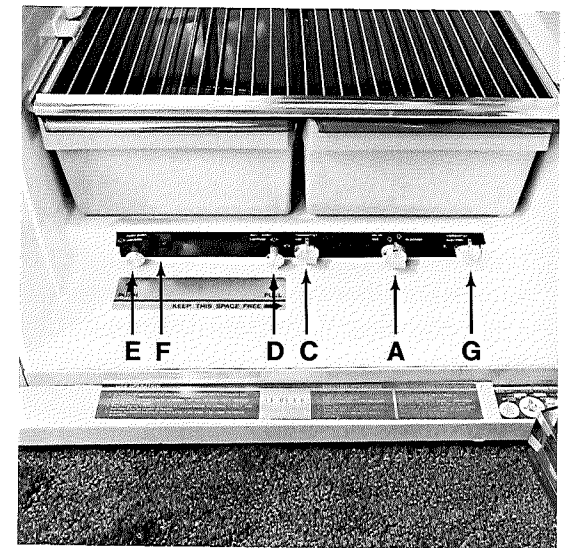
As soon as the required cold temperature inside the cabinet is reached, the thermostat cuts the burner main flame to the by-pass flame sufficient to keep the safety valve open during gas operation. During electric operation the thermostat cycles the flow of the electrical current to maintain the set temperature.

Incorporated in the burner bracket is an automatic flame failure device which allows gas to pass only when the burner is lighted, keeping the thermocouple hot. Should the flame be blown out, the thermocouple will cool and the device will cut off the flow of gas to the burner.

The refrigerator is fitted with a piezo lighter which does not require flint.

**For electric operation**, follow these instructions.

1. Open refrigerator door and outside access compartment door. Outside access doors are opened by unlocking and turning the handle 1/4 turn counterclockwise. Controls for electric operation are located in both areas.



*Controls Inside Refrigerator*

2. To start the refrigerator turn the valve knob (A) to the off position.
3. Plug the electrical cord into the 120 volt outlet (B) located on the back wall of the storage compartment below the Micro Wave oven.
4. Press knob (A) in, until it stops, then turn to electric position.
5. Turn the electric thermostat knob (G) to setting No. 4.

For best operation even during extended stays in parks your unit should be periodically run on gas.

**The refrigerator has automatic thermostat control of the temperature in the food storage space.** The gas thermostat (C) controls the temperature during gas operation, while the electric thermostat

(G) controls the temperature during electric operation. **Be sure to make the temperature setting on the correct thermostat.**

Your Dometic incorporates a unique, **fully automatic defrosting device** for the general food storage compartment, which eliminates the necessity for manual defrosting at frequent intervals normally associated with most conventional refrigerators in the medium size range. Furthermore, the time interval of each defrosting cycle, and the frequency, have been so arranged that during defrosting there is no noticeable effect upon the temperature of the foods stored in the refrigerator, and the frozen food storage conditions can be maintained at all times in the frozen storage compartment.

When cleaning, remove all food and clean the interior and all other plastic parts with warm water, and mild detergents. Never use abrasive or caustic cleaning powders, polishes, cleaning paste, gasoline, turpentine or other solvent type cleaners. Use a damp cloth for cleaning and finish with a soft dry cloth.

When the refrigerator is to be out of operation for some time, always leave the door slightly open or place a pie tin of barbecue charcoal on the shelf.

The following are some trouble shooting tips for emergency use only. They relate

to gas operation and should normally be done by the dealer.

Problem: Flame goes out. The thermostat is out of adjustment. To adjust it, turn the dial to "zero." If the flame does not go down to the "low" by-pass setting, follow this procedure:

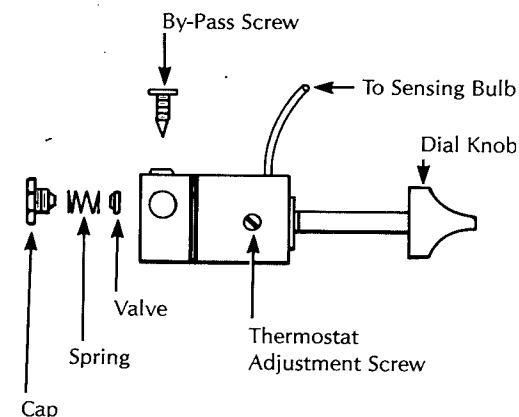
1. Unscrew the large cap screw at the rear of the thermostat and remove the valve. Clean the seat and valve, and replace.
2. If procedure (1) does not correct the problem, adjust the set screw out (in counterclockwise direction) until the flame goes down to the "low" position.

If the flame keeps going out when the dial is turned to (O), remove and clean the by-pass screw which is located as shown in the diagram above.

Problem: Burner does not light. Remove and clean the burner barrel, and/or check the gas supply.

On gas refrigerators, the flue will require cleaning at least every six months. To do this, it will be necessary to gain access to the back of the cabinet. When cleaning the flue proceed as follows:

Unscrew the burner housing, then lift out the baffle on its support wire from the top of the boiler tube. From the top, clean the flue with a suitable flue brush. Also clean the baffle, before putting



Thermostat

back in place. An obstruction in the flue will reduce or stop flue draft. Flue obstructions will cause odors outside refrigerator, slow freezing and higher cabinet temperatures.

Additional information on the refrigerator is available in the Excelsa Service Manual.

# Microwave Oven

The Litton Industries, **portable microwave oven** is available as an option in your Airstream. Airstream dealers cannot service or make adjustments to the oven. This must be done by an authorized Litton Industries service agency. If you ever have problems with the oven check the list of authorized service agents. This list is packed in your microwave oven.

## To operate your Litton microwave oven:

1. OPEN DOOR by pushing down door release.
2. PLACE FOOD IN OVEN.
3. SELECT COOK\* OR DEFROST\*\*
4. CLOSE DOOR—cooking or defrosting cycle begins when oven door is closed. Microwave oven may be opened at any point to check food even if time is left on the dial.
5. ALWAYS turn timer back to "OFF" when food is taken out.

**Please read your cooking guide carefully.** It will help you learn about your new Litton Electronic Oven quickly.

\*For fast cooking of food when recipe calls for "MICROWAVE".

\*\*Provides convenience for defrosting frozen foods. When microwaves first contact the outer section of the food, heat is created and conducted toward the center. Without automatic defrosting there is danger of overheating the outside of the food before the center is hot. In extreme cases, the outside of the food could be cooking before the center is defrosting. Automatic defrosting alternates "defrost cycles" and "rest cycles". The rest cycles allow heat to be conducted toward the center providing an evenly defrosted food.

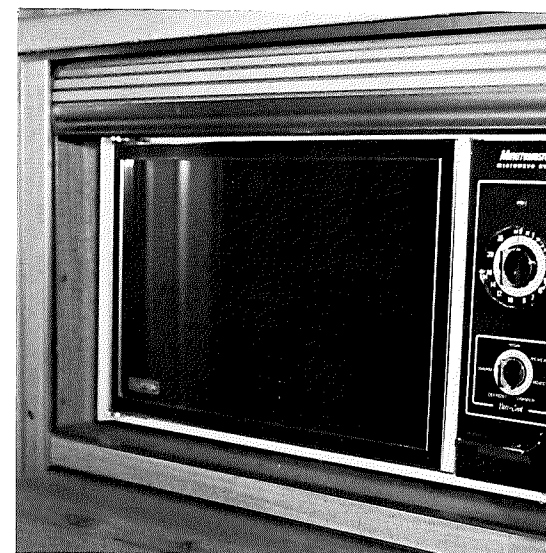
Your microwave oven is portable and can be removed for use in your home when your trailer is not in use.

## IMPORTANT

### Safety and Maintenance Instructions

Litton microwave ovens are one of the safest kitchen appliances. Each Litton microwave oven meets all safety standards set by the U.S. Dept. of Health, Education and Welfare. Look for the safety seal and UL tested label on your oven. However, it is important for you as a user to observe certain precautions and care in utilizing your Litton oven for maximum performance and safety. The door on your oven has been carefully designed to contain the microwave energy; therefore, it is important that you observe the following:

1. Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
2. Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
3. Do not operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the:
  - a. Door (bent).
  - b. Hinges and latches (broken or loosened).
  - c. Door seals and sealing surfaces.
4. The oven should not be adjusted or repaired by anyone except properly qualified service personnel.



Microwave Oven

Your new oven requires very little maintenance except for cleaning. Do not allow grease, soil or splatter to build up on the door seal to the oven cavity. Use only mild detergent, water and soft cloth to clean the door surface and the interior surfaces. Odors can be eliminated by boiling a solution of one cup of water and several tablespoons of lemon juice in the oven for 5-7 minutes. Litton maintains trained service technicians in all principal metropolitan areas. It is suggested that these authorized service agencies be utilized for proper repair and adjustment of your oven.

NOTE: Never operate the microwave oven unless the shelf is in place. The steam that is present during cooking and the moisture on the inside of your microwave oven are normal and nothing to worry about. The moisture is caused by the steam from the cooking food hitting a cool oven surface.

# Range and Oven

Your Airstream is equipped with a Magic Chef **gas range and oven**. The following are some hints on how to keep them operating at their best.

**Note:** The range gas line shut-off valve, located on the lower exterior of the trailer below the range, must be turned off when towing the trailer, when changing the gas tanks, or if the gas supply is turned off for any reason. Be sure oven and top pilot lights have been relighted as soon as range shut-off valve is turned on. If the range has not been operating for a long time, a longer waiting period for ignition of the pilot may be necessary due to air in the gas lines.

## To light the pilots:

1. Be sure all valves are in the "OFF" position. The oven thermostat dial should be in the "PILOTS OFF" position.
2. Turn on main gas supply to range.
3. Depress and turn the thermostat dial to the "OFF" position.
4. Lift main cook top panel and light top burner pilot with a match.
5. Open oven door and light pilot with a match. A small flame will be noted at the top of the pilot burner.

The oven thermostat control knob is combined with the constant oven and top burner pilot shut-off. For normal use: turn only between "OFF" and "BROIL." When traveling, turn to "PILOTS OFF." Relight only when you want to use the

range, by turning from "PILOTS OFF" to "OFF" and lighting pilots with a match.

## Range Top Section

The range top burners are equipped with orifices for use with L.P. gas only. The flame will be approximately ½ inch long. Do not attempt to adjust gas to burner. The orifices have no readjustment.

## Air shutters

The top burners have pre-set air openings and need no adjustment. The flame should separate into distinct cones. An orange flame is probably caused by small filings in the new burners or by dust in the air, clean the burners to correct this.

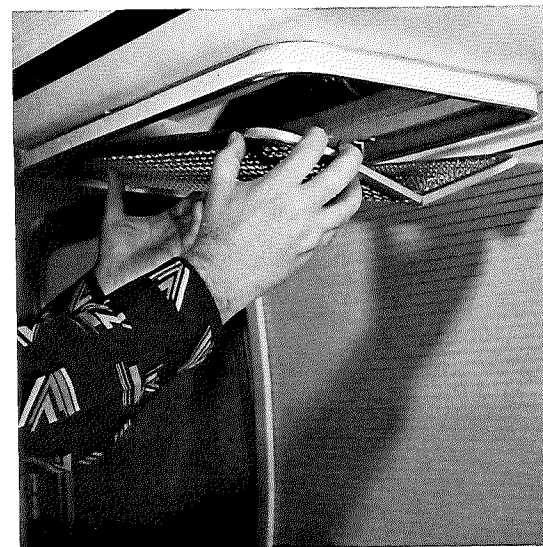
## Top burner pilot adjustment:

Adjust top pilot so that tip of flame is just over the edge of inner cone. Top burner pilot adjustment screw can be reached by removing thermostat knob. Burners should light within 4 seconds. If lighting is difficult, check height of pilot.

**Warning: Never allow the top cover to be closed while the range is in operation, as this could extinguish the flame and permit gas to escape into the trailer.**



*Range and Oven*



*Range Exhaust Hood*

## Oven Section

The thermostat on your oven does not have a by-pass setting. It will cycle off and on at all temperature settings except broil. No by-pass adjustment is necessary. There are no oven pilot adjustments on the thermostat. Control has been factory preset for use on L.P. gas. No field adjustment is necessary. The air shutter has been adjusted at the factory, however, it may require additional adjustment when used at high altitudes.

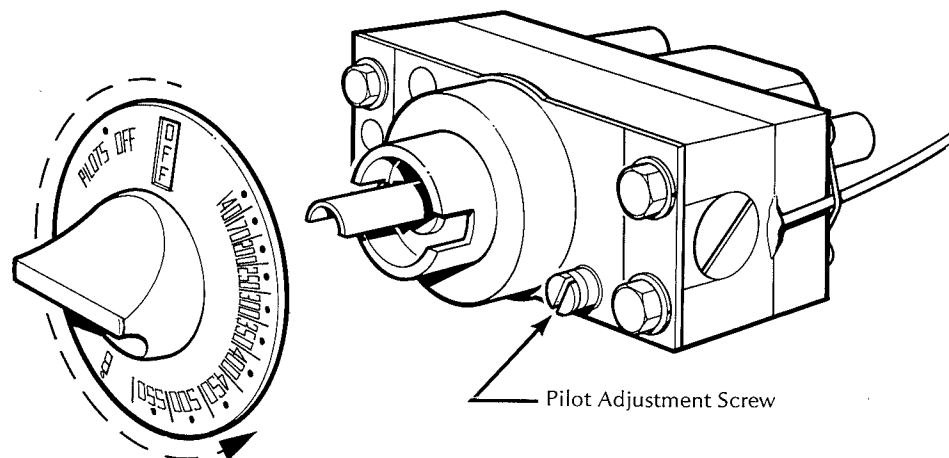
### To adjust main oven burner air shutter:

Open air shutter to the full open position where you have a blowing condition. Begin closing the shutter slowly. When you reach the correct adjustment, blowing will stop. Burner should have a sharp blue flame approximately 3 inches long.

**Important:** Your oven is equipped with a **safety ignition** that requires a minimum of 30 seconds to operate after turning the oven control knob on. The oven pilot may be slow in lighting due to air in the gas lines.

### Cleaning Instructions:

1. The main top has been hinged from the back so that it can be raised or removed for cleaning around the top burners.
2. When cleaning the top burner heads, care should be taken that all ports are opened up with a toothpick afterwards.



Oven Thermostat

3. Spill-over or spotting in the oven or broiler are more easily cleaned when removed promptly after they occur. **Never wash porcelain when warm. Never use cleaning powder containing grit or acid.** When oven bottom is replaced after cleaning and servicing, be sure that it is locked in place.

supporting it with your hand. Keep the vent housing clean of grease and dirt by frequent washing.

Additional information on the Range and Oven is available in the Airstream Service Manual.

**The range exhaust hood** vents cooking heat and smoke from the trailer. To operate, pull down on lever located to the right of central control panel. This will open the shutter and turn on the switch for the power fan. Clean the filter at least every six months with warm water and detergent. To remove the filter, remove the two screws that secure it to the housing and let it drop out while

# Furnace

The Airstream furnace is an American Gas Association approved Suburban unit with an electronic ignition designed specifically for travel trailers. It has a sealed combustion system with a dual blower for maximum air circulation. One blower circulates room air while the other draws in air for combustion. The adjustable louvered heat registers control warm air flow while cold air returns through the galley cabinet toe kick opening.

The heat duct system also circulates warm air around the holding tank, water tank, and one-stop-service center, a vital feature when operating in below freezing weather.

**The Suburban furnace is thermostatically controlled.** When the thermostat calls for heat, the blower starts and only after it has reached nearly full speed will the burner light. After the temperature set on the thermostat is reached the blower will continue to run for a short time removing most of the remaining heat from the furnace as well as forcing the combustion gases from the heat exchanger. To turn the furnace off for an extended period of time turn the thermostat and the gas valve to their "OFF" positions. The gas shut-off valve is outside the trailer below the furnace. Operating instructions are printed inside the furnace door.

Trouble-free operation of the Suburban furnace will depend on your adherence

to recommended operating procedures and precautions. Regular preventive maintenance is important.

Recommendations and instructions are covered under "Maintenance and Cleaning" on page 64. Corrections of possible malfunctions presented here will be helpful in an emergency situation, but servicing should be done by a dealer. One note of caution regarding flue gases: they are vented from the furnace to the outside of the trailer through a vent in the outside wall. **Do not in any way obstruct this vent by placing clothing or other flammable material on the vent assembly.** Check it often to make certain it does not become clogged.

## To start the furnace:

1. To light the furnace, turn the manual valve to the "off" position and wait 5 minutes with blower running. (Set thermostat above actual temperature to operate blower.)
2. After 5 minutes, set the thermostat to the "off" position.
3. Open manual valve. (Correct operating characteristics depend on this valve being positioned fully open. Never attempt to operate with valve partially closed.)
4. Set thermostat on desired temperature.
5. If burner does not light, set thermostat on "off" and repeat steps 1 thru 5.



Furnace Thermostat

6. If after 3 tries and no ignition, go to shut down and determine cause. Do not attempt to light burner with matches.

## TO SHUT DOWN

1. Turn manual valve to the "off" position.
2. Set thermostat on off.

**Caution:** The air shutter adjustment cover must be tightly secured for proper operation of the heater.

If your fuel supply is depleted the main burner will go into lockout. To reset the lockout, turn gas valve to "OFF" and set thermostat to "OFF". Wait 5 minutes and return to operation.

### **Adjustment of Main Burner (Primary air):**

Set the furnace into operation by advancing the thermostat and allow to run until it reaches near-maximum operating temperature. Observe the main burners through the burner observation window. The flame should be without a trace of yellow and be "sitting" on the burner. As the furnace was tested at the factory before shipment, it may be found that the primary air is already in proper adjustment. However, adjustments may vary from one location to another due to differences in elevation and in characteristics of the fuel gases.

If the flame burns yellow or "lifts" off the burner, it needs adjustment. Take out the screws retaining the rectangular cover plate and lift the plate off.

Inside the opening is a threaded rod with the visible end slotted to receive a screwdriver. By turning the rod you will adjust the position of the main burner air shutter. This air shutter should be adjusted to the point where a hard blue flame is present at the burner. Replace the cover and check to be certain that the flame is still hard blue. **Caution: The primary air adjustment cover plate must be in place for proper operation of the furnace.**

**Note:** If burner is allowed to operate in yellow condition, "soot" will accumulate on vent cap and in radiators. This should not be allowed to occur.

When the humidity is high inside your trailer and you wish to remove moisture, open a roof vent and turn on a vent or open a window slightly for cross ventilation.

Additional information on the Furnace is available in the Airstream Service Manual.

### **Maintenance and Cleaning**

We recommend that the furnace be inspected and thoroughly cleaned by a qualified service agency before each heating season. This would include the combustion chamber, the main burner, the blower assembly, and all control parts. A careful inspection of all gaskets should be made and if any gaskets show signs of leakage or deterioration, they should be replaced.

Cleaning of the chamber and main burner will be required if the unit has been allowed to operate with a high yellow flame. The yellow flame is due to incomplete combustion (lack of air) and will deposit a soot formation inside the chamber and on the main burner.

To clean the chamber, main burner, blower assembly and controls, the chamber assembly must be pulled from the furnace.

The furnace is equipped with an oiled, sealed motor and requires no oiling.



*Removing Furnace Access Door*

# Water Heater

The Atwood-Bowen Gas Water Heater is equipped with a Robertshaw LP gas pressure regulator control with a 100% shut-off safety valve which shuts off the gas supply if the pilot flame is extinguished or the water temperature becomes excessively hot. It is lighted and serviced from the outside through an access panel at the roadside, rear, of the trailer.

## Procedure for lighting or relighting:

1. **Be sure the water heater is filled with water.** Open the hot water faucet at the sink and when the water flows, the heater is full.
2. Turn gas supply line valve, on the lower exterior of the trailer below the water heater, to the "ON" position.
3. Turn the gas valve knob (A) to the "OFF" position and the temperature indicator dial (B) to the lowest temperature position.
4. Wait sufficient length of time to allow gas, which may have accumulated in the burner compartment, to escape (approximately five minutes).
5. Turn gas valve knob (A) to "PILOT."
6. Depress and hold the red reset knob (E) and push the lighter (D) in and turn until the pilot flame ignites. This may take several turns of the knob. Or you may light it with a match.  
**Note: use cigarette lighter flint for flint replacement in pilot lighter.**
7. Keep the reset knob depressed for one-half minute after the pilot flame ignites.
8. Turn the gas cock knob to "ON."

9. Set the temperature indicator dial to the desired water temperature.
10. To shut down the water heater, turn the gas cock knob to the "OFF" position.

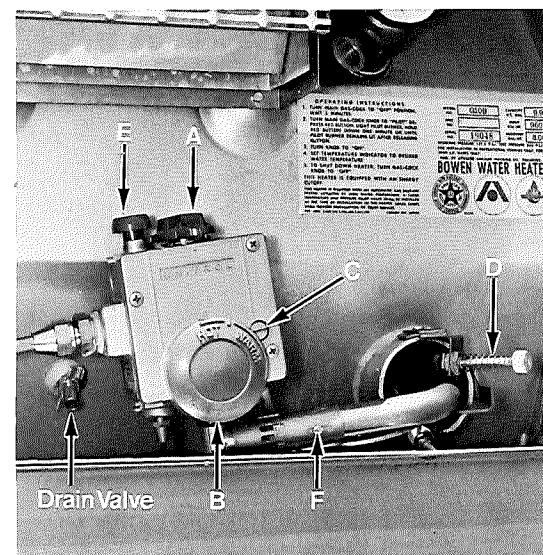
## Pilot Flame Adjustment

If the pilot flame does not have a small orange tip, the pilot is not getting enough gas. The flame should be about  $\frac{1}{4}$  inch in vertical height when the water in the tank is cold and the burner is off,  $\frac{1}{4}$  to  $\frac{3}{8}$  inch in horizontal length when the tank is warm.

A large orange flame indicates excessive gas supply, which will result in short pilot life and early replacement. The pilot has been properly adjusted at the factory and should operate with a blue, orange tipped flame enveloping the pilot thermocouple. Removal of the pilot adjustment cap (C) in the lower right corner of the control will reveal the pilot adjustment screw. Turning this screw counter-clockwise reduces the flow of gas to the pilot (blue flame) and clockwise, the gas supply will increase (orange flame). Replace pilot adjustment cap.

## Air Shutter Adjustment

All fuels depend upon air (oxygen) to give them proper burning characteristics. A yellow, smoking flame indicates a lack of air and a noisy hard blue flame indicates too much air. The air shutter slides back and forth along the burner tube and is held in place by a small shutter adjust-



Water Heater Controls and Drain Valve

ment screw (F). Loosen the screw for adjustment. A good method of adjusting the air shutter is to slide the shutter to the right until yellow tipping occurs on the main burner flame (not the pilot) and then slowly slide the shutter to the left until all signs of yellow tipping are gone. When proper adjustment has been obtained, tighten the screw holding the air shutter. The outside access door must be kept firmly locked for proper operation.

Additional information on the Water Heater is available in the Airstream Service Manual.

# Water System

The Airstream water system provides full service both when the trailer is self-contained or when city water is available. Water heater capacity is 6 gallons. The water tank stores 45 gallons of clean fresh water for all your needs.

When self-contained, the water pump should be turned on. The switch is located on the Central Control Panel in the galley roof locker of your Airstream. The water pump will run whenever a faucet is opened, and will shut off whenever a faucet is closed. It will deliver 3 gallons per minute under constant pressure.

**Note: The water pump must be turned off and the pressure in the system relieved prior to hooking up to city water supply and when you leave your Airstream unattended.**

The water pump and filter are in the bathroom cabinet on rear bath models and bedroom wardrobe on CB models. The filter screen should be checked periodically to inspect for accumulation of dirt and sand. To clean the screen disconnect the rubber hoses from both ends, separate the screen housing, remove the screen, clean and replace, taking care that all connections are air tight.

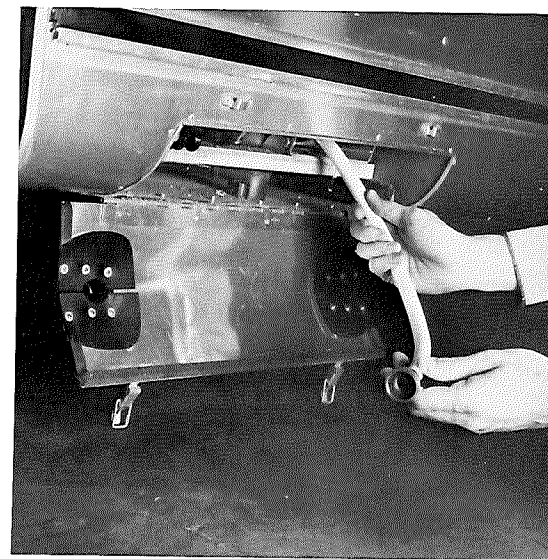
For city water supply, use the standard hose reel or connect a 1/2" minimum high pressure hose to the water inlet fitting located under the rear roadside corner of the trailer, just forward of the bumper, rear bath models or just back

of roadside wheel well on center bath models. Turn the hose on and slowly open an inside faucet until the water flows free of air. The system will now be ready for use. If you are staying for some time where city water is available, drain the water storage tank. To drain the tank, open a drain valve or faucet and turn the water pump switch on until the tank is empty. Be sure to refill the tank with fresh water before departing. The system has check valves in the water lines to protect the water tank while you are connected to the city water supply.

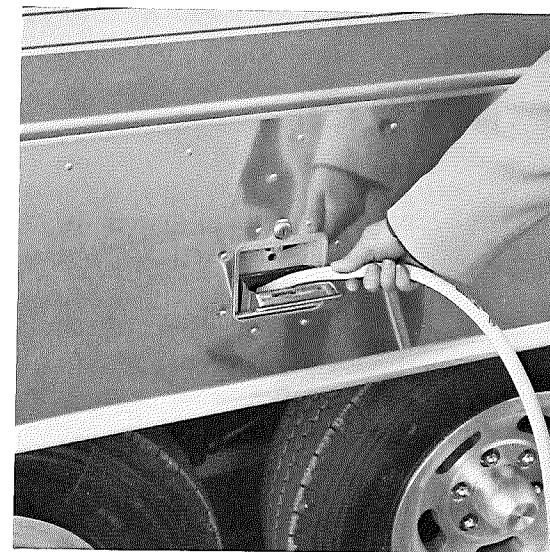
The water tank is located under the floor between the axles. To fill the water storage tank, open the filler spout (see photo) on the exterior roadside wall between the wheels, and fill with a hose or a bucket. Close and lock the spout and the water system is ready to use.

To clean the tank, pour some bicarbonate of soda into the filler spout with several gallons of water and allow to stand for a minimum of four hours. Then flush the tank out by opening a faucet, allowing the water pump to drain the system. Then refill with fresh drinking water. If the water tank must be cleaned further, the following procedure is recommended.

1. Prepare a sodium hypochlorite solution using potable water and household bleach (5 1/4 or 6%) in the ratio of 1/4 cup of bleach to 1 gallon of water. (Common household bleaches are Purex and Chlorox.)



Water Supply Inlet and Water Hose Storage

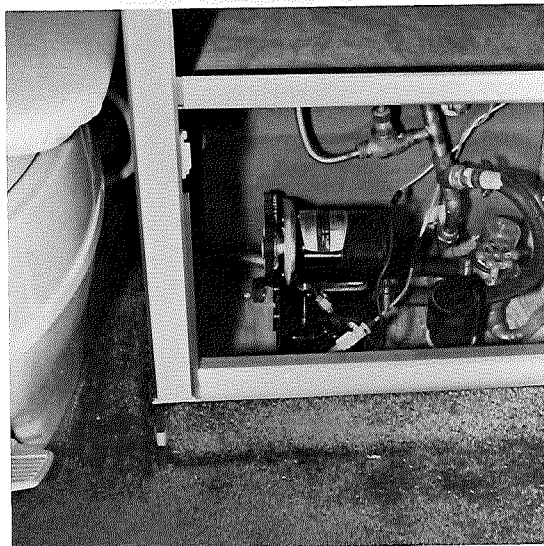


Water Tank Fill Spout

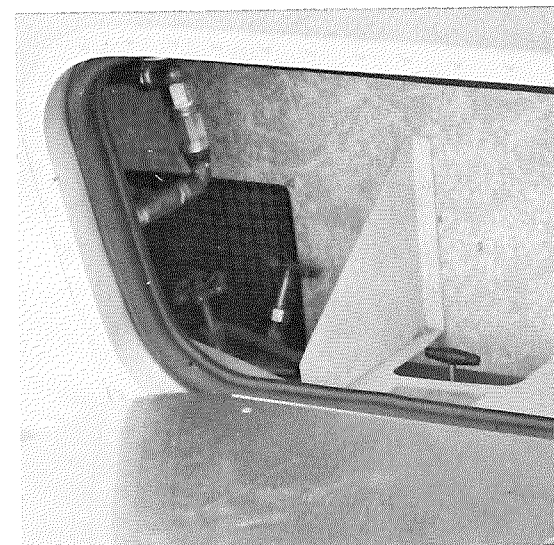
2. Pour 1 gallon of hypochlorite solution for each 15 gallons of capacity into the empty water tank.
3. Add enough fresh drinking water to completely fill the water system.
4. Allow closed system to stand for three hours.
5. Drain the hypochlorite solution from system and refill with potable water.
6. Excessive hypochlorite taste or odor remaining in the water system is removed by rinsing the system with a vinegar solution mixed in the ratio of 1 quart vinegar to 5 gallons water.
7. Drain the system and flush with fresh drinking water.
8. Drain the system and refill with fresh drinking water.

The **Everpure QC-2 Water Purifier** is located under the galley. It will remove all dirt and colloidal matter, and eliminate most chlorine, phenol and similar odors and tastes while delivering sparkling taste-free water for drinking and cooking. The filter is connected to the cold water galley drinking faucet only. The filter is not guaranteed to remove the tastes and odors of iron and sulfur. To remove these tastes, chlorinate the water supply. Super chlorination will precipitate dissolved iron, which will be removed by the QC-2 filter.

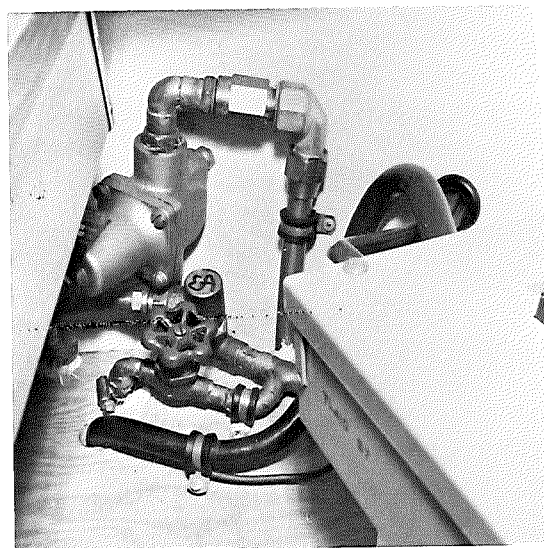
If the bacterial quality of the water is questionable, fill the Everpure chlorine disinfectant dispenser with an ordinary household liquid bleach and add one teaspoon of the same bleach to each 10



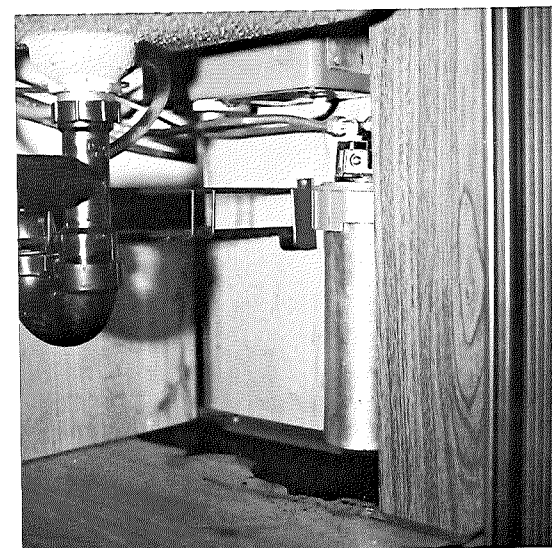
*Water Pump and Filter*



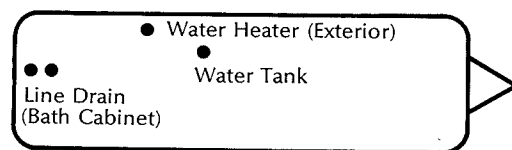
*Water Drain Valve (Rear Bath)*



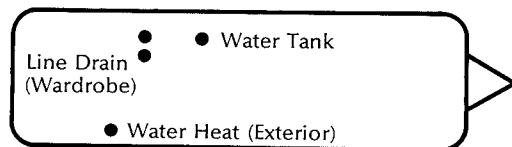
*Water Drain Valve (Center Bath)*



*Water Purifier*



Rear Bath



Center Bath

#### • Drain Valve Locations

gallons of water in the water tank (i.e. 5 tsp. for a 50 gallon tank). The quality of the water never varies even at the end of the filter pack life, however as the minute pores slowly fill up with impurities, this will gradually reduce the rate of flow until it is necessary to change the filter. Instructions are in each box and we advise buying two at a time, always keeping one in reserve.

#### To remove used cartridge:

1. Shut off water by lifting valve handle counterclockwise as far as possible.
2. Turn colored ring all the way to the left. Ring will drop about 1/2."
3. Lift cartridge slightly and turn it further to the left until it can be disengaged.
4. Lower cartridge to disengage it from ring. Discard used cartridge.

#### To install new cartridge:

1. With colored ring in lowered position (turned all the way to the left) orient lug on cartridge with cutout under label on ring.
2. Insert cartridge straight up into ring as far as it will go. Holding colored ring steady, turn cartridge as far to the right as possible.
3. Then turn colored ring far to right to drive cartridge up into head.
4. To lock ring in place and turn water on, move valve handle down. Be sure handle leg engages ring locking-lug.

The **Water Pressure Regulator** is on the roadside of the rear trunk in rear bath models, bedroom wardrobe in center bath models. It protects the plumbing inside your trailer, regardless of the variation in city water pressures. The pressure at the faucet is kept constant.

The water system has built in drain valves to protect it from winter freezing. For complete details see page 37.

Your **Dish-Quik® automatic spray** is designed to use liquid detergents only. Do not use soaps or soap powders.

#### To fill with detergent:

Remove clear plastic detergent capsule, fill it with detergent and replace on Dish-Quik. When suds are no longer produced, refill.

#### To operate your Dish-Quik:

1. Turn on faucet (a medium stream of water flowing from spout is best). Adjust water to desired temperature.
2. Squeeze "on-off" lever or trigger. Clear water will spray from Dish-Quik. (Some water may continue to trickle from swing spout.)
3. Press round button on top of Dish-Quik. Suds will be added to the water spraying from Dish-Quik. Release button to stop suds.
4. Release "on-off" lever. Spray from Dish-Quik will stop and flow of water will return to swing spout.

Press the round button only briefly when you want suds. Don't hold it down continuously as this wastes detergent. When washing a glass, pan or bowl, fill with sudsy water from Dish-Quik. Then release controls (so flow of water returns to swing spout). Scrub item with Dish-Quik. Then rinse with clear water spray, or under swing spout. The fastest method for rinsing is to accumulate the dishes in rack, then spray rinse all at one time with Dish-Quik.

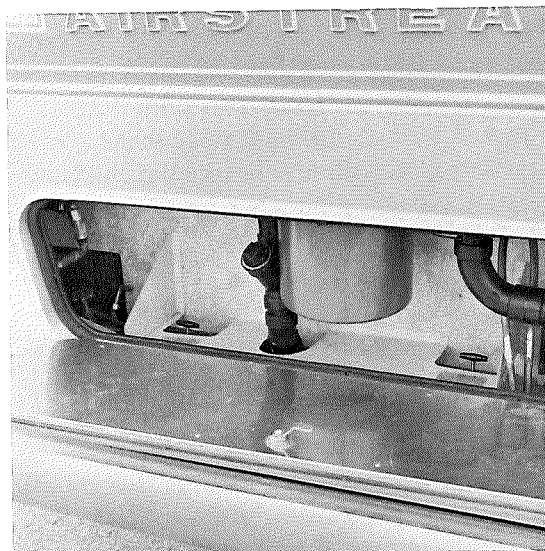
Additional information on the water system is available in the Excella Service Manual.

# Drain and Waste System

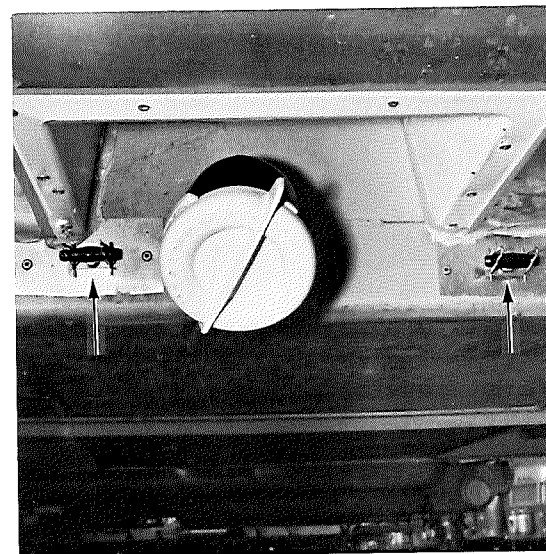
Your Airstream has a drain and waste system. The system includes waste holding tanks made from molded plastic, free from corrosion problems, with trouble free dump valves. The **main holding tank** enables you to use the toilet for several days away from disposal facilities. The waste water from the sink, shower, bath and lavatory drains into the **auxiliary holding tank**. Each tank has its own dump valve, however, both tanks drain through a common outlet. Therefore you need to make only one connection when hooking up in a trailer park with sewer facilities.

**When the toilet will no longer drain, the main holding tank is full and must be emptied.** Watch this closely, because **when the tank is full, sewage cannot be emptied from the toilet bowl.** Check the main holding tank gauge lights on central control panel. The auxiliary holding tank must be emptied when the central control panel lights indicate full.

On rear bath models the **dump valves** are located in the rear trunk compartment. The main holding tank dump valve is located on the roadside and the auxiliary holding tank dump valve is located on the curbside. On center bath models the dump valves are located on the roadside, just behind the rear wheels, on the main frame rail. The main holding tank dump valve is located rear of the sewage outlet.



*Rear Bath Dump Valves*



*Center Bath Dump Valves — Center Bath Sewage Outlet*



*Rear Bath Sewage Outlet*



Toilet Hand Spray



Toilet Pedal Operation

To empty one or both tanks attach the sewer hose by pressing the bayonet fitting onto the dump valve outlet and rotate clockwise until it feels solid and secure. Attach the outlet end of the hose to the sewage outlet, making sure that the hose is placed so it will drain completely. The dump valves have two wire loops that lock the handle in the closed position. To unlock push outward on the wire loops and they will snap loose, permitting you to open the valve. Pull up the dump valve handle as far as it will go and wait until the tank is drained. When dumping, the main holding tank should be dumped first; then the auxiliary holding tank. This will help to rinse out the sewer line with auxiliary holding tank water.

The main holding tank must be flushed out until all paper and waste material is removed. Close the dump valve and refill the tank with 5 to 10 gallons of clean water and repeat until clean.

On rear bath models, a convenient fitting for flushing the holding tank is in the center of the rear trunk compartment.

Replace the plug after using the fitting. The sewer hose is stored in the rear bumper compartment. Rinse out the sewer line before storing.

**When in a park and connected to a sewer outlet,** keep the main holding tank dump valve closed and empty the tank

every few days or whenever it becomes almost full. **Only by sending a large volume of liquid through the main holding tank at a time will toilet paper and other solids completely wash away.**

This practice will avoid the accumulation of solids in the main holding tank which could lead to an unpleasant cleaning job. Should solids accumulate and close the dump valve, fill the tank about half full with water; then tow the trailer for a few miles. The turbulence and surging of the water will usually dissolve the solids into suspension so the tank can be drained. Keep the auxiliary holding tank valve open when connected to a sewer outlet.

The **Aqua Magic toilet** employs a sliding self-cleaning positive seal blade. Odors cannot escape from the holding tank into the trailer. The unit uses less than 2 quarts of water for automatic flush. A special feature is the second pedal attached to the main foot pedal which, when pressed by itself, allows fresh water through either the fill rim or hand spray without opening the slide valve.

**When conserving water,** use the hand spray in the following way:

1. Hold the hand spray in ready position over bowl.
2. Depress thumb button and step on the foot pedal, which sprays water and dumps the contents at the same time.
3. Spray bowl clean.
4. Release foot pedal, shutting off water flow.

5. If you wish to refill bowl with water for next use, depress small foot pedal till water reaches desired level.

**When using automatic flush:**

1. Step on main foot pedal, and this will automatically open the slide valve and drop the waste into holding tank.
2. Hold pedal down until water begins to swirl. This fills rim storage and rinses the bowl.
3. Release the foot pedal. This will close the valve blade and stop fresh water from flowing. The bowl will refill automatically.

If you are certain to empty your holding tank every few days, you can use the toilet on automatic flush. It uses very little water and the tank will provide for the requirements of two adults from 2 to 4 days.

**Whenever water is scarce**, the hand spray flush makes it possible to stay a week or longer in areas where you cannot empty the holding tank. In flushing for urine only, first, wet the bowl with fresh water, and again after use. Starting with a dry bowl takes more water for the final rinse. To flush for urine and solid matter: spray just enough water in the dry bowl to provide for floating the paper and solids. After use, rinse down the sides with the hand spray and empty the bowl. Hold the slide valve open and spray and rinse the lower surfaces. Even if it appears clean, quickly rinse it one

more time, then release the pedal and it is ready for the next use.

**There are certain items that should never be put into the toilet or tank.**

Facial and other similar tissues: because they have wet strength and do not dissolve easily. Toilet paper, especially white, dissolves well after a period of traveling.

**Use only trailer sewage tank deodorizers. Antifreeze, ammonias, alcohols and acetones may cause damage to the tank, valve parts, tank fittings, and drain hose. For protection against freezing, use recommended fluids (see Winterizing, page 37).**

Some state and federal parks prohibit draining sink and bath waters into the ground, although this is done in the wilderness. Your auxiliary holding tank will hold this water until you are at a dump area.

The **auxiliary holding tank should be flushed out periodically** to wash away sediments that may accumulate on the bottom of the tank. To flush, close dump valve, fill tank with water and then release dump valve. This volume of water will wash sediment away.

Additional information on the Drain and Waste System is available in the Air-stream Service Manual.

# Electrical System

The exclusive **Airstream Univolt System** enables you to use the lights and appliances whether operating on self-contained battery power or hooked up to 120 volt city power. This combination unit is designed for protection from damage up to and including a dead short. The 12 volt light bulbs give off the same light as regular household bulbs, so that when operating on self-contained battery power, everything works normally except the 120 volt convenience outlets and electrical operation of the refrigerator.

**Convenience outlets** for 120 volts and 12 volts are located throughout the interior of the trailer, see diagrams page 76.

Exterior outlets for 120 volts are located on the curbside exterior wall, between the wheels.

Each 120 volt circuit is protected with circuit breakers to prevent damage due to electrical shorts or overload.

A 30 amp main breaker is provided for additional protection, which will trip should you overload the overall 120 volt system. Example: If you are operating the air conditioner, Micro Wave oven and vacuum cleaner at one time, the trailer's main breaker would trip. The operation of two of these appliances alone in any combination would not trip the breaker.

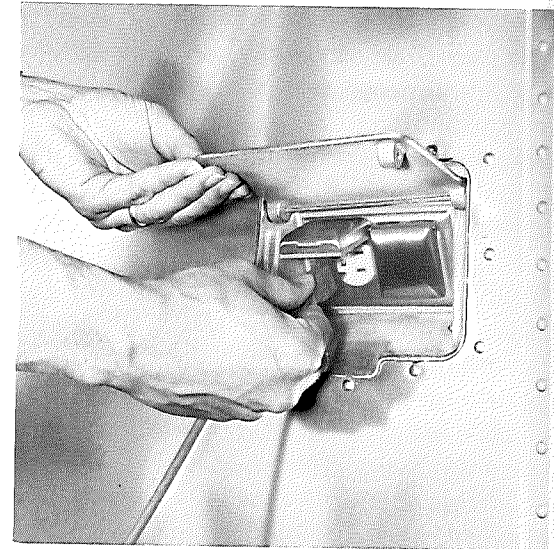
**When operating with city power,** make very certain that the service is 120 volt

and not 220 volt. Roll out the power cord from the automatic reel to the desired length and plug it into the city power source.

The **univolt system** has a transformer designed to maintain constant output voltages regardless of the variances that occur in city power systems. The transformer design eliminates the need for complex electronic sensing systems to charge the battery, minimizing the possibility of failures and greatly increasing its overall reliability.

**When the three pronged plug can be used, there will be no problem with proper polarity or grounding.** In some older parks and other locations where three pronged outlets are not available, **certain precautions to insure proper grounding and polarity must be taken:**

1. Attach the three pronged plug to a two prong adapter. The third conductor line of this adapter has a short wire lead which must be grounded.
2. For proper grounding connect the ground lead to a grounded outlet box or to a cold water pipe. When no water pipe is available, experienced trailering people will drive a metal rod two feet into the ground and attach the ground lug to it thus providing the unit with proper grounding.
3. Check the polarity light located on roadside rear area.



120 Volt Exterior Outlet



Polarity Warning Light

The **polarity warning light** indicates improper polarity and it should be off when the power supply cable is used with a two pronged adapter. It may occasionally glow when the three wire system is in use, but your trailer is properly grounded, and in this case you may ignore the light.

To **operate self-contained**, unhook electrical cable from its connection, give a slight pull on the cable and it will automatically wind up.

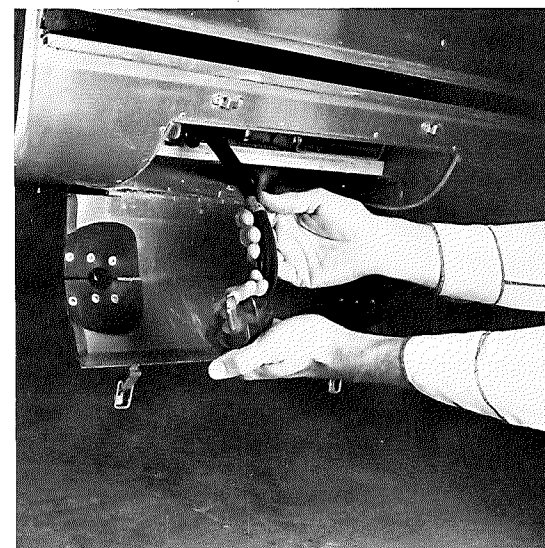
When your Airstream is hooked up to 120 volt A.C. the **Univolt System automatically charges the trailer battery** and, if it is hooked up, your automobile battery as well. The speed and degree of charge depends on how much power is used for lights and appliances, as only the surplus goes to charging the battery. (Please refer to the specifications section for more information on power consumption.) If you are making an extended stay or storing your Airstream, then you should (if it is available) **keep your trailer hooked up to 120 volt current**.

**Whenever possible, use the automatic built-in charger of the Univolt System for charging.** The charging circuit automatically controls the current, reducing it as the battery increases in charge. At service stations, make certain they give your battery a slow charge because quick charges will drastically shorten the life of the battery as will allowing repeated complete discharges.

The **Univolt Fuse Panel** is behind the front lounge or fixed lounge on models so equipped. On models with a front credenza, it is behind the fold down table. While you are connected to the 120 volt receptacle, the wiring is protected by circuit breakers in the breaker panel providing the polarity and grounding is correct. On rear bath models the **120 volt circuit breaker panel** is accessible in the bathroom cabinet to the right of the sink. On center bath models it is located in the roadside wardrobe. In the event of failure of a 120 volt circuit, check your circuit breaker first. If a breaker continues to trip after you have reset it several times, your circuit may be overloaded with appliances or there may be a short in the circuit. If lessening the load does not solve the problem consult an Airstream Service Center or the factory.

When being towed, the 12 volt battery in your Airstream is receiving a constant charge from the car's generator or alternator through the Seven Way Connector. The charge rate is controlled by your automobile's voltage regulator. It is important to keep the seven way connector clean: one method is to use "Spray-Kleen."

Additional information on the electrical system is available in the Excella Service Manual.



120 Volt Inlet

# Battery

A normal battery will discharge by itself in 30 to 45 days, therefore **it is necessary to periodically check the battery and charge it as is necessary.** We suggest checking the battery at least every two weeks in freezing weather. A fully charged battery will not freeze under any normal circumstances, therefore, it is imperative that you keep your battery charged during the winter. A safe level of charge is a specific gravity reading of 1.225. A fully charged battery has a specific gravity of 1.250 to 1.280. Always use a hydrometer which has a temperature correction scale.

**Maintain a clean battery top and check terminals and cables for tightness and cleanliness.** A dirty battery will dissipate its charge through surface contamination. Clean battery top with a damp cloth and dry thoroughly.

The terminals should be tight and free of corrosion. To clean terminals, neutralize with a solution of baking soda, rinse in clear water, and dry.

To insure maximum battery capacity on both charge and discharge, the battery terminals and the inside portion of the cable connector should be scraped or brushed until both of these surfaces are shiny bright. The cable connectors should then be reconnected to the battery and tightened. The complete assembly battery post and cable connector should be coated with a heavy bodied

mineral grease or petroleum.

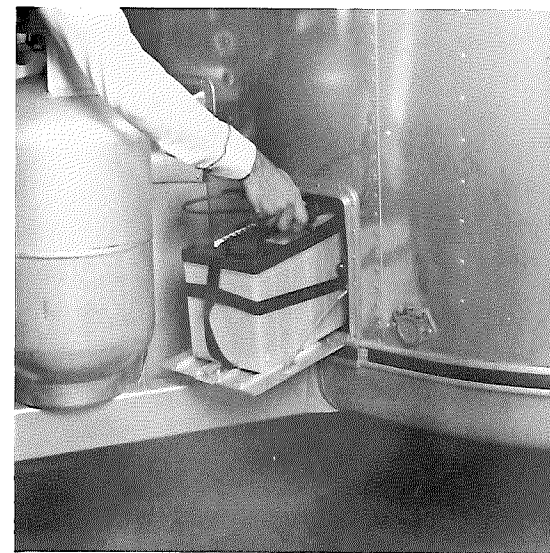
**Important: Reconnect the battery cables to the correct battery posts.** For example, if negative ground the black cable should be connected to the negative (−) post and the red cable to (+) post. The polarity may be determined by inspecting the battery post which is grounded on the tow vehicle, since it must always match the trailer. For example, if negative pole of the tow vehicle is grounded, the polarity of the trailer battery is negative ground.

**Add water to cells as necessary.** Check the electrolyte level at least once a month. When you are traveling steadily and for an extended period of time, or you are in climates above 90°F check the electrolyte level every two weeks.

**Caution:** The gases generated within a storage battery cell may be ignited by an open flame or spark in the vicinity of the battery. Do not use a match to provide light for checking the level of water.

During the winter the battery should be removed from the Airstream and stored in a cool, dry place, kept full of water, cleaned and charged monthly. A battery which is allowed to completely lose its charge will never regain its original power, or a full charge.

The battery is located in a roadside



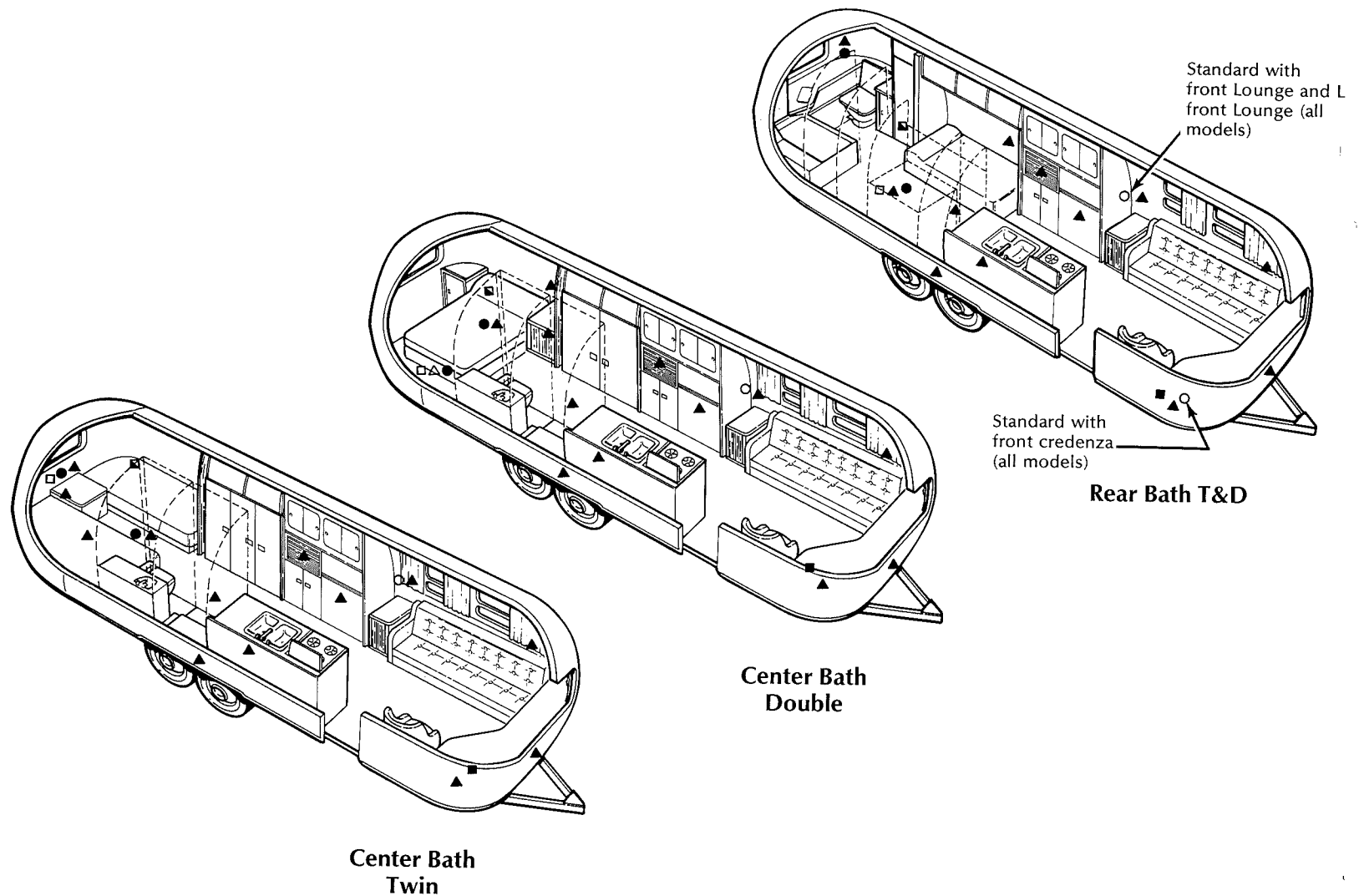
*Battery Cable Quick Disconnects*

Batteries are located in roadside and curbside compartments adjacent to the L.P.G. tanks. The battery slides out onto the opened door for service and removal. For removal it is not necessary to remove cables from battery terminals, just pull quick disconnects apart (see photo).

For battery service or replacement, go to any service station or dealer who sells and services this battery. The battery is rated for 105 amp. hours at 80°F and has a 5 year prorated warranty.



# Electrical Outlet Locations



▲ 120 V (standard)

△ 120 V (optional)

■ Telephone Jack

□ T.V. Jack

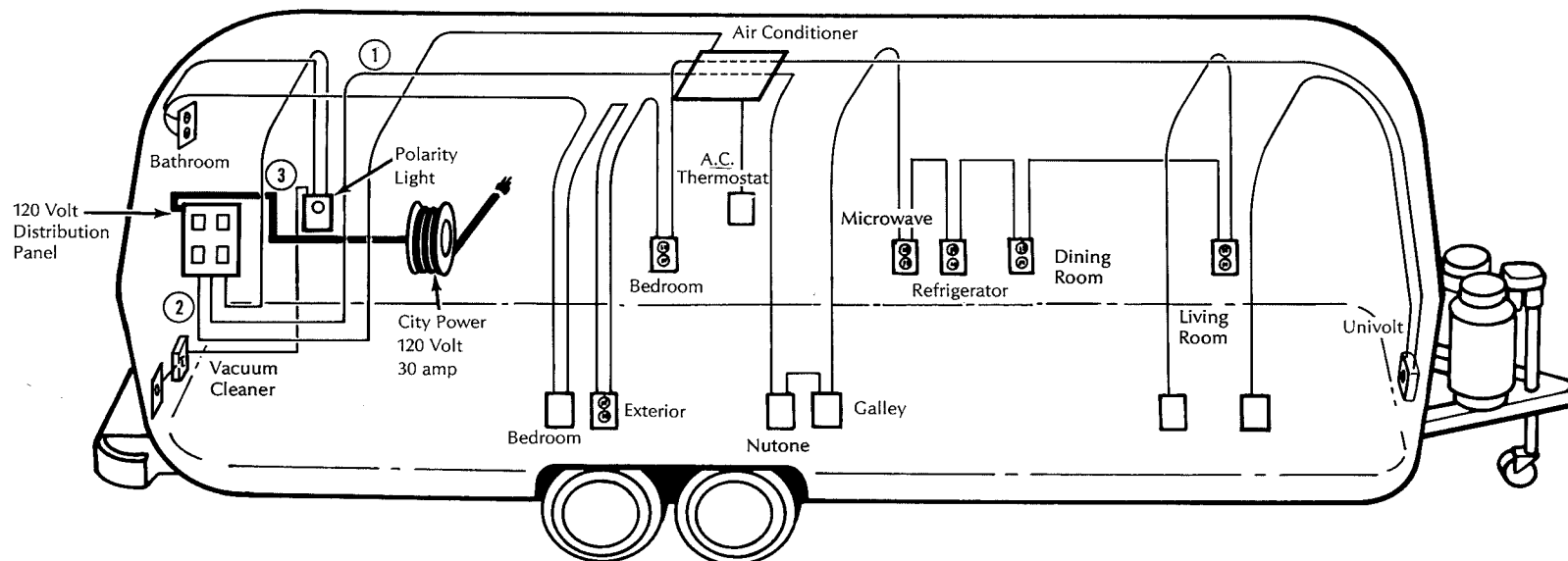
● 12 V (standard)

○ 12V (optional)

◼ Telephone Inlet

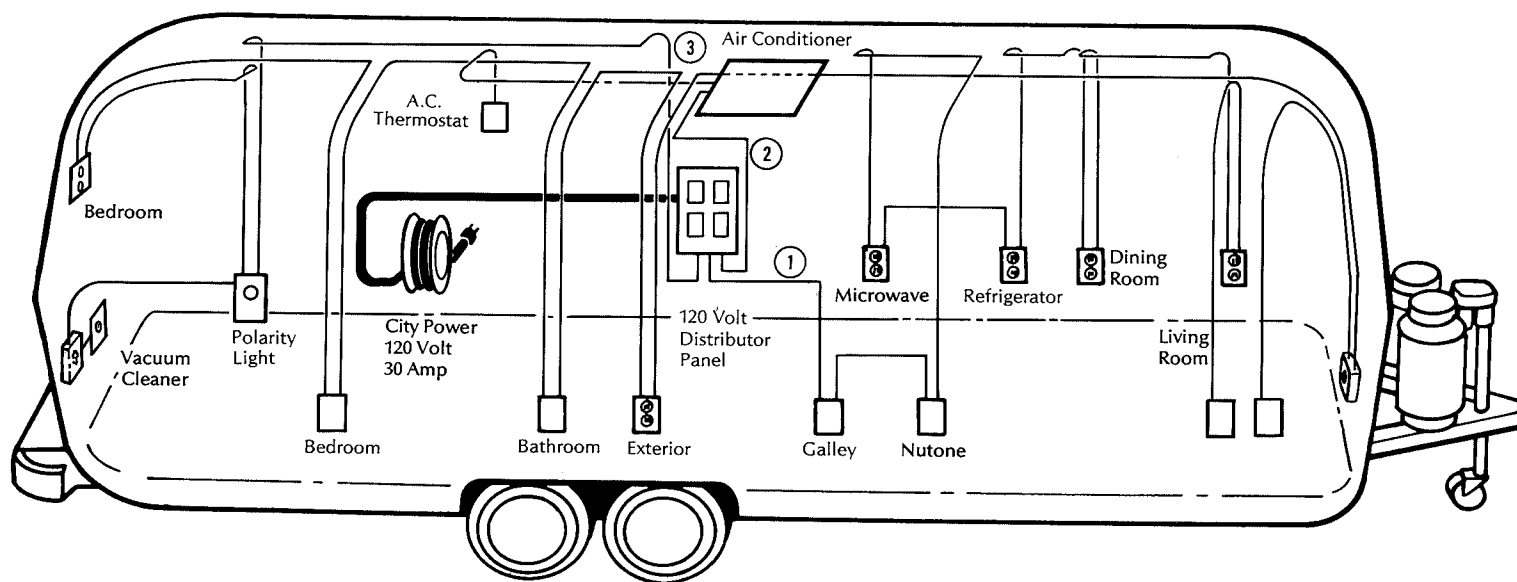
# Electrical Wiring Diagrams

## 120 Volt Distribution System—Rear Bath T&D



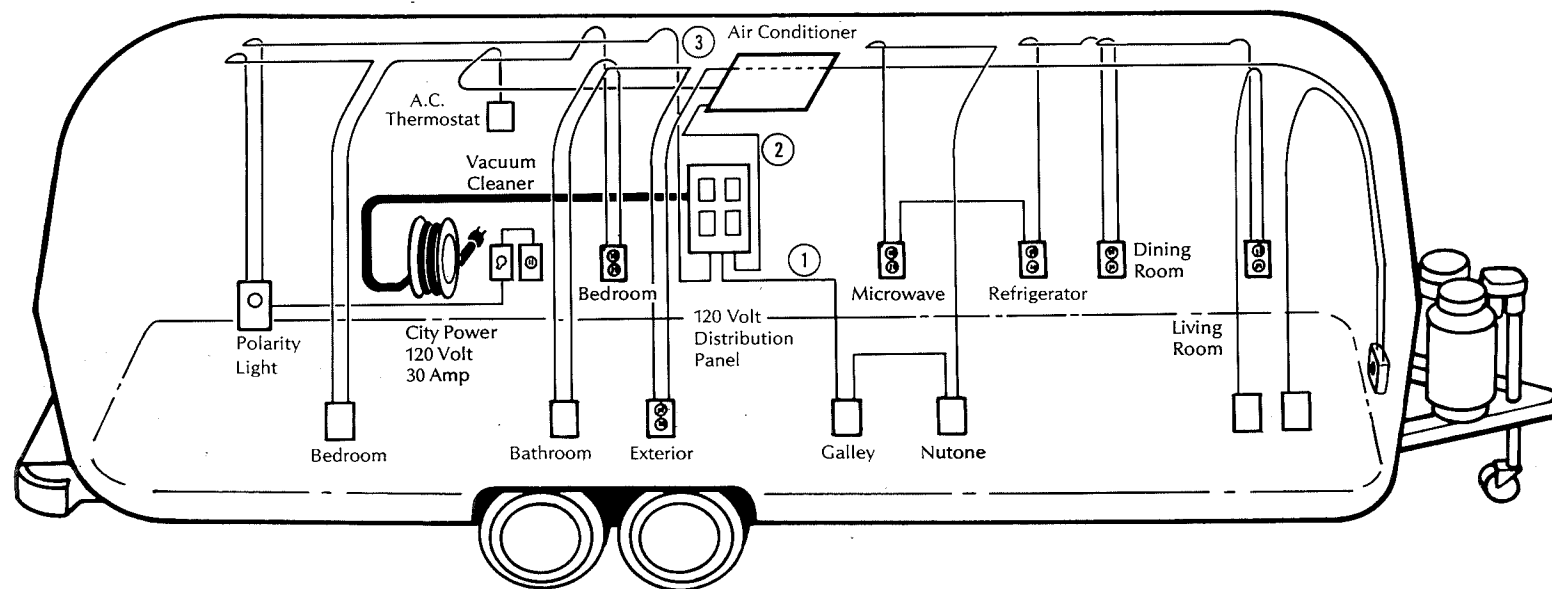
- ① Appliance Circuit—20 amp
- ② Air Conditioner—20 amp
- ③ General Circuit—15 amp

## 120 Volt Distribution System—Center Bath Twin



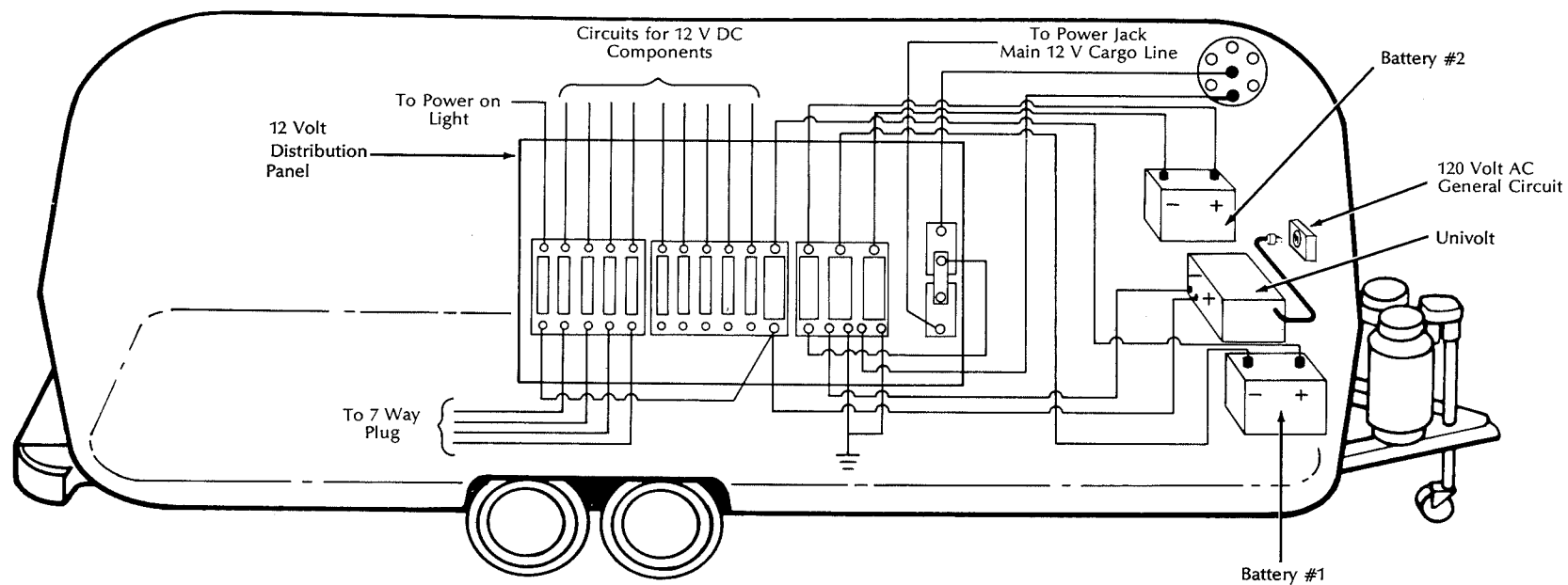
- ① Appliance Circuit—20 amp
- ② Air Conditioner—20 amp
- ③ General Circuit—15 amp

## 120 Volt Distribution System—Center Bath Double



- ① Appliance Circuit — 20 amp
- ② Air Conditioner — 20 amp
- ③ General Circuit — 15 amp

## 12 Volt Interior

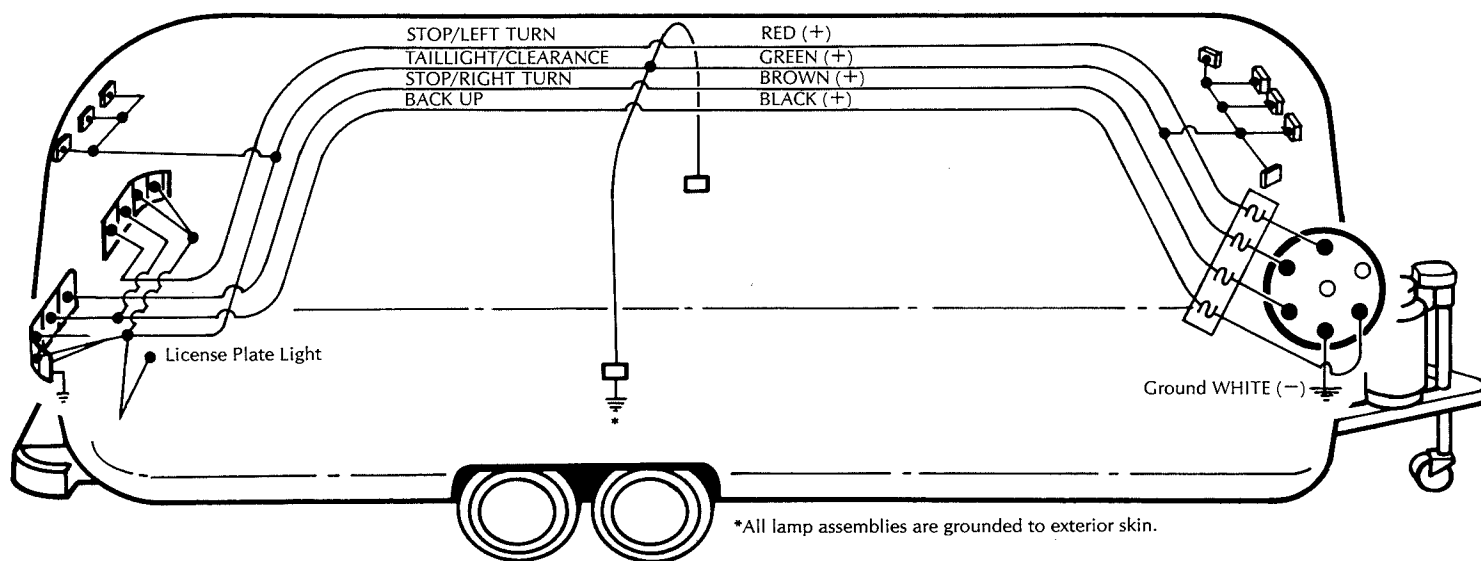


**Wiring Color Code**  
 BLUE—Main Charge Line  
 WHITE—Ground Line

\*Univolt converts 120 volts AC to 12 volts DC.

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## 12 Volt Exterior



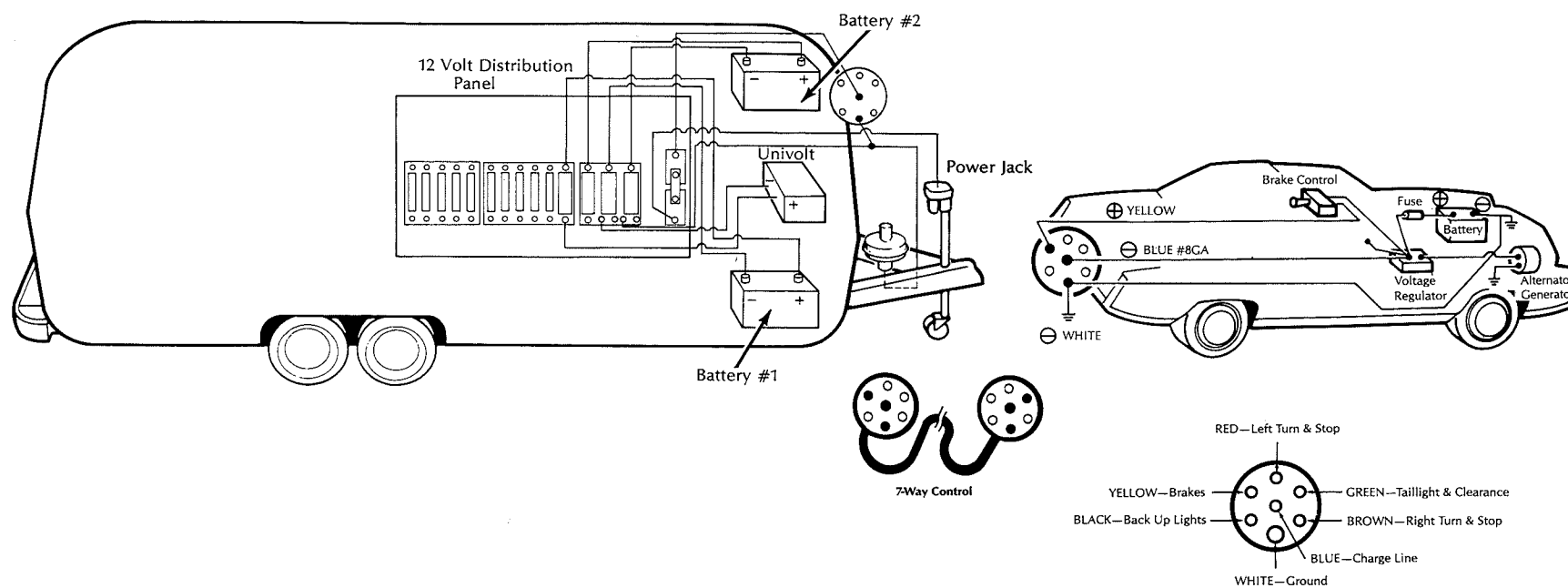
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### Wiring Color Code

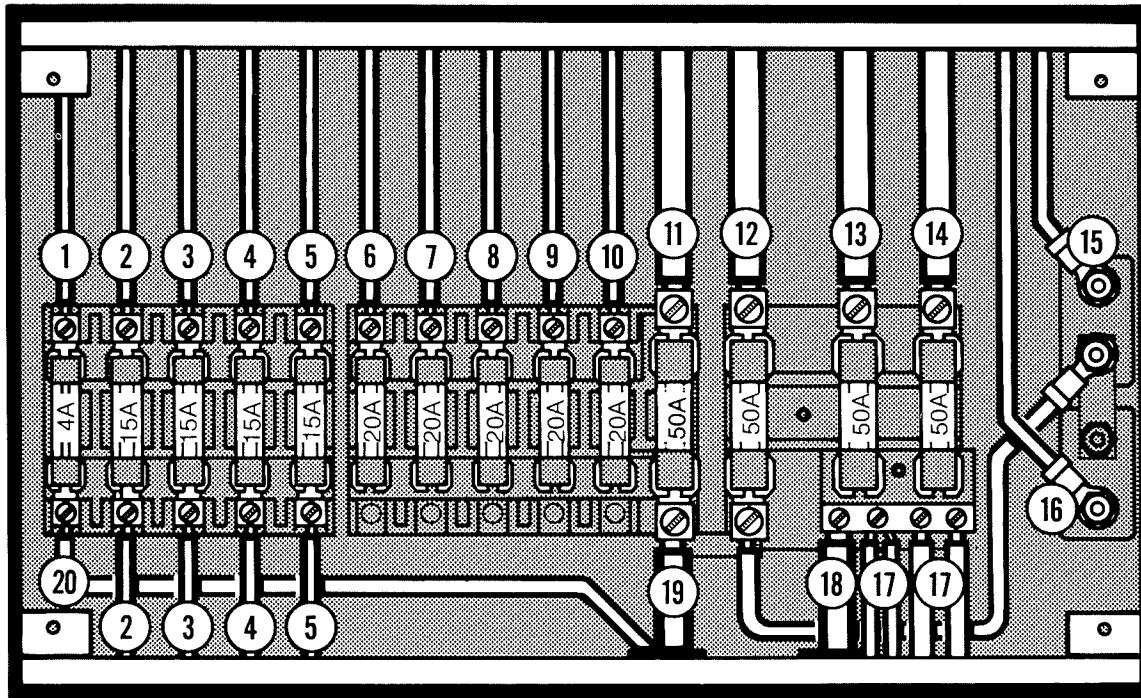
RED—Stop/Left Turn  
GREEN—Taillight/Clearance  
BROWN—Stop/Right Turn  
BLACK—Back Up  
WHITE—Ground

---

## Main Charge Circuit and Brake Circuit



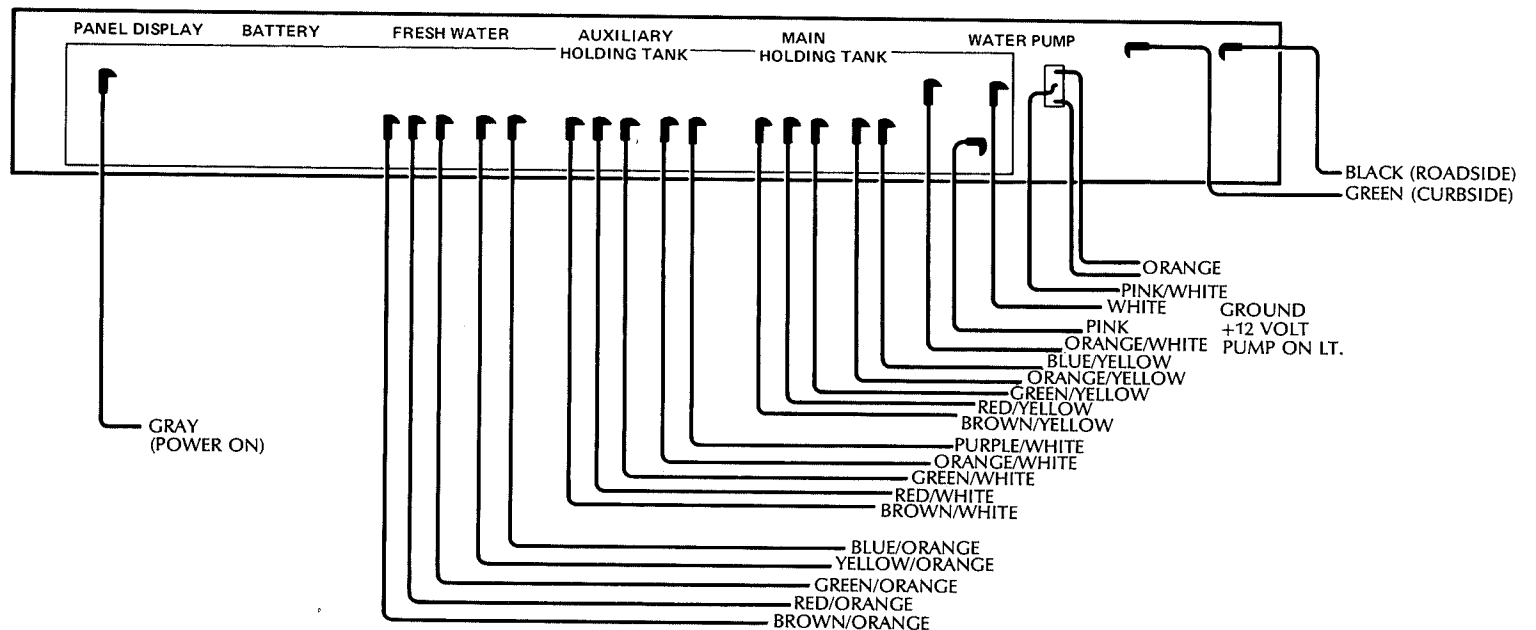
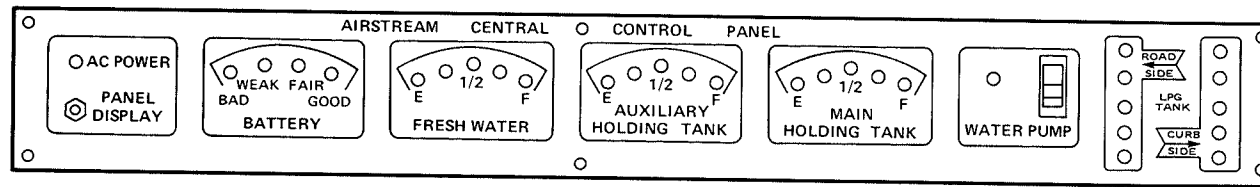
## Low Voltage Distribution Panel



### No. Description

- 1 Power on, Gray
- 2 Back up light, Black
- 3 Clearance and tail light, Green
- 4 Left turn and stop light, Red
- 5 Right turn and stop light, Brown
- 6 Circuit No. 5, Blue
- 7 Circuit No. 4, Brown
- 8 Circuit No. 3, Pink
- 9 Circuit No. 2, Yellow
- 10 Circuit No. 1, Purple
- 11 Battery No. 1, positive Red
- 12 Battery No. 2, positive Red
- 13 Battery No. 1, negative Black
- 14 Battery No. 2, negative Black
- 15 Main 12 volt charge, Blue (Black Can.)
- 16 Power jack, Orange
- 17 Ground, White
- 18 Univolt, negative
- 19 Univolt, positive
- 20 Power on, White

## Central Control Panel



# Electrical Trouble Shooting

Symptom	Possible Cause	Remedy
No 12-volt power (Lights, appliances do not work)	<ol style="list-style-type: none"> <li>1. Input line and/or battery not connected</li> <li>2. Discharged trailer battery</li> <li>3. Trailer battery on wrong polarity</li> </ol>	<ol style="list-style-type: none"> <li>1. Make necessary connections</li> <li>2. Charge battery</li> <li>3. See Item 7</li> </ol>
Blown fuse	<ol style="list-style-type: none"> <li>4. Overloaded circuit (over 50 amps)</li> <li>5. Electrical short</li> <li>6. Shorted battery</li> <li>7. Battery terminals not properly connected to UNIVOLT + and - terminals</li> </ol>	<ol style="list-style-type: none"> <li>4. Turn off switches to reduce load. Replace blown fuse in Univolt or next to Univolt.</li> <li>5. Find blown fuse in Univolt and identify circuit. From wiring diagrams check the circuit for defective wiring, lamps or motors.</li> <li>6. Replace battery and fuse.</li> <li>7. Make proper connections; replace fuse.</li> </ol>
Dim lights or sluggish fan motor	<ol style="list-style-type: none"> <li>8. 25- or 50-cycle power (some foreign countries)</li> <li>9. Discharged battery (when operating without 120-volt line)</li> <li>10. Battery is low on water</li> </ol>	<ol style="list-style-type: none"> <li>8. Use 60-cycle power</li> <li>9. Charge battery</li> <li>10. Add distilled water to battery</li> </ol>
UNIVOLT will not charge battery	<ol style="list-style-type: none"> <li>11. Input line not connected</li> <li>12. Battery not connected (or polarity reversed)</li> <li>13. Bad battery</li> <li>14. Too many lights and appliances in use</li> <li>15. Fuse blown</li> </ol>	<ol style="list-style-type: none"> <li>11. Connect input line</li> <li>12. Connect battery to UNIVOLT (Check polarity)</li> <li>13. Replace battery</li> <li>14. Reduce electrical load</li> <li>15. Replace fuse</li> </ol>

Additional electrical trouble shooting information is available in the Excella Service Manual.

# Specifications

## Capacities

Appliance	Capacity
Main Holding Tank—Rear Bath	20 gal.
Main Holding Tank—Center Bath	23 gal.
Auxiliary Holding Tank—Rear Bath	16 gal.
Auxiliary Holding Tank—Center Bath	13 gal.
Water Tank	50 gal.
Water Heater	6 gal.

Specifications listed herein are those which are designed to be in your trailer. There may be some small differences in the capacities of individual trailers.

## Light and Appliance Amperages

Item	Lamp Number	Amperage
Control Panel Light	53X	.1
Water Pump	—	9.9 max.
Ceiling Fan	—	4.8
Bathroom Exhaust Fan	—	2.0
Range Exhaust Fan	—	2.0
Furnace Fan	—	5.0
Toilet Exhaust Fan	—	2.0
Reading Lights:		
Living Room	1383	1.6 each bulb
Bedroom	1141	1.6 each bulb
Main Door Light	1141	1.6
Exterior Light	1156	
Ceiling Light (6 Bulbs):		
Living Room, Galley	1141F	1.6 each bulb
Bedroom, Bathroom	1141F	1.6 each bulb
Galley and Vanity Lights		
under Roof Locker	1141	1.6 each bulb
Trunk Lights:		
Service Center, Trunk	67	.6 each bulb
Clearance & Cluster Lights	1895	
Stop & Turn Signal	1156	
Tail Light	1157	
License Plate Light	89	
Backup Lights	1156	
Battery		105 amp hrs. at 80°F.

## Fuses and Circuit Breakers

Circuit	Location	Rating
Main Breaker	120 volt panel	30 amp
General Circuit	120 volt panel	15 amp
Appliance Circuit	120 volt panel	20 amp
Air Conditioner	120 volt panel	20 amp
Charge Line from Car	Univolt	AGU 40 amp fuse
Low Voltage Circuits	Univolt	SFE 20 amp fuse
Trailer Battery Fuse (+)	Univolt	AGU 50 amp fuse
Trailer Battery Fuse (—)	Nxt. to Univolt	AGU 50 amp fuse
Power On Circuit	Univolt	SFE 4 amp fuse
Ammeter	Nxt. to Univolt	SFE 4 amp fuse
Central Control Panel	Main Cen. Ctrl. Pnl.	AGC 15 amp fuse
Radio, Radio/Tape	Radio, Radio/Tape	IAG 5 amp fuse
Water Pump	Water Pump	6½ SLO-BLO

# Pre-Travel Check List

## Interior

1. Turn off water pump switch.
2. Check battery water level.
3. Close windows and vents.
4. Turn off Gas to Range & Oven.
5. Lock all interior cabinet doors.
6. Lock refrigerator door  
(Seal containers first.)
7. Hold down or stack securely, all loose, hard and sharp objects.
8. Fasten sliding & foldette doors.
9. Drain toilet bowl.
10. Turn off interior lights.
11. Secure and lock the Main door.
12. Pull up step.
13. Stow table lamp.

## Exterior

1. Disconnect and stow:
  - a) electrical hook-up cord
  - b) sewer-hose hook-up hose. (flush out)
  - c) water hook-up hose.
2. Turn off gas line shut-off valve to appliances.
3. Remove and stow leveling jacks and wheel chocks.
4. Check hitch: it must be properly attached.
5. Check safety chains and breakaway switch cable.
6. Fully retract jack. Remove and stow dolly wheel.
7. Check clearance and stop lights.
8. Check lug bolts.
9. Check tires, for correct pressure  
see page 26.
10. Check that TV antenna is pointed forward and dipoles closed.
11. Adjust car mirrors.
12. Pull forward some 50 ft., test brakes, and check site for forgotten objects and cleanliness.

## Home

1. Leave key with your neighbor.
2. Store valuables and important papers in a safe place.
3. Discontinue newspaper, milk and other deliveries.
4. Ask the Post Office to hold your mail for you.
5. Arrange with the Telephone Company for discontinued or 'Vacation Service'.
6. Arrange care for your pets.
7. Have your lawn, garden and house plants cared for.
8. Lock all windows and doors securely.  
Keep shades open for a lived-in look.
9. Cover all food to keep out mice and insects.
10. Eliminate all fire hazards. Place matches in a tin box or glass jar.
11. Store oil, gasoline and other inflammables properly.
12. Destroy all newspapers, magazines and oily rags.
13. Notify police.

## Personal

14. Automobile insurance to cover you and your family fully.
15. Avoid cash. Use travelers checks and credit cards.
16. Confirm reservations.
17. Have sunglasses for everyone.
18. Pack cameras and films.
19. Make a check list of clothing for everyone, and toilet articles.

---

## Motoring Essentials

1. Display car and trailer registration properly.
2. Carry driver's license. In Canada you will need a non-resident liability insurance card.
3. In Mexico you must have special auto insurance.
4. Carry an extra set of ignition and trunk keys in a separate pocket, or in your wallet.
5. Keep an operating flashlight with fresh batteries in the glove compartment.
6. Pack the trunk so that you can reach the tools and spare tire without completely unpacking.
7. Keep sharp or hard articles securely packed wherever they may be.
8. Do not pack things in the passenger sitting area, you need maximum space for comfort.
9. Wear easy-wash, drip-dry traveling clothes.
10. Do not make your vacation trips a mileage marathon! Stop and relax frequently.
11. Carry a first aid kit.
12. Carry your pet's dish, food, leash and health and registration papers.

# Lubrication and Maintenance

Your Airstream is without a doubt the finest engineered travel trailer ever to be mass-produced. Every design feature and component has been chosen with the thought in mind of giving you thousands of miles of trouble-free operation. By adhering to the following minimum maintenance schedule and the additional

exterior and interior maintenance suggestions you will enjoy all of the pleasure you dream of from your trailer...and more.

Item	Every 1,000 miles or 30 days	Every 5,000 miles or 90 days	Every 10,000 miles or 6 months	Procedure
All Exterior Door Locks	X			Lubricate by shooting in dry graphite.
Axle		X		None, except wheel bearings.
Battery	X			Check water level—fill with distilled water only.
Brake Fluid		X		Remove reservoir cover. Add Dot 3 fluid.
Brakes				Inspect and replace as necessary.
Entrance Door Hinges	X			Lubricate with light household oil.
Hitch Ball Latch	X			Lubricate with engine motor oil.
Hitch Jack	X			Lubricate with light household oil (put oil can spout up under handle and allow oil to run down post).
LPG Hold Down Knob	X			Lubricate with light household oil.
Main Door Step	X			Lubricate moving parts.
Range Exhaust Hood				Clean fan blades and wash filter.
Refrigerator Flue Cleaning		X		See page 56.
Roof Vent Elevator Screws	X			Lubricate with light household oil.
Strike Pocket on Main Door	X			Coat with paraffin.
T.V. Antenna	X			Lubricate exterior moving parts with silicon spray or WD40.
Tires	X			Check for foreign objects. Air pressure—page 26.
Water Pump		X		Check belt for wear and proper tension.
Wheel Bearings			X	Clean, repack, and adjust.
Wheel Lug Bolts		X*		Check for tightness.
Window Seals/Door Seals		X		Clean with mild detergent and coat with "Slipicone."
7-Way Plugs and Receptacle		X		Clean contacts and coat with "SPRA-KLEEN."

Note: If and when new materials and production techniques are developed which can improve the quality of its product, Airstream reserves the right to make such changes.

\*Note: On new trailers check lug bolts every 200 miles for the first 1,000 miles.

# Maintenance Record

[illegible]

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