

# SUPER HEAVY-DUTY MANUAL HYDRAULICS

## (WITH STANDARD CONTROL PANEL)

### CONTENTS/SPECIFICATIONS

**CONTENTS**
**SUPER HEAVY-DUTY SET . . . . . PART NO. 945007**

Each set of Hydraulic Power Levelers consists of cartons A, B, C, D, &amp; E listed below:

- 
- A. Super Heavy-Duty Master Carton**  
 4 — 845041 — Heavy Duty Leveling Units
- 
- B. Motor/Pump/Tank Ass'y Carton**  
 1 — 845167 — Motor/Pump/Tank Ass'y
- 
- C. Control Valve Ass'y Carton**  
 1 — 845046 — Control Valve Ass'y  
 1 — 845045 — Cover Plate  
 1 — 845047 — End Plate
- 
- 1 — 845008 — Mounting Hardware Bag  
 16 — — 3/8-16 UNC x 1 1/2" Cap Screws  
 18 — — 3/8" External Star Washers  
 16 — — 3/8-16 UNC Hex nuts  
 18 — — #10 x 3/4" Sheet Metal Screws  
 2 — — 3/8-16 UNC x 3/4" Cap Screws  
 20 — — Wire Ties  
 10 — — Hose Clamps
- 
- D. Light System Ass'y Carton**  
 1 — 845049 — Levelize Light Panel  
 1 — 845048 — Level Sensing Unit  
 4 — 101263 — Warning Switches  
 4 — 143424 — Band Type Clamps (metal)
- 
- 1 — 845007 — Light System Hardware Bag  
 3 — — Compression Springs  
 4 — — #10 x 3" Wood Screws  
 1 — — Red Lamp  
 7 — — Female Slip-Ons  
 6 — — #6-22 16 GA. Mini Spring Spades  
 3 — — #10 x 2" Sheet Metal Screws
- 
- E. Hose/Bracket Hardware**  
 1 — 845024-324 — 27 ft. High-Pressure Hose  
 1 — 845024-300 — 25 ft. High-Pressure Hose  
 1 — 845024-144 — 12 ft. High-Pressure Hose  
 1 — 845024-120 — 10 ft. High-Pressure Hose  
 1 — 845024-084 — 7 ft. High-Pressure Hose  
 1 — 845024-048 — 4 ft. High-Pressure Hose  
 1 — 143346 — 12 ft. Return Line Hose  
 4 — 745014 — Leveler Mounting Plates  
 1 — 755015 — Pump Mounting Plate  
 1 — 160929 — Installation & Operation Manual
- 

**SPECIFICATIONS**
**SUPER HEAVY-DUTY SET Part No. 945007  
 with four 16,000 lb. lift Heavy-Duty Leveling Units**

System Max GVW.	48,000 lbs.
Stroke	8" (Heavy-Duty)
Extended Length	24" (Heavy-Duty)
Retracted Length	16" (Heavy-Duty)
Mounting Height	19" to 20" (Heavy-Duty)
Area of Foot Pad	36 sq. in. (Heavy-Duty)
Weight (Total System)	220 lbs.
Power Requirement	12 volts D.C.
Fluid Capacity	3 1/2 gal. (Tank) Approx. 4 1/2 gal. (System)
<b>Recommended Fluid</b>	<b>Dextron II Transmission Fluid</b>
Alternate Fluids	SAE 5W Non-Detergent Motor Oil SAE 10W Non-Detergent Motor Oil SAE 5W Light Hydraulic Oil Type A Transmission Fluid Type B Transmission Fluid Type F Transmission Fluid

**WARNING: Never use Brake Fluid or Hydraulic Jack Fluid.**

**NOTE: Specifications are subject to change without notice.**



# DELUXE SUPER HEAVY-DUTY MANUAL HYDRAULICS (WITH DELUXE CONTROL PANEL) CONTENTS/SPECIFICATIONS

CONTENTS/SPECIFICATIONS

## CONTENTS

### DELUXE SUPER HEAVY-DUTY SET, PART NO 945008

Each set of Hydraulic Power Levelers consists of cartons A, B, C, D, & E listed below:

#### A. Deluxe Super Heavy-Duty Master Carton

4 - 845041 - Heavy Duty Leveling Units (Rear)

#### B. Motor/Pump/Tank Ass'y Carton

1 - 845167 - Motor/Pump/Tank Ass'y

#### C. Valve Ass'y Carton

1 - 845148 - Valve w/Box  
1 - 845149 - Light Plate  
1 - 845150 - Sensor  
1 - 845151 Wire Harness  
4 - 101263 Warning Switch  
4 - 143424 Band Clamp  
1 - 845052 Sensor Hdwe. Kit

#### D. Hose/Bracket Hardware

1 - 845024-324 - 27 ft. High-Pressure Hose  
1 - 845024-300 - 25 ft. High-Pressure Hose  
1 - 845024-144 - 12 ft. High-Pressure Hose  
1 - 845024-120 - 10 ft. High-Pressure Hose  
1 - 845024-084 - 7 ft. High-Pressure Hose  
1 - 845024-048 - 4 ft. High-Pressure Hose  
1 - 143346 - 12 ft. Return Line Hose  
4 - 745014 - Leveler Mounting Plates  
1 - 755015 - Pump Mounting Plate  
1 - 160929 - Installation & Operation Manual

## SPECIFICATIONS

### DELUXE SUPER HEAVY-DUTY SET Part No. 945008 with four 16,000 lb. lift Heavy-Duty Leveling Units

System Max GVW	48,000 lbs.
Stroke	8" (Heavy-Duty)
Extended Length	24" (Heavy-Duty)
Retracted Length	16" (Heavy-Duty)
Mounting Height	19" to 20" (Heavy-Duty)
Area of Foot Pad	36 sq. in. (Heavy-Duty)
Weight (Total System)	220 lbs.
Power Requirement	12 volts D.C.
Fluid Capacity	1½ gal. (Tank) Approx. 2½ gal. (System)

#### Recommended Fluid

Alternate Fluids

**Dextron II Transmission Fluid**  
SAE 5W Non-Detergent Motor Oil  
SAE 10W Non-Detergent Motor Oil  
SAE 5W Light Hydraulic Oil  
Type A Transmission Fluid  
Type B Transmission Fluid  
Type F Transmission Fluid

**WARNING: Never use Brake Fluid or Hydraulic Jack Fluid.**

**NOTE: Specifications are subject to change without notice.**

# INSTALLATION TIPS

## MANUAL HYDRAULICS

1. When mounting the rear leveler units on vehicles with tag axles, it is recommended they be mounted between the tag axle and the drive axle or right behind the tag where the in board tire would be.
2. When mounting the level sensing unit underneath the motorhome DO NOT mount the sensing unit near heat producing items such as the components of the exhaust system. Maintain a minimum 12" clearance from all heat sources.
3. Welding of gussets for possible side loading problems can be critical. Severe side loading will occur if all levelers are extended while parked on a hillside or on drastically uneven terrain.
4. When adjusting the horizontal positioning of the standard and high profile leveling unit, note that it is important when making this stop adjustment to provide adequate clearance for the leveling unit to fully extend without swinging down. In the event that this situation occurs, clearance must be made for the various undercarriage parts of the vehicle.  
Be sure the extended length of the unit will not allow the leveler to come into contact with other structures or components of the motorhome.
5. Be sure to protect the control valve assembly by not mounting directly over the tire and by using the end plates included to keep road grime out.
6. Never weld the leveler itself to the frame of the motorhome. Always utilize the mounting plate as per the instructions.
7. It is important that no leveler be mounted beyond the chassis' original frame if possible. If it is necessary that they be mounted on a frame extension, that portion of the frame extension must have the structural integrity of the original frame member. It might be necessary to beef up the frame extension for this assurance.

DBBF



## OPERATION

**WARNING:** Do not use the leveling system for changing tires or working under the vehicle without securely blocking the frame and wheels. If a rear wheel is lifted from the ground there is a possibility the vehicle may MOVE either toward the front or rear.

Keep all persons away from the leveling system mechanism when operating the leveling system, driving the vehicle and/or when the vehicle is parked.

Leveling units will **ABRUPTLY SWING UP** when the foot clears the ground.

Never extend all of the leveling units to their maximum extension at the same time. Doing so can lift the vehicle wheels off the ground.

For maximum stability all levelers and wheels must be in contact with the ground.

Before moving the vehicle inspect the underside to see that all leveling units are in horizontal position and fully retracted.

The control levers should be left in the **RETRACT** position when the levelers are not in use and when traveling.

### GENERAL DESCRIPTION

The A&E Hydraulic Power Levelers consist of:

1. A 12-volt hydraulic pump/motor and oil reservoir assembly.
2. Four hydraulic leveling units (jacks).
3. A hydraulic control valve assembly with four control levers to extend or retract the leveling units.
4. A levelize light panel for safe and simple leveling every time.
5. Or a deluxe control valve incorporating both control levers and levelize lights.

Any of the leveling units can be extended by moving the appropriate control lever to the **EXTEND** position. This movement of the control lever activates the pump and forces hydraulic fluid to the leveling unit.

The initial movement of the leveling unit is to swing down from the horizontal to the vertical position. Then the leveling unit will proceed to extend, raising the vehicle with ease.

Returning the control lever to the **NEUTRAL** position turns off the pump and locks the leveling unit in position.

Moving the control lever to the **RETRACT** position allows the unit to retract until the foot clears the ground, then fold up to the horizontal position and retract all the way.

Hydraulic pressure is used to extend the leveling units, but spring tension is used to retract them. The retraction process is not dependent upon the pump. Therefore, the leveling units can be retracted for travel even in the event of hydraulic or electrical failure.

### TO EXTEND LEVELERS

1. Choose a site as level as possible to minimize the extent of leveling.
2. Place automatic transmission in "PARK" and apply parking brake.
3. Check the ground to see that the levelers will not be obstructed by rocks, grass, mounds of dirt, etc.
4. Block the wheels securely.
5. Turn the ignition to **ACCESSORY** or **ON** as required.
6. Turn on the levelize light panel.

7. Bring all four leveling units down to vertical position by moving the control levers toward the **EXTEND** side.

Moving the handle partially will activate the pump. Further movement of the handle opens the control valve to allow oil to flow to the leveling units.

**CAUTION: Overheating and excessive current draw will result if the handles are held in partially tilted position for an extended period of time.**

Keep your eyes on the levelize light panel and release the handle as soon as the **RED** warning light comes on for the corresponding leveling unit. The leveling unit is now in vertical position, but not extended.

**NOTE: Do not begin to extend the levelers until all four of them are in vertical position.**

**NOTE: The RED lights will remain on as long as the leveling units are in vertical position and the ignition switch is on.**

8. After all the levelers are brought down to vertical position, begin extending them one by one.

A lighted **GREEN** lamp on the levelize indicates the corner that needs to be raised.

Extend the proper leveling unit until the **GREEN** lamp is off. Repeat this procedure for other corners indicated by **GREEN** lamps.

When all **GREEN** lamps are out, your coach is level.

9. If one or more levelers were not used for leveling, extend them just enough to firmly contact the ground.

This provides additional stability.

10. Turn off the levelize light panel.

11. Turn off the ignition switch.

**NOTE: If you experience difficulty or see an extended unit that is not vertical, place the appropriate control lever in the full RETRACT position for 2 minutes and try again.**

### TO RETRACT LEVELERS

1. Move the control levers to the full **RETRACT** position.

When a control lever is moved to the **RETRACT** position, the corresponding leveler will begin its retraction cycle. **As soon as the leveler has retracted to the point of clearing**

the ground, it will spring up to horizontal position. There it will continue to retract to its limit.

**CAUTION:** Allow 2 minutes for a leveling unit to complete the retraction cycle before attempting to extend it again.

**IMPORTANT:** The control levers must be left in the RETRACT position to keep the levelers locked in the horizontal position.

2. Inspect the underside of the vehicle to see that all levelers are fully retracted.

3. There are two kinds of warning lights to help prevent moving the vehicle while the levelers are in vertical position: the red master warning light and the RED lights on the leveler light panel.

These warning lights will light up upon turning the ignition on, whenever one or more levelers are still in vertical position.

**IMPORTANT:** Do not rely solely upon the warning lights. It is the owner's responsibility to check that all levelers are up before moving the vehicle.

### OPERATING TIPS

1. If the vehicle is parked on asphalt or soft ground, use larger pads under the leveling units. An 8" to 12" square 3/4" plywood makes an ideal pad, providing enough flexibility to prevent the leveler from slipping.

2. When traveling and whenever the levelers are not in use, the control levers must be kept in RETRACT position.

3. The red warning light will, upon turning on the ignition, light up if one or more leveling units are not fully retracted.

Despite this feature, it is best to visually check the levelers while outside checking the sewer and electrical plugs.

4. The best position to store the leveling units is in vertical position, with some vehicle weight on them.

5. The levelers should be cycled once a month, or whenever the motorhome is used, to keep them in operating condition.

0167