



BOTTLE JACK

OPERATING INSTRUCTIONS

Models

**93370, 93373, 93374
93376, 93378, 93436
93437, 93438, 93783**



3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our Web site at <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY,
READ AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE.**

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For technical questions and replacement parts, please call 1-800-444-3353.

UNPACKING

When unpacking, check to make sure that the product is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY PRECAUTIONS

WARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS

Failure to follow all instructions listed in the following pages may result in electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS

1. **Keep your work area clean and well lit.** Cluttered work areas invite accidents.
2. **Keep bystanders, children, and visitors away while operating jack.** Distractions can cause you to lose control. Protect others in the work area.
3. **Stay alert. Watch what you are doing, and use common sense when operating a jack. Do not use a jack while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating jacks may result in serious personal injury.
4. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the jack in unexpected situations.
6. **Use safety equipment. Always wear ANSI approved safety impact goggles, steel-toed safety shoes/boots, and heavy duty work gloves when using this product.**
7. **Do not force the jack. Use the correct jack for your application.** The correct jack will do the job better and safer at the rate for which it is designed.
8. **Store idle jacks out of reach of children and other untrained persons.** Jacks are dangerous in the hands of untrained users.
9. **Maintain jacks with care.** Do not use a damaged jack. Tag damaged jacks "Do not use" until repaired.

10. **If damaged, have the jack serviced before using.** Check for loose screws, misalignment or binding of moving parts, loose mounting, cracked or broken parts, low hydraulic oil level, and any other condition that may affect its safe operation. Many accidents are caused by poorly maintained jacks.
11. **Jack service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
12. **When servicing a jack, use only identical replacement parts - refer to attached, product-specific parts list and diagram. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.

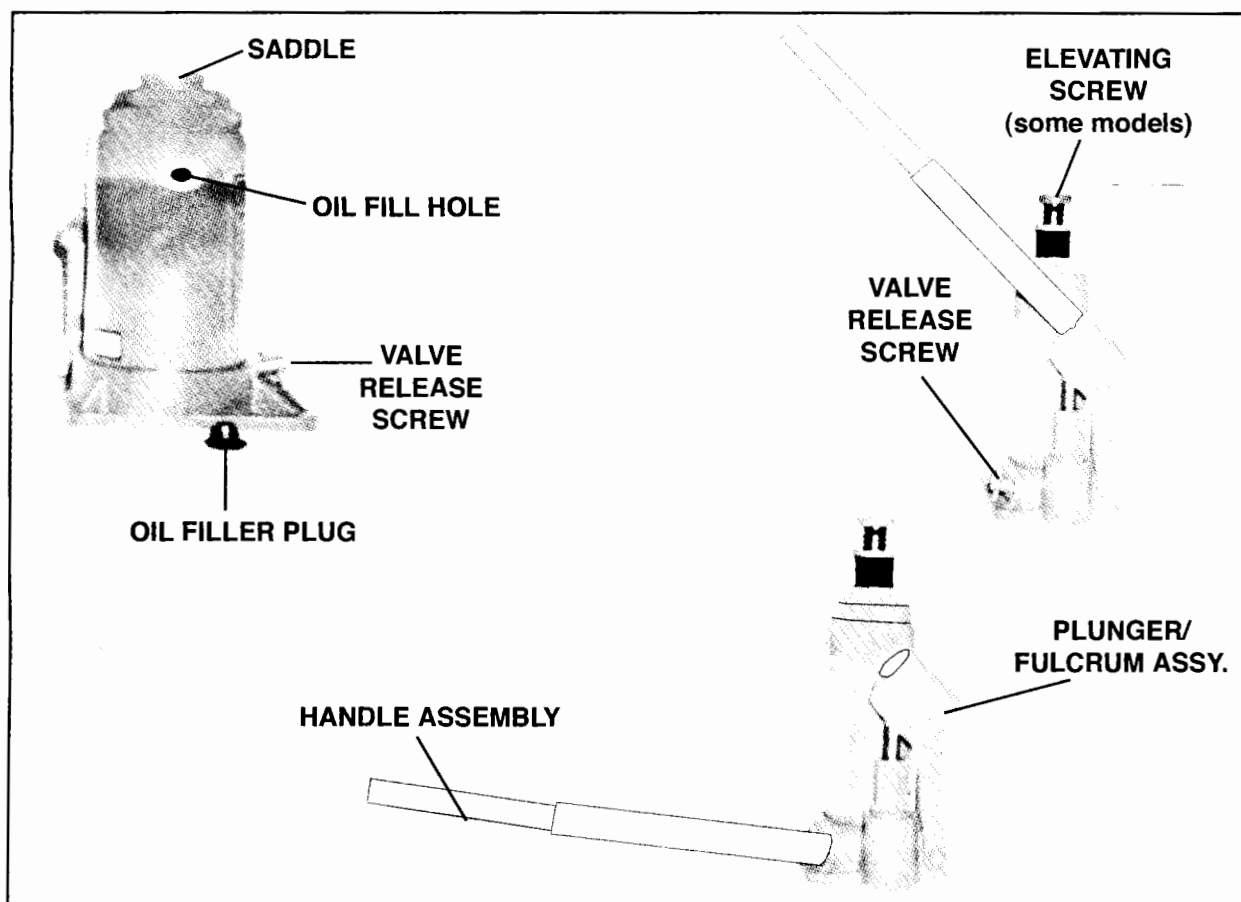
SPECIFIC SAFETY RULES

1. **WARNING! Do not exceed the maximum lift capacity for the Bottle Jack as stated on the product label and the specifications table. Overloading the Jack could cause serious personal injury and/or property damage.**
2. **The Bottle Jack is designed for intermittent use only.** Do not use the Jack to support a vehicle over extended periods of time. The duration of the lifting job should be kept as short as possible. Always use jack stands to support a vehicle over an extended period of time.
3. **Maintain labels and nameplates on the Bottle Jack.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
4. **Prior to using the Bottle Jack, make sure to read and understand all warnings, safety precautions, and instructions as outlined in the manufacturer’s instruction manual for the vehicle (or object) you will lift.**
5. **When lifting only one wheel, make sure to support the load immediately with one jack stand (not included) placed under the side of the vehicle being lifted.** Align the saddle of the jack stand directly under the vehicle’s seam or recommended lifting point.
6. **When lifting the entire front end or rear end of a vehicle, make sure to support the load immediately with two jack stands.** Align the saddles of the jack stands directly under the vehicle’s frame or recommended lifting points. Also make sure the jack stands are adjusted at the same height.
7. **Make sure the Bottle Jack is used only on a dry, oil/grease free, flat, level, solid surface capable of supporting the weight of the vehicle being lifted and any additional tools and equipment.**
8. **Do not work under the vehicle without properly supporting the vehicle with jack stands.** Make sure the load and jack stands are stable before getting under a vehicle.

9. **Use the Bottle Jack only on vehicles whose frames have lifting points (on its seam or frame) capable of aligning with the Saddle of the Jack.**
10. **Avoid dangerous oncoming traffic.** Always use the Bottle Jack as far away from the roadside as possible.
11. **Do not use the Bottle Jack with the vehicle's engine running.** Make sure to place the vehicle's transmission in "Park" (if automatic) or "1st Gear" (if manual). Then set the emergency brake, and block the tires opposite the tire being lifted.
12. **Industrial applications must follow OSHA requirements.**
13. **Always keep hands, fingers, and feet away from all moving parts of the Bottle Jack when applying or releasing a load.** Remain clear of the vehicle being raised or lowered. People and animals should be kept at a safe distance when using the Jack.
14. **Use extreme caution when applying or releasing a load.** Never allow the load to suddenly release. Slowly and carefully apply and release the load.
15. **Do not allow anyone in the vehicle while using the Bottle Jack.** Keep all bystanders a safe distance away from the vehicle.
16. **Never leave the Bottle Jack unattended when the Jack is under a load.**
17. **Never support both ends of the vehicle at the same time.**
18. **Before lowering the Bottle Jack, make sure tool trays, jack stands, and all other tools and equipment are removed from under the vehicle.**
19. **Do not stand on the Bottle Jack as it may tip, causing personal injury.**
20. **If changing a damaged tire, make it easier to remove the lug nuts by slightly loosening the lug nuts *before* raising the tire off the ground.**
21. **This Bottle Jack is not to be used for aircraft purposes.** Never modify the Bottle Jack in an attempt to use it for a purpose it was not designed for.
22. **WARNING!** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.

OPERATING INSTRUCTIONS

1. **IMPORTANT!** Prior to its first use, make sure to check for proper hydraulic oil level in the Bottle Jack. Then thoroughly test the Bottle Jack for proper operation prior to its actual use. If the Bottle Jack appears *not* to be working properly, it may be necessary to *bleed* its hydraulic system of excess air. To do so, remove the Oil Filler Plug. Assemble the complete Handle Assembly and lower the saddle of the jack fully. Insert the slot on the lower portion of the Handle Assembly over the Valve Release Screw. Turn the Handle Assembly *clockwise* to close the Valve Release Screw. Insert the Handle Assembly into the Plunger/Fulcrum Assembly. Apply pressure to the Saddle, and pump the Handle Assembly slowly several times. The trapped air is pressurized and will be audible when released in this manner. Once bled of air check the Oil Fill Hole and, if necessary, top off the Oil Fill Hole with hydraulic oil. Then, replace the Oil Filler Plug. Turn the Handle Assembly *counterclockwise* slowly to completely lower the Jack. Test the Jack several times for proper operation before attempting to lift a load. **If, after purging, the Jack still does *not* appear to be working properly, do not use the Jack until it has been repaired by a qualified service technician. (See Diagrams, below.)**



NOTE: There may be some slight differences in the *appearance* of the various jacks, however the instructions in this manual apply to all of the jacks.

2. **WARNING! Make sure the vehicle is parked on a flat, level, solid, ground surface safely away from oncoming traffic.** Turn off the vehicle's engine. Place the vehicle's transmission in "PARK" (if automatic) or in its lowest gear (if manual). Set the vehicle's emergency brake. Then, block the wheels that are *not* being lifted.
3. Check to make sure the Jack is fully lowered. If not, assemble the Handle Assembly. Insert the lower portion of the Handle Assembly into the Valve Release Screw, and turn the Handle Assembly *counterclockwise* to lower the Jack. Once the Jack is fully lowered, turn the Handle Assembly firmly *clockwise* to close the Valve Release Screw. **(See Diagrams, pg. 5.)**
4. Carefully position the Saddle of the Jack under the vehicle manufacturer's recommended lifting point. If equipped, the Elevating Screw can be used to alter the height of the jack's saddle; it is adjusted by turning it clockwise or counterclockwise. (See vehicle manufacturer's owner's manual for location of **seam** lifting point when lifting only one wheel and **frame** lifting points when lifting the entire front or rear end of the vehicle.) **(See Diagrams, pg. 5.)**
5. Pump the Handle Assembly until the top of the Jack's Saddle has nearly reached the vehicle lifting point. **NOTE:** The Jack should be positioned at 90 degrees to the vehicle's lifting point to ensure the Jack's Saddle and vehicle lifting point are in alignment. If not, remove and reposition the Jack before lifting the vehicle.
6. To lift the vehicle, pump the Handle Assembly of the Jack. Use smooth, full strokes for best results. **(See Diagrams, pg. 5.)**
7. Once the vehicle is raised, slide a jack stand of appropriate capacity (not included) to the proper lifting point referred to in the vehicle owner's manual. If using two jack stands, make sure they are on the same point on each side of the vehicle.
8. Center the vehicle's lifting point(s) on the saddle of the jack stand(s). Set up the jack stand(s) according to the manufacturer's instructions, making sure that they lock securely into position. **NOTE: If using two jack stands make sure they are at the same height.**
9. Slowly turn the Handle Assembly *counterclockwise* to open the Valve Release Screw and lower the vehicle onto the saddle(s) of the jack stand(s). Then, turn the Upper/Lower Handle Assembly firmly *clockwise* to close the Valve Release Screw. **(See Diagrams, pg. 5.)**
10. While standing safely aside, gently rock the vehicle to determine if it is stable on the jack stand(s). If it is not, raise the vehicle, and reposition the jack stand(s).
WARNING! When performing this procedure be prepared and stand clear of the vehicle, as the vehicle can fall off the jack stand(s) causing personal injury and/or property damage.
11. When the repair work to the vehicle is completed, make sure to remove all tools, old vehicle parts, etc. from under the vehicle.

12. Make certain that the Saddle is still in position under the lifting point. Turn the Handle Assembly firmly *clockwise* to close the Valve Release Screw, and pump the Upper/Lower Handle Assembly to raise the vehicle slightly above the saddle(s) of the jack stands. Then, collapse the jack stand(s) and remove it from under the vehicle.
13. *Slowly* turn the Handle Assembly *counterclockwise* (never more than two full turns) to lower the vehicle onto the ground. **(See Diagrams, pg. 5.)**
14. Lower the Bottle Jack completely. Then, store the Jack in a safe, dry location out of reach of children.

INSPECTION, MAINTENANCE, AND CLEANING

1. **Before each use**, inspect the general condition of the Bottle Jack. Check for broken, cracked, or bent parts, loose or missing parts, and any condition that may affect the proper operation of the product. If a problem occurs, have the problem corrected before further use. **Do not use damaged equipment.**
2. **Before each use, make sure to thoroughly test the Bottle Jack for proper operation prior to its actual use. If the Bottle Jack appears *not* to be working properly, it may be necessary to *bleed its hydraulic system of excess air*.** To do so, remove the Oil Filler Plug. Assemble the complete Handle Assembly and lower the saddle of the jack fully. Insert the lower portion of the Handle Assembly onto the Valve Release Screw. Turn the Handle Assembly *clockwise* to close the Valve Release Screw. Insert the Handle Assembly into the Plunger/Fulcrum Assembly. Apply pressure to the Saddle, and pump the Handle Assembly slowly several times. The trapped air is pressurized and will be audible when released in this manner. Once bled of air check the Oil Fill Hole and, if necessary, top off the Oil Fill Hole with hydraulic oil. Then, replace the Oil Filler Plug. Turn the Handle Assembly *counterclockwise* slowly to completely lower the Jack. Test the Jack several times for proper operation before attempting to lift a load. **If, after purging, the Jack still does *not* appear to be working properly, do not use the Jack until it has been repaired by a qualified service technician. (See Diagrams, pg. 5.)**
3. **Change the hydraulic oil at least once every three years.** To do so, with the Bottle Jack fully lowered, remove the Oil Filler Plug on the side of the Housing. Tip the Bottle Jack to allow the old hydraulic oil to drain out of the Housing completely, and dispose of the old hydraulic oil in accordance with local regulations. With the Bottle Jack upright, completely fill the Housing with a high quality hydraulic oil (not included) until the oil just begins to run out of the Oil Fill Hole. Then, reinstall the Oil Filler Plug. **(See Diagrams, pg. 5.)**
4. **When cleaning**, use a clean cloth with a detergent or mild solvent. Then, store the Bottle Jack in a safe, dry location out of reach of children and other non-authorized people.
5. **WARNING! All maintenance, service, or repairs not listed in this manual are only to be attempted by a qualified service technician.**

Troubleshooting

POSSIBLE SYMPTOMS						PROBABLE SOLUTION	
X	X				X	<p>(Make certain that the jack is not supporting a load while attempting a solution.)</p> <p>Check that Release Valve is closed fully.</p> <p>Valves may be blocked and may not close fully. To flush the valves:</p> <ol style="list-style-type: none"> 1. Lower the Saddle and securely close the Release Valve. 2. Manually lift the saddle several inches. 3. Open the release valve and force the saddle down as quickly as possible. 	
X	X			X			<p>Jack may be low on oil. Check the oil level and refill if needed.</p> <p>Jack may require bleeding - see instructions on page 7.</p>
X		X	X				<p>Unit may have too much hydraulic oil inside, check fluid level and adjust if needed.</p>

WARNING

When trying to troubleshoot a malfunctioning jack, the utmost caution must be exercised. All ways stay well clear of all loads that are being supported.

Make certain that all operational problems with the bottle jack are fully resolved before use. If the solutions presented in the Troubleshooting guide do not solve the problem, have a qualified technician inspect and repair the jack before use.

After the jack is repaired: Test it carefully without a load by raising it and lowering it fully, checking for proper operation, BEFORE RETURNING THE JACK TO OPERATION.

NEVER USE A MALFUNCTIONING JACK!

Specifications

Weight Capacity	2 Tons (4,000Lbs)
Maximum Height	14"
Minimum Height	7-1/8"
Base Dimensions	3-1/2" x 3-3/4"
Weight	6.2 Lbs

Parts List

Part	Description	Q'ty	Part	Description	Q'ty
1	Adjust Screw	1	20	Base	1
2	Adjust Screw Socket	1	21	Bolt	3
3	Piston Rod	1	22	Washer (Pump)	1
4	Nut	1	23	O Ring (Pump)	1
5	O Ring (Nut)	1	24	Packing	1
6	Seal of Nut	1	25	Pump	1
7	Piston	1	26	O Ring (Plunger)	1
8	Bowl Washer	1	27	Back Ring	1
9	O Ring (Piston)	1	28	Plunger	1
10	Cylinder	1	29	Spring Bolt	2
11	Reservoir	1	30	Pin	2
12	Sealing Part (Trapeziform)	1	31	Short Pin	1
13	Base Plate Washer	1	32	Link Plate	2
14	Oil Filter	1	33	Swing Socket	1
15	Oil Fill Plug	1	34	Handle (Front)	1
16	Pin D4x24	1	35	Handle (Back)	1
17	Release Valve	1			
18	Release Valve Seal	1			
19	Ball 6	3			

NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

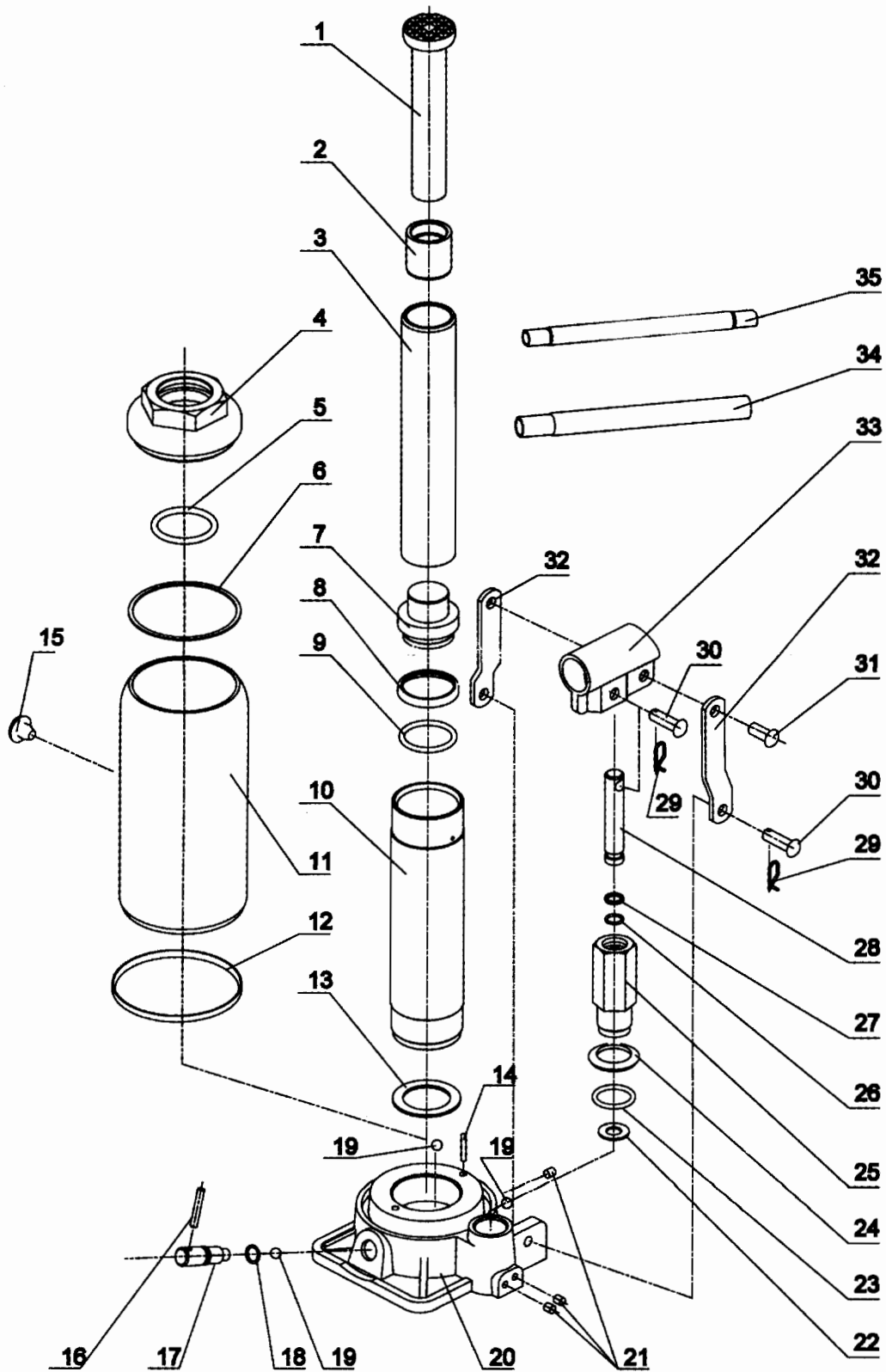
PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

SKU 93783

For technical questions, please call 1-800-444-3353.

Assembly Diagram



SKU 93783

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