Installation of LR857 Level Regulator

Model LR857

Please read the following instructions and warnings before installation. Visually inspect the product for any damage that may have occurred during shipping. Crankcase must be drained before installation.

Warnings	Before beginning installation of this product: • Disconnect all electrical power to the machine • Make sure the machine cannot operate during installation • Follow all safety warnings of the machine manufacturer • Read and follow all installation instructions

This FW Murphy LR857 Lube Level Regulator maintains the crankcase oil level of an engine, pump or compressor. Adjusted to the correct running oil level, the LR857 will replenish oil as it is used. An integral, low-level switch will alarm and/or shutdown the equipment if supply oil is lost and the equipment continues to use oil.

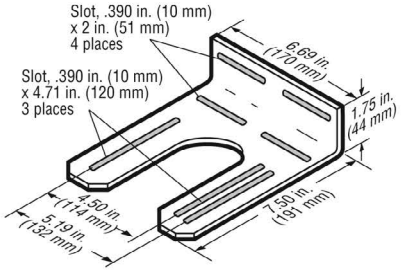
Optional Mounting Kits

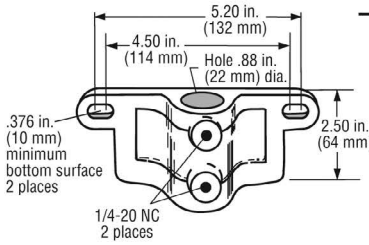
15010224

Universal Flange Kit

Additional Hardware Supplied

- (2) 1/4-20 x 1-1/4 inch (32 mm) bolts
- (4) 1/4 dia. flat washer
- (2) 1/4-20 hex nuts
- (2) 5/16-18 x 1-1/4 inch (32 mm) bolts
- (4) 5/16 dia. flat washer
- (2) 5/16-18 hex nuts





15000238

Pipe Bracket Kit

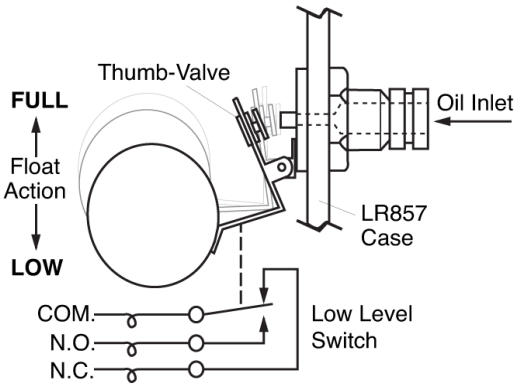
Additional Hardware Supplied

- (2) 1/4-20 x 7/8 inch (22 mm) screws
- (2) 1/4-20 x 1 inch (25 mm) screws
- (4) 1/4-20 hex nuts
- (4) 1/4 inch (6 mm) dia. split washer

Mounting and Service Parts

Part Number	Description
15010224	Universal Flange Kit (mounting) allows various mounting methods
15000238	Pipe Bracket Kit (mounting) fits a 7/8 in. (22 mm) diameter pipe
15000420	Fittings Kit (mounting) includes 1/4 in. (6 mm) O.D. copper cane tube (vent connection) 1/4 in. (6 mm) tube x 1/4 male pipe fitting 1/2 in. (13 mm) I.D. hose fitting (outlet connection)
15000159	Inlet Valve Assembly
15000100	Glass and Switch Assembly
15000161	Lid Assembly
15000941	Float Assembly (brass standard)

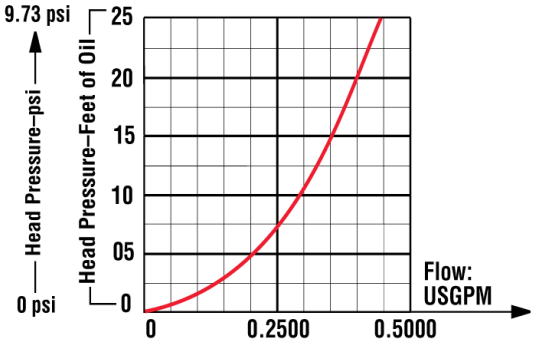
Thumb-Valve Operation



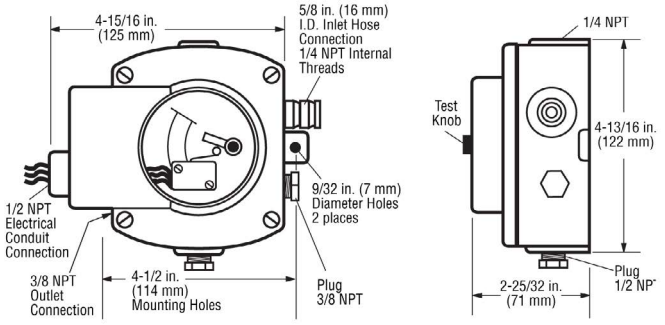
As the equipment uses oil, the float falls, providing immediate level compensation. At FULL position, the float holds the valve closed. If the clean oil supply is depleted and oil level continues to fall, the low level switch will operate an alarm or equipment shutdown.

Flow Rates

Oil with 0.9 specific gravity at 70° F (21° C)



Dimensions



* Products covered by this bulletin comply with EMC Council directive 89/336/EMC regarding electromagnetic compatibility except as noted.

Typical Installation

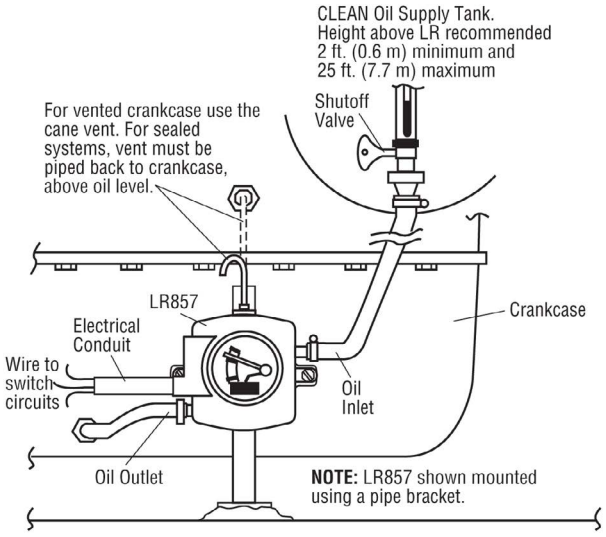
Important	Connection of the LR857 must be made to the equipment crankcase at the lowest possible point-usually the oil drain plug. Hoses, hose clamps and supply tank are supplied by the customer. These instructions use the FW Murphy mounting and fitting kits described in Optional Mounting Parts section. If you did not order a kit, gather the proper fittings as specified.

1. Determine the mounting location on or near the equipment for the LR857. Mount the LR857 using the optional Pipe Mounting Bracket or Universal Mounting Bracket or suitable customer supplied mounting.

NOTE: Mounting must allow vertical adjustment of the LR857 to locate proper regulated level.

2. Drain the crankcase oil level below the connections needed for this procedure.
   a. Attach a 1/2 in. (13 mm) I.D. flexible oil hose to the crankcase and to the oil outlet port on the LR857.
   b. Slope the hose slightly downward from the LR857 without any droops or low spots.
3. If the oil drain plug on the crankcase is used,
   a. Install a T-fitting at the crankcase to assist in routine oil changes (recommended).
   b. Keep all hoses as short in length as possible when routing to connections.
4. Install the crankcase vent connection above the oil level so the tubing is not restricted by any splash, etc.
   a. For sealed crankcases, connect a 1/4 in. (6 mm) O.D. tube from the crankcase to the tube fitting on the LR857.
   b. For vented crankcases, install the copper cane.
   c. See drawing for reference.

Warning: Failure to install the tubing or cane vent will result in improper operation and spillage.



5. Verify that all hose clamps are tight before continuing to the next step.
6. Refill the crankcase to the proper oil level.
7. Vertically adjust the LR857 so that the pointer is consistent with the actual running oil level in the crankcase.
8. Check this level against the ADD oil marking on the oil dip stick.
9. To determine the level at which you wish oil to be added, either drain oil from the crankcase or slightly lower the LR857 mounting so that the pointer/switch actuator will indicate the level at which oil will be added. This can be estimated by lowering the LR857 an amount equal to the difference between the FULL and ADD marks on the dip stick.
10. Tighten the mounting bracket securely after the final adjustments are made.
11. Connect a hose between the oil inlet of the LR857 and the oil supply tank. The hose must maintain a downward slope and not have low spots or droops. A minimum height of 2 ft. (0.6m) above the LR857 is recommended. Maximum head is 25 ft. (7.7 meters) or 10 psi (6.9 kPa) [0.69 bar].
    a. Attach a shutoff valve in the bottom of the supply tank (recommended).
    b. Install a filter screen between the supply and the LR857 (recommended).
12. Before filling the supply tank with oil be sure it is clean and dry and the shutoff valve is closed. Also, be sure all hoses and clamps are tight. Fill the tank with clean oil.
13. After oil tank is full, open the shutoff valve.

Warning: Overfill condition can be caused by excessive inlet pressure and/or improper vent-to-crankcase installation.

14. Make the proper electrical connections for the application. See contact ratings on reverse side of the LR857.

Specification

Inlet Connection: 5/8. (16 mm) I.D. hose
Outlet Connection: 3/8 NPT
Conduit Connection: 1/2 NPT

Snap-switch: SPDT rating 10 A @ 125 VAC;
0.5 A @ 125 VDC;
10A @ 30 VDC

Case: Die cast aluminum
Lens: Polycarbonate
Float: Brass

FW MURPHY PRODUCTION CONTROLS
SALES, SERVICES & ACCOUNTING
4646 S. HARVARD AVE.
TULSA, OK 74135

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5757 FARINON DRIVE
SAN ANTONIO, TX 78249

DOMESTIC SALES & SUPPORT
FW MURPHY PRODUCTS
PHONE: 918 957 1000
EMAIL: INFO@FWMURPHY.COM
WWW.FWMURPHY.COM

FW MURPHY CONTROL SYSTEMS & SERVICES
PHONE: 281 633 4500
EMAIL: CSS–SOLUTIONS@FWMURPHY.COM

INTERNATIONAL SALES & SUPPORT
CHINA
PHONE: +86 571 8788 6060
EMAIL: INTERNATIONAL@FWMURPHY.COM

LATIN AMERICA & CARIBBEAN
PHONE: +1 918 770 8775
EMAIL: INTERNATIONAL@FWMURPHY.COM

SOUTH KOREA
PHONE: +82 70 7951 4100
EMAIL: INTERNATIONAL@FWMURPHY.COM

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