

INSTRUCTION MANUAL

MM-715E

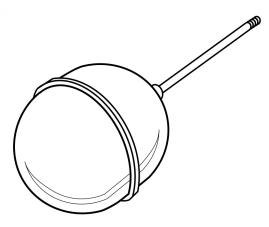


Replacement Float

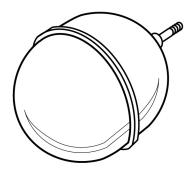
SA63-30
For Installation on Series 63
Low Water Cut-Off

SA60-30 For Installation on Series 65/165 Liquid Level Switch

SA64-30
For Installation on Series 64/764
Low Water Cut-Off



SA63-30 Replacement Float (Weighted) SA60-30 Replacement Float (Not Weighted)



SA64-30 Replacement Float

WARNING







· Save these instructions for future reference.



 All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of plumbing, steam, and electrical equipment and/or systems in accordance with all applicable codes and ordinances.



 This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.

Failure to follow this warning could cause property damage, personal injury or death.

STEP 1 - Float Removal and Replacement

a. Turn power off to boiler and all controls. Allow boiler to cool to 80°F (27°C) and reduce the pressure to 0 psi (0 bar).



CAUTION

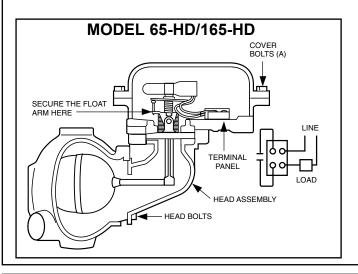
There may be more than one source of power to the boiler.

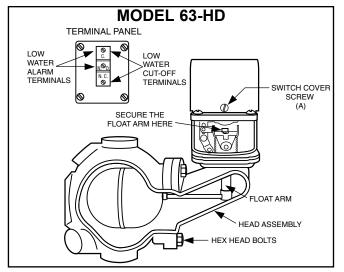
Drain water in the boiler to a level that is below the float chamber.

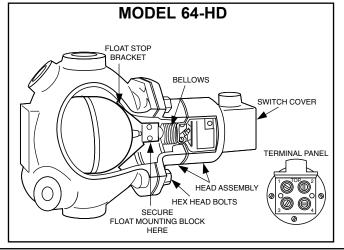


b. Remove Head Assembly

- Remove screws (A) and lift off switch cover.
- Identify terminal connections for rewiring and then disconnect all wires from terminal panels.
- Remove head bolts. Carefully remove head assembly from control body.
- Carefully place head assembly in vice where replacement work can be performed more conveniently.

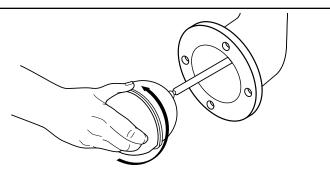






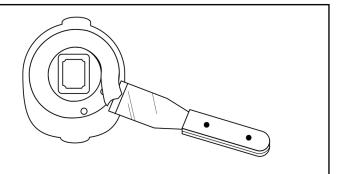
c. Remove and Replace Float

- While securely holding the arm or mounting block, where indicated in the diagram above, unscrew float ball from the assembly Holding the arm or mounting block reduces the risk of damaging the bellows from unnatural stresses.
- Screw new float onto assembly.
 On model 64 units, be sure the float stop bracket is in proper position.



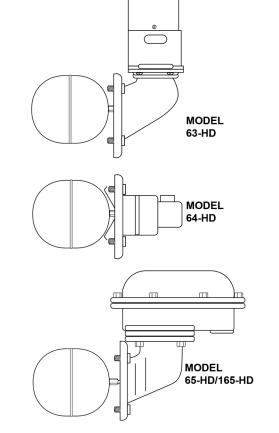
d. Prepare Flange Surfaces Scrape and clean flange surface on control body and control head.

IMPORTANT: Care must be taken not to damage flange surfaces. Nicks, scrapes or gouges may cause the flange to leak when in service.



e. Replace Head Assembly

- Slide flange gasket over float ball.
- Insert head assembly by carefully guiding float ball into control body.
- · Align Gasket and install head bolts.
- Using a torque wrench, tighten head bolts in an alternating star pattern. Tighten to 14-20 ft•lbs.
- Reconnect wiring to terminal panels in exactly the same position as removed.
- Replace switch cover and fasten with screws. On Model #65, cover and housing surfaces must be free of grit and debris for proper seal. On Model #165, replace the cover gasket.



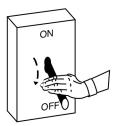
STEP 2 - Testing the Control

- a. Turn the boiler on.
- **b.** Fill the control and check for gasket leakage.
- c. Slowly open the blow-down valve which will lower the water level in the float chamber. When the water level drops to the horizontal cast line, the burner should turn off. Close the blow- down valve after the burner turns off and restore the water level to normal operating level. Repeat testing procedure several times to ensure proper operation of control.

After testing and verification of control operation, the boiler can be returned to service.

A CAUTION

Immediately turn off all power if the burner turns on with no water in the gauge glass. Investigate further before continuing procedure.



MAINTENANCE SCHEDULE:

- Blow down control as follows when boiler is in operation.
- Steam:
 - Daily if operating pressure is above 15 psi.
 - Weekly if operating pressure is below 15 psi.
- Hot Water:
 - Quarterly

NOTE

More frequent blow-down may be necessary due to dirty water and/or local codes.

- Disassemble and inspect annually. Replace the low water cut-off if it is worn, corroded, or if components no longer operate properly.
- Inspect the float chamber and equalizing piping annually. Remove all sediment and debris.
- Replace head mechanism every 5 years. More frequent replacement may be required when severe conditions exist such as rapid switch cycling, surging water levels, and use of water treatment chemicals.
- We recommend head mechanism replacement when the switch(es) no longer operate properly.

If you choose to replace the switch(es), order the proper McDonnell & Miller replacement switch or switch assembly and follow the repair procedure provided.

COMMERCIAL WARRANTY

Warranty. For goods sold to commercial buyers, Seller warrants the goods sold to Buyer hereunder (with the exception of membranes, seals, gaskets, elastomer materials, coatings and other "wear parts" or consumables all of which are not warranted except as otherwise provided in the quotation or sales form) will be (i) be built in accordance with the specifications referred to in the quotation or sales form, if such specifications are expressly made a part of this Agreement, and (ii) free from defects in material and workmanship for a period of one (1) year from the date of installation or two (2) years from the date of manufacture, whichever shall occur first, unless a longer period is specified in the product documentation (the "Warranty").

accumentation (the "Warranty Juan, Seller shall, at its option and at no cost to Buyer, either repair or replace any product which fails to conform with the Warranty provided Buyer gives written notice to Seller of any defects in material or workmanship within ten (10) days of the date when any defects or non-conformance are first manifest. Under either repair or replacement option, Seller shall not be obligated to remove or pay for the removal of the defective product or install or pay for the installation of the replaced or repaired product and Buyer shall be responsible for all other costs, including, but not limited to, service costs, shipping fees and expenses. Seller shall have sole discretion as to the method or means of repair or replacement. Buyer's failure to comply with Seller's repair or replacement directions shall terminate Seller's obligations under this Warranty and render the Warranty void. Any parts repaired or replaced under the Warranty are warranted only for the balance of the warranty period on the parts that were repaired or replaced. Seller shall have no warranty obligations to Buyer with respect to any product or parts of a product that have been:
(a) repaired by third parties other than Seller or without Seller's written approval; (b) subject to misuse, misapplication, neglect, alteration, accident, or physical damage; (c) used in a manner contrary to Seller's instructions for installation, or chemical attack; (e) damaged due to abnormal conditions, vibration, failure to properly prime, or operation without flow; (f) damaged due to a defective power supply or improper electrical protection; or (g) damaged resulting from the use of accessory equipment not sold or approved by Seller. In any case of products not manufactured by Seller, there is no warranty from Seller; supplier of such products.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, GUARANTEES, CONDITIONS OR TERMS OF WHATEVER NATURE RELATING TO THE GOODS PROVIDED HEREUNDER, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED AND EXCLUDED. EXCEPT AS OTHERWISE REQUIRED BY LAW, BUYER'S EXCLUSIVE REMEDY AND SELLER'S AGGREGATE LIABILITY FOR BREACH OF ANY OF THE FOREGOING WARRANTIES ARE LIMITED TO REPAIRING OR REPLACING THE PRODUCT AND SHALL IN ALL CASES BE LIMITED TO THE AMOUNT PAID BY THE BUYER FOR THE DEFECTIVE PRODUCT. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OTHER FORM OF DAMAGES, WHETHER DIRECT, INDIRECT, LIQUIDATED, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR SPECIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED SAVINGS OR REVENUE, LOSS OF INCOME, LOSS OF BUSINESS, LOSS OF PRODUCTION, LOSS OF OPPORTUNITY OR LOSS OF REPUTATION.

LIMITED CONSUMER WARRANTY

Warranty. For goods sold for personal, family or household purposes, Seller warrants the goods purchased hereunder (with the exception of membranes, seals, gaskets, elastomer materials, coatings and other "wear parts" or consumables all of which are not warranted except as otherwise provided in the quotation or sales form) will be free from defects in material and workmanship for a period of noe (1) year from the date of installation or two (2) years from the product date code, whichever shall occur first, unless a longer period is provided by law or specified in the product documentation (the "Warranty").

Except as otherwise required by law, Seller shall, at its option and at no cost to Buyer, either repair or replace any product which fails to conform with the Warranty provided Buyer gives written notice to Seller of any defects in material or workmanship within ten (10) days of the date when any defects or non-conformance are first manifest. Under either repair or replacement option, Seller shall not be obligated to remove or pay for the removal of the defective product or install or pay for the installation of the replaced or replaced and Buyer shall be responsible for all other costs, including, but not limited to, service costs, shipping fees and expenses. Seller shall have sole discretion as to the method or means of repair or replacement. Buyer's failure to comply with Seller's repair or replacement directions shall terminate Seller's obligations under this Warranty void. Any parts repaired or replaced under the Warranty are warranted only for the balance of the warranty period on the parts that were repaired or replaced. The Warranty is conditioned on Buyer giving written notice to Seller of any defects in material or workmanship of warranted goods within ten (10) days of the date when any defects are first manifest.

Seller shall have no warranty obligations to Buyer with respect to any product or parts of a product that have been: (a) repaired by third parties other than Seller or without Seller's written approval; (b) subject to misuse, misapplication, neglect, alteration, accident, or physical damage; (c) used in a manner contrary to Seller's instructions for installation, operation and maintenance; (d) damaged from ordinary wear and tear, corrosion, or chemical attack; (e) damaged due to abnormal conditions, vibration, failure to properly prime, or operation without flow; (f) damaged due to a defective power supply or improper electrical protection; or (g) damaged resulting from the use of accessory equipment not sold or approved by Seller. In any case of products not manufactured by Seller, there is no warranty from Seller; however, Seller will extend to Buyer any warranty received from Seller's supplier of such products.

THE FOREGOING WARRANTY IS PROVIDED IN PLACE OF ALL OTHER EXPRESS WARRANTIES. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM THE DATE OF INSTALLATION OR TWO (2) YEARS FROM THE PRODUCT DATE CODE, WHICHEVER SHALL OCCUR FIRST, EXCEPT AS OTHERWISE REQUIRED BY LAW, BUYER'S EXCLUSIVE REMEDY AND SELLER'S AGGREGATE LIABILITY FOR BREACH OF ANY OF THE FOREGOING WARRANTIES ARE LIMITED TO REPAIRING OR REPLACING THE PRODUCT AND SHALL IN ALL CASES BE LIMITED TO THE AMOUNT PAID BY THE BUYER FOR THE DEFECTIVE PRODUCT. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OTHER FORM OF DAMAGES, WHETHER DIRECT, INDIRECT, LIQUIDATED, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR SPECIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF PROFIT, LOSS OF ANTICIPATED SAVINGS OR REVENUE, LOSS OF INCOME, LOSS OF BUSINESS, LOSS OF PRODUCTION, LOSS OF OPPORTUNITY OR LOSS OF REPUTATION.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. To make a warranty claim, check first with the dealer from whom you purchased the product or call +1-847-966-3700 for the name and location of the nearest dealer providing warranty service.



Xylem Inc. 8200 N. Austin Avenue Morton Grove, Illinois 60053 Phone: (847) 966-3700 Fax: (847) 965-8379 www.xylem.com/mcdonnellmiller

McDonnell & Miller is a trademark of Xylem Inc. or one of its subsidiaries. © 2019 Xylem Inc. MM-715E May 2019 Part No. 246001



PROCEDURE:



CAUTION



To prevent serious personal injury from steam pipe blow down, connect a drain pipe to the control opening to avoid exposure to steam discharge.

Failure to follow this caution could cause personal injury.

Blow down the low water cut-off when the water level is at the normal level and the burner is on. Slowly open the blow down valve until it is fully open and observe the water level fall in the gauge glass. Close the valve after verifying that the pump contacts have closed and the burner shuts off. If this does not happen, immediately shut off the boiler and correct the problem.