

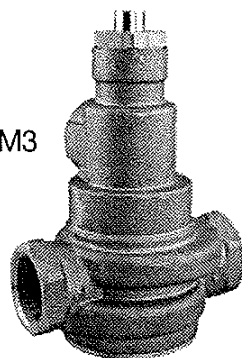
IS-N170-M3-R

Series N170-M3 and LFN170-M3

Serie N170-M3 y LFN170-M3

Séries N170-M3 et LFN170-M3

N170-M3



Replacement Kit

Installation Instructions

Juego de reemplazo

Instrucciones de instalación

Trousse de remplacement

Instructions d'installation

WATTS®

WARNING



Read this Manual BEFORE using this equipment.

Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment. Keep this Manual for future reference.

WARNING

FAILURE TO COMPLY WITH PROPER INSTALLATION AND MAINTENANCE INSTRUCTIONS COULD CONTRIBUTE TO THE VALVE FAILURE.

This Hot Water Master Tempering Valves cannot be used for tempering water temperature at fixtures. Severe bodily injury (i.e., scalding or chilling) and/or death may result depending upon system water pressure changes and/or supply water temperature changes. ASSE standard 1016, 1069 or 1070 listed devices should be used at fixtures to prevent possible injury.

These Hot Water Tempering Valves are designed to be installed at or near the boiler or water heater. They are not designed to compensate for system pressure fluctuations and should not be used where ASSE standard 1016, 1069 or 1070 devices are required. These valves should never be used to provide "anti-scald" or "anti-chill" service.

The components of the system must be of materials with a construction capable of withstanding the high limit output temperatures of the water heating source.

WARNING

Need for Periodic Inspection and Yearly Maintenance: Periodic inspection and yearly maintenance by a licensed contractor is required. Corrosive water conditions, and/or unauthorized adjustments or repair could render the valve ineffective for service intended. Regular checking and cleaning of the valve's internal components and check stops helps assure maximum life and proper product function. Frequency of cleaning and inspection depends upon local water conditions.

WARNING

You are required to consult the local building and plumbing codes prior to installation. If the information in this manual is not consistent with local building or plumbing codes, the local codes should be followed. Inquire with governing authorities for additional local requirements.

Installation Instructions

Thermal Actuator - Access from Top of Valve

NOTICE

Make sure the valve is in the vertical position when replacing or reassembling thermal actuator.

1. Turn hot and cold water supplies off at the checkstops. In the absence of checkstops, turn water supplies off at upstream ball valves.
2. Loosen locknut turning counterclockwise.
3. Remove bonnet.
4. Remove overload assembly using a standard pair of pliers.
5. Pull out thermal actuator using a pair of needle nose plies.
6. Replace the actuator and re-assemble in reverse order.

⚠ WARNING

7. **In order to prevent bodily injury and/or death, temperature setting must be checked by installer before use. To set the temperature, see temperature adjustment section.**

Plunger & Funnel - Access from Bottom of Valve

1. Turn hot and cold water supplies off at the checkstops. In the absence of checkstops, turn water supplies off at up stream ball valves.
2. Remove the bottom cap.

⚠ CAUTION

Spring is under tension.

3. Remove spring.
4. Remove plunger by pulling on the plunger fin with a pair of pliers.
5. Remove funnel. You will need to use a deep socket and the funnel removal tool included with the kit.
6. Reassemble in reverse order.

⚠ WARNING

7. **In order to prevent bodily injury and/or death, temperature setting must be checked by installer before use. To set the temperature, see temperature adjustment section.**

Checkstop Rebuild Kit

1. Turn off hot and cold water supplies at upstream ball valves.
2. Remove checkstop bonnet.
3. Remove internal parts.
4. Install new parts.
5. Re-assemble in reverse order.

Temperature Adjustment

1. Turn off recirculating pump (if one in the system).
2. Open enough fixtures to meet the minimum requirements of valve.
3. Loosen the locknut, then turn adjusting screw clockwise to decrease or counterclockwise to increase outlet temperature.

NOTICE

Please allow valve temperature to stabilize before making next adjustment.

4. When desired temperature is attained, tighten the locknut. Turn recirculation pump back on. Close open fixtures.

Model	Inlet/Outlet (NPT)	Min. Flow
3/4 N170-M3, LFN170-M3	3/4 X 3/4"	3 gpm (11 lpm)
3/4 N170-M3 CSUT, LFN170-M3 CSUT	3/4 X 3/4"	3 gpm (11 lpm)
1 N170-M3, LFN170-M3	1 X 1"	4 gpm (15 lpm)
1 N170-M3 CSUT, LFN170-M3 CSUT	3/4 X 1"	4 gpm (15 lpm)
1-1/4 N170-M3, LFN170-M3	1-1/4 X 1-1/4"	4 gpm (15 lpm)
1-1/4 N170-M3 CSUT, LFN170-M3 CSUT	1-1/4 X 1-1/4"	4 gpm (15 lpm)
1-1/2 N170-M3, LFN170-M3	1-1/2 X 1-1/2"	5 gpm (19 lpm)
1-1/2 N170-M3 CSUT, LFN170-M3 CSUT	1-1/4 X 1-1/2"	5 gpm (19 lpm)
2 N170-M3, LFN170-M3	2 X 1-1/2 X 2"	7 gpm (26 lpm)
2 N170-M3 CSUT, LFN170-M3 CSUT	1-1/4 X 2"	7 gpm (26 lpm)

Troubleshooting

What to look for if:

Flow of water is less than desired...

1. Checkstops or supply to N170 or LFN170 valve not fully open.
2. Clogged checkstop strainer screens.
3. Accumulation of lime deposits around plunger.
4. Low supply pressure.

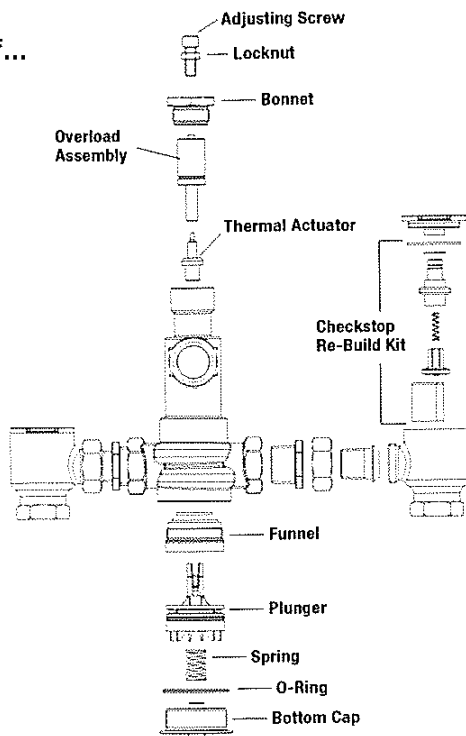
**N170-M3 or
LFN170-M3**

Flow of water is completely shut off...

1. Checkstops or supply valves are completely closed.
2. Valves downstream from N170 or LFN170 fully closed.
3. Loss of either hot or cold water supply pressure.

Discharge temperature varies...

1. Very large restriction in outlet flow.
2. Very large drop in inlet pressure.
3. Very large fluctuation of hot water supply temperature.
4. Minimum flow requirement not achieved.
5. Lime deposit around thermal actuator and/or plunger.



Repair Kits

ORDERING CODE	KIT NO.	PARTS INCLUDE:
0887490	¾-1 LFN170-RK-M3	Adjusting Screw, Bonnet, Thermal Actuator, Locknut, Plunger, Spring, O-Ring – Lead Free
0125153	1¼-2 LFN170-RK-M3	Adjusting Screw, Bonnet, Thermal Actuator, Locknut, Plunger, Spring, O-Ring – Lead Free
0125151	¾-1 LFN170-FN-RK-M3	Funnel – Lead Free
0125154	1¼-2 LFN170-FN-RK-M3	Funnel – Lead Free
0125152	¾-1 LFN170-ST-RK-M3	Stop Replacement Kit – Lead Free
0887491	1¼-2 LFN170-ST-RK-M3	Stop Replacement Kit – Lead Free

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information: www.watts.com/prop65

Limited Warranty: Watts Regulator Co. (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.

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