

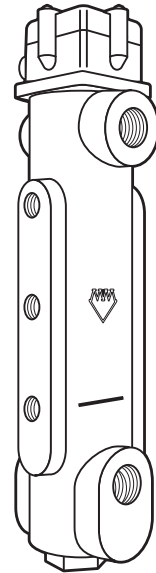


**Series 750B-C3 Chamber
with 3 Probes**
**Series 750B-C4 Chamber
with 4 Probes**

Features

- Cast Iron Body
- Sight Glass Tappings
- Gage Cock Tappings
- Stainless Steel Probes
- NEMA 4X Electrical Enclosure
- 250 psi Maximum Working Pressure

Designed for use with the Series 750B remote mount control module to make a complete system for level control in a boiler or other vessel.



Remote Chamber



! WARNING

	<ul style="list-style-type: none"> • Before using this product read and understand instructions. • Save these instructions for future reference.
	<ul style="list-style-type: none"> • 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. • To prevent serious burns, the boiler must be cooled to 80°F (27°C) and the pressure must be 0 psi (0 bar) before servicing.
	<ul style="list-style-type: none"> • To prevent electrical shock, turn off the electrical power before making electrical connections.
	<ul style="list-style-type: none"> • This low water cut-off must be installed in series with all other limit and operating controls installed on the boiler. After installation, check for proper operation of all the limit and operating controls, before leaving the site. • To prevent serious personal injury from steam blow down, connect a drain pipe to the control opening to avoid exposure to steam discharge.
	<ul style="list-style-type: none"> • To prevent a fire, do not exceed the switch contact rating. <p>Failure to follow this warning could cause property damage, personal injury or death.</p>

SPECIFICATIONS

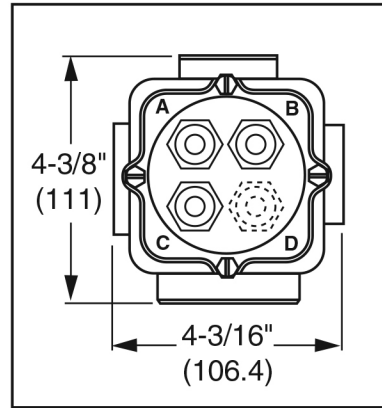
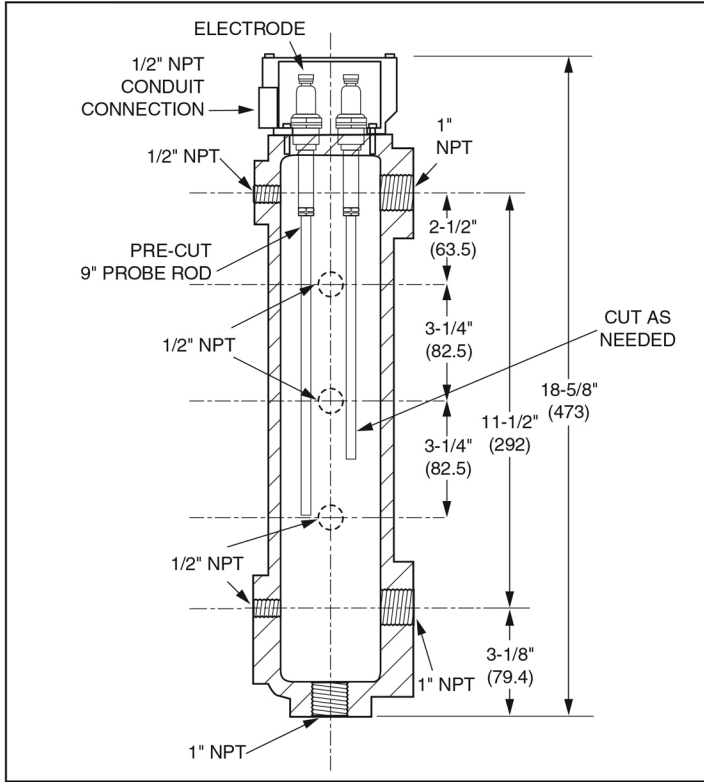
Maximum Water Temperature: 406°F (208°C)

Maximum Water Pressure: 250 psi (17.6 kg/cm²)

Maximum Steam Pressure: 250 psi (17.6 kg/cm²)

All probes are cut to 9" length (229mm). Any of these probes can be used as the low water cut-off level probe. The remaining probes can be 'cut to length' in the field using a metal cutting saw to achieve desired pump control or additional alarm activation.

	C3	C4
No. of Probes	3	4
A	X	X
B	X	X
C	X	X
D		X



INSTALLATION –

TOOLS NEEDED:

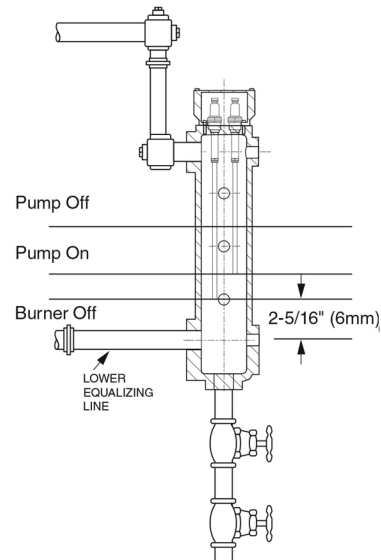
One (1) pipe wrench, one (1) flathead screwdriver and/or 11/32" nut driver, one (1) metal-cutting saw, and pipe sealing compound.

Chamber

If the control will be the primary low water fuel cut-off, size the steam (top) and water (bottom) equalizing pipe lengths so that the cut-off level mark is 1 1/2" (38mm) below the boiler's normal water level, but not lower than the lowest safe permissible water level, as determined by the boiler manufacturer.

OR

If the control will be the secondary low water fuel cut-off, size the steam (top) and water (bottom) equalizing pipe lengths so that the cut-off level mark is at or above the lowest safe permissible water level, as determined by the boiler manufacturer.



Probes and Electrical Connections

- Each probe is made up of an electrode and a probe rod. Each probe rod must be cut to an appropriate point of operation.
- **A 9" rod will be positioned at the low water cut-off level.** Cut other rods for the pump operating probes to the desired length.
- After cutting, secure the probe rod to the electrode and lock the thread using the jamnut in the electrode sleeve. Insert probe into the chamber and tighten by hand. Then torque to **20-25 lb•ft (30-34 N•m)**

WARNING

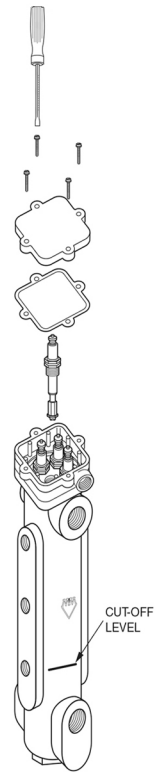
Do not use PTFE tape. Only use pipe sealant.
Failure to follow these instructions will cause the probe not to function as intended and could cause property damage, personal injury or death.

- Secure the electrical enclosure to the chamber with gasket between. Note that the electrical connection opening can be orientated in any of 4 positions. Tighten screws to 30-35 lb•in (3.4-4.0 N•m).
- Probe wire and conduit connections should be made following accepted electrical practices.

NOTE

Wire must be 18 AWG stranded with glass braided silicone jacket (UL 3071) suitable for high temperature (200°C) service.

- Install electrical cover enclosure after making all connections and after control has been tested for proper operation. Tighten screws to 30-35 lb•in (3.4-4.0 N•m).



MAINTENANCE

SCHEDULE:

- **Blow down control as follows when boiler is in operation.**
 - Daily if operating pressure is above 15 psi (1 bar)
 - Weekly if operating pressure is below 15 psi (1 bar)

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

- **Remove and inspect probes annually.** Replace probes if they are worn, corroded or have an excessive coating of scale or rust.
- **Inspect the chamber and equalizing piping annually.** Remove all sediment and debris.

When blowing down a control at pressure, the blow down valve should be opened slowly. The piping needs to be warmed up and stagnant water in the drain piping needs to be pushed out. Suddenly opening a blow down valve causes steam to condense, which creates water hammer. Damage to components can occur when water hammer occurs due to improper blow down piping.

For these reasons, McDonnell & Miller recommends a dual valve blow-down system for each control.

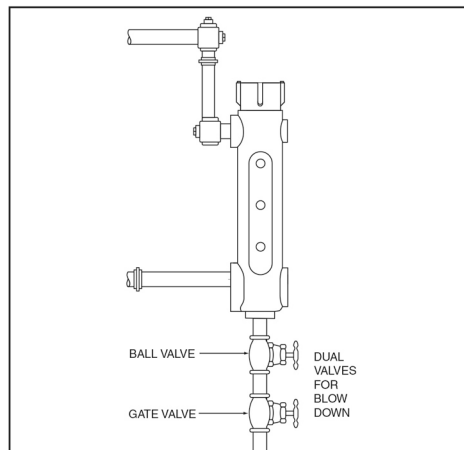
Proper Blow-down Procedure: (Using dual valve system)

1. With water in the boiler at its normal level, open “Positive Shut-off Ball Valve”.
2. Open “Throttling Gate Valve” slowly until drain piping heats up and then open fully. Observe that the water level starts falling in the gauge glass.
3. Close “Throttling Gate Valve” after verifying that the pump contacts have closed and the burner contacts have opened thus shutting down the boiler. **Note:** If this does not happen, immediately close all valves, turn off burner and correct the problem.
4. Close “Positive Shut-off Ball Valve”.
5. Observe that the water level returns to its normal level before leaving site.

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.



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").

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 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, 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.

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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 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 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.

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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
Let's Solve Water

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

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