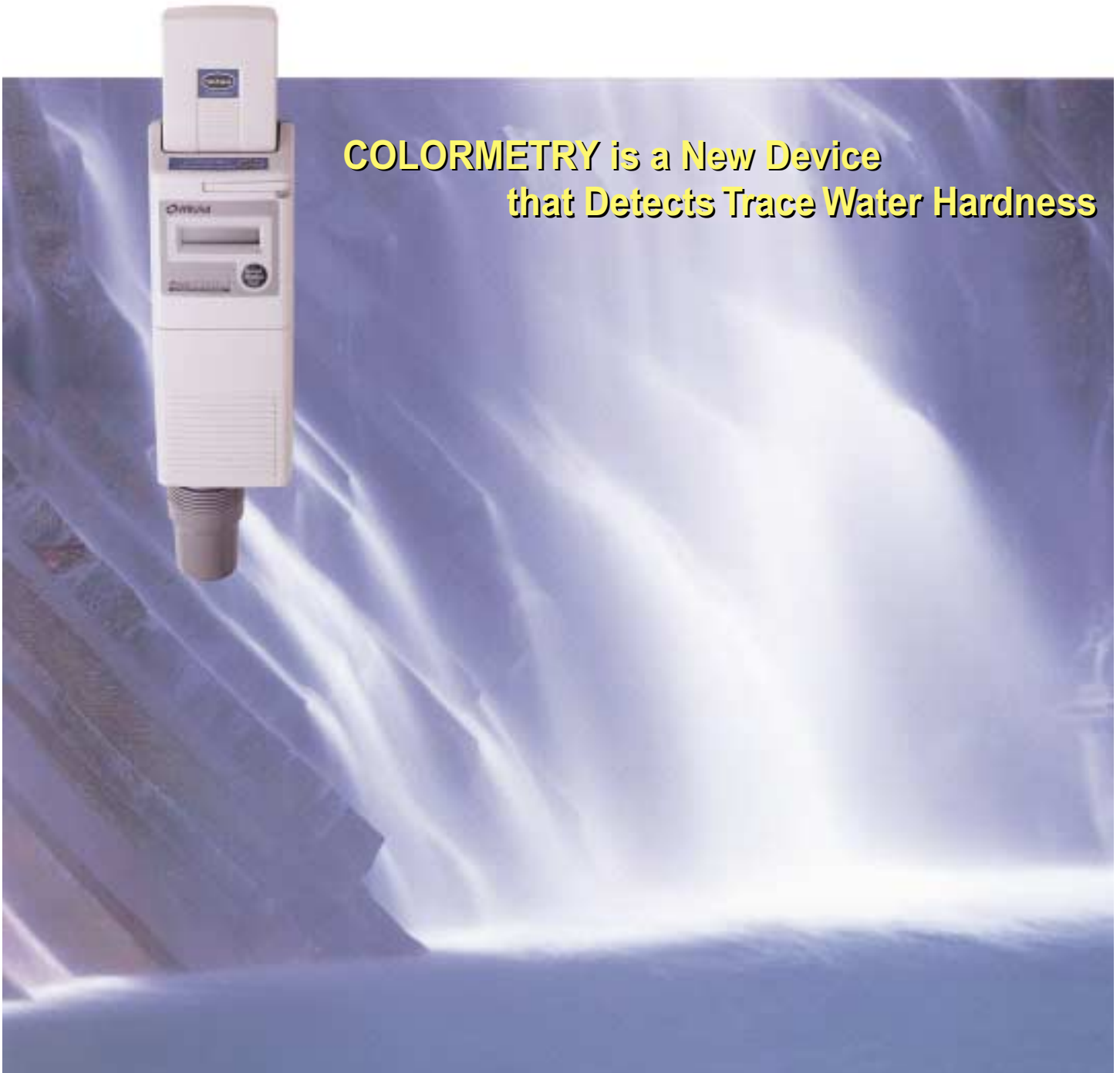




Alarm System
for Water Hardness Leakage

COLORMETRY

CMU-124H



**COLORMETRY is a New Device
that Detects Trace Water Hardness**

INTELLIGENT WATER MANAGER CMU-124H

Automatic monitoring system
to detect trace
water hardness leakage

What is COLORMETRY (for Hardness)?

Water hardness is considered to be the most common factor in damaging a boiler. The hardness level (ionic concentration) of water inflow to a boiler has been checked manually by using chemical reagents as indicators. The manual measurement of these conventional methods creates such problems as: time consumption: personal error or deviation; and lack of continuity in monitoring hardness leakage. COLORMETRY solves all these problems by offering an automatic monitoring system for sample water collection, chemical reagent injection, mixing and evaluation.

SPECIAL FEATURES

1. Automatic monitoring system for hardness leakage

- Totally automatic control.
- Simple and timesaving procedure.
- No routine calibration necessary.
- Set standard time period for monitor - for example, every day between 9:00 a.m. ~ 5:00 p.m.
- With remote control, initiates and terminates the monitoring system from outside the boiler room.
- Monitors hardness leakage at set time intervals - for example, every hour which enables early detection of hardness leakage.

2. Detects trace hardness leakage

- Detects low levels of hardness leakage such as 1 ~ 2 mg/L by optically and electronically monitoring the color of sample water.

3. Easy to read digital screen

- Hardness sample test results are shown on the LCD display (for example, 0 ~ 1 mg/L), which indicates correct operation of the water softener.

4. Alarm buzzer for information function

- Buzzer alarms when any hardness leakage is detected. With the external alarm contact outlet, the alarm can be sent to a remote location.
- Equipped with self check / confirm function. In case the device faults, the main cause of the problem is shown on the digital screen.

5. Memory function for recording hardness leakage incidents

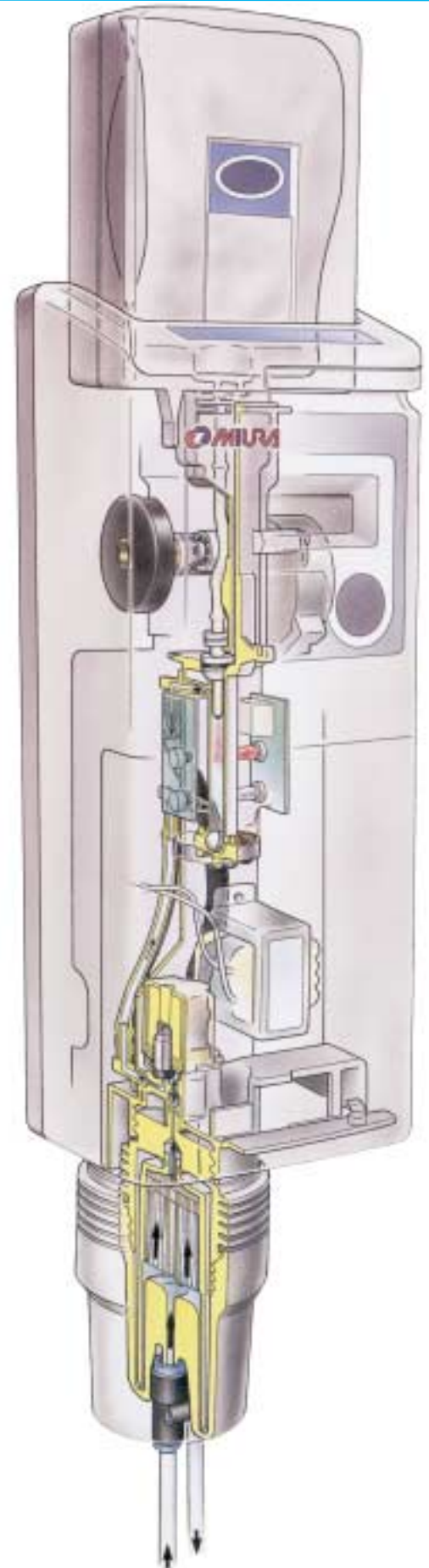
- Memorizes date, time, duration of hardness leakage and time of reinstatement for up to three consecutive incidents. Memory function assists in analysis of the causes of hardness leakage.

6. One-Touch Cartridge Replacement

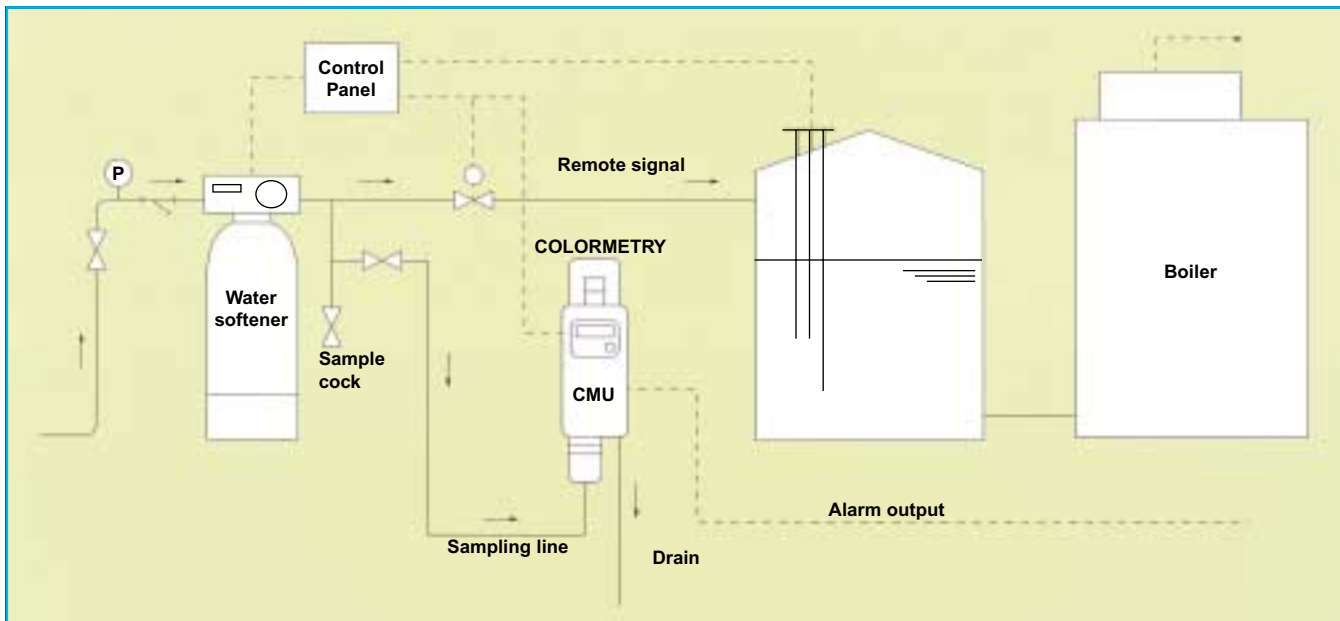
- The cartridge contains all the necessary chemical reagent and can be replaced with a one-touch, simple motion. In normal operation the cartridge does not have to be replaced for approximately 4 months. (Note 2)

7. Compact design

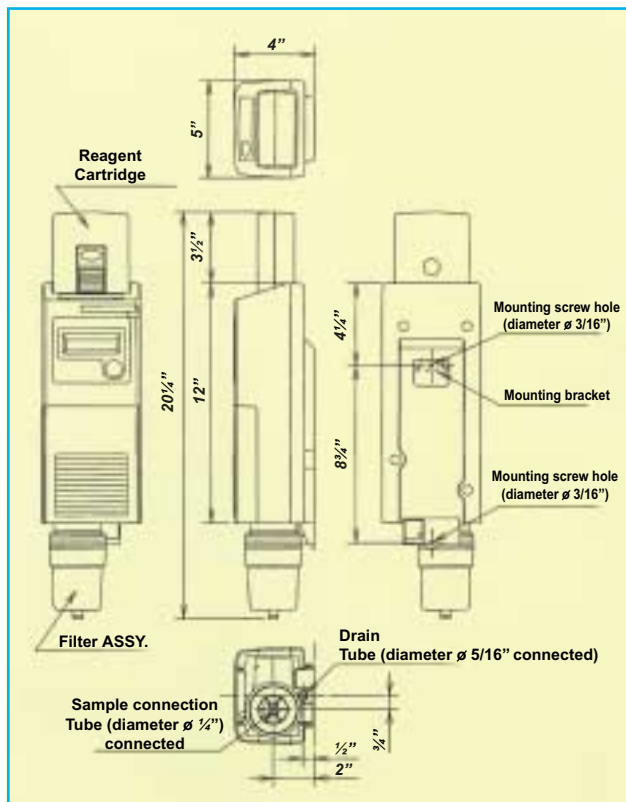
- Unique compact design.
- Easy installation on the wall with mounting brackets attached to the device.
- One-touch connection of collection and drain lines to the device.



INSTALLATION FLOW EXAMPLE



MEASUREMENT



SPECIAL FEATURES

Item	COLORMETRY CMU-124H	
Method	Via the Colormetric Method	
Evaluation Range	0 ~ 1mg/L/1 ~ 2mg/L/over 2mg/L (3 settings)	
Alarm Set Point	over 1mg/L/over 2mg/L (Choose one)	
External Alarm Output	Alarm output capacity by SPDT contact AC 24V 1A, Dry Contact	
Operation Output	Open collector output capacity: AC 24V 70mA	
Raw Water Pressure	7.1 ~ 71psi	
Water Temperature	41 ~ 104F°	
Operation Temperature	41 ~ 122F°	
Humidity	20 ~ 90%RH (no condensation, no freezing)	
Power	AC24V 50/60Hz (Note 1)	
Power Consumption	20W	
Cartridge Replacement	Every 4 months (Note 2)	
Connector Size	Inlet	Ø 1/4" (diameter) tube (Note 3)
	Outlet	Ø 5/16" (diameter) tube (Note 3)
Installation	Indoor wall mount (Note 4)	
Configuration	5"(W) x 4"(L) x 20.6"(H)	
Weight	4.6lb	

Note 1: Use the supplied transformer to step down from the AC 120V to 24V and supply 24V to main unit.

Note 2: Even in a standard case of hourly monitoring, abnormally frequent detection of hardness may require more frequent replacement of the reagent cartridge.

Note 3: The inlet and outlet tubes are attached to the device.

Note 4: The mounting bracket is attached to the device.

Caution

- The instructions in the operation manual must be followed exactly.
- Even though COLORMETRY is a device for hardness leakage, excessive contamination other than the composition of hardness in sample water affect the results. Therefore the sample water for the device has to be collected directly from the outflow of the water softener (at gauge cock).
- The shelf life for the cartridge is about one year after date of manufacture.
- Water quality affects the filter. Hard water shortens the filter life.

Other products offered by MIURA BOILER

Actual Efficiency! - Real Savings!

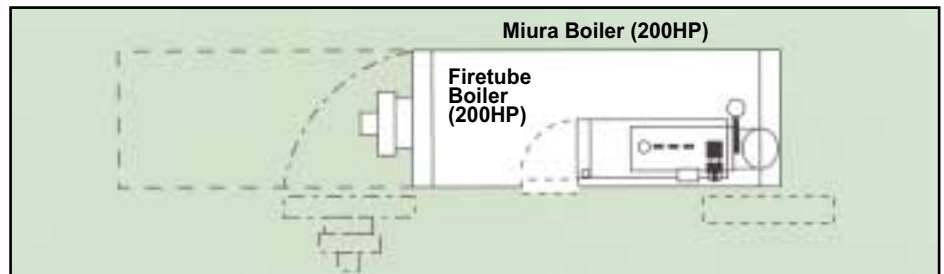
Within 5 minutes from cold start

Super small size, high capacity boiler made in North America with the latest Japanese technologies. This boiler has achieved large savings on fuel expenses where fuel and rentable land costs are extremely high.



Save Space

- 1) MIURA BOILER can save approximately **48%** in floor space compared to conventional firetubes. You can use the extra space to do anything you want. Increase boiler capacity without building a new boiler room or use the extra space for production.
- 2) Any MIURA LX Series (up to 200HP) can be installed through a standard 3' x 7' door. Save on building construction costs.

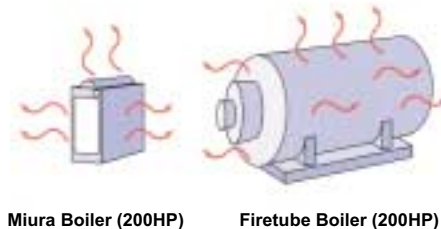


Save Thousands of Dollars on Fuel

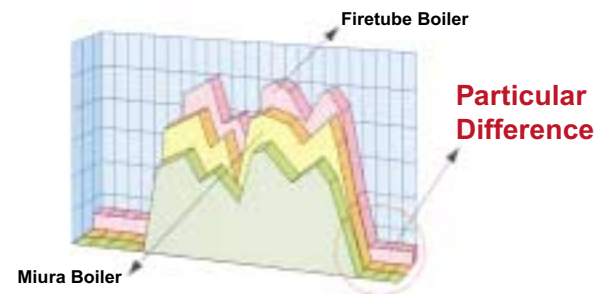
You can save an average of **15~25% on fuel costs** after switching to a MIURA Boiler. This is due to **In-Service Efficiency**. Radiation loss from a boiler is constant, whether the boiler runs at 100% fire rate or 0% fire rate. The Miura, 200BHP, LX model is only about **25%** the surface area of a 200 BHP firetube. This translates to real savings in fuel costs.



Radiation Loss



Gas Usage



Low NOx Boiler

With NOx emissions less than **20ppm** without add on devices such as FGR systems.



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The descriptions and specifications are approximate. Miura Boiler reserves the right to discontinue and/or change models and specifications without notice and without incurring obligation. The only warranty applicable is our standard written warranty.