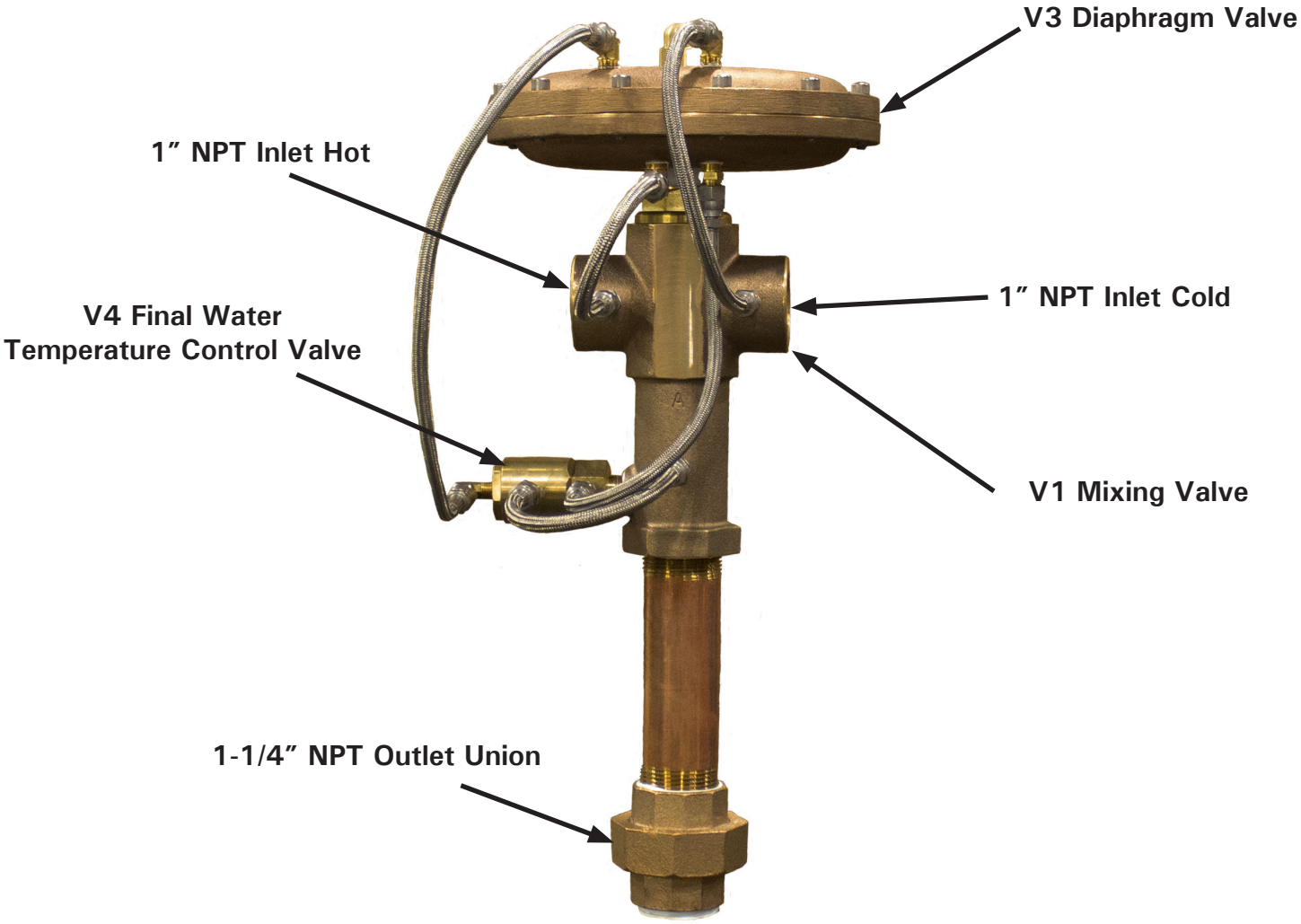
THERM-O-MIX® STATION/WWM TEMPERED WATER SUPPLY

Name:_____ S/N:_____

Date:_____



ThermOmegaTech®, Inc.
353 Ivyland Road
Warminster, PA 18974
1-877-379-8258
www.ThermOmegaTech.com

INSTALLATION INSTRUCTIONS
THERM-O-MIX® STATION / WWM
TEMPERED WATER SUPPLY

Refer to product sheet for further description and operation.

IMPORTANT: THIS ASSEMBLY IS DESIGNED TO PROVIDE ADEQUATE WATER TO SAFETY SHOWERS TYPICALLY RATED AT 20 GPM (75.7 L/MIN) AT 30 PSIG (2.1 BAR) INLET PRESSURE. IF HIGHER WATER SUPPLY PRESSURE RESULTS IN FLOWS OVER 20 GPM (75.7 L/MIN) AT THE SHOWER HEAD, ADJUST HOT AND COLD WATER PRESSURE REGULATORS AS DESCRIBED BELOW.

REMEMBER: CONSULT WITH THERMOMEGATECH® APPLICATION ENGINEERS FOR ANY QUESTIONS REGARDING INSTALLATION OPERATION, OR MAINTENANCE.

1) To facilitate service, maintenance, and testing, install line size shutoff valves followed by line size check valves in both hot and cold water supply lines prior to connection to the assembly.
2) Install water pressure regulators in both the hot and cold water lines ahead of the Therm-O-Mix® Station/WWM. Adjust inlet water pressure as needed to limit water flow from shower head to 20 GPM (75.7 L/min). Adjust the hot water inlet pressure slightly higher than the cold water inlet pressure, but not more than about 10 PSIG (0.7 BAR) higher.
3) Therm-O-Mix® Station/WWM weighs about 15 lbs. (6.8 kg) and can be supported by normal piping connections. Connect hot water to “B” port, cold water to “C” port, tempered water to shower to “A” port.
4) Test shower/eyewash system after installation of mixer assembly to assure proper flow and temperature output. Record test results on Inspection and Test Log form.
5) ThermOmegaTech®, Inc. recommends testing all components of personnel safety showers and eyewash stations each week and to have a maintenance record kept on file. See Inspection and Test Log form. **Refer to ANSI Z358.1 for more information.**
6) If water flow rate or outlet water temperature is not correct, immediately isolate system and provide maintenance as required.
7) For systems exposed to freezing conditions and/or scald hazard due to solar radiation, apply ThermOmegaTech® automatic bleeder valves type HAT/FP and HAT/SP. Installations subject to possible freezing conditions may require an enclosure for protection of the Therm-O-Mix® Station/WWM. Consult factory for information about optional enclosure.

Proper Use: Use ThermOmegaTech® products only as specified to ensure performance, safety, and regulatory compliance.
No Modifications: Do not modify ThermOmegaTech® products, as changes may void warranties and violate regulations (e.g., RoHS, REACH).
Proper Disposal: Dispose of end-of-life products per local hazardous substance regulations; contact ThermOmegaTech® or recycling facilities for guidance.

WARNING: This product can expose you to chemicals, for example lead, nickel, acrylonitrile, which are known to the State of CA to cause cancer, birth defects, or reproductive harm. For more information, go to www.P65Warnings.ca.gov

Warranty information disclosed at www.thermomegatech.com/terms-conditions/

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THERM-O-MIX® STATION AND THERM-O-MIX® STATION/WWM

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Caution

Therm-O-Mix® Station and Therm-O-Mix® Station/WWM are considered safety devices and must be dedicated as such to safety showers and/or eyewash stations. Attempts to adjust or tamper with these devices are prohibited unless otherwise authorized by the factory.

Steam, hot water, and cold water supply lines must provide sufficient volume as required by latest ANSI standards and must not support other apparatus downstream of said device(s).

Each Therm-O-Mix® Station and Therm-O-Mix® Station/WWM are designed to serve a single safety shower or combination shower/eyewash station. It is the responsibility of the end-user to inspect and approve for use of the Therm-O-Mix® Station and/or Therm-O-Mix® Station/WWM after installation, and periodically according to latest ANSI standards.

Therm-O-Mix® Station and Therm-O-Mix® Station/WWM are designed to operate periodically, i.e. when needed for an emergency or when inspected according to latest ANSI standards. Continuous operation on a daily basis of these safety devices when no emergency exists or when inspections are not being performed is prohibited. Continuous operation of these safety devices will void the warranty.

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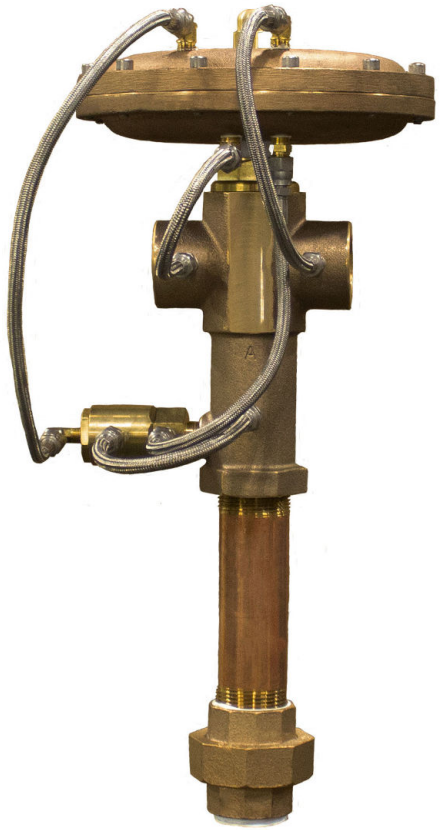
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THERM-O-MIX® STATION/WWM

HIGH CAPACITY INSTANT TEPID WATER SUPPLY

THE NEED

An instantaneous and reliable source of tepid water for a safety shower/eyewash system using existing hot and cold water supply.



THE PROBLEM

Conventional mixing valves are unsuitable for providing tepid water at safety shower/eyewash stations. Conventional mixing valves shut off entirely if either the hot or cold water supply is interrupted. This is dangerous and unacceptable for safety shower/eyewash stations where cold water must be available under all circumstances. To meet OSHA and ANSI recommendations it is required to have a system which can respond safely to both hot water and cold water supply failures.

THE SOLUTION

The Therm-O-Mix® Station/WWM is composed of a V-1 mixing valve acting in concert with its unique V-3 pressure sensing controller. This controller assures cold water will flow to the shower and eyewash stations even if no hot water is available (provided the cold water supply is not shut off elsewhere in the system).This is accomplished using self-operating controls with no electricity nor air required.

TRIPLE REDUNDANT SAFETY CONTROLS

V-3 Pressure Sensing Controller:
The Therm-O-Mix® Station/WWM's V-1 mixing valve acting in concert with it's unique V-3 pressure sensing controller. This controller assures cold water will flow to the shower and eyewash stations even if no hot water is available (provided the cold water supply is not shut off elsewhere in the system). This is accomplished using self-operating controls with no electricity nor air required.

V-4 Final Safety Control:
This control element senses the final water temperature and will position the V-3 pressure sensing controller to close off the hot water port of the mixing valve if the final water temperature is above 90°F (32°C).

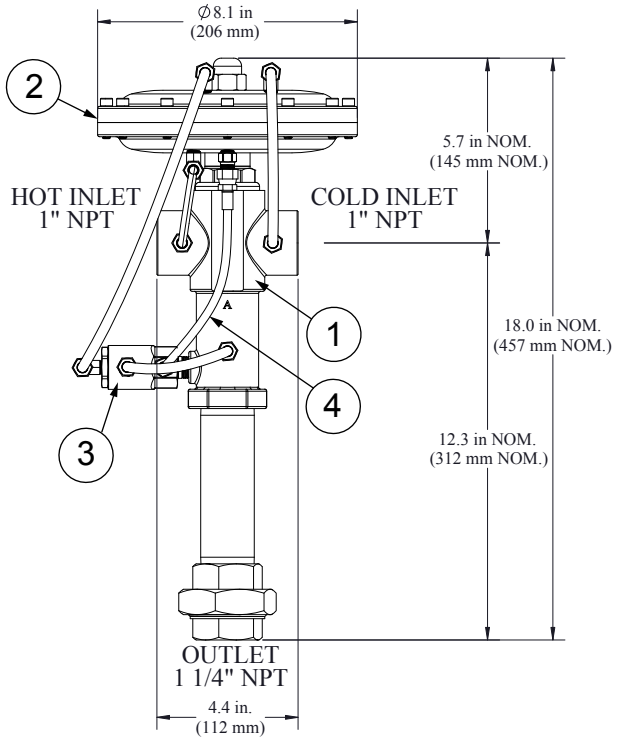
V-1 Mixing Valve:
The primary temperature control device is Therm-Omega-Tech®'s three-way mixing valve. This valve is designed around our exclusive Thermoloid® sensor/actuator that automatically and accurately proportions the water flow in response to outlet water temperature. This mixing valve simultaneously modulates both the hot and cold water inlet ports to provide 85°F (29°C) water to the shower/eyewash station.

THERM-O-MIX® STATION/WWM

HIGH CAPACITY INSTANT TEPID WATER SUPPLY

PARTS & MATERIALS

ITEM	DESCRIPTION	MATERIAL
1	WATER MIXING VALVE (V1)	Bronze Casting
2	PRESS. SENS. CONTROLLER (V3)	Bronze Casting
3	FINAL SAFETY CONTROL (V4)	Brass
4	FLEXIBLE TUBING	SS Braided PTFE



OPERATION

After water flow is activated at the shower or eyewash, the outlet water temperature will reach 85°F (29°C) when hot water arrives at the mixing valve. The mixing valve then blends the hot and cold water to produce an output of 85°F (29°C) water.

BENEFITS

- All components are in-line serviceable
- Easy to retrofit on existing shower or combination shower eyewash stations
- Maintains constant 85°F (29°C) output
- All self-operating controllers - no power required
- Utilizes existing hot and cold water supply
- Optional durable, all weather version in high visibility LDPE enclosure available

DESIGN FEATURES

- Cv = 10.0
- Conforms to OSHA and ANSI recommendations
- Provides 85°F (29°C) tepid water from 3 GPM (11.4 L/min) to 25 GPM (113.7 L/min) with water inlet pressure of at least 40 PSIG (2.8 BAR)
- Compact, lightweight (under 15 lbs/6 kg) design easily supported by piping connections

ORDERING

PART NUMBER	DESCRIPTION
387 - 201000 - 000	THERM-O-MIX® STATION/WWM-85°F

NOTES

1. Where unit is used as a safety shower or eyewash station, the final outlet temperature should be specified by the Facilities Medical Supervisor or other authorized personnel.
2. A #20 mesh strainer is recommended for all inlets.
3. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

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Because of continuous improvements, ThermOmegaTech®, Inc. reserves the right to change the design and specifications without notice

ThermOmegaTech®

THERM-O-MIX® STATION/WWM INSPECTION AND TEST LOG

(See Other Side Of This Sheet For Instructions)

COMPANY:
SERIAL #:
UNIT LOCATION/IDENTIFICATION:

DATE	START-UP SPIKE	OUTPUT TEMP	COMMENTS	TESTED BY
			EYEWASH	
			SHOWER	

Make a copy of this log for future reference.

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THERM-O-MIX® STATION/WWM TEST AND INSPECTION INSTRUCTIONS

NOTE: THIS UNIT SHOULD BE TESTED IN CONJUNCTION WITH REGULAR OSHA REQUIRED SHOWER/EYEWASH TESTING. THE TESTS CONFIRM THAT THE EQUIPMENT IS SAFE, OPERATIONAL, AND PURGES POTENTIAL BACTERIA LADEN WATER FROM THE SYSTEM.

1. Record the date.

2. Using an accurate thermometer, first turn on the eyewash and record the maximum start-up spike temperature of the water.

3. After a few minutes running, record the normal eyewash water temperature.

4. With the eyewash turned off, activate the shower and record the delivered water temperature.

OTHER EVALUATION TESTS

OSHA and ANSI, as well as the manufacturer of this equipment, recommend regularly scheduled testing of safety shower/eyewash stations to assure proper and safe operation.

Water Flow Rate Test: OSHA/ANSI recommend a potable water system capable of maintaining 30 PSIG (2.1 BAR) minimum with 20 GPM (75.7 L/min) minimum to shower head and 0.4 GPM (1.5 L/min) minimum to eyewash for 15 minutes. One simple method of testing is to collect the water in a 5 Gal (18.9 L) container. At the required flow rate, the shower head flow must fill the container in 15 seconds or less.

INSTALLATION INSTRUCTIONS
HAT/FP & IC/FP FREEZE PROTECTION VALVES

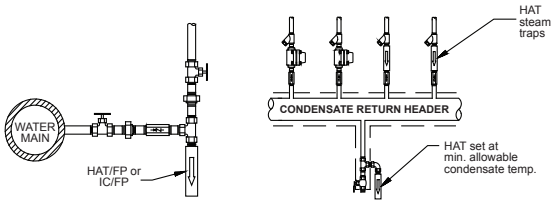
If installed and maintained as recommended, the **ThermOmegaTech®, Inc.** ***HAT/FP*** and ***IC/FP*** valves will yield reliable and trouble free service. ***It is important that before installing you read these instructions carefully.***

REMEMBER: The ***FP*** valve is full open at its stated temperature and full closed approximately 10°F above its stated temperature. Unless otherwise stated, these valves are supplied at their greatest standard Cv or flow rate. Smaller Cv's are available on request. See the product sheets.
Never undersize installations. A #20 mesh strainer is recommended to use with all port sizes.

CAUTIONS

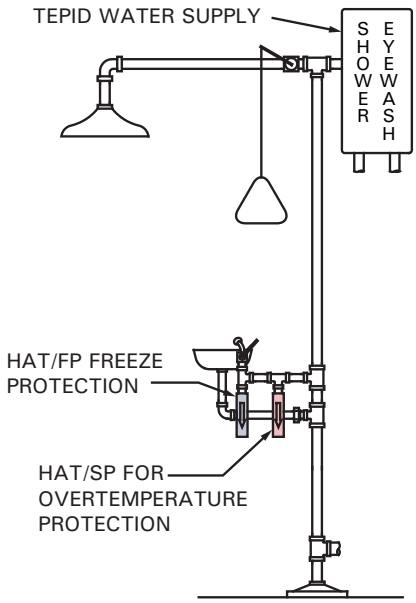
Use only standard and proper connections • Do not over-tighten connections • Always test after installation and before use
Always test before winter and summer seasons • Test at regular intervals

FP VALVES MAY SERVE AS PRIMARY PROTECTION ON UNTRACED SYSTEMS, OR AS A FAIL-SAFE BACKUP FOR TRACED WATER SYSTEMS: Always place freeze valves at low points or where water will tend to be static or prone to accumulate or dead leg. Keep outlet piping short and discharge to a large diameter drain or ditch. Never create an "ice patch" hazard by discharging to a slab or walkway. A preferred method of installation is to place the valve close to the point of discharge and connect with a run of piping from the line to be protected to the inlet side of the ***FP*** valve. Source and inlet piping may be insulated and/or traced, but never insulate or trace the valve body.



ON SAFETY SHOWERS AND EYEWASH STATIONS

Always keep pipe length short (with close nipple) between inflow piping and operating valve and place ***FP*** valve close to the operating valve. **REMEMBER:** It is the flow of water that keeps the pipe from freezing (even short dead legs will freeze in severe conditions).



TO TEST FOR OPERATION WHILE IN LINE

Cool with freeze spray, CO_2 or ice and water slurry. Valve will start to run or drip until warm water reaches the actuator.

TO TEST FOR PROPER SET POINT

Remove from system and place entire valve in an ice and water slurry at 33-34°F (0.6-1.1°C). The valve should open fully within 5 minutes. Move the valve to an ice and water slurry at 40-42°F (4.4-5.6°C). The valve should close bubble tight.

It should be understood that the use of these valves is not a substitute for regular and routine scrutiny of safe conditions. Installation and use of this product is outside the control of **ThermOmegaTech®** and is the sole responsibility of the end user. **ThermOmegaTech®** makes no guaranties, either expressed or implied, in connection with its installation or use.

Proper Use: Use ThermOmegaTech® products only as specified to ensure performance, safety, and regulatory compliance.
No Modifications: Do not modify ThermOmegaTech® products, as changes may void warranties and violate regulations (e.g., RoHS, REACH).
Proper Disposal: Dispose of end-of-life products per local hazardous substance regulations; contact ThermOmegaTech® or recycling facilities for guidance.

⚠ WARNING: This product can expose you to chemicals, for example lead, nickel, acrylonitrile, which are known to the State of CA to cause cancer, birth defects, or reproductive harm. For more information, go to www.P65Warnings.ca.gov

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INSTALLATION INSTRUCTIONS
HAT/SP & IC/SP OVER-TEMPERATURE VALVES

If installed and maintained as recommended, the **ThermOmegaTech®, Inc.** ***HAT/SP*** and ***IC/SP*** valves will yield reliable and trouble free service. ***It is important that before installing you read these instructions carefully.***

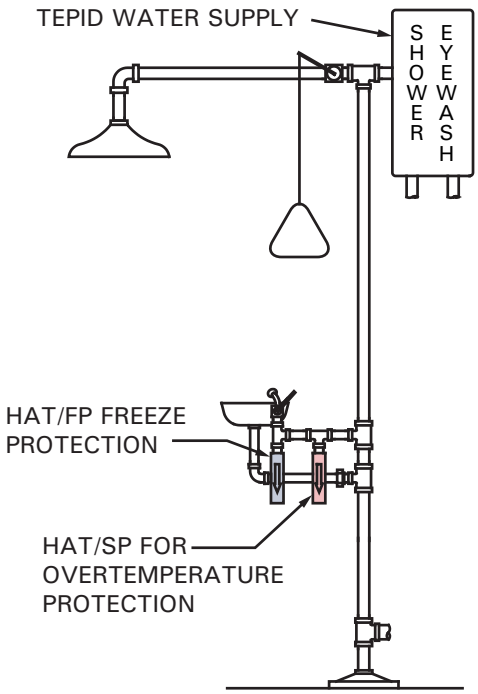
REMEMBER: The ***SP*** is full open at its stated temperature and full closed at approximately 10°F below its stated temperature. Unless otherwise stated, these valves are supplied at their greatest standard Cv or flow rate. Smaller Cv's are available on request. See the product sheets. Never undersize installations.
A #20 mesh strainer is recommended to use with all port sizes.

CAUTIONS

Use only standard and proper connections • Do not over-tighten connections • Always test after installation and before use
Always test before winter and summer seasons • Test at regular intervals

ON SAFETY SHOWERS AND EYEWASH STATIONS

HAT/SP valves are used to purge over-temperature water from the inlet pipe system. This keeps the shower piping filled with cooler water. Solar heating is the most common source of heating in remote installations. **ALWAYS** place the valve in the system as close to the point of use as possible. **NEVER** place the valve in the shade or in a cool place by comparison to the piping system, etc. Keep in mind that the valve itself has to heat up to open.



TO TEST FOR OPERATION WHILE IN LINE

Heat inlet line and valve with electric heat gun set to 200°F max (if explosion hazard permits). Heat until valve flows to purge hot liquid (**DO NOT** exceed maximum allowable temperature).

TO TEST FOR PROPER SET POINT

Remove from system and place entire valve in water bath at upper limit of valve temperature range. Valve should open fully. Place in water bath at low end of range. Valve should close to bubble tight.

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HAT-IC-SP_IMI
REV: 9/26/25

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