



ANDERSON-NEGELE

FLOW
LEVEL
PRESSURE
ANALYTICAL
TEMPERATURE
INSTRUMENTATION
PASTEURIZATION CONTROLS

Guardian III - Farm Bulk Tank Recording Thermometer

- *Monitors all critical cooling, storage and cleaning temperatures*
- *Provides a permanent record for troubleshooting equipment problems*
- *Alarm features give early warning for cooler and wash system problems or failures*
- *Configuration available to meet requirements of Canadian Quality Milk guidelines (Smart Alarms)*
- *Option to monitor presence / absence of wash solutions during line and tank wash*

The Guardian III farm bulk tank recording thermometer is an enhanced, new version of the successful Guardian recorder—the first and still the only circular chart recording thermometer designed from the ground up, specifically for farm-based dairy bulk tank applications. With over 3,000 installations since its introduction in 1999, Guardian temperature monitoring technology is the proven, preferred system in farms all across the United States and Canada.

The Guardian III continuously monitors and documents critical storage and wash cycle temperatures and provides alerts when temperatures deviate outside of setpoints. Employing the Guardian III

helps eliminate costly errors, isolate problems or potential process failures, and documents proper quality control to eliminate “hot” loads and lower bacterial counts. With its low initial expense, the Guardian III will quickly pay for itself in higher quality milk, and provides peace of mind with alarms and documentation that protect your income from the liability of collection and storage process failures.

Anderson chart recorders are designed to give you the fastest, most accurate information. Our innovative inverse chart design makes it easy to verify proper temperature status and the bright visible LED alternates display of current tank and wash temperatures.

A version is also available that adds a "Smart Alarm" feature in order to meet the Canadian Quality Milk guidelines. This feature eliminates false alarms caused by empty tanks, while still monitoring all milk and wash cycles for critical time and temperature requirements. A large alarm light on the front of the unit, as well as an optional bright signal beacon alert the Producer of the improper cooling or wash cycles.

Complete specifications and ordering information are available inside. For more information please visit our Web Site at www.anderson-fbtr.com, or contact your local Authorized Anderson Distributor.



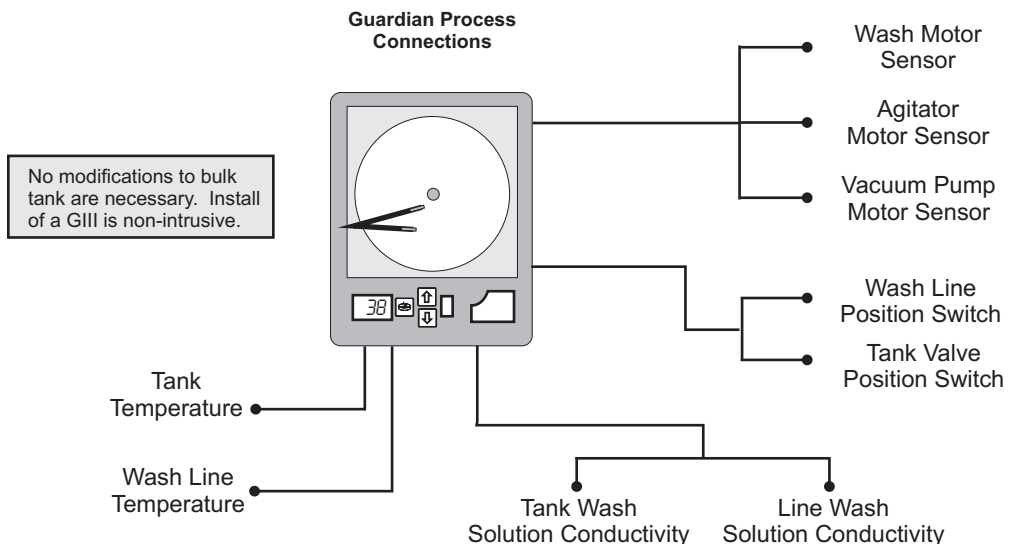
From the Farm to the Factory, the First Name in Dairy Quality Control.

For over 80 years, Anderson-Negele Company has served the dairy industry and Original Equipment Manufacturers (OEMs) worldwide with gauges, thermometers, transmitters, recorders, controllers, liquid level systems and RTD sensors. Anderson-Negele manufactures the only digital thermometer approved by the U.S. in accordance with the Pasteurized Milk Ordinance (PMO). Not only a fixture in the dairy processing industry, today Anderson instruments are also helping producers become more profitable and protect their income by providing data to ensure the quality of their process 24 hours-a-day, 7 days-a-week.

Anderson-Negele has more experience, more technology and more resources. We have the largest installed base of dairy bulk tank recording thermometers in North America. Unlike other companies, Anderson-Negele manufactures all of the components used in its chart recorders, including its durable, RTD (resistance temperature device) sensors and software—ensuring availability, support and expertise. With this commitment to the dairy industry, it's no wonder that Anderson is the first name in dairy quality control.

Anderson—Recorder of Choice

FEATURES	BENEFITS
No hard wired system changes to your milk house, and absolutely NO holes cut into your bulk tank - other systems make permanent changes to your equipment	Why risk damage to your system - no need to say anymore
Smart Alarm capable as required by CQM (Canadian Quality Milk Guidelines)	No false alarms; eliminate unnecessary button pushing
Hard-copy, color coded paper chart continuously documents tank and wash line	Nothing else needed - other systems only allow access to data by using another computer
Paper chart lets you see storage and wash cycle trending - easy to spot changes	In many cases spot problems before they get to a critical point
Exclusive inverse charts feature low temperatures on outer bands and shaded "safe" area; LED display flashes between current tank and wash line temperatures	Easy to read, no small displays to scroll through
Serial and infrared port supplied on every unit	Serial port and infrared port supplied on each unit. Demo software is available to show capability of this feature.
Menu driven software - accessible from front keypad	Other systems require special software and another computer to make changes
NEMA 4X rates enclosure, CUL tested and approved system includes recorder, software and sensors	Recorders with a NEMA 4X rating are protected from moisture and corrosion; CUL approved for safety; rugged construction holds up
Designed to prevent obsolescence - easily upgradeable	Your new Guardian will grow with you as your needs change - no need to purchase an entirely new system - unit can be re-programmed, or have new options added easily
The only single-source manufactured system	All systems hardware and software manufactured by Anderson; guaranteed product support and parts availability now and in the future



Guardian III Specifications

INPUTS

RTD: 100 ohm Platinum
.00385 ohms/ohm/°C
-1°C to 82°C (30°F to 180°F)

Sensor Fault Detection:

LED displays "SnSr" and pen goes upscale if sensor break is detected
LED displays "Hi" 10% above span
LED displays "Lo" 10% below span

Measurement Error RTD:

±0.25% of span ± 1 degree

Boom Switches:

Dry contact; momentary contact switches to provide system status inputs

Motor Sensors:

Stainless steel housing; water proof vibration monitors for direct monitoring on pump and agitator motors

RELAY OUTPUTS

SPDT, contacts rated 5 amps resistive at 115 VAC, 2.5 amps resistive at 230 VAC, 1/8 HP at 230 VAC (single phase), 250 VA at 115/230

RECORDING

Pen Colors: Red (tank temp.), Black (wash cycle temp.)

Chart Size: 10" (highlighted green zoned chart)

Chart Rotation: User configurable; 24-, 48-, 72-hours, or 7 days

Chart Span: 0° to 80° C (30° to 180°F) reverse range, low temperature on outside of chart

Chart Recording Accuracy:

±0.75°F or 0.5% of chart span reference accuracy

Chart Rotation Accuracy:

0.5% of rotation time, assuming all backlash removed



OPERATOR INTERFACE

Display: Four digits 0.56" high, red seven-segment LED

Keypad: Three keys for programming and unit operation

POWER REQUIREMENTS

Line Voltage: 90-264 VAC, 50/60 Hz

CONSTRUCTION

Enclosure: Injection moulded case & cover with acrylic window

NEMA Rating: NEMA 4X standard

Conduit Openings: Four; on bottom of unit

Mounting: Wall; brackets provided

Dimensions: 13.5" wide X 15.5" high X 6.6" deep

Weight: 12 lbs. maximum

ENVIRONMENTAL AND OPERATING CONDITIONS

Operating Temperature Range: 0°C to 50°C (32°F to 122°F)

GENERAL INFORMATION

Data Backup: EEPROM for configuration parameters and calibration data

WARRANTY

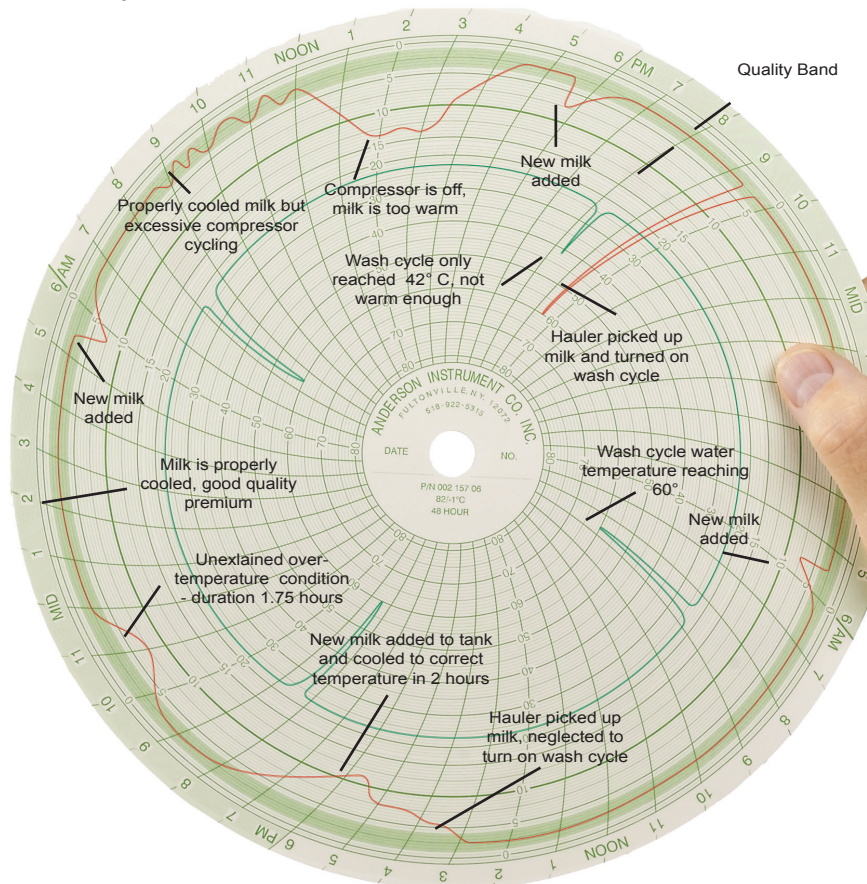
Two Year Warranty

AGENCY APPROVALS

UL and CUL Approval Pending

INSTALL

Recorder and Sensor Pre-calibrated



Guardian III Ordering Information

HOW TO ORDER

554

UNIT CONFIGURATION

- 2 Mid Configuration*
 Dual relays
 With smart alarms
 Wash solution conductivity
 Not Active

LANGUAGE

- 1 English/French - labels and documentation

CHART RANGE

- | | | | |
|---|-----------------|---|--------------|
| 0 | Factory Default | | |
| 1 | 24 hour / °F | 5 | 24 hour / °C |
| 2 | 48 hour / °F | 6 | 48 hour / °C |
| 3 | 72 hour / °F | 7 | 72 hour / °C |
| 4 | 7 day / °F | 8 | 7 day / °C |

SIGNAL BEACON

- 0 None
 2 Included, for remote mounting

* Must order motor sensors and boom switches

** Must order motor switches, boom switches and conductivity probes

CONSUMABLES

CHARTS

24 hour / °F	00215709
48 hour / °F	00215710
72 hour / °F	00215711
7 day / °F	00215712
24 hour / °C	00215705
48 hour / °C	00215706
72 hour / °C	00215707
7 day / °C	00215708

ACCESSORIES

Red Pen Cartridge	60500402 (5 pk.)
Black Pen Cartridge	60500408 (5 pk.)
Pen Blade with screws	64430501

BULK TANK TEMPERATURE PROBE

- SA611360290105 "Bullet" style; 25' cable
 SA611360290110 "Bullet" style; 50' cable
 SA611360290115 "Bullet" style; 75' cable
 SA611360290120 "Bullet" style; 100' cable

WASH LINE TEMPERATURE PROBE

- SA611360290105 "Bullet" style; 25' cable
 SA611360290110 "Bullet" style; 50' cable
 SA611360290115 "Bullet" style; 75' cable
 SA611360290120 "Bullet" style; 100' cable

TANK MOUNT TEMPERATURE PROBES

- SA110743770105 E1-1/4" dia., 24" insertion, 25' cable
 SA110743770110 E1-1/4" dia., 24" insertion, 50' cable
 SA120743770205 E1-1/4" dia., 24" insertion, 75' cable
 SA120743770210 E1-1/4" dia., 24" insertion, 100' cable

WASH LINE TEMPERATURE PROBES

- SA510040370000 1.5" TC, 50' cable, 2.75" probe insertion
 CT310000001110

ORDER SENSORS SEPARATELY

MOTOR SENSORS

5663600000 (50') Must order Quantity of 3
 (Required for Mid & Full Configurations)

5663600100 (100') Must order Quantity of 3
 (Required for Mid & Full Configurations)

BOOM SWITCHES

56091B0001 Must order Quantity of 2
 (Required for Mid & Full Configurations)

CONDUCTIVITY PROBES

LBC32TH2H20000 Must order Quantity of 2
 (Required for Full Configuration)