

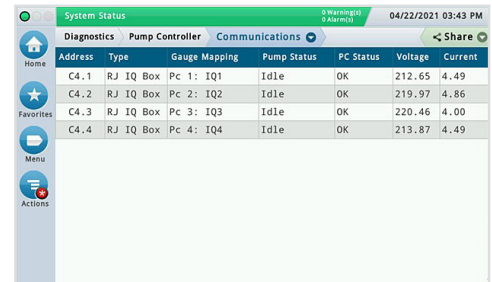
Red Jacket® Diagnostic Monitoring

Diagnose and Troubleshoot STP Equipment through the TLS-450PLUS

New Pump Status Feature with Amp and Voltage Reporting

Provide Insight to Your Fueling Operations

Gain real-time visibility regarding the performance of your Red Jacket Submersible Turbine Pumps (STPs), make informed maintenance decisions, and ensure efficient service calls. Intelligent Pump Control (IPC) Software with Red Jacket Diagnostics runs on the TLS-450PLUS Automatic Tank Gauge (ATG), and communication flows between the ATG and STP through the IQ Smart Control Box.

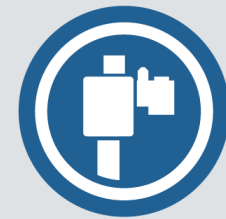


Address	Type	Gauge Mapping	Pump Status	PC Status	Voltage	Current
C4.1	RJ IQ Box	Pc 1: IQ1	Idle	OK	212.65	4.49
C4.2	RJ IQ Box	Pc 2: IQ2	Idle	OK	219.97	4.86
C4.3	RJ IQ Box	Pc 3: IQ3	Idle	OK	220.46	4.00
C4.4	RJ IQ Box	Pc 4: IQ4	Idle	OK	213.87	4.49

TLS-450PLUS

IQ Control Box

Red Jacket® STP



- **The TLS-450PLUS ATG** provides the most comprehensive site data for advanced fuel asset management, including real time updates and alerts on dispense modes, manifolding, communication and system faults.

- **The IQ Smart Control Box** contains the intelligent circuitry that allows the communication path to flow between the ATG and STP, providing key data for site owners to make informed business decisions.

- **The Red Jacket Fixed Speed STP** optimizes the fueling process and provides real-time performance data. The IPC Software with Red Jacket Diagnostics empowers you with the data needed to make informed site operation decisions.

▶ DIAGNOSTICS AND FAULTS

Here is a list of the new equipment alarms provided on the TLS-450PLUS through IPC that helps diagnose and troubleshoot Red Jacket STP conditions before technicians are dispatched.

Communication Failures		
TLS Alarm/Pump Controller Comm Screen Status	Description/Cause	IQ Control Box Red LED Indicator
Uncalibrated	• IQ Control Box has not been calibrated to the current STP	Device is Uncalibrated (1 Flash)
Overload/Locked Rotor	• Overcurrent Condition (e.g., Locked Rotor, Pump Shutoff)	Overcurrent Fault (2 Flashes)
Dry Run	• Protection to prevent UMP from spinning without product available in the tank • Motor trying to pump when no product is available	Dry Run Fault (3 Flashes)
Underload	• Low AC Current	Low AC Current (4 Flashes)
Network Area	• Setup/Communications Error	Setup/Communication Error (5 Flashes)
Under Voltage	• Voltage level below threshold levels for 5 consecutive reads	Low Line Voltage (6 Flashes)
Bypassed	• IQ Control Box Normal/Bypass jumper left in Bypass position	Bypass Mode (7 Flashes)
Extended Run	• Unitized Motor Pump (UMP) is being monitored to determine if it has been running for too long	Extended Run (8 Flashes)
Open Circuit	• IQ Control Box is off or the motor is completely disconnected	LED Off