

# Intelligent Pump Control (IPC) Installation Checklist

Provides technicians & owners with the documentation that IPC has been installed correctly

This checklist is specific to Intelligent Pump Control with Red Jacket IQ Control Boxes.

IPC INSTALLATION CHECKLIST				
Check Type	Action	OK?		Reference Note Number
		Yes	No	
Visual / Electrical	Verify Hook Signal Communication	<input type="checkbox"/>	<input type="checkbox"/>	1
Visual	Programming Motor Type	<input type="checkbox"/>	<input type="checkbox"/>	2
Visual	IQ Control Box Setup	<input type="checkbox"/>	<input type="checkbox"/>	3
Visual	IQ Control Box Calibration	<input type="checkbox"/>	<input type="checkbox"/>	4
Visual / Electrical	Verify RS-485 Communications	<input type="checkbox"/>	<input type="checkbox"/>	5
Visual	Verify TLS-450PLUS / IPC Setup	<input type="checkbox"/>	<input type="checkbox"/>	6
Visual	Review Alarm History for IPC	<input type="checkbox"/>	<input type="checkbox"/>	7
Site Name		Date of Checks:		
Technician Name				
Technician Number *				

\* Your Technician Number can be found on your Red Jacket Foundation Certificate.

**IMPORTANT:** This checklist should be used in conjunction with the [IQ Control Box Installation and Owner's Manual \(051-330\)](#).

## ► GUIDANCE NOTES FOR RED JACKET IPC INSTALLATION CHECKS

### Note 1 – VERIFY HOOK SIGNAL COMMUNICATION

- Verify each product's hook signal is being read by the TLS-450PLUS Automatic Tank Gauge (ATG)
  - Pressurized Line Leak Detection (PLLD) Diagnostics Screen
  - Verify Voltage from D2 to GND inside IQ Control Box (should be ~120V)
    - o If no Power, Check Circuit breaker panel and verify TLS Relay assignment is correct per product



## ► GUIDANCE NOTES FOR RED JACKET IPC INSTALLATION CHECKS (CONTINUED)

### Note 2 – PROGRAMMING MOTOR TYPE

- Ensure Programming Motor Type done correctly in IQ Control Box by number of **green** flashes matching **Table 5** or **Table A-2 (Manual No: 051-330)**
  - Also, to the right:

Number of Code LED Flashes	Switch Position					Manufacturer	Motor
	1	2	3	4	5		
1	OFF	OFF	OFF	OFF	OFF	FARADYNE	1/3 60 Hz
2	OFF	OFF	OFF	OFF	ON		3/4 60Hz
3	OFF	OFF	OFF	ON	OFF		1.5 60Hz
4	OFF	OFF	OFF	ON	ON		2.0 60 Hz
5	OFF	OFF	ON	OFF	OFF		X3
6	OFF	OFF	ON	OFF	ON		3/4 50 Hz
7	OFF	OFF	ON	ON	OFF		1.5 50 Hz
8	OFF	OFF	ON	ON	ON		2.0 50 Hz
9	OFF	ON	OFF	OFF	OFF		X4

### Note 3 – IQ CONTROL BOX SETUP

- Verify IQ Control Box Setup Switch (SW1) matches desired pumping expected configuration from **Table 7** or **Figure A-5 (Manual No: 051-330)**
  - Also, below:

Pump Type	Switch	Mode Select	Switch		Role Select	Switch	
	1		2	3		4	5
Standard	ON	Stand Alone	ON	ON	Unit 1	ON	ON
X-Series	OFF	Manifolded PLLD	ON	OFF	Unit 2	ON	OFF
		Manifolded Alternating	OFF	ON	Unit 3	OFF	ON
		Manifolded Direct	OFF	OFF	Unit 4	OFF	OFF

### Note 4 – IQ CONTROL BOX CALIBRATION

- Ensure the Reset / Calibration button is held for 10 seconds until the indicator turns **red**, then release
  - Controller will automatically run the Submersible Turbine Pump (STP) and perform calibration
- Ensure solid **green** indicator and the procedure is complete



## ► GUIDANCE NOTES FOR RED JACKET IPC INSTALLATION CHECKS (CONTINUED)

### Note 5 – RS-485 COMMUNICATIONS

- Verify Wiring from IQ Control Box to TLS-450PLUS is in accordance with: **Manual 051-330**
- Verify RS-485 Comm. Module is installed in compatible slots in accordance with: **Manual 051-330**



### Note 6 – VERIFY TLS-450PLUS / IPC SETUP

- Verify TLS-450PLUS ATG software is version 10.N or higher
- Manual 051-330, Appendix A**
- Verify proper addressing of pumps in setup on TLS-450PLUS
- Verify Dispenser Mode is active and programmed
- Auto Event Generation (verifying Switch-on-the-Fly)
- With a handle signal active, turn off (remove power) from the Primary Pump at the breaker and ensure the Secondary Pump comes on

### Note 7 – REVIEW ALARM HISTORY FOR IPC

- Review if IPC Alarm(s) occur
- After **High Throughput Activity**, verify helper condition was activated, use serial command to verify



## ► MANUAL REFERENCE NOTES

***IQ Control Box Installation and Owner's Manual, 051-330***  
[https://docs.veeder.com/gold/download.cfm?doc\\_id=9974](https://docs.veeder.com/gold/download.cfm?doc_id=9974)

- Table 5** – Motor Type Programming
- Table A-2** – Motor Type Programming
- Table 7** – Motor Type Selections
- Figure A-5** – SW1 Switch Setup Chart

***The Red Jacket STP Installation, Service, & Parts Lists Manual, 577013-830***  
[https://docs.veeder.com/gold/download.cfm?doc\\_id=7311](https://docs.veeder.com/gold/download.cfm?doc_id=7311)