

# **Installation and Startup Guide**

Paperless Process Recorder (PPR) with Legendary<sup>™</sup> Cloud Software

Version 1.3 Document 10034



## Anderson-Negele

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## PRODUCT DESCRIPTION

The Anderson-Negele Paperless Process Recorder(PPR) and Legendary<sup>™</sup> cloud software is an innovative solution to help you streamline recording of process data, creation and management of legal records, and secure storage of those records for state and third-party audit.

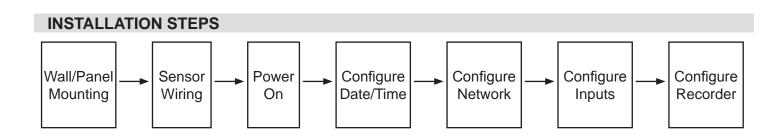
The PPR and Legendary  $^{\text{TM}}$  cloud software provides a unique digital solution which is much more than a data trends being tracked in a data logger or

historian solution. By providing workflows to create digital charts embedded with digital annotations and providing intuitive process to review and approve records, PPR and Legendary™ helps your plant and quality team get audit ready for internal, state or third-party audits.

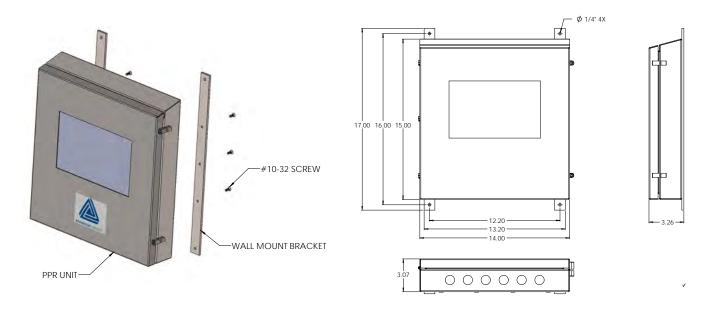


For additional resources, visit the PPR™ & Legendary Quick Start Page

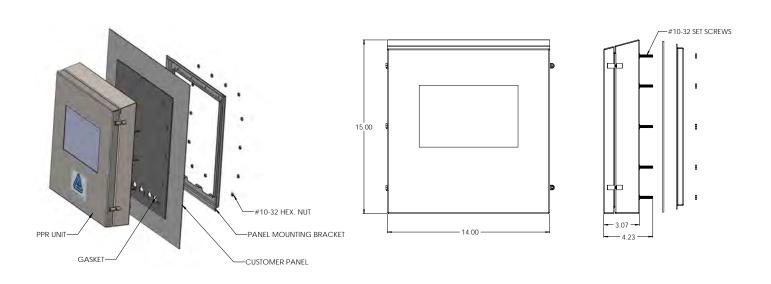




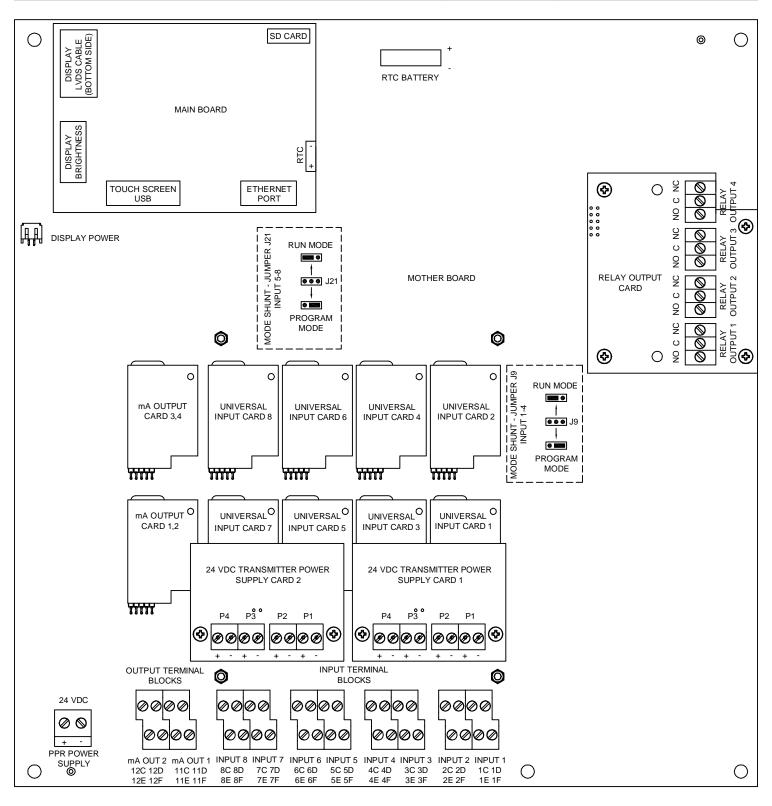
## **WALL MOUNTING**



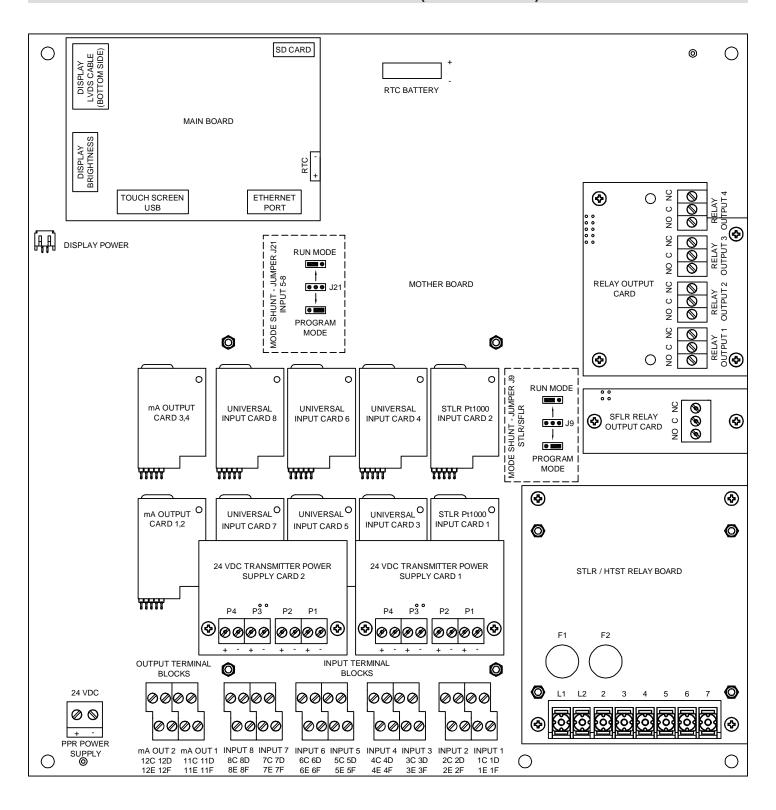
## PANEL MOUNTING



## CIRCUIT BOARD and TERMINAL LOCATIONS for Non-STLR (PPR-X... models)

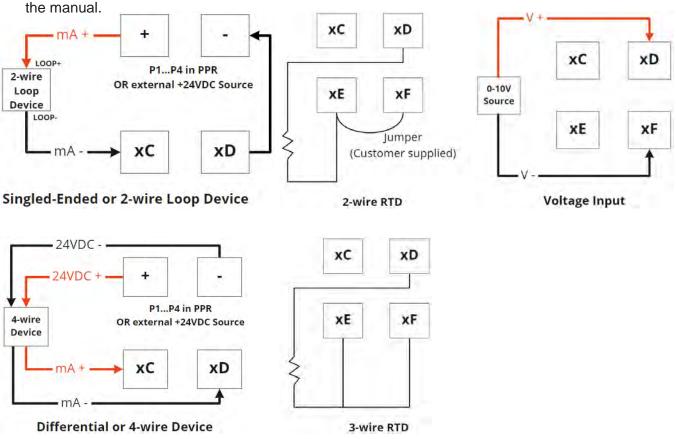


## CIRCUIT BOARD and TERMINAL LOCATIONS for STLR (PPR-T... models)

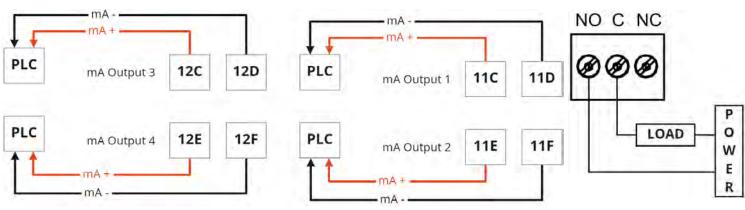


## **SENSOR WIRING - INPUTS**

xC, xD, xE, xF and P1...P4 are terminal labels representing unique input numbers that are wired interdependently. Terminal label details are shown in the label attached in the inside of the PPR door and also in



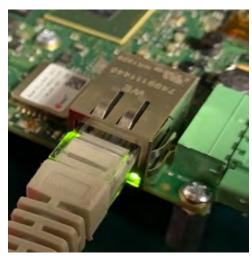
# SENSOR WIRING - OUTPUTS



mA Outputs Relay Outputs

#### ETHERNET CONNECTION

Connect your Ethernet cable to the Ethernet port on the PPR Main Board. When installed correctly to a live Ethernet cable the port will light up green as shown below. If Ethernet Port is not blinking, contact your network administrator for further information.



#### **NETWORK CONFIGURATION**

Network configuration must be properly set for the PPR to sync records, annotations, approvals, task status and users with Legendary $^{TM}$ . Seek support from your IT department when needed.

By default, all PPRs will ship with DHCP configuration using public DNS. To change IP method or DNS please follow the steps below

- 1. Press the **MENU** button from the home screen
- 2. Press Configure Network
- 3. Press Unlock, enter user credentials, and press Submit
- 4. Press **Configuration** button at the bottom right corner
- PPR can be set with static or Dyanmic IP address:
   For Dynamic IP, select DHCP for IP Method and enter Primary DNS and Secondary DNS
   For Static IP, select Manual for IP Method and enter IP Address, Netmask, Gateway, Primary DNS, and Secondary DNS
- 6. Press Save

Network Configuration

Auto Connect

IP Method manual
Address
Netmask
Gateway

Primary DNS
Secondary DNS
Legendary endpoint URL

If the plant's network administration team does not specify the DNS to use, there are multiple public DNS options available such as Google's 8.8.8.8 & 8.8.4.4.

## **Current Legendary Connection Status**

At all times the PPR HMI display displays one of the following Cloud icons in the Navigation bar



Connected - There was a successful API call to the Legendary™ server within the last 15 minutes



Not connected - the API call to the Legendary<sup>™</sup> server failed (for troubleshooting see Firewall setup below

#### FIREWALL SETUP

It is typical for the network team to block all traffic by default and explicitly enable only specific traffic to known services. For the PPR to Connect to the Legendary™ cloud server your network team may need to create rules to allow the following access through the firewall.

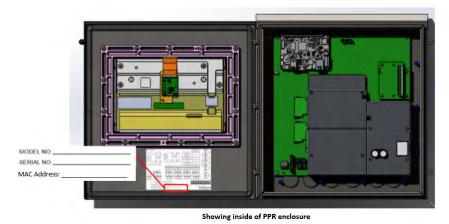
Access to Destination Domains: https://clients.intelex.com, https://preprod-na.intelex.com (and their subdomains)

TCP and UDP Ports Used: HTTP(80), HTTPS(443), DNS(53), SSH(22)

PPR Device IP Address: Static and DHCP are configurable through HMI (see above)

Encryption Method: HTTPS / TLS 1.2 or above

**Finding the PPR MAC (if required):** The unique PPR MAC address can be seen on the inside of the door label as shown below.



Wall Port used: May need to know what specific ethernet wall port the PPR is connected to

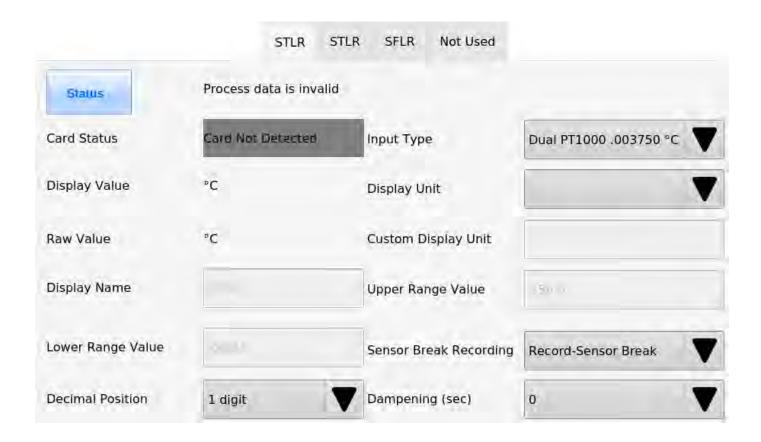
## DATE/TIME CONFIGURATION (REQUIRES NETWORK STATUS: CONNECTED)

- Press the **MENU** button from the home screen
- 2. Press **Date and Time Configuration**
- 3. Press **Unlock**, enter user credentials, and press **Submit**
- 4. Select **Time Format**, **Date Format**, and **Time Zone**
- To sync with Legendary<sup>™</sup>, press Sync Time and Date with Legendary Cloud button
- 6. Press Save



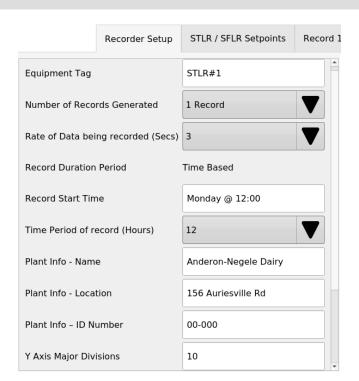
### INPUT CONFIGURATION

- 1. Press the **MENU** button from the home screen
- 2. Press Configure Inputs
- 3. Press Unlock, enter user credentials and press Submit
- 4. Press tab corresponding to input number
- 5. Select Input Type, based on whether corresponding sensor input is mA, RTD or voltage
- 6. Select **Display Unit**. Select Custom and enter **Custom Display Unit** if required option is not available in the dropdown list.
- 7. Enter **Display Name**, **Upper Range Value and Lower Range Value** corresponding to upper and lower end of sensor input.
- 8. Select Sensor Break Recording to indicate how the sensor break should be indicated in the chart
- 9. Select **Decimal Position** to indicate how many decimal places should be shown in the home screen for input value.
- 10. Select **Dampening (sec)**, if needed, to minimize high frequency noise/variation in the input and smoothen the trend.
- 11. Press **Save** on each Input configuration tab as updates are made



### RECORDER CONFIGURATION

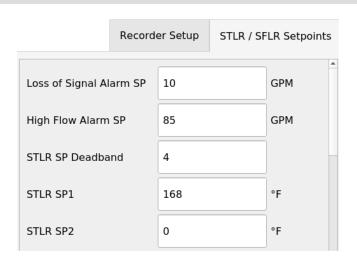
- 1. Press the **MENU** button from the home screen
- 2. Press Configure Recorder
- 3. Press **Unlock**, enter user credentials and press **Submit**
- 4. Press Recorder Setup tab
- 5. Enter **Equipment Tag**
- Select Number of Records Generated up to 4 or 1 per input
- 7. Select Rate of Data being Recorded in seconds
- 8. Select Record Start Time to select day and time
- Select **Time Period of Record** with options from 6 hours to 7-days
- 10. Enter Plant Info Name, Location and ID Number
- 11. Enter **Major** and **Minor Divisions** for both x-axis (Time) and y-axis (Process Value)
- 12. Press Save



#### STLR/SFLR SETPOINT CONFIGURATION

This is only applicable for PPRs configured for STLR and SFLR applications. In SFLR control applications the PPR controls the SFLR Relay Output based on the Loss of Signal (low flow) Alarm and High Flow Alarm Set Points.

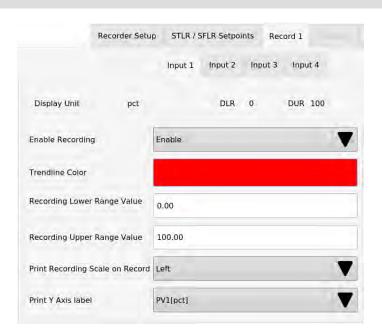
- 1. Press the **MENU** button from the home screen
- 2. Press Configure Recorder
- 3. Press **Unlock**, enter user credentials and press **Submit**
- 4. Press STLR/SFLR Setpoints tab
- 5. For SFLR, enter **Loss of Signal** and **High Flow Alarm** setpoints
- 6. For STLR, enter **Setpoint Decimal Places**, **Setpoint Deadband** and up to 15 **Setpoints**
- 7. Press Save



### **RECORD 1 THROUGH 4 CONFIGURATION**

PPR can generate up to 4 records and each of those records can have any of the Input 1 through Input 4 enabled or disabled.

- 1. Press the **MENU** button from the home screen
- 2. Press Configure Recorder
- 3. Press **Unlock**, enter user credentials and press **Submit**
- 4. Press Recorder 1, 2, 3 or 4 tab
- 5. For each input in the tab, select enable or disable for **Enable Recording**
- 6. Select Trendline Color
- 7. Enter **Recording Lower Range Value** (y-axis low value)
- 8. Enter **Recording Upper Range Value** (y-axis high value)
- Select Print Recording Scale on Record to display y-axis scale on left or right
- 10. Select **Print Y-axis Label** to disable or to display Input Name with or without measurement unit
- 11. Press Save

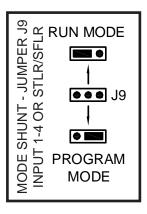


#### STLR RUN/PROGRAM JUMPER

The PPR is equipped with a **Run/Program jumper J9** located on the PPR motherboard.

When a **Run/Program jumper J9** is in Run mode it disables software updates, any change recorder configuration, and any change to Input 1 through Input 4 configuration and calibration. On a **STLR PPR**, it includes **STLR and SFLR Inputs**.

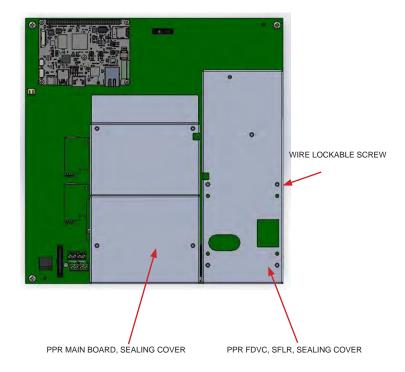
**NOTE:** Moving the **Mode Shunt Jumper J9** to the PROGRAM position will immediately force the unit to DIVERT flow. If already in DIVERT flow, the unit will remain in that mode even if the hot product temperature rises above the active setpoint.



## **SEALING COVERS**

Sealing Covers and Health Authority Tamper Evident Seals can be used to ensure the Run/Program Jumper (J9) position changes are tamper evident.

Additionally, the PPR electronically records all changes of the J9 position in the system activity log. Sealing covers also prevent access to input and STLR, SFLR relay output wiring terminals.



### **Notes**

