



Boiler Monitor



Cleaver-Brooks Mobile App

User Manual



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1. INTRODUCTION

Congratulations, and thank you for choosing to install Boiler Monitor, the Cleaver-Brooks mobile app for boilers using the Falcon control system.

Boiler Monitor is designed to allow boiler operators and plant managers to see key boiler operating parameters from anywhere in the world. The app also provides notifications in the form of email or text messages to alert the user to alarm conditions at the monitored boilers. The app was designed to be installed and used on either iPhone or Android operating systems.

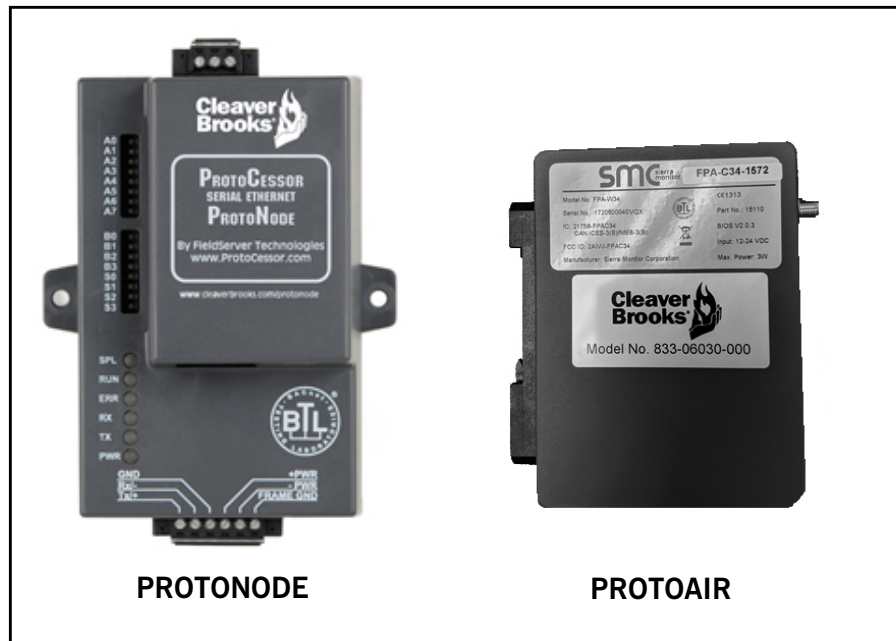
1.1 Principle of Operation

The system uses a Protonode gateway device in order to collect operating data from Falcon equipped boilers and send that data to a cloud server, making it available to the Boiler Monitor app. The data is checked periodically for an alarm condition. When an alarm occurs, a notification is sent to the mobile device.

1.2 System Components

Protonode Gateway

The Protonode gateway (833-06022-000 or 833-06029) provides protocol translation as well as data collection for the FieldPop cloud server. The ProtoAir (833-06030-000), a cellular version of the Protonode, may also be used for installations that cannot access the internet through a wired connection.



2. INSTALLATION

The Mobile App is available at iTunes and the Google Play store.

3. SYSTEM SET-UP AND CONFIGURATION

3.1 Protonode Setup

The Protonode needs to be set up to communicate to each boiler from which data is to be collected. To establish communications, refer to the SMC Cloud Start Up Guide, manual 750-430.

Once communications have been established, the data tags to be collected must be selected for 'System View'. For each tag, the user can select the frequency at which the data is collected (periodic or on change of value).

Protonode comes pre-configured with the minimum tag definitions to support the data requirements of the app. The default tag list is shown below.

PROTONODE TAG LIST

Point Name	Logged to Cloud	COV or Periodic	COV Threshold	Max Time	Alarm	Setpoint	Deadband	Falling Value
PumpA								
PumpB								
PumpC								
Blower Mtr	YES	COV	1	900				
Ext Ignition								
Pilot-MainDBI Valve								
Main Valve	YES	COV	1	900				
Alarm	YES	COV	1	900	Alarm	1	0	No
Interlock								
PreIgn Interlock								
Load Control In								
Low Fire Switch								
High Fire Switch								
Stat Demand								
TimeOfDay								
Safety Relay								
Int Air Switch								
Low Water								
Aux Low Water								
High Limit								
High Gas Press								
Low Gas Press								
Natural Gas								
Propane Gas								
DEMAND SOURCE	YES	COV	1	900				
OUTLET WATER TEMP DEG F	YES	COV	1	900				
FIRING RATE	YES	COV	1	900				
FAN SPEED	YES	COV	1	900				
FLAME SIGNAL	YES	COV	1	900				
INLET WATER TEMP DEG F	YES	COV	1	900				
DHW WATER TEMP DEG F	YES	COV	1	900				
HEADER or ODT DEG F	YES	COV	1	900				
STACK TEMP DEG F	YES	COV	1	900				
CH SETPOINT DEG F	YES	COV	1	900				
DHW SETPOINT DEG F	YES	COV	1	900				
ANALOG INPUT								
BURN CTL STATUS	YES	COV	1	900				
BURN CTL STATE	YES	COV	1	900				
LOCKOUT CODE	YES	COV	1	900				
HOLD CODE	YES	COV	1	900				
CH STATUS								
CH SETPOINT SOURCE								
CH HEAT DEMAND								
CH BURNER DEMAND								
CH REQUESTED RATE								
CH FROST HEAT DEMAND								

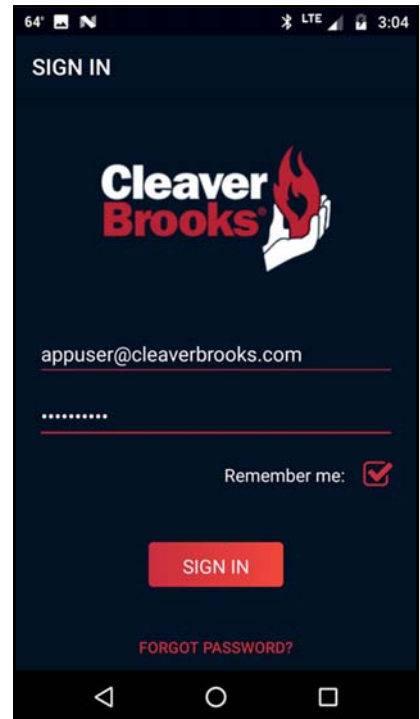
PROTONODE TAG LIST (Continued)

CH FROST BURNER DEMAND								
DHW STATUS								
DHW SETPOINT SOURCE								
DHW HEAT DEMAND								
DHW BURNER DEMAND								
DHW REQUESTED RATE								
CH PUMP STATUS								
DHW PUMP STATUS								
SYSTEM PUMP STATUS								
BOILER PUMP STATUS								
AUXILIARY1 PUMP STATUS								
AUXILIARY2 PUMP STATUS								
BURNER ENABLE	YES	COV	1	900				
LEAD/LAG SETPOINT DEG F	YES	COV	1	900				
LEAD/LAG ENABLE	YES	COV	1	900				
CYCLE COUNT	YES	COV	1	900				
BURNER RUN TIME	YES	COV	1	900				
BOILER BURNER ENABLE								
BOILER LEAD/LAG ENABLE								
BOILER CH SETPOINT DEG F								
BOILER LEAD/LAG SETPOINT DEG F								
OUTLET WATER TEMP DEG C								
INLET WATER TEMP DEG C								
DHW WATER TEMP DEG C								
HEADER or ODT DEG C								
STACK TEMP DEG C								
CH SETPOINT DEG C								
DHW SETPOINT DEG C								
LEAD/LAG SETPOINT DEG C								
FIRING RATE PCT	YES	COV	1	900				
BOILER CH SETPOINT DEG C								
BOILER LEAD/LAG SETPOINT DEG C								

3.2 Login Screen

A user name and password are established when registering on the FieldPoP web site. The same user name and password are used to sign in to Boiler Monitor. Refer to the SMC Cloud startup guide for more information on how to create a FieldPoP account.

Check the 'Remember me' box to save login data.



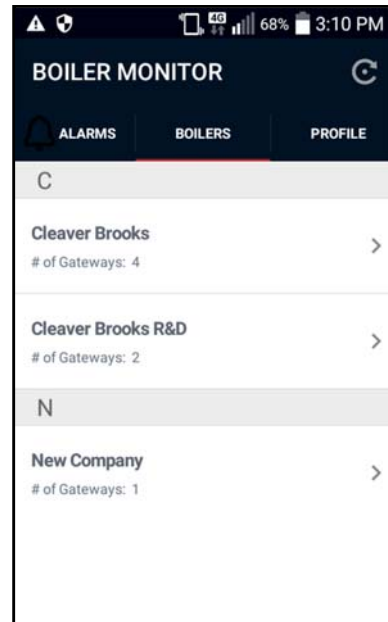
3.3 Alarms Screen

If alarms are present on any boiler connected to the app, the Alarms screen will be displayed first upon signing in. Each Protonode with an alarm condition will be displayed in the list. Touching an item in the list will bring the user to the individual boiler page. Touch the description to see the boiler overview screen with specific alarm details.



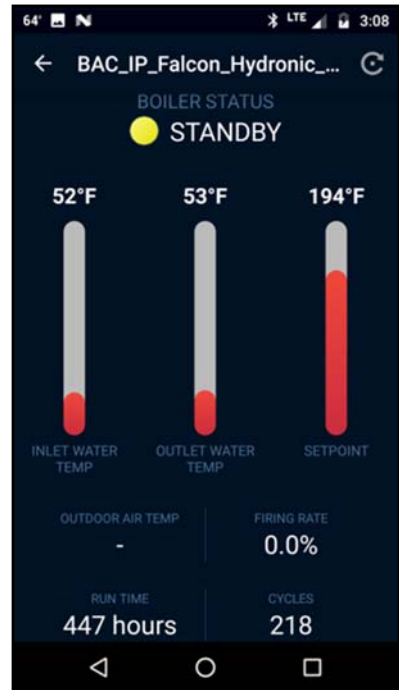
3.4 Boilers Menu Screen

The Boilers screen displays a list of all Companies associated with the user. Upon touching the company name, the screen will display each of the Protonode Gateways associated with that company. Touching the Protonode Gateway name will bring up a menu listing all of the boilers connected to the Protonode Gateway device. Touching on an individual boiler name will bring up the boiler status page for that boiler.



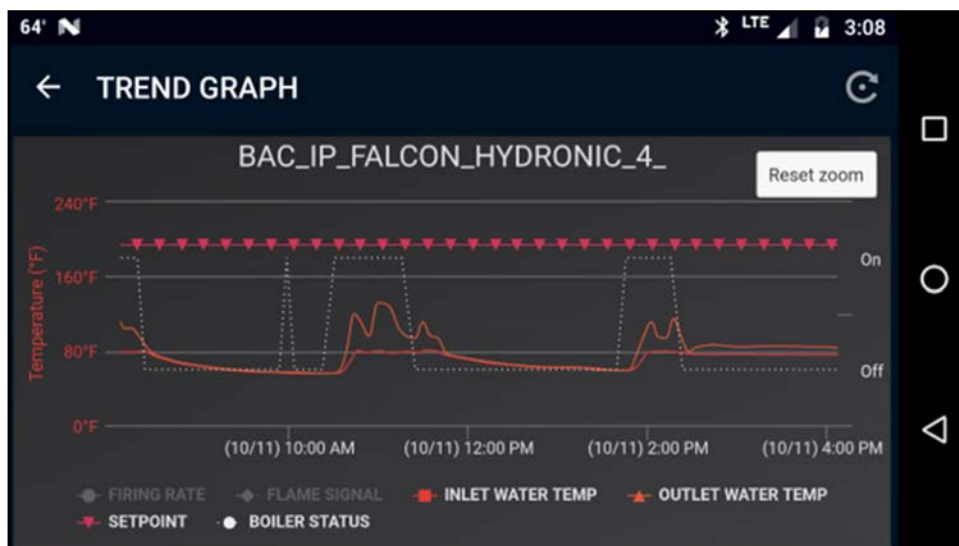
3.5 Boiler Overview Screen

This page displays the current boiler status (Off, Standby, Running, or Alarm). It also shows the Firing Rate, Run Time Hours and Cycles, and Outdoor Air Temperature (if equipped). Operating temperatures/pressures are also shown. Touching any of the bar graphs will bring up the data trending screen.



3.6 Data Trending Screen

The data trending screen displays trend data for the past 30 days of operation. Available trends are Firing Rate, Flame Signal, On/Off status, Setpoint, and either Steam Pressure or Inlet and Outlet Hot Water Temperatures (depending on the type of boiler system). Pens may be toggled on or off by touching the text description of each individual pen. The display can be 'pinched' or 'stretched' to change the size of the displayed data.

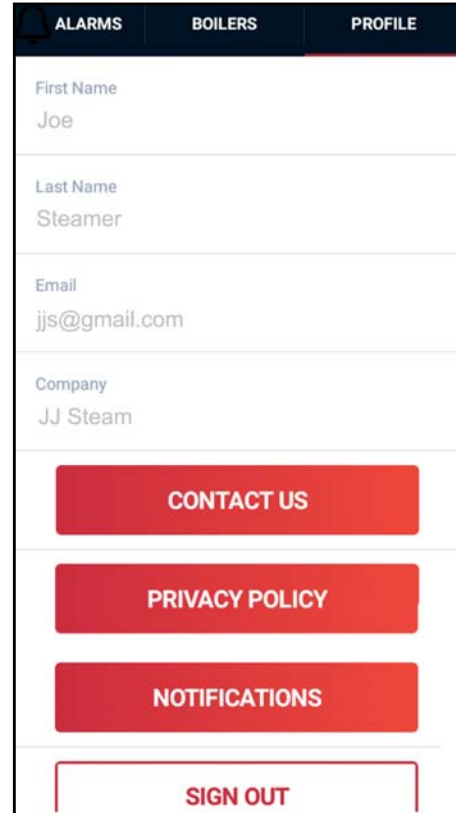


3.7 Profile Screen

The Profile screen is where the user can set up alarm notifications and view the app Privacy Policy and Terms of Service.

Notifications

The app is able to send emails or text messages that are triggered by an alarm condition at the monitored boiler(s). To set up notifications, enter a valid email address and/or mobile phone number and tick the checkbox to receive email and/or text notifications. Press the 'Save' button to accept the changes.



ALARMS	BOILERS	PROFILE
First Name Joe		
Last Name Steamer		
Email jjs@gmail.com		
Company JJ Steam		
CONTACT US		
PRIVACY POLICY		
NOTIFICATIONS		
SIGN OUT		

