



# User Manual



# YJACK PRESS® Pressure Gauge

Bluetooth® Sensing Technology



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# YJACK® Tools Getting Started

## Introduction

Thank you for your purchase of the YELLOW JACKET® YJACK PRESS® Bluetooth® sensing device.

Take a moment to familiarize yourself with your new device(s). You will notice that all YJACK® devices feature a simple on/off button to power cycle the device, a quick coupler for system attachment to aid in the proper positioning of the device within your workspace. Each YJACK® product is powered by (2) AAA batteries housed beneath the removable battery door on the back of the device. The procedure to replace the product batteries is the same across all YJACK® devices.

The YJACK PRESS® products include a status indication LED adjacent to the power button which can provide feedback as to the device's current mode of operation. During normal operation, the status indicator LED will flash yellow once every two seconds to indicate that a measurement has been transmitted via Bluetooth®.

Unlike other Bluetooth® devices, YJACK® devices do not require "pairing" or an established connection between one another or the user's smart device to transmit and receive information. Simply power the device on and it will immediately begin broadcasting data to other available devices within the broadcast range.

YJACK® tools may be used individually or together, broadcasting an unlimited number of unique measurements to a smart device running the YJACK VIEW® App smart application.

To order accessories, receive assistance, or locate the nearest YELLOW JACKET® distributor, contact Ritchie Engineering Company, Inc.

Corporate Office and Mailing Address:

Ritchie Engineering Company, Inc.  
YELLOW JACKET® Products Division  
10950 Hampshire Avenue South  
Bloomington, MN 55438-2623 USA  
Phone: (952) 943-1300 or (800) 769-8370  
Fax: (800) 769-8370  
E-mail: [custserv@yellowjacket.com](mailto:custserv@yellowjacket.com)  
[www.yellowjacket.com](http://www.yellowjacket.com)

## Safety and Warning Information

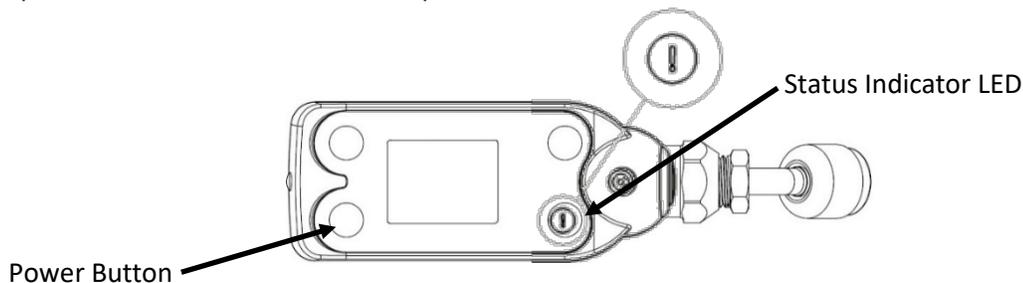
Use the YJACK® Series of Bluetooth® sensing devices only as specified in this manual.

- Most governments and legal authorities require that HVAC technicians be trained and certified in the safe and proper operation of HVAC tools, such as these instruments.
- Read the entire User Manual before using the instrument.
- Do not use the instrument if it is damaged. Before you use the instrument, inspect the case. Look for cracks or loose components.
- The instrument contains no internal user serviceable parts, except for the AAA batteries.
- Do not open the instrument. Have the instrument serviced only by Ritchie Engineering Co. or authorized service centers.
- Do not use the instrument if it operates abnormally. Protection may be impaired. When in doubt, have the instrument serviced.
- Do not operate the instrument around explosive gas, vapor or dust.
- Do not operate the instrument outside of its rated specifications, outlined later in this manual.
- The refrigerant database used in conjunction with these tools may include refrigerants classified as flammable. If such refrigerants are selected, the operator may need additional certifications and/or training. Consult your government and legal authority and comply fully with all requirements.
- Always wear eye and skin protection when working with refrigerants. Escaping refrigerant vapors will present a freezing danger. Do not direct refrigerant vapors venting from hoses towards the skin.

## Using Your YJACK® Devices

### Powering the Device On

The YJACK PRESS® device utilizes a same power switch and a status indicator LED. Press and hold the power button to power on the device. Release the power button when the status indicator LED illuminates.



### Status LED: What Does it Mean?

When powering on the YJACK PRESS® device, the status LED illuminates solid yellow. Once powered on, the LED will flash every time the YJACK® devices readings are broadcast, every 2 seconds. When the battery level reaches 10%, the LED will flash red to indicate the low battery condition. When powering off the device, the LED stays red until the power button is released and the device is powered down.

### Changing the Batteries

Each YJACK® product is powered by (2) AAA batteries housed beneath the removable battery door on the back of the device. Using your finger or a flat blade, pry up on the battery door to remove it from the device. Remove the batteries and place (2) new AAA batteries into the battery holder. Reference the required polarity of the batteries molded into the battery holder. Replace the battery door by inserting the tab on the inside edge of the door into the slot in the module enclosure and then press down on the battery door until it snaps into place.

## YJACK PRESS® Wireless Pressure Gauge



When powering on the YJACK PRESS® Wireless Pressure Gauge, hold the power button until the status indicator LED illuminates solid yellow, then release the power button. Once powered on, the LED will flash every time the YJACK® devices readings are broadcast, every 2 seconds. When the battery level reaches 10%, the LED will flash red to indicate the low battery condition. When powering off the device, the LED stays red until the power button is released and the device is powered down. To operate, remove the red plug from the brass quick coupler nut. Make sure the pressure transducer has been zeroed (this will be covered in more detail later) and attach the device directly to the system low-side or high-side service port. A 5/16" adapter (19121 straight or 19221 90 degree) can be used for systems with 5/16" connections. The integrated charging port on the back of the device can be connected to a charging hose for adjustment of system charge while continuing to monitor system pressure.

### YJACK PRESS® Pressure Gauge Specifications

The following table outlines the specifications for the YJACK PRESS® product.

Warranty: 2 years

IP Rating: IP-52

Battery Type: 2 x AAA (Included)

Radio Version: Bluetooth® 4.2 Compliant Low Energy

Bluetooth® Range: 400 feet (122 meters) line-of-sight\*

Communication Interface: YJACK VIEW® App, TITANMAX™ and P51-870 TITAN® Digital Manifold

YJACK PRESS® mount directly to system service port.

\*Radio interference and nearby obstructions may reduce signal strength

### 67065 YJACK PRESS® Pressure Gauge

Measurement Type	Pressure
Weight	0.52 lb (235 g)
Dimensions	6.5"L x 1.8"W x 2.3"H (165 x 45 x 58mm)
Operating Temperature	0°F to 130°F (-18°C to 55°C)
Storage Temperature	-40°F to 130°F (-40°C to 55°C)
Battery Life	300+ Hours
Quick Coupler Fitting	1/4" Flare w/ Depressor
Charging Port	1/4" Male Flare w/ Core
Pressure Measurement Range	-14.7 to 725 psig (-1.01 to 50 bar gauge)
Pressure Measurement Accuracy	0.5% full scale at 77°F (25°C), 1.8% full scale from 0 to 130°F (-18 to 55°C)
Units of Measure	psig, psia, bar, kPa, MPa, kg/cm <sup>2</sup>
Auto-Off Timer	N/A

### YJACK VIEW® App



The YJACK VIEW® smart application provides a simple yet comprehensive interface to display, analyze, and record the data from the P51-870 TITAN®, TITANMAX™ and all YJACK® Bluetooth® devices. The YJACK VIEW® smart application is compatible with all YJACK®, TITANMAX™ and P51-870 TITAN® devices (firmware version v4.0 or later). Freely navigate between available session types and multiple

sessions at one time Psychrometric System Efficiency and Leak Test sessions and communication capabilities with YJACK PRESS®, YJACK VAC®, YJACK AMP® YJACK® Temp Clamps and Straps, YJACK MANO® and YJACK FLOW®. Easily place and monitor status of all YJACK®, TITANMAX™ and P51-870 TITAN® devices from one screen. Data log formatting allows for multiple devices with multiple sampling intervals. Generate customized and detailed service reports capturing system readings and equipment information. The app is available for both iOS and Android smart devices through the App Store and Google Play Store, respectively. Be sure to download any available app updates as they will include new features and app enhancements. Open the camera app on your Android or iOS smart device and scan over the QR codes or click on the links below to go directly to the app store pages:



<https://play.google.com/store/apps/details?id=com.ritchieengineering.yjackview>

Google Play Store for Android™ devices



<https://apps.apple.com/us/app/yjack-view/id1492358956>

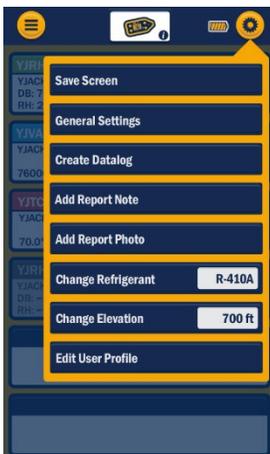
App Store for iOS devices

### Available Devices



Upon selecting Available devices in the app, a list of available devices will appear. If there are no P51-870 TITAN®, TITANMAX™ or YJACK® devices turned on and within range, no devices will be listed. But as these devices are powered on, they will populate on this screen. Each device that appears on the list of available devices includes some basic information about the device. This includes the device serial number/Bluetooth® ID, the battery level, and any readings that the device is broadcasting. Keep in mind that the YJACK PATH® can be utilized to repeat the readings from any P51-870 TITAN®, TITANMAX™ or YJACK® device, improving the connection range. If a device moves out of range or is turned off, it will display on the available devices screen with a red banner. If this occurs make sure the device is turned on and moved back within range, possibly by relocating the YJACK PATH® device.

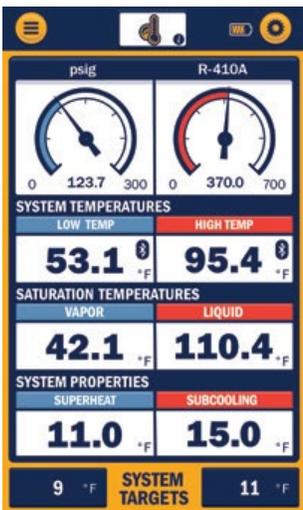
### General Settings



Before starting any system reading sessions with the YJACK VIEW® app, make sure the app settings are configured to your preferences. Press on the gear icon in the upper right corner of the screen. A list of configurable settings will appear including General Settings, Create Data log, Change Refrigerant, Change Elevation, and Edit User Profile. First, access the “General Settings.” This screen will allow you to set your preferred units of measurement for pressure, temperature, vacuum, and elevation. You can also turn on and off sound notifications and the screen lock functions. Once the proper settings have been selected, press “Save.” If you plan to start a Pressure/Temperature Session, again tap the gear icon and select “Change Refrigerant.” The list of over 126 selectable refrigerants will appear. Next to each refrigerant name, there is an outline of a star. Pressing on the star icon will turn the star solid yellow and classify that refrigerant as a favorite. Favorite refrigerants will always appear at the top of the refrigerant selection

screen for easy access. To remove a refrigerant from the list of favorites, simply press on the solid yellow star next to the desired refrigerant and it will instantly be removed from the list of favorites. Once the favorites have been configured as desired, and the proper refrigerant has been selected, press Save. The final app configuration setting is to set the elevation where the service is being performed. Press on the gear icon once again and select “Change Elevation.” Enter the elevation where service is being performed and press “OK.” This will implement pressure measurement compensation when reading gauge pressure. The fourth option from the app settings, “Create Datalog,” is discussed in more detail below. Now that the app settings have been configured. The session type can be selected. Press on the three-line icon on the upper left corner of the screen to bring up the session selection menu. You can select from Pressure/Temperature, Psychrometric Air Calculations, Evacuation, Static Pressure, or Available Devices to return to the Available Devices screen. When using the YJACK PRESS®, your device can be selected for standalone readings in the datalog selection or in the Pressure/ Temperature session.

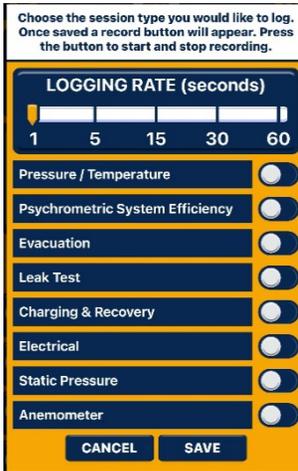
### Pressure/Temperature Session



The Pressure/Temperature session type displays system pressure and temperature measurements, as well as saturation temperatures and superheat/subcooling data. The first time a Pressure/Temperature session is started, the system pressure and temperature measurements will need to be assigned to the specific P51-870 TITAN® and YJACK® devices being used. Press on the 3 dashes within the Low-Pressure measurement box. A list of available devices broadcasting pressure measurements will appear. Select the device and measurement that corresponds with the low side of the system. Below the device selection, there is a list of reading display options. Pressures can be displayed as a large digital number, a simulated analog gauge, or as a line graph to show measurement changes over time. Select the preferred graphical type and press “Save & Close.” Follow this same procedure for the High-Pressure measurement. Now assign the system low-side and high-side temperatures. Press on the 3 dashes within the Low Temperature measurement box. A list of available devices broadcasting system temperature measurements will appear including any YJACK® Temperature Clamp or

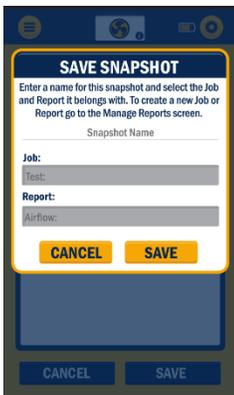
Strap probes as well as any wired temperature clamps plugged into a P51-870 TITAN®. Select the device and measurement that corresponds with the low side of the system. Below the device selection, there is also a list of reading display options. Temperatures can be displayed as a large digital number or as a line graph to show measurement changes over time. Select the preferred graphical type and press “Save & Close.” Repeat this process for the system high temperature reading. Below the system pressure and temperature readings are the vapor and liquid Saturation Temperatures, which are automatically generated once the pressures are assigned. The refrigerant that has been selected is displayed in the upper right corner of the blue box and can be changed at any time in the app settings as outlined earlier. The next set of data is the System Properties, which includes the system superheat and subcooling values generated once the pressure and temperature measurements have been assigned. The last set of data is the System Targets, where you can input the target superheat and subcooling values for reference against the actual system readings. The system device assignments are stored in the app memory for future sessions, but the assignments can be changed at any time by pressing on the reading that is to be changed.

## Create Data log



Data logs can be created to log readings during any session. To start a data log from within any session, press on the gear icon in the upper right corner of the screen and select “Create Datalog.” From this screen you can select the logging rate, which is how frequently the readings will be logged, and which session type to log readings from. Multiple session types can be selected if desired, but keep in mind that only one session readings screen can be displayed within the app at any given time. Once the logging rate and session type(s) have been selected, press “Save.” A recording icon and timer will display in the lower right corner of the screen. When you are ready to start recording data, press on the red circle “record” icon to begin the datalog. The timer will count from the time that the datalog was started. When you are ready to stop the datalog, press on the red square “stop” icon. You can then select to either save or discard the log file. If you wish to save the log file, a list of available save options will appear.

## Take Report Snapshot



Report snapshots can be recorded to log readings during any of the sessions. To take a data “snapshot” (record capture) from within any active session, press on the gear icon in the upper right corner of the screen and select “Take Report Snapshot.”

From this screen you will Name the snapshot and be able to pick which job and which report to record the snapshot on. Once the name is entered and the proper job and Report are selected, press “Save.”

## Create Report

Create Report can be used to save information or share with a customer. To create a report, select three bar icon to return to the main menu. Select the Create Report session at the bottom of the session list. Enter Job name and Report title.

Add section and create section name for Evacuation.

The snapshot will allow you to save the data and test results. Once the name is entered and the proper job and Report are selected, press “Save.”

Generate report allows you the ability to generate a pdf for sharing your information with customers or building operations.

## Troubleshooting & FAQs

**Q: Why am I losing my Bluetooth® connection when I am within 400' of the YJACK® device(s)?**

A: With any radio technology, when you start to add obstructions between the transmitter and the receiver, the ultimate range may decrease as different objects interfere with the radio signal in different ways. The more obstructions you add between YJACK® device and either the TITANMAX™/P51-870 TITAN® or the smart device running the YJACK VIEW® app, the weaker the signal may become after it has passed through or around the obstacles. This could ultimately lead to a shorter maximum range, but this can be improved by using the YJACK PATH® signal repeater device. All YJACK® devices, including the YJACK PATH®, utilize a Bluetooth® 4.2 compliant low energy radio to ensure the best possible range, however each situation will be slightly different depending on the environment/ surroundings you are working within. The YJACK PATH™ can be positioned to get around obstructions and up to six (6) YJACK PATH® devices can be used simultaneously to maximize the connection range, even in environments with multiple obstructions.

**Q: How do I identify my YJACK PRESS® device serial number?**

A: The serial number is on the back side of the unit and on the battery door.

**Q: How do I know that my YJACK PRESS® is turned off?**

A: The indicator light stops flashing, indicating the device is off. On the phone app the device will quit sending values and --- will appear in the pressure display area on available devices. Pulling down on the available devices screen refreshes the broadcasting list and shows the device removed.

**Q: How do I zero the readings on my YJACK PRESS®?**

A: In the YJACK VIEW® app, go to available devices and select the unit by serial number. Select the gear icon and Zero Pressures comes up on the pop-up. Select Zero Pressures and a pop-up saying “sending command is displayed, upon connecting to the device, the Command sent pop-up will temporarily display indicating the device is now zeroed. \*Caution, only zero devices that are not connected to the system as pressurized systems will not zero properly.

**Q: Why are the YJACK PRESS® devices not showing up on my TITANMAX™ or P51-870 TITAN®?**

A: Only devices required for providing data to the sessions on the TITANMAX™ and P51-870 TITAN® will be displayed in the “available devices” session. The YJACK® PRESS® is not showing on the TITANMAX™ and P51-870 TITAN® as they use onboard pressure sensors and will not recognize the YJACK PRESS®.

## Spare Parts

69026 Replacement Battery door
19020 Replacement Gaskets for ¼"(10 pack)
93394 ¼" Cap with Tether
19062 Schrader Fitting with brass fitting, the valve core, and cap (same cap as 93394)
40272 Schrader fitting 19062, but without cap
18976 Valve Cores 6-pack
19305 Valve Cores 10-pack