

# YELLOW JACKET®

## Programmable Charging Scale



## Operating and maintenance information

Scale numbers 68801, 68803, 68813, 68811

***Ritchie***®  
**ENGINEERING COMPANY INC.**

Right with you on every call.

[www.yellowjacket.com](http://www.yellowjacket.com)

## These unique features plus more:

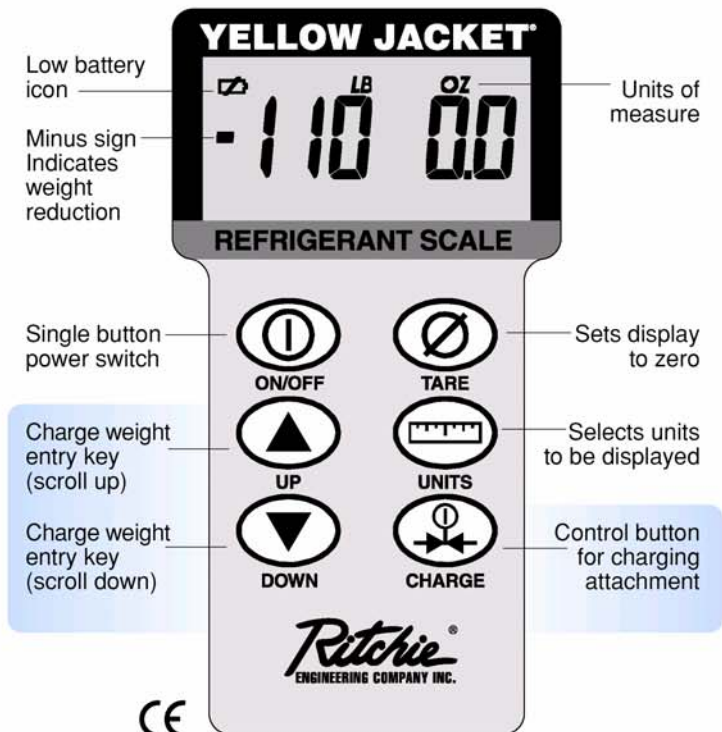
- Heavy duty platform and over sized strain gauge bridge for rigidity, accuracy and repeatability.
- 0.5" LCD with bold dark numbers for easy reading even in well-lighted area.
- Overload protection: "OL" message on LCD. Plus mechanical protection against extreme overload.
- Water and environmental resistance with sealed LCD display and membrane switch keypad on control module.
- Read minus (-) mode if you want to zero the display after placing the tank on the platform, and accurately meter refrigerant going into the system.
- Low battery indicator icon on LCD.
- Removable platform and electronics for more flexible use
- Bubble level indicator on scale platform promotes proper setup
- Industrial load cell for improved accuracy
- 5 foot retractable (coil) cable for easier storage
- 0.1 Ounce / 0.01 Pound / 0.01 Kilogram Resolution
- Automatic "Hold" if refrigerant flow stops
- "Hold" mode allows for mid-charge cylinder changes
- Accurately meters charges from 1 ounce to 100 pounds
- AC adapter powers the solenoid to extend battery life
- And more

### Caution –

To insure full performance life:

- Do not overload scales.
- Set loads carefully in center of platform.

### Control module



## To weigh an item

1. Place the scale case (or the platform alone) on a flat rigid surface and remove the control module from the scale case. Use the "bubble level" on the scale platform to confirm that the unit is level.
2. Press the ON/OFF button to turn the scale on or press the TARE button if the scale is already on. After a short time, the display will read zero. Press the UNITS button to change to the desired readout units.
3. Set the load on the platform, making sure to center the load before taking the reading.
4. When finished, press the ON/OFF button to turn the control module off.

## Weighing recovered or charged refrigerants (without charging attachment)

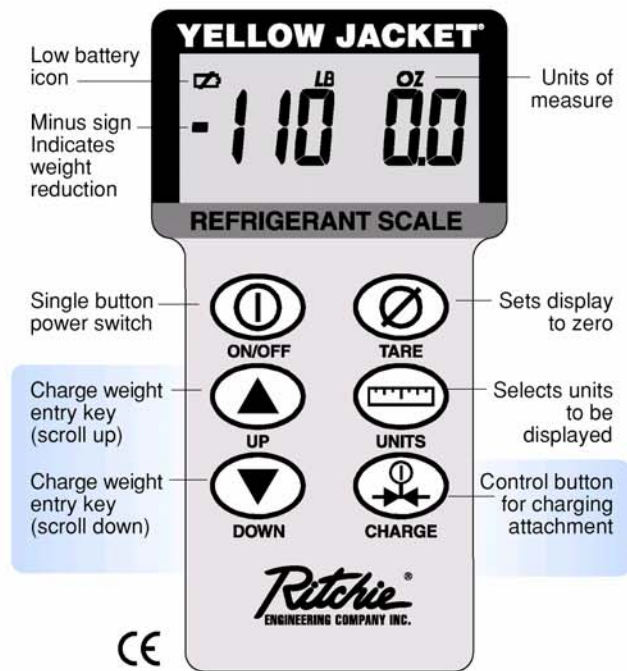
1. Place the scale case (or the platform alone) on a flat rigid surface and remove the control module from the scale case. Use the "bubble level" on the scale platform to confirm that the unit is level.
  2. Carefully place cylinder onto the center of the scale platform. Be careful not to drop the cylinder onto the scale.
  3. Connect all the hoses, manifold, etc. and purge the lines as necessary.
  4. Press the ON/OFF button to turn on and zero out the control module or press the TARE button if the unit is already on.
  5. Start charging. The weight displayed on the control module will be a negative number to indicate the amount of gas that has been charged into the system.
- OR
6. Start recovery. The weight displayed on the control module will show the weight of the gas, which has been added to the cylinder on the scale.
  7. When the charging/recovery process is complete, press the ON/OFF button to turn the control module off.



## Using the charging attachment

1. Place the scale case (or the platform alone) on a flat rigid surface within 4 feet of the system port to be charged and remove the control module from the scale case. Use the bubble level on the scale platform to confirm unit is level.
8. Check the system, all connections, and all valves to ensure system is ready to charge.
9. Press the ON/OFF button to turn on the control module.

2. Connect a power pack to the control module (Charging solenoid will not function without AC power).
3. Connect the charging module cord to the control module.
4. Carefully place cylinder onto the center of the scale platform.
5. Connect the "Out" port of the charging module (indicated by the head of the refrigerant flow arrow) with a short length of hose to the system port to be charged. Use a tee fitting if gauges are used during charging.



6. Connect the "In" port of the charging module (indicated by the tail of the refrigerant flow arrow) with a hose to the cylinder on the scale. The hose used must have a mechanism for depressing the Schrader valve on the input port of the charging module. Anchor the hose near the scale to keep it from influencing the weight reading.
7. Purge the hose from the tank to the charging module port.
10. Use the UNITS key to select the desired display units.
11. Press the CHARGE button to enter charging mode. To get out of the charging mode at any time, press the TARE button or the ON/OFF button.
12. Enter the desired charge weight by using the UP and DOWN buttons. The data entry mode will be indicated on the display by the flashing UP/DOWN arrows in the upper left corner.

13. When the desired charge weight is displayed, press the CHARGE button to begin charging. The scale will zero itself and open the solenoid. The charging process will be indicated on the display by the flashing charging icon ">>>" in the lower left corner. The green LED on the charging module will light indicating that power has been applied to the solenoid valve, and the solenoid will make an audible clicking noise when it opens. Refrigerant will begin to flow if all the proper connections have been made and all the necessary valves have been opened. The scale display will show an increasing negative weight as the refrigerant leaves the cylinder.

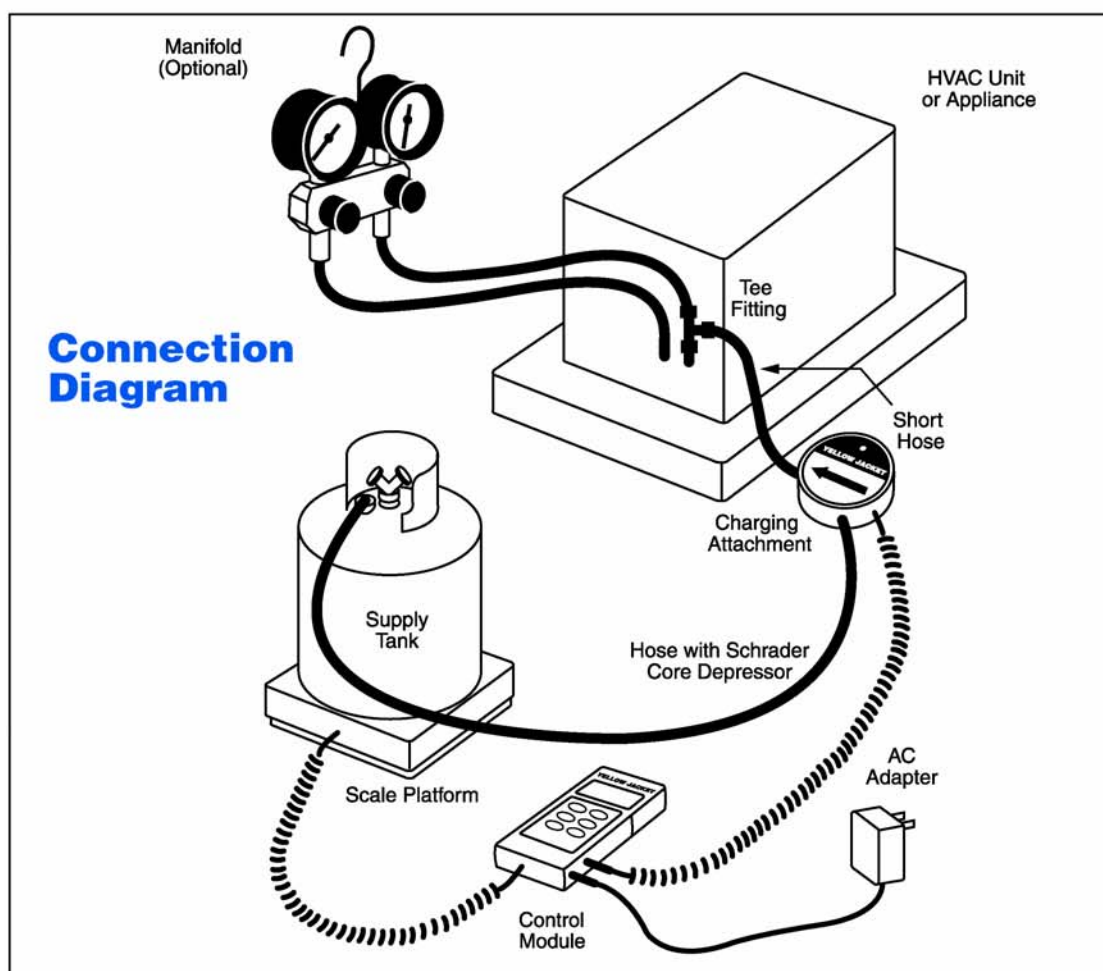
14. If the CHARGE button is pressed while the solenoid valve is open, the scale will note the weight that has been charged, the solenoid valve will close, and the display will flash "Hold". When the CHARGE button is pressed again, the scale will tare itself, re-open the solenoid valve, and continue charging as if it hadn't been stopped. This mode can be used to change cylinders in mid-charge.

Note that if the refrigerant flow falls below a certain rate, the scale will automatically put itself into "Hold" mode. This may happen if the cylinder is empty, if the valves are not properly opened, or if the conditions are not present to promote refrigerant flow. Once the problem is corrected (i.e. change cylinders, open closed valve, heat the supply cylinder), press the CHARGE button to resume charging.

15. When the target charge weight is reached, the scale will close the solenoid valve. The display will alternately flash the charged weight and "- - - -" to verify that the proper weight was charged.

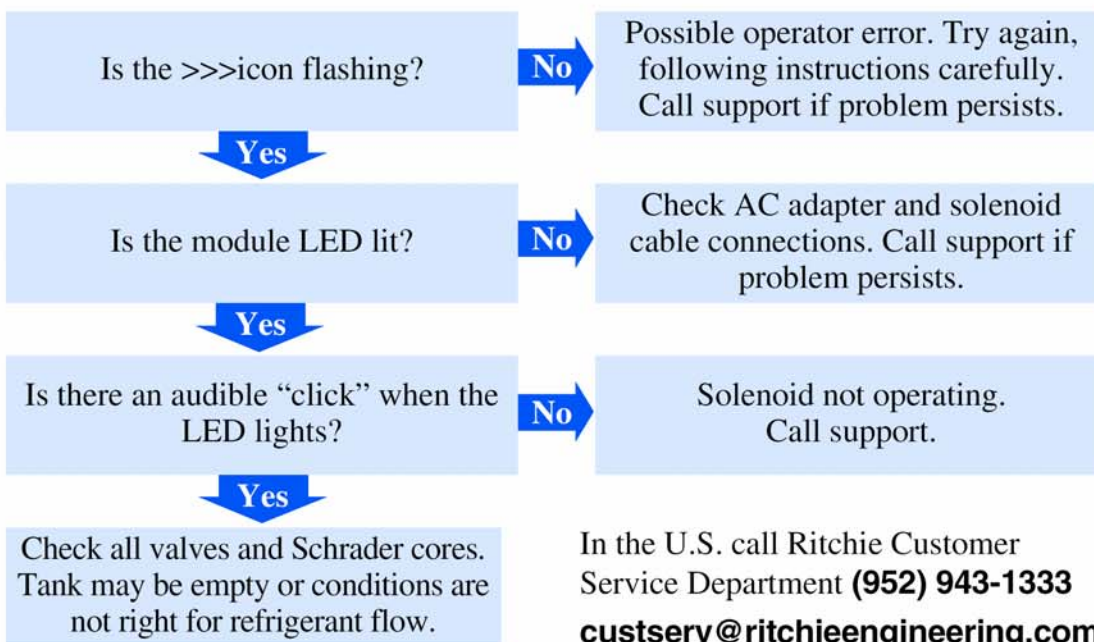
16. When the charging process is complete, press the ON/OFF button to turn the unit off.

17. Make sure the supply tank valve is closed before disconnecting the charging module. Disconnect hoses starting at the system port, working back toward the supply tank. This will prevent loss of the system charge.



## Module not charging?

Before you call, try these simple trouble-shooting steps:





## 110 Pound (50 kg.) Specifications:

**Capacity:** 110 lbs. (50 kg)

**Resolution:** 0.1 Ounce / 0.01 Pound/  
0.01 kg

**Accuracy:**  $\pm 0.5$  oz. } Or 0.1%  
 $\pm 0.03$  lb. } of reading,  
 $\pm 0.015$  kg } whichever  
is greater

**Weight of scale:** 9 lbs. (4.1 kg)

**Case Size:** 15.5" x 12.25" x 3.25"  
(394 x 311 x 83mm)

**Module display:** Sealed LCD with  
high resolution 0.5" characters

**Keypad:** moisture resistant membrane  
keypad with tactile metal domes

**Components:** Industrial grade

**Operation method:** Oversized strain  
gauge bridge

**Platform size:** 9" x 9" (228 x 228mm)

**Battery:** 25 hours (continuous use  
approx.)

**Battery:** 9v alkaline

**Solenoid Pressure Rating:** 400 psi  
MOPD (Maximum operating  
pressure differential)

**Solenoid Orifice Size:** 1/16"

**Charging Accuracy:** Scale accuracy  
 $\pm 0.25$  ounces (7 grams)

**Charge weight range:** 1 oz. to 100 lbs.

**Operating temp:** 32°F to 122°F (0° to 50°)

**Storage temp:** -4°F to 158°F (-20° to 70°)

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## 220 Pound (100 kg.) Specifications:

**Capacity:** 220 lbs. (100 kg)

**Resolution:** 0.1 Ounce / 0.01 Pound/  
0.01 kg

**Accuracy:**  $\pm 1.0$  oz. } Or 0.1%  
 $\pm 0.06$  lb. } of reading,  
 $\pm 0.030$  kg } whichever  
is greater

**Weight of scale:** 12.4 lbs. (5.6 kg)

**Case Size:** 18.0" x 13.0" x 4.25"  
(457 x 330 x 108mm)

**Module display:** Sealed LCD with  
high resolution 0.5" characters

**Keypad:** moisture resistant membrane  
keypad with tactile metal domes

**Components:** Industrial grade

**Operation method:** Oversized strain  
gauge bridge

**Platform size:** 11.3" x 11.3"  
(287 x 287mm)

**Battery:** 25 hours (continuous use  
approx.)

**Battery:** 9v alkaline

**Solenoid Pressure Rating:** 400 psi  
MOPD (Maximum operating  
pressure differential)

**Solenoid Orifice Size:** 1/16"

**Charging Accuracy:** Scale accuracy  
 $\pm 0.5$  ounces (14 grams)

**Charge weight range:** 2 oz. to 200 lbs.

**Operating temp:** 32°F to 122°F (0° to 50°)

**Storage temp:** -4°F to 158°F (-20° to 70°)

**NOT LEGAL FOR TRADE**

## **WARRANTY STATEMENT:**

Many factors beyond the control of Ritchie Engineering Company, Inc. can affect the use and performance of the products in this catalog. It is essential that the user evaluate any product in this catalog to determine the suitability of that product for a specific application. Using any product in a way that is not accepted as common practice can result in injury. All products are for use as described only. See full warranty on our dealer and wholesale price sheets.



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