

## **Instructions**

Identify your instrument's serial number, battery part number, and battery date code



- TVA serial number
  - Located on the backside of the instrument



- Battery part number
  - Located in 2 locations on battery
  - Format = XX-XXXXXX-XX (numbers)



- Battery date code
  - Located on description battery sticker
  - Format = XXXX XXX (numbers)

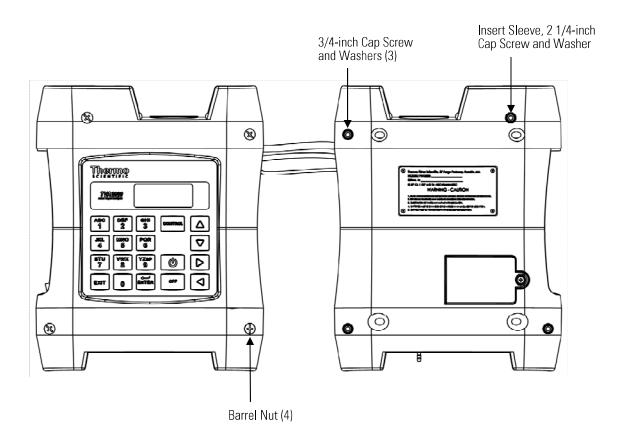


Figure 7–2. Hardware

## Opening the Instrument

Use the following procedure to gain access to the internal components.

- 1. Stand the instrument on end. While holding the barrel nut loosen the socket head screws.
- 2. Remove the four 10-24 screws to be reused later. Note that one of the screws is much larger than the other three.
- 3. Position the instrument resting on its back with the keypad facing up.
- 4. Grasp the instrument cover near the probe connections and carefully open the cover to the right.

Thermo Fisher Scientific TVA2020 Instruction Manual 7-7

## Replacing the Battery

Use the following procedure to replace the battery.



**WARNING** Do not replace battery in an area classified as hazardous due to presence of flammable gases or vapors. ▲



**WARNING** Do not operate battery charger in an area classified as hazardous due to presence of flammable gases or vapors. ▲



**WARNING** Remove the hydrogen tank from the instrument before servicing.  $\blacktriangle$ 

- 1. Identify the four self-tapping screws securing the internal frame to the bottom enclosure.
- 2. Remove the four screws. Save for reuse.
- 3. Unscrew the two captive screws securing the d-sub connector to the battery.
- 4. Remove and replace the battery. Reverse the above procedure for reassembly.

## Hydrogen Gas Tank

FID instruments are supplied with an 85 cc hydrogen gas tank. This tank, which may be pressurized to 2200 psi maximum at 25×C, will provide 10 hours operation when fully charged. The tank has an integrally mounted high pressure gauge that can be easily read when the tank is in or out of the instrument. Install the tank in the instrument by inserting it into the receptacle on the top and tightening (left hand threads tighten counterclockwise) until the rubber tank boot is flush with the instrument sidepack and a slight resistance is felt. **Do not overtighten**.

**7-8** TVA2020 Instruction Manual Thermo Fisher Scientific