# Procedure to configure an LCD-H20 & H11X Display

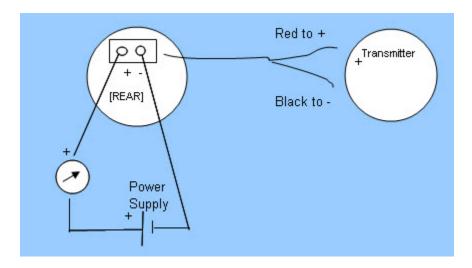
## Print a copy of the LCD-H20 User Instructions for reference

### **▶** Do NOT apply voltage directly to the DISPLAY! ◀

Limit the current with a loop transmitter (e.g. IPAQ-L), even without a sensor is OK. It will max out at about 23mA which is OK.

It is recommended that you have a constant current source to both power the display (required) during the set up and to verify the correct interpretation of the 4/20mA loop current. An IPAQ H/L or IPAQ-H+/L+ are ideal for this purpose. Any of these devices can be put in Instrument Calibration Mode [in Miscellaneous\Instrument Calibration]. The sensor, if connected, is ignored and a precise current is generated in the 4/20mA loop.

It is also suggested that a multimeter capable of 0-50mA range or lower be in the loop as further verification of the true mA.



#### **VIEWS:**



















#### **STEPS:**

- Apply between 4 and 20mA
- Press & hold  $\mathbf{F}$  for ~5 sec; see  $\mathbf{dP}$  then release
- Press F again & hold until you see 000.0 (This is the default 1 place decimal pt)
- You are now in the Decimal Point Menu
  - o Use **▲** or **▼** to move the decimal point (Hold briefly to get it to move)
  - $\circ$  When in correct position, Press & hold  $\mathbf{F}$  until  $\mathbf{dP}$  appears, then release
  - Now move to **ZERO** [2Er0] by pressing **△** (sometimes need to hold briefly)
  - O With **ZERO** Showing, press and hold **F** briefly until digits show up- then release
- You are in the ZERO SET POINT menu
  - o Use ▲ or ▼ to move the actual numbers for Zero to what you want.
    - Holding the button for a while accelerates the movement
    - Release when close and click button until you have the Zero Point
  - O Press and hold F until **ZERO** shows up again; then release
  - O Now move to **SPAN** [SPAn] by pressing ▲ (sometimes need to hold briefly)
  - O With **SPAN** showing, press **F** briefly until digits appear.
- You are in the SPAN SET POINT menu [This is the top end of range- not true span]
  - Use ▲ or ▼ to move the actual numbers for SPAN to what you want.
    - Holding the button for a while accelerates the movement
  - o Release when close and click button until you have the SPAN set as desired
  - O Press & hold F until SPAN appears
- At this point you can remove power and the settings are stored or go into –
- Li to change the default current limits
- FiLt to change and smooth the response
- riS to change the resolution of the scaling

Verify your setting. The IPAQ-H or –L will do a stepped current output and is set in Instrument Calibration (in Miscellaneous). Engage it to see what 4mA in the loop gives for a reading. It will step to 12mA and hold. This is 50% of your scaling on the display. Next it will jump to 20 mA to show full scale reading on the display.

The IPAQ-H+ or L+ will do the same and it will also allow a specific current to be held.

#### **TO RECALIBRATE THE UNIT (Not a standard procedure)**

#### **VIEWS:**



- Apply an accurate 4.00mA current
- Press & Hold ▲ ▼ at the same time until you see C 4 then release
- Press F until you see CAL; continue to hold until you see 0.0 then release
- Press & Hold  $\blacktriangle \lor$  at the same time until you see  $\frown C$  4 then release
- Press ▲ to see C 20
- Apply 20.00mA to the loop
- Press F until you see CAL; continue to hold until you see 100.0 then release