### DISPLAY OVERVIEW

**1. Measured Data Display**
- Pressure, linear scaling value, hold value (max./min.), are displayed.

**2. Pressure unit monitor**
- When either indicator is ON, the display is reading in PSI.

**3. Arbitrary unit monitor**
- When this indicator is ON, the linear scaling value of an arbitrary unit is indicated on the display.

**4. MODE button (M)**
- Used to switch the setting mode, the measurement mode and the setting item.

**5. DOWN button (D)**
- Used to change (decrease) and select the set value and to zero-reset the hold function.

**6. UP button (U)**
- Used to change (increase) and select the set value and to shift from the measurement mode to the zero adjustment mode.

### Quick Start Function Summary Instructions for ASHCROFT® GC51 Version 6.03

(See Complete I&M Manual for Further Detail)

**2. Four functions available**

- **A. Filter (Damping)**
  - The filter is based on the moving average of the pressure data to decrease display “bounce” and to smooth the analog output due to system pressure fluctuations at the user’s discretion.
  - Five selections: 0, 2, 4, 8 and 16 where 0=30ms and (in this case the filter is not active), 2=60ms, 4=120ms, 8=240ms, 16=480ms, use **M** keys to change value.

- **B. Re-scaling in “psi” units:**
  - “Pressure Display Mode” allows for zero (4mA) and span (20mA) adjustment of –10 to +110% Span respectively.
  - Use **D** keys to move between “Pressure Display Mode” and “Linear Display Mode” which is for re-scaling in “Arbitrary” units.

- **C. Minimum Value “Capture”**: Press DOWN **D** button to display the minimum value. The letter “L” will follow the reading indicating this is the minimum value. Press the DOWN **D** button again to return to Measurement Mode.
  - **Note:** If the button is held for 3 seconds it will go into zero adjustment mode.

### D. Maximum Value “Capture”*

- Press UP **U** button to display the maximum value. The letter “H” will follow the reading indicating this is the maximum value. Press the UP **U** button again to return to Measurement Mode.
  - **Note:** If the button is held for 3 seconds it will go into zero adjustment mode.

**Minimum/Maximum Reset**

- The Minimum/Maximum values can be reset when in either Minimum/Maximum display by holding the DOWN **D** button for more than three seconds, “clr” will appear on the display for two seconds and the Minimum and Maximum values will be removed.
  - **Note:** Values are maintained even if unit is powered OFF.

**Hold reset message**

- “**clr**”
  - When first using unit be sure to Reset values to clear values in memory from the factory calibration process.
  - Values are captured starting one minute after Reset, thus if unit is powered OFF during the one minute the values during that period will not be kept in memory.

**3. Four functions available**

- To enter the “Setting Mode” hold “M” key for more than 3 seconds.
  - (See last page for complete Setting Mode menu.)

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C. Re-scaling in “Arbitrary” units: “Linear Display Mode”.
This function allows the user to establish a linear relationship from the standard “psi” unit to any user defined unit.

Note: See menu schematic at end, must be in “Linear Display Mode” option within “Setting Mode”, this is noted on the screen by

Use $\#$ keys to move between “Linear Display Mode” and “Pressure Display Mode.”

D. Loop Check: Use to send a 4-20mA signal meant to simulate applied pressure, can be accessed either through Pressure Display Mode or Linear Display Mode. See “Complete Setting Mode Menu” at end. Loop Check is noted on the screen with a prefix ")". The display is indicating in actual units and starts at the zero (4mA) point.
If $\text{C}$ button continues to be pressed, the linear display will auto-increment by linkage between the linear display and the analog output. By continuing to press $\text{C}$ button, auto decrement will occur. Release the button at the desired indication.

Complete Setting Mode Menu

Notes: Actual values shown are based upon the examples shown in the I&M Manual.
Changes made within the Setting Mode are saved by returning to Measurement Mode before powering the unit “off.”
4. Wiring
Power supply requirements, 12-36Vdc, note installation recommendations as follows:
Terminal Strip: SMKDSP1.5/2-5.08 Phoenix contact

A. Cable Requirements
- Two core shielded cable
- Cable outer diameter: 0.35" to 0.47" (9-12mm)
- Required for proper installation with cable gland option
- Wire Gauge: 14-22 AWG (multi-strand or solid)

B. Wiring Instructions
- Do not run pressure transmitter cable / wires within the same conduit as high voltage (line power) line to reduce the potential for noise (interference). Use dedicated conduit on GC51 cables / wires for optimum results.
- Cable diameter, specified above, must be maintained when using the Cable Gland termination to retain environmental ratings.
- When connecting shield / drain wire, only connect one end which should be at the received ground.
- Wire stripping instructions; remove cable jacket 2-3" and strip wires 0.25". Shield / drain wire should not be exposed at the pressure transmitter termination.
- Remove cover and carefully remove the display to access the terminal strip, take care not to mishandle the display and associated electronics.
- Turn display over to expose terminal strip, make positive and negative connections; insert wire equal to the recommended strip length (0.25”).
- After completing connections, align the retaining clips of the display with the housing’s notches and carefully place into the housing. Be sure that the internal sensor ribbon cable does not cross the power supply lines just installed.
- Be sure to properly tighten the sealing grommet when using the Cable Gland before applying tension to the cable; the cable gland provides strain relief and environmental sealing.
- Tighten GC51 cover to maintain environmental rating.
- Connect to power source and receiver, than apply power to confirm correct wiring.

Power Supply Requirements: Although the 4-20mA signal can travel over long distances, a very common issue to arise involves inadequate power at the pressure transmitter – this results in voltage drop across the loop. Be sure to review the accompanying table to determine whether the 12-36Vdc has been received at the pressure transmitter.