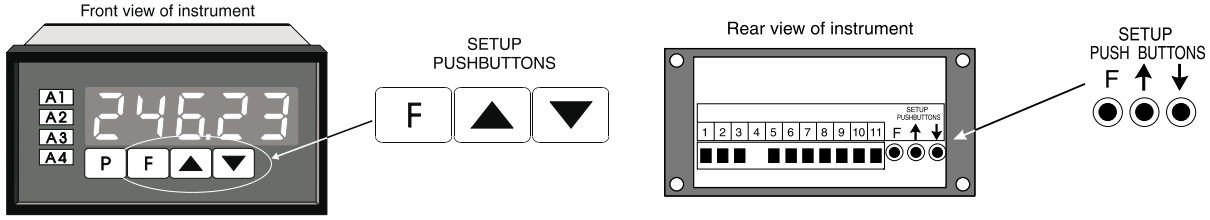
Application Note: Number AN6
Factory Calibration of Analog Retransmission
PM4 and RM4 Range Instruments



The instrument push button locations are shown above, some display types do not have front panel push buttons.

The retransmission outputs are factory calibrated to give 4.000mA (or 0.000V) when the display value is at the the rEC_ function setting and 20.00mA (or 1.000V or 10.00V) when the display value is at the rEC^ function setting. These current or voltage levels levels are stored in the instruments non-volatile memory and usually do not need to be recalibrated.

If the stored values become corrupted for any reason then it will be necessary to re-calibrate the retransmission. The procedure for this is as follows.

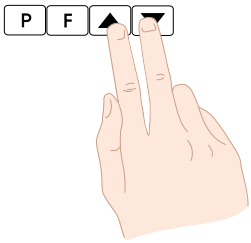
1. Connect an accurate meter, set to an appropriate range, to the retransmission output terminals.

2. Enter the factory calibration mode by:

   a. Removing power from the instrument.

   b. Holding in both the ▲ and ▼ pushbuttons in.

   c. Re applying power to the instrument with the ▲ and ▼ pushbuttons still held in.



3. The display should momentarily indicate FCAL as part of the “wake up” messages to indicate that you are in factory calibration mode, if not then go back to step 1. Release the pushbuttons once the FCAL message is seen.

4. Enter the function setup mode by pressing, then releasing, the F button then, within 2 seconds, pressing, then releasing ▲ and ▼ simultaneously.

5. The display should momentarily indicate FUNC to indicate that you have entered the function setup mode.

6. Step through the functions by pressing and releasing the F button until the display indicates either c 4.0 or c 0.0 (calibrate 4mA or calibrate 0V).

PMFCAL-1.0-1

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7. The reading on the attached meter should now be 4.000mA or 0.000V, depending on the setting of the internal links, if not then use the ▲ button to increase the output or the ▼ button to decrease the output.

8. When the reading is as required press, then release, the F button. The display will now indicate either c 20.0 or c 1.00 or c 10.0 (calibrate 20mA, calibrate 1V or calibrate 10V).

9. The reading on the attached meter should now be 20.00mA or 1.000V or 10.00V, depending on the setting of the internal links, if not then use the ▲ button to increase the output or the ▼ button to decrease the output.

10. When the reading is as required press, then release, the F button. The display will now move to the next function. Step through the functions, by pressing and releasing the F button, until the instrument exits the function setup mode and returns to normal measurement.

11. Check that the instrument is performing as required and then exit the factory calibration mode by removing power from the instrument, waiting a few seconds and then re-applying power.