

Manual Supplement

Manual Title:	7012 User Manual	Supplement Issue:	5
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This supplement contains information necessary to ensure the accuracy of the above manual.

FLUKE®

Calibration

Change #1

On page 11, under 3.1 **Specifications** replace the **Digital Setting Accuracy** with:

Digital Setting Accuracy ± 1 °C between the set point range 0 °C to 100 °C

On page 34, under **8.7 Temperature Controller** add:

The thermistor sensor probe used to control the 7012 bath provides a linear signal between the temperatures of 0 °C and 100 °C. Outside of this range the thermistor sensor probe is non-linear. The non-linear effect of the thermistor sensor probe may cause the Display Setting Accuracy to exceed the ± 1 °C listed in the specifications of Section 3.1.

Change #2

On page 12, after the last bullet in the **Environmental Conditions** section, add:

Note

The Product can show some control sensitivity to moderate or severe electromagnetic fields or conducted interference of certain frequencies. In the presence of radiated EM disturbances, with frequencies of 250 MHz to 400 MHz and with amplitude >1 V/m to a maximum of 3 V/m, add 0.0025 °C to the stability specification. Stability is not guaranteed if amplitude is >3 V/m. When subject to conducted disturbances of 8 MHz to 80 MHz, and amplitude >3 V, add 0.005 °C to the stability specification.

Change #3, 523

On page 12, under the **Environmental Conditions**, replace the 1st and 2nd bullets with:

- ambient temperature range: 5 °C to 35 °C (41 °F to 95 °F)
- ambient relative humidity: maximum 80 % for temperatures <31 °C decreasing linearly to 50 % at 35 °C

Change #4, 567

On page *iv*, replace the Figure 5 line, with:

Figure 5 Drain Location and Lid25

On page 9, replace the third paragraph with:

The tank for the 7012 is stainless steel and holds 36 liters. The lid has a rectangular access hole (see Figure 5).

On page 24, section 7.4, replace the first paragraph with:

The lid has a rectangular access hole (see Figure 5). Lid features are described with reference to figure numbers as follows:

On page 25, number 3), replace with:

The rectangular access hole on the lid may be used to insert the users device to be thermostatted.

On page 25, delete the second number 3) and sentence.

On page 25, in Figure 5, remove the "Optional Pump Lid" diagram.

Change #5, CSE-285

On page 23, under the **Side Panel** section, replace the table with:

Table 2. Cooling Temperature Chart

Desired Bath Temperature		Set the Cooling Temp. Valve to this pressure	Heater Power
°C	°F	PSIG	
-10	14	2.5	LOW
-5	23	5	LOW
0	32	10	LOW
5	41	15	LOW
10	50		LOW/HIGH
15	59	20	LOW/HIGH
20	68		HIGH
25	77		HIGH
30	86	30	HIGH
35	95		HIGH
40	104		HIGH

DO NOT set the Cooling Pressure above 40 PSIG

On page 34, under the **Cooling** section replace the text with:

To enable Cooling, push the **Cooling** switch. This enables the refrigeration system of the instrument. Once enabled, adjust the **Cooling Temperature** valve to an appropriate evaporator pressure for the desired bath temperature. For nominal pressure settings, see the Cooling Temperature Chart (Table 2 in this document) found in the operating instructions attached to the left side of the instrument. Do not set the **Cooling Temperature** valve above 40 psig. When you adjust the **Cooling Temperature** valve, make incremental adjustments and allow ample time for system pressures to stabilize between adjustments.

Typically, cooling is not required above 40° C. However, cooling can be used for transitional operation for bath temperatures up to 60 °C. Never use cooling above 60 °C.

The **Back Pressure** control valve reduces the cooling capacity of the instrument. For maximum cooling and normal operation, fully open the valve (CCW). To reduce cooling capacity, partially close the valve (CW). Never engage the **Back Pressure** valve more than necessary and always fully open the valve (CCW) before you change to a different bath temperature.

On page 56, under the **Cooling Control** section, in the last paragraph:

Replace:

9-14 psi

with:

2.5 psig

On page 57:

In the first paragraph, change:

45-50 psi

to:

40 psig

In Table 6, in the Heater column, reference Table 2 for heater power settings.