

SYSTEM C22 pH CALIBRATION CARD



KEY FUNCTIONS:

Cursor positions and numeric adjustments are performed by pressing the appropriate keypad. The C22 uses an “underline” cursor in each of the menus; Holding down the keypad will automatically scroll the cursor or numeric values.

Please note that simultaneous pressure combination of keys other than the two horizontal CALIBRATE keys is **not** recommended.



Electro-Chemical Devices, Inc.
 23665 Via Del Rio
 Yorba Linda, CA 92887
 Phone (800) 729-1333
 Fax (714) 729-1222
 www.ecdi.com

① **Main Menu**

```

pH 7.00
50.0% 22.0°C
    
```

Place the transmitter into the manual mode prior to calibration to lock the current output, by:
Simultaneously pressing:

② **Main Menu**

```

pH 7.00
M50.0% 22.0°C
    
```

Observe the “M” appear signifying that the transmitter is in the manual mode, then:
Press down:

③ **Parameter Selection**

```

Buffer
Setup
Status
    
```

With the cursor under the “B” in Buffer :
Simultaneously press:

④ **Electrode Standardization**

```

1pH 7.00
Cal .0 mV@25
    
```

Rinse the sensor in DI water and dry. Place the sensor into the first of the two calibration standard solutions (ECD recommends 7pH buffer), then:
Simultaneously press:

⑤ **Electrode Standardization**

```

1 pH 7.00 pH
3.5 mV@25
    
```

Once the mV value on the bottom line stabilizes exit and save the calibration, by
Pressing down:

⑥ **Electrode Standardization**

```

1pH 7.00
Cal 3.5 mV@25
    
```

Record the mV value for future reference, then:
Press down 2 times:

⑦ **Electrode Span**

```

2pH .00
Cal -59.1 mV/pH
    
```

Rinse the sensor in DI water and dry. Place the sensor into the second of the two calibration standard solutions (ECD recommends 4pH buffer), then:
Simultaneously press:

⑧ **Electrode Span**

```

2 pH .00 ppm
-29.5 mV@25
    
```

input the standard solution value via the calibrate keys. Left & right keys move the cursor accordingly. Up and down keys add or subtract
Press keys as needed:

⑨ **Electrode Span**

```

2 pH 4.00
-57.9 mV@25
    
```

Once the mV value on the bottom line stabilizes exit and save the calibration, by
Pressing down:

⑩ **Electrode Span**

```

2pH 4.00
Cal -57.9 mV@25
    
```

Observe that the cursor is back again under the “2”. Return to the main menu by:
Pressing down:

⑪ **Main Menu**

```

pH 7.00 ppm
M50.0% 22.0°C
    
```

Install the sensor back into the process. Remove the transmitter from the manual mode by:
Pressing Left calibrate key:

⑫ **Main Menu**

```

pH 7.00 ppm
50.0% 22.0°C
    
```

Observe the “M” disappear
 The % value has now returned to “real time” current output

Setting the transmitter calibration data back to original factory default values




Electrode Standardization

```

1 pH    7.00
Cal 103.0 mV@25
    
```

Incorrect values stored in the standardization calibration menu.

Place the cursor under the "C" and :


Simultaneously press   

Electrode Standardization

```

1 pH    7.00
Cal .0 mV@25
    
```

The standardization calibration menu is now set to factory default values:




Electrode Span

```

2 pH    4.00
Cal 1.6 * mV/dec
    
```

Incorrect values stored in the span calibration menu.

Place the cursor under the "C" and :

Simultaneously press   

Electrode Span

```

2 pH    .00 ppm
Cal -59.1mV/pH
    
```

The span calibration menu is now set to factory default values:

NOTE: The back to factory screens are found in the Parameter Selection Menu "Buffer".

Sensor Diagnostics

Electrode Diagnostic screen:

The value on the top line is the real time non-temperature compensated millivolt value coming from the sensor. The value on the second line is the electrode isopotential from the last calibration. If the value on the bottom line is greater than 8 or less than 6, the pH electrode should be replaced.

This screen is found in the Parameter Selection Menu "Status".

```

Input      .0 mVa
0 mVa:    7.00 pH
    
```

Electrode Standardization

```

1 pH    7.00
Cal .0 mV@25
    
```

Electrode Standardization screen:

This is the first of a two point calibration. The top line displays the calibration point, at which the last calibration was performed (ECD recommends that 7 pH buffer be used). The bottom line displays the millivolt value the electrode generated at the calibration point. If the value exceeds + or - 50 mV then the electrode should be replaced.

This screen is found in the Parameter Selection Menu "Buffer".

Electrode Span

```

2 pH    .00
Cal -59.1 mV/pH
    
```

Electrode Span Screen:

This is the second point of a two point calibration. The top line displays the calibration point, at which the last calibration was performed (ECD recommends that a 4 pH buffer be used). The bottom line displays the electrode span in millivolts per pH (mV/pH). If the value is less than 50 mV per pH the electrode should be replaced.

This screen is found in the Parameter Selection Menu "Buffer".

Output calibration

```

_4 mA  10.00 ppm
20 mA  100.0 ppm
(now 15.43 mA)
(ch1 PV)
    
```

Output Calibration Menu:

Current output ranges are adjusted in this menu. The top line defines the 4 mA point while the second line defines the 20 mA point. Between these points, the output current is linear with respect to the sensor input. The third line displays the current output at that time. The fourth line shows what the output is assigned to.