

# pH-/Ion Meter 692

## 8.692.1023 Enclosure for 8.692.1003 Instructions for Use

With series 07 and later, the 692 pH-/Ion Meter is equipped with the new 5.692.0021 program. The following pages list the most important modifications and extensions in comparison with the old program version 5.692.0011 described in the 8.692.1003 Instructions for Use.

### Modifications / Extensions

The format for the display and the entry of the date has been changed. The year can now be entered with four digits.

Display: \*\*\* 692 pH/Ion Meter \*\*\*  
1998-03-04 10:37:00

param	>calibration parameters cal.interval            OFF h	<h3>Entry of a calibration interval</h3> <p><i>This inquiry appears only in the "pH" and in the "conc" mode when measuring type "direct" has been chosen.</i></p> <p>This new parameter allows the entry of a time interval. When this time interval has expired the warning "cal.interval expired" appears in the LCD-display.</p> <p style="padding-left: 40px;">Input range:        1...999 h, OFF</p> <p>The calibration interval is stored together with the other calibration data for the electrode and the electrode-id. The warning can be acknowledged by pressing &lt;quit&gt;. When the electrode is recalibrated, the timer is set to zero. If no new calibration is performed, the instrument checks every 10 minutes whether the calibration interval has expired, and again a warning appears in the display. The verification of the calibration interval is always carried out when the instrument is switched on or when the mode is changed.</p> <p>When further measurements are performed, although the calibration interval has expired, together with every measuring point report the warning "calibration interval expired" is printed.</p>
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param	<pre>&gt;calibration parameters low lim.slope      0.97</pre>	<p><b>Lower limit for slope</b></p> <p><i>This inquiry appears only in the "pH" mode.</i></p> <p>This new parameter allows the entry of a lower limit value for the slope. If a smaller slope is found in the calibration, the calibration can be discarded.</p> <p>Input range: 0.001...9.999</p>
	<pre>&gt;calibration parameters up lim.slope      1.05</pre>	<p><b>Upper limit for slope</b></p> <p><i>This inquiry appears only in the "pH" mode.</i></p> <p>This new parameter allows the entry of an upper limit value for the slope. If a larger slope is found in the calibration, the calibration can be discarded.</p> <p>Input range: 0.001...9.999</p>
	<pre>&gt;calibration parameters low lim.pH(as)    6.40</pre>	<p><b>Lower limit for asymmetry pH</b></p> <p><i>This inquiry appears only in the "pH" mode.</i></p> <p>This new parameter allows the entry of a lower limit value for the asymmetry pH. If a smaller value is found for "pH(as)" in the calibration, the calibration can be discarded.</p> <p>Input range: 0.000...99.999</p>
	<pre>&gt;calibration parameters up lim.pH(as)     8.00</pre>	<p><b>Upper limit for asymmetry pH</b></p> <p><i>This inquiry appears only in the "pH" mode.</i></p> <p>This new parameter allows the entry of an upper limit value for the asymmetry pH. If a larger value is found for "pH(as)" in the calibration, the calibration can be discarded.</p> <p>Input range: 0.000...99.999</p>
param	<pre>&gt;electrode test report:           line</pre>	<p><b>Report for electrode test</b></p> <p><i>This inquiry appears only in the "pH" mode.</i></p> <p>A new feature for this parameter is the selection of "line". Only the result (e.g. "excellent electrode") is outputted as a report for the electrode test.</p>

param

>preselections  
req.ident: OFF

### Automatic inquiry of the identification(s)

This new parameter allows the entry of sample-specific identifications before every measured value printout initiated with <print>.

- Id1 Automatic inquiry of the identification "Id1".
- Id1 & 2 Automatic inquiry of the identifications "Id1" and "Id2".
- OFF No automatic inquiry.

>preselections  
req.smp1 size: OFF

### Automatic inquiry of the sample size

*This inquiry appears only in the "conc" mode with "meas.type: std.add" or "meas.type: smp1.add".*

This new parameter allows the entry of the value and/or unit of the mass for a single sample before every measured value printout initiated with <print>.

- value Automatic inquiry of the value "smp1 size" of the sample mass.
- unit Automatic inquiry of the unit "smp1 size unit" of the sample mass.
- all Automatic inquiry of the value "smp1 size" and the unit "smp1 size unit" of the sample mass.
- OFF No automatic inquiry.

param	<pre>&gt;standard/sample addition activate pulse:      OFF</pre>	<p><b>Output of an activating pulse</b></p> <p><i>This inquiry appears only in the "conc" mode with "meas.type: std.add" or "meas.type: smp1.add".</i></p> <p>This new parameter allows the output of an activating pulse for the automatic addition of an auxiliary solution (e.g. TISAB) from a second Dosimat (665 or 725).</p> <p>ON            Output of an activating pulse on start of the measurement.</p> <p>OFF           No output of an activating pulse.</p> <p>A 6.2138.020 cable is required for the connection of the second Dosimat. The "DIS c" mode must be selected on the 665 or 725 Dosimat. The volume to be dispensed is set with "V-DIS", the safety volume with "V-LIM".</p>
	<pre>&gt;standard/sample addition stop V                99.99 ml</pre>	<p><b>Setting of the stop volume</b></p> <p><i>This inquiry appears only in the "conc" mode with "meas.type: std.add" or "meas.type: smp1.add".</i></p> <p>This new parameter allows the entry of a stop volume for the automatic addition of a standard or sample solution using a 665 or 725 Dosimat. If this volume is exceeded in a determination with standard or sample addition, the addition is stopped and the message "check working cond." appears.</p> <p>Input range:    0.00...999.99</p> <p><b>Note:</b>        The safety volume "V-LIM" of the 665/725 Dosimat must be set to "OFF".</p>

cal

### Buffer selection

The two Metrohm buffers pH = 1 and pH = 13 are no longer available (cf. Table on page 7 of the 8.692.1003 Instructions for Use).

### Error messages in the report

The following two error messages can appear in the calibration report:

`manual stop`                      Manual stop of the calibration.  
`cal.data out of range`      Calibration data outside the predefined range.

el.test

0

### New error message

Instead of the error message "check buffer", the message "check buffer/electrode" appears.

print

### New header for measured value printout or plot

The header now comprises the following parts:

1. line: Instrument name, manufacturing number, program number
2. line: Date, time, run number (run number only with plot)
3. line: Basic method, method name, electrode identification
4. line: Sample identification "Id1" (if present)
5. line: Sample identification "Id2" (if present)

Example:

```
692 pH/Ion Meter      ON1/106   692.0021
date 1998-04-01   time 09:45:09
pH   Meth.015   electr.id   pH-e1.12
id1      drinking water
id2      sample 34
```

report

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### New header for reports

The header now comprises the following parts:

1. line: Instrument name, manufacturing number, program number
2. line: Date, time, run number (The run number does not appear in the parameter, configuration and memory reports.)
3. line: Basic method, method name, electrode identification (This line does not appear in the parameter, configuration and memory reports.)

Example:

```
692 pH/Ion Meter      ON1/106   692.0021
date 1998-04-01   time 09:45:09
pH   Meth.015   electr.id   pH-e1.12
```

## Changed sequence of the parameter inquiry

The parameters are requested in the following sequence:

```
config
>printer
  id1
  id2
  print header:
  calibration report:
  character set:
>print meas.value
  order unchanged
>auxiliaries
  order unchanged
>RS232 settings
  order unchanged
```

## Changes in the printer menu

Under ">printer" there is no longer an inquiry for the output of date and time. Date and time are printed automatically with every printout of the header (see <print> and <report> keys).

```
>printer
print header:    always
```

### Output of a header in the measuring point report

The default setting is new "always".

- always With every measured value, the header is printed automatically.
- OFF No header is printed.
- once After switching on the instrument, the header is printed only once.

```
>printer
calibration report: OFF
```

### Output of a calibration report with every measuring point report

This new parameter allows the automatic output of a short calibration report after every measured value printout.

- ON With every measured value, a short calibration report is printed automatically.
- OFF No output of a calibration report.

```
>printer
character set:    HP
```

### Selection of the printer

A new feature of this parameter is the selection of "HP" for output on an HP printer (e.g. HP DeskJet or HP LaserJet). Output of graphics over more than one page is not possible in this mode.