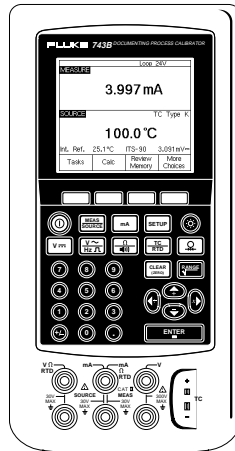
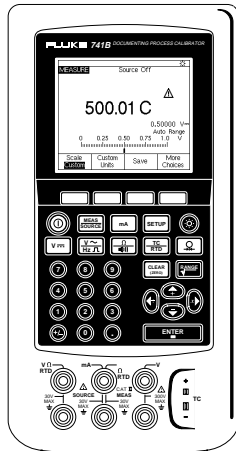
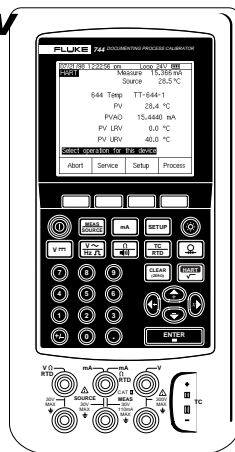


## Fluke 740 Series Documenting Process Calibrators

Ready for Anything



New



Whether you're calibrating instruments, troubleshooting a problem or running routine maintenance, Fluke 740 Series Documenting Process Calibrators can help you get the job done faster. It does so many different tasks, so quickly and so well. It's the only process calibrator you need to carry.

- **Multifunctional.** Calibrate temperature, pressure, voltage, current, resistance, and frequency. Since it both measures and sources, you can troubleshoot and calibrate all with one rugged tool.
- **Powerful, yet easy to use.** The easy-to-follow, menu-driven display guides you through any task. Programmable calibration routines enable you to create and run automated as-found/as-left procedures to ensure fast, consistent, calibrations.

- **Records and documents results.** To support your ISO-9000 or regulatory standards all the 740 Series DPCs capture your calibration results, eliminating the need to juggle a pen and pad in the field. The RS-232 interface in the Fluke 743B and 744 lets you transfer the results to a PC, thus saving the time of having to manually transcribe them when you return to the shop.
- **Supports popular instrumentation management software.** The 743 and 744 work with the new Fluke DPC/TRACK™ software, and with popular programs from Honeywell Loveland, Cornerstone, Sand Cove, Beamex, Blue Mountain, and others. It allows you to create procedures, instructions, and action lists to deliver fast, easy documentation.
- **Truly hand-held.** Small enough to fit easily into a tool bag and to use in tight spaces. Runs an entire shift on a rechargeable NiCd or NiMH battery pack.
- **Rugged and reliable.** Overmolded urethane case stands up to rough handling in industrial environments. Calibrators offer one- or two-year calibration cycles and three-year warranty.
- **Bright white display** lets you read your results in any kind of light.
- **Soft keys** provide one-touch access to enhanced functions such as task lists, automated procedures, scaling, min/max, stepping and ramping, and review memory.
- **Three operating modes** - Measure, Source, or simultaneous Measure/Source — enable technicians to troubleshoot, calibrate, or maintain instrumentation with just one tool.
- **Integrated HART communication capability** lets you program and control HART instrumentation (744 only).
- **Multi-lingual interface** displays instructions in English, French, German, Spanish, and Italian.
- **AutoStep** allows technicians to set the calibrator for a delayed start and a specific sequence of steps, so it can run unattended as a continuously varying test source.
- **User-entered values** enable users to capture readings measured or sourced by other devices.

- **Custom units** allow readings to be scaled and displayed in any user-defined units.
- **Limit switch calibration procedures** perform fast, automated calibration of one- and two-point limit switches for voltage, current, temperature, and pressure.
- **Differential pressure flow instrument calibration** routines use a square root function to directly calibrate DP flow instruments.
- **Built-in algebraic calculator** with four functions — plus square root — stores, recalls, and performs calculations required for setting up instruments or evaluating data in the field. Use it to set the source function to a calculated value. There's no need to carry a pencil and paper or a separate calculator.
- **Programmable measurement delay** inside automated procedures permits calibrating instruments that respond slowly.

**The Fluke 741B** offers simultaneous source and measure capabilities for all common process parameters. Create and execute automated procedures and automatically capture the results.

**The Fluke 743B** offers all the capability of the 741B, plus adds a serial interface for two-way communication with popular PC-based instrumentation management applications.

**The Fluke 744** offers all of the capabilities of the 743B, plus the ability to maintain and calibrate selected HART transmitters without a second tool.

Capability	741B	743B	744
Source/Measure	•	•	•
Automated procedures	•	•	•
Results capture	•	•	•
Uses all Fluke pressure modules	•	•	•
Transmitter mode	•	•	•
Bar code entry		•	•
Serial interface		•	•
Data logging		•	•
HART communications			•
Pulsed RTD simulation to 1 ms			•
NiMH battery with "Gas Gauge"			•

**The first field calibrator for HART instruments that's both powerful and easy to use.**

The 744 offers the most complete HART implementation of any process calibrator. The 744:

- Requires no external box or second tool for everyday HART calibration and maintenance.
- Offers fast HART communication.
- Supports popular models of HART transmitters, with more device-specific command support than any other HART field calibrator.
- Fully complies with the Data Link Layer of the HART protocol, including multiple masters, burst mode, and multi-drop configurations.
- Is easy to update as additional instruments are added and new HART versions are released.
- Is based on the 743B, the most rugged, reliable multifunction field calibrator available.
- Is backed by the service and support of the Fluke organization, a member of the HART Communications Foundation.

**DPC/TRACK software for instrumentation management**

Manage your instruments and your calibration data with this easy-to-use instrumentation management database. Create calibration procedures, lists, and instructions on your PC and load them to the 743 or 744. Unload your calibration data back to your PC. Print reports or export data in standard ASCII format.

**Pressure modules**

An optional set of external pressure modules provides pressure calibration and measurement capabilities. Twenty-seven modules are available, with basic accuracy specs to 0.05%. Ranges start at 0-10"H<sub>2</sub>O (0-2.5 kPa) and go to 0-10,000 psi (0-70,000 kPa).

**Standard equipment**

Included with the Fluke 740 Series: Type TL24 Industrial Test Leads (two sets), AC20 Test Clips (2 sets), TP20 Test Probes (1 set), battery pack, battery charger, serial port cable (except 741B), HART communications cable (744 only), DPC/TRACK sample with free PC communication utility software (except 741B), instruction manual, NIST-traceable calibration report and data, three-year warranty.

**Summary Accuracy Specifications**

Best case, mid-range specs; 18 °C to 28 °C, one year. For details, see 744 brochure, G0385.

Feature	Measure	Sourcing
DC voltage	0.025% reading + 0.005% full scale	0.01% output + 0.005% full scale
DC current	0.01% reading + 0.015% full scale	0.01% output + 0.015% full scale
Resistance	0.05% reading + 50 mΩ	0.01% output + 40 mΩ
Frequency	0.05%	0.01%
8 Thermocouples	0.3°C	0.2°C
11 RTDs	0.3°C	0.1°C
Pressure	To 0.05% of full scale. See specification sheet.	

744 only: Addresses pulsed transmitters and PLCs with pulses as short as 1 ms

**General specifications**

**Size:** 130 x 236 x 61 mm (5.1 x 9.3 x 2.4 in)  
**Weight:** 1.4 kg (3 lb 1 oz)  
**Internal battery pack:** NiCd, 7.2V, 1700 mAh; NiMH at 3500 mAH is standard on 744 and an optional accessory on 741 and 743  
**Battery life:** Typically more than eight hours  
**Battery replacement:** Via snap-shut door without opening calibrator; no tools required  
**Operating temperature:** -10 °C to 50 °C  
**Data log function:** 8000 readings (except 741B)  
**Loop power:** 24 or 28 volts

**Accessories**

- |                     |   |                     |                    |
|---------------------|---|---------------------|--------------------|
| <b>Fluke-700PMP</b> | Pressure Pump; 100 psi/7 bar            | <b>80T-IR</b>       | Infrared Probe     |
| <b>Fluke-700PTP</b> | Pneumatic Test Pump; 360 psi/25 bar     | <b>80PK-IR</b>      | Infrared Probe     |
| <b>Fluke-700HTP</b> | Hydraulic Test Pump; 10,000 psi/700 bar | <b>Fluke-700RTD</b> | SPRT Probe         |
| <b>Fluke-700PRV</b> | Pressure Relief Valve Kit for HTP       | <b>BE9005</b>       | Battery Eliminator |
| <b>Fluke-700-IV</b> | Current Shunt (for mA/mA applications)  | <b>BC7217</b>       | Battery Charger    |
| <b>Fluke-700TC1</b> | TC Mini-Plug Kit, 9 types               | <b>BP7217</b>       | NiCd Battery Pack  |
| <b>Fluke-700TC2</b> | TC Mini-Plug Kit, JKTERS                | <b>BP7235</b>       | NiMH Battery Pack  |
| <b>Fluke-700PCK</b> | Pressure Calibration Kit                | <b>C700</b>         | Hard Carrying Case |
| <b>Fluke-700BCW</b> | Bar Code Wand                           | <b>C781</b>         | Soft Carrying Case |
|                     |   | <b>C789</b>         | Soft Carrying Case |
|                     |   | <b>C75</b>          | Test Lead Case     |

For a complete listing of accessories compatible with the Fluke 740 Series, refer to the Accessory Data Sheet, A0602.

**Ordering Information**

- Fluke-741 Documenting Process Calibrator
- Fluke-743 Documenting Process Calibrator
- Fluke-744 Documenting Process Calibrator

**Fluke. Keeping your world up and running.**