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724/725/726

Calibrators

Calibration Manual

PN 667581

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Introduction

Warning

The information provided in this manual is for the use of qualified personnel only. Do not perform the verification tests or calibration procedures described in this manual unless you are qualified to do so.

This Calibration Manual provides the following information for the Fluke 724 Temperature Calibrator and the Fluke 725 and 726 Multifunction Process Calibrators (also referred to as "the Calibrator" and/or "the UUT"):

- Precautions and safety information
- Equipment required for performance tests and calibration
- Specifications
- Basic maintenance (cleaning, batteries, and fuses)
- Instructions for using the remote control interface
- Performance test procedures
- Calibration procedures
- List of replaceable parts

For complete operating instructions, refer to the appropriate *Users Manual* (located on the CD-ROM shipped with the instrument).

Caution

The Calibrator contains parts that can be damaged by static discharge. No procedure in this document requires the case to be opened. If you do so, follow the standard practices for handling static sensitive devices.

Contacting Fluke

To contact Fluke, call one of the following telephone numbers:

- Technical Support USA: 1-800-44-FLUKE (1-800-443-5853)
- Calibration/Repair USA: 1-888-99-FLUKE (1-888-993-5853)
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31 402-675-200
- Japan: +81-3-6714-3114
- Singapore: +65-6799-5566
- Anywhere in the world: +1-425-446-5500

Or, visit Fluke's website at www.fluke.com.

To register your product, visit <http://register.fluke.com>.

To view, print, or download the latest manual supplement, visit <http://us.fluke.com/usen/support/manuals>.

Read First – Safety Information


In this calibration manual, a **Warning** identifies conditions and actions that pose hazard(s) to the user. A **Caution** identifies conditions and actions that may damage the Calibrator or the test instruments.

Warnings

To avoid possible electric shock or personal injury:

- **DO NOT** use the Calibrator if it looks damaged.
- Follow all safety procedures for the test and calibration equipment you use.
- Examine the Calibrator before use. Look for cracks in the case, missing plastic, or damaged insulation around the connectors.
- Inspect the test leads for damaged insulation or exposed metal. Check for test lead continuity. Replace damaged test leads as necessary.
- Do not use the Calibrator if it operates abnormally. Protection may be impaired. When in doubt, have the instrument serviced.
- Do not apply more than the rated voltage, as marked on the Calibrator, between terminals or between any terminal and earth ground.
- Never touch the probes to a voltage source when the test leads are plugged into the current terminals.
- Select the proper function and range for each measurement.
- Disconnect the test leads before changing to another measure or source function.
- When using probes, keep fingers behind the finger guards on the probes.
- Use caution when working above 30 V ac rms, 42 V ac peak, or 60 V dc. Such voltages pose a shock hazard.
- Connect the common lead (COM) before connecting the live test lead. When disconnecting test leads, disconnect the live test lead first.
- Always place the 5520A calibrator in Standby (STBY) mode between tests and before handling the test connections or cables.
- Remove test leads from the Calibrator before opening the battery door.
- Do not operate the Calibrator around explosive gas, vapor, or dust.
- During normal operation, only use four properly installed AA batteries to power the Calibrator.
- Make sure the battery door is closed and latched before you operate the Calibrator.
- During calibration, use only specified calibration equipment listed in Table 6.

  Warnings (cont.)

- When servicing the Calibrator, use only specified replacement parts.
- To avoid false readings, which can lead to possible electric shock or personal injury, replace the batteries as soon as the low battery indicator () appears.

 Caution
















To avoid possible damage to the Calibrator or to the test instruments:

- Disconnect the power and discharge all high voltage capacitors before testing resistance, diodes, or continuity.
- Use the proper jacks, function, and range for each measurement or sourcing application.

International Symbols

International symbols used on the Calibrator and in this manual are explained in Table 1.

Table 1. International Symbols

Symbol	Meaning	Symbol	Meaning
	AC (Alternating Current)		Earth Terminal
	DC (Direct Current)		ON/OFF
	AC or DC (Alternating or Direct Current)		Conforms to European Union directives
	Pressure		Battery
	Risk of Danger. Important information. See Manual.		Conforms to relevant North American Safety Standards.
	Hazardous voltage. Risk of electric shock.		Double Insulated
	Conforms to relevant Australian EMC standards		Conforms to relevant South Korean EMC Standards
	This product complies with the WEEE Directive (2002/96/EC) marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste. Go to Fluke's website for recycling information.		

Specifications

Performance and accuracy are specified for one year after calibration, at operating temperatures of +18 °C to +28 °C (64 °F to 82 °F), in relative humidity to 90 %, after a 5 minute warm up period.

Note

A "count" is the amount by which the least significant digit can vary.

DC Voltage Measurement (724 and 725)

Range	Resolution	Accuracy (% of Reading + Counts)
30 V (upper display)	0.001 V	0.02 % + 2
20 V (lower display)	0.001 V	0.02 % + 2
90 mV (lower display)	0.01 mV	0.02 % + 2
Temperature coefficient -10 °C to +18 °C, 28 °C to 55 °C: ±0.005 % of range per °C		

DC Voltage Measurement and Source (726)

Range	Minimum	Maximum	Accuracy, (% of Reading + Floor)
30 V (upper display)	0.000 V	30.000 V	0.010 % + 2 mV
20 V (lower display)	0.000 V	20.000 V	0.010 % + 2 mV
20 V (Source)	0.000 V	20.000 V	0.010 % + 2 mV
100 mV (Source)	0.000 V	100.000 mV	0.010 % + 10 µV
90 mV (Read)	0.000 V	90.000 mV	0.010 % + 10 µV
Maximum current output in voltage ranges is 1 mA with an output impedance of ≤ 1 Ω			

DC Voltage Source (724 and 725)

Range	Resolution	Accuracy (% of Reading + Counts)
100 mV	0.01 mV	0.02 % + 2
10 V	0.001 V	0.02 % + 2
Temperature coefficient -10 °C to +18 °C, 28 °C to 55 °C: ±0.005 % of range per °C		
Maximum load: 1 mA		

DC mA Measurement and Source (724 and 725) (Measurement only for 724)

Range	Resolution	Accuracy (% of Reading + Counts)
24 mA	0.001 mA	0.02 % + 2
Temperature coefficient -10 °C to +18 °C, +28 °C to 55 °C: ±0.005 % of range per °C		
Drive capability: 1000 Ω at 20 mA		

DC mA Measurement and Source (726)

Range	Minimum	Maximum	Accuracy, (% of Reading + Floor)
mA Read (Upper Display)	0.000	24.000	0.010 % + 2 μ A
mA Read (Lower Display)	0.000	24.000	0.010 % + 2 μ A
mA Source	0.000	24.000	0.010 % + 2 μ A
Maximum load on, mA source is 1 k Ω . With the HART resistor on, maximum load is 750 Ω . Voltage input range on simulate mode is 5 to 30 V			

Ohms Measurement (724 and 725)

Ohms Range	Accuracy, 4-Wire	Accuracy*, 2-Wire, or 3-Wire
0 Ω to 400 Ω **	$\pm 0.1 \Omega$	$\pm 0.15 \Omega$
400 Ω to 1.5 k Ω	$\pm 0.5 \Omega$	$\pm 1.0 \Omega$
1.5 Ω to 3.2 k Ω	$\pm 1 \Omega$	$\pm 1.5 \Omega$
Excitation Current: 0.2 mA Maximum input voltage: 30 V Temperature coefficient -10 $^{\circ}$C to +18 $^{\circ}$C, +28 $^{\circ}$C to 55 $^{\circ}$C: ± 0.005 % of range per $^{\circ}$ C		
* 2-wire: Does not include lead resistance. ** For Firmware V1.7 or lower, the lowest range is 15 Ω to 400 Ω . 3-wire: Assumes matched leads with a total resistance not exceeding 100 Ω .		

Ohms Measurement (726)

Ohms Range	Minimum	Maximum	Accuracy (% of Reading + Floor)
Ohms Read (low)	0.00	400.00	0.015 % + 0.05 Ω
Ohms Read (high)	400.0	4000.0	0.015 % + 0.5 Ω

Ohms Source (724 and 725)

Ohms Range	Excitation Current from Measurement Device	Accuracy
15 Ω to 400 Ω	0.15 mA to 0.5 mA	$\pm 0.15 \Omega$
15 Ω to 400 Ω	0.5 mA to 2 mA	$\pm 0.1 \Omega$
400 Ω to 1.5 k Ω	0.05 mA to 0.8 mA	$\pm 0.5 \Omega$
1.5 k Ω to 3.2 k Ω	0.05 mA to 0.4 mA	$\pm 1 \Omega$
Temperature coefficient -10 $^{\circ}$C to +18 $^{\circ}$C, 28 $^{\circ}$C to 55 $^{\circ}$C: ± 0.005 % of resistance range per $^{\circ}$ C		
Resolution		
15 Ω to 400 Ω	0.1 Ω	
400 Ω to 3.2 k Ω	1 Ω	

Ohms Source (726)

Ohms Range	Minimum	Maximum	Excitation Current from Measurement Device	Accuracy (% of Reading + Floor)
Ohms Source (low)	5.0	400.0	0.1 mA to 0.5 mA	0.015 % + 0.1 Ω
	5.0	400.0	0.5 mA to 3 mA	0.015 % + 0.05 Ω
Ohms Source (high)	400	1500	0.05 mA to 0.8 mA	0.015 % + 0.5 Ω
	1500	4000	0.05 mA to 0.4 mA	0.015 % + 0.5 Ω

Unit is compatible with smart transmitters and PLCs.
Frequency response is ≤ 5 mS

Frequency Measurement (725)

Range	Resolution	Accuracy
2.0 CPM to 1000.0 CPM	0.1 CPM	$\pm (0.05 \% + 1 \text{ count})$
1 Hz to 1000 Hz	0.1 Hz	$\pm (0.05 \% + 1 \text{ count})$
1.0 kHz to 10.0 kHz	0.01 kHz	$\pm (0.05 \% + 1 \text{ count})$

Sensitivity: 1 V peak-to-peak minimum
Waveform: Squarewave

Frequency Measurement (726)

Range	Minimum	Maximum	Accuracy (% of Reading + Floor)
CPM Read	2.0	1000.0	0.05 % + 0.1 CPM
Hz Read	1.0	1000.0	0.05 % + 0.1 Hz
kHz Read	1.00	15.00	0.05 % + 0.01 KHz

Frequency Source (725)

Range	Resolution	Accuracy (% of output frequency)
2.0 CPM to 1000.0 CPM	0.1 CPM	$\pm 0.05 \%$
1 Hz to 1100 Hz	1 Hz	$\pm 0.05 \%$
1.0 kHz to 10.0 kHz	0.1 kHz	$\pm 0.25 \%$

Waveform: 5 V p-p squarewave, -0.1 V offset

Frequency Source (726)

Range	Minimum	Maximum	Accuracy
CPM Source	2.0	1000	0.05 %
Hz Source	1.0	1000.0	0.05 %
kHz Source	1.0	10.00	0.25 %
	10.00	15.00	0.50 %

Millivolt Measurement and Source (724 and 725)

Range*	Resolution	Accuracy
-10 mV to +75 mV	0.01 mV	±(0.025 % + 1 count)
Maximum input voltage: 30 V		
Temperature coefficient -10 °C to +18 °C, 28 °C to 55 °C: ±0.005 % of range per °C		
*Select this function by pressing <input type="checkbox"/> TC. The signal is available at the thermocouple miniplug connector.		

Temperature, Thermocouples (724 and 725)

Type	Range (°C)	Measure and Source Accuracies (°C) Firmware <3.00	Measure and Source Accuracies (°C) Firmware ≥3.00
J	-200 to 0	1.0	1.0
	0 to 1200	0.7	0.7
K	-200 to 0	1.2	1.2
	0 to 1370	0.8	0.8
T	-200 to 0	1.2	1.2
	0 to 400	0.8	0.8
E	-200 to 0	0.9	0.9
	0 to 950	0.7	0.7
R	-20 to 0	2.5	2.5
	0 to 500	1.8	1.8
	500 to 1750	1.4	1.4
S	-20 to 0	2.5	2.5
	0 to 500	1.8	1.8
	500 to 1750	1.5	1.5
B	600 to 800	2.2	2.2
	800 to 1000	1.8	1.8
	1000 to 1800	1.4	1.4
L	-200 to 0	0.85	0.85
	0 to 900	0.7	0.7
U	-200 to 0	1.1	1.1
	0 to 400	0.75	0.75
N	-200 to 0	1.5	1.5
	0 to 1300	0.9	0.9
XK	-200 to 800	NA	0.8
BP	0 to 800	NA	1.5
	800 to 2500	NA	2.7
Resolution:			
J, K, T, E, L, N, U, XK, BP: 0.1 °C, 0.1 °F			
B, R, S: 1 °C, 1 °F			
* For Firmware V1.7 or lower, the type N TC has 400 °C as the upper limit.			

Temperature, Thermocouples (726)

Type	Minimum (°C)	Maximum (°C)	CJC ON Accuracy (°C)	CJC OFF Accuracy (°C)
J	-210	0.0	0.6	0.4
	0.0	800	0.4	0.2
	800	1200	0.5	0.3
K	-200	0.0	0.8	0.6
	0.0	1000	0.5	0.3
	1000	1372	0.7	0.5
T	-250	0.0	0.8	0.6
	0.0	400	0.4	0.2
E	-250	-100	0.8	0.6
	-100	1000	0.4	0.4
R	-20	0.0	2.0	1.8
	0.0	1767	1.4	1.2
S	-20	0.0	2.0	1.8
	0.0	1767	1.4	1.2
B	600	800	1.4	1.2
	800	1000	1.5	1.3
	1000	1820	1.7	1.5
C	0.0	1000	0.8	0.6
	1000	2316	2.5	2.3
L	-200	0.0	0.45	0.25
	0.0	900	0.4	0.2
U	-200	0.0	0.7	0.5
	0.0	600	0.45	0.25
N	-200	0.0	1.0	0.8
	0.0	1300	0.6	0.4
XK	-200	800	0.4	0.2
BP	0.0	800	1.1	0.9
	800	2500	2.3	2.1
			Range	Accuracy
Thermocouple in mV read			-10 mV to 75 mV	0.015 % + 10 μ V (% of Reading + Floor)
Thermocouple in mV source			-10 mV to 75 mV	0.015 % + 10 μ V (% of Reading + Floor)
Maximum current output in voltage ranges is 1 mA with an output impedance of $\leq 1 \Omega$ CJC error outside of $23 \pm 5 \text{ }^\circ\text{C}$ is $0.05 \text{ }^\circ\text{C} / \text{ }^\circ\text{C}$				

Temperature, RTD Ranges, and Accuracies (724 and 725)

Type	Range (°C)	Accuracy		
		Measure 4-wire (°C)	Measure* 2- and 3-wire (°C)	Source (°C)
Ni120	-80 to 260	0.2	0.3	0.2
Pt100-385	- 200 to 800	0.33	0.5	0.33
Pt100-392	-200 to 630	0.3	0.5	0.3
Pt100-JIS	-200 to 630	0.3	0.5	0.3
Pt200-385	-200 to 250	0.2	0.3	0.2
	250 to 630	0.8	1.6	0.8
Pt500-385	-200 to 500	0.3	0.6	0.3
	500 to 630	0.4	0.9	0.4
Pt1000-385	-200 to 100	0.2	0.4	0.2
	100 to 630	0.2	0.5	0.2

Resolution: 0.1 °C, 0.1 °F
Allowable excitation current (source): Ni120, Pt100-385, Pt100-392, Pt100-JIS, Pt200-385: 0.05 to 0.80 mA, Pt500-385: 0.05 to 0.80 mA; Pt1000-385: 0.05 to 0.40 mA
RTD Source: Addresses pulsed transmitters and PLCs with pulses as short as 5 ms. SN < 7624001 may need modification for pulses less than 15 ms.
*2-wire: Does not include lead resistance.
3-wire: Assumes matched leads with a total resistance not exceeding 100 Ω.

RTD Accuracy (Read and Source) (ITS-90) (726)

Range	Minimum	Maximum	Accuracy
Ni120 (672)	-80.00 °C	260.00 °C	0.15
Pt100 (385)	-200.00 °C	100.00 °C	0.15
	100.00 °C	300.00 °C	0.25
	300.00 °C	600.00 °C	0.35
Pt100 (3926)	600.00 °C	800.00 °C	0.45
	-200.00 °C	100.00 °C	0.15
	100.00 °C	300.00 °C	0.25
Pt100 (3916)	300.00 °C	630.00 °C	0.35
	-200.00 °C	100.00 °C	0.15
	100.00 °C	300.00 °C	0.25
Pt200 (385)	300.00 °C	630.00 °C	0.35
	-200.00 °C	100.00 °C	0.75
	100.00 °C	300.00 °C	0.85
Pt500 (385)	300.00 °C	630.00 °C	0.95
	-200.00 °C	100.00 °C	0.35
	100.00 °C	300.00 °C	0.45
Pt1000 (385)	300.00 °C	630.00 °C	0.55
	-200.00 °C	100.00 °C	0.15
	100.00 °C	300.00 °C	0.25
CU10	300.00 °C	630.00 °C	0.35
	-10.00 °C	250.00 °C	1.8

Notes: Read Accuracy is based on 4-wire input. For 3-wire input, add $\pm 0.05 \Omega$ assuming all three RTD leads are matched.

Source Accuracy is based on 0.5 to 3.0 mA excitation current (0.1 mA for pt1000 range)

Resolution: 0.1 °C, 0.1 °F

Allowable excitation current (source): Ni120, Pt100-385, Pt100-392, Pt100-JIS, Pt200-385: .05 to .80 mA, Pt500-385: 0.05 to 0.80 mA; Pt1000-385: 0.05 to 0.40 mA

RTD Source: Addresses pulsed transmitters and PLCs with pulses as short as 5 ms. SN < 7624001 may need modification for pulses less than 15 ms.


Loop Power Supply

Voltage: 24 V

Maximum current: 22 mA

Short circuit protected

Pressure Measurement (725 and 726)

Range	Resolution	Accuracy	Units	Mode (726 Only)
Determined by pressure module	4 digits	Determined by pressure module	psi, inH ₂ O@4 °C, inH ₂ O@20 °C, kPa, cmH ₂ O@4 °C, cmH ₂ O@20 °C, bar, mbar, kg/cm ² , mmHg, inHg	Pushing  for 3 seconds stores present pressure value as an offset and subtracts it from the displayed value.

Pulse Read and Pulse Source (726)

Pulse	Min	Max	Accuracy	Frequency
Source	1	10,000	1 Count	2 CPM to 10 kHz
Read		100,000		

Pressure Units Availability (725)

Unit	Availability
psi	Available on all pressure ranges
inH ₂ O	All ranges through 3000 psi
cmH ₂ O	All ranges through 1000 psi
bar	15 psi and above
mbar	All ranges through 1000 psi
kPa	Available on all pressure ranges
inHg	Available on all pressure ranges
mmHg	All ranges through 1000 psi
kg/cm ²	15 psi and above

General Specifications

Operating temperature 724 and 725 726	-10 °C to 55 °C -10 °C to 50 °C
Storage temperature	- 20 °C to 70 °C (limited by battery storage specifications)
Stability	± 0.005 % of range/°C outside of 23 ± 5 °C
Operating altitude	3000 meters above mean sea level
Relative Humidity (% RH operating without condensation)	90 % (10 to 30 °C) 75 % (30 to 40 °C) 45 % (40 to 50 °C) 35 % (50 to 55 °C) uncontrolled < 10 °C
Vibration	Random, 2 g, 5 Hz to 500 Hz
Safety and EMC	IEC 61010-1, IEC 61010-2-030, Pollution Degree 2 IEC 61326-1 (Portable), CISPR 11 (Class A)
Power requirements	4 AA alkaline batteries
Protection Class	Pollution Degree II
Electromagnetic Compatibility	Applies to use in Korea only. Class A Equipment (Industrial Broadcasting & Communication Equipment ^[1] ^[1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.
Size	96 x 200 x 47 mm (3.75 x 7.9 x 1.86 in)
Weight	650 g (1 lb, 7 oz)

Cleaning the Calibrator



Warning

To avoid electric shock or damage to the Calibrator, never allow water inside the Calibrator's case.


If the Calibrator requires cleaning, wipe it down with a cloth that is lightly dampened with water or a mild detergent.

Do not use aromatic hydrocarbons, chlorinated solvents, or methanol-based fluids when cleaning the Calibrator. To avoid damaging the case, never apply solvents to the Calibrator.

Replacing the Batteries

Warning

To avoid electric shock, remove the test leads from the Calibrator before opening the battery door. Close and latch the battery door before using the Calibrator.

To avoid false readings, which can lead to possible electric shock or personal injury, replace the batteries as soon as the low battery indicator () appears.

When replacing the batteries, always use four new AA batteries. Never mix new and used batteries in the Calibrator.

Note

Fuses are only in 724 and 725 Version 2.X and lower.

Four AA alkaline batteries (ANSI/NEDA 15A or IEC LR6) are used to power the Calibrator. To replace the batteries, refer to Figure 1 and do the following:

1. Turn the Calibrator off, remove the test leads from the terminals, and hold the Calibrator face down.
2. Using a flat-blade screwdriver, turn the battery door screws 1/4-turn counterclockwise and remove the battery door.
3. Remove the batteries, then install new batteries. Be sure to follow the polarity markings shown in the battery compartment.
4. Replace the battery door and secure it by turning the screws 1/4-turn clockwise.

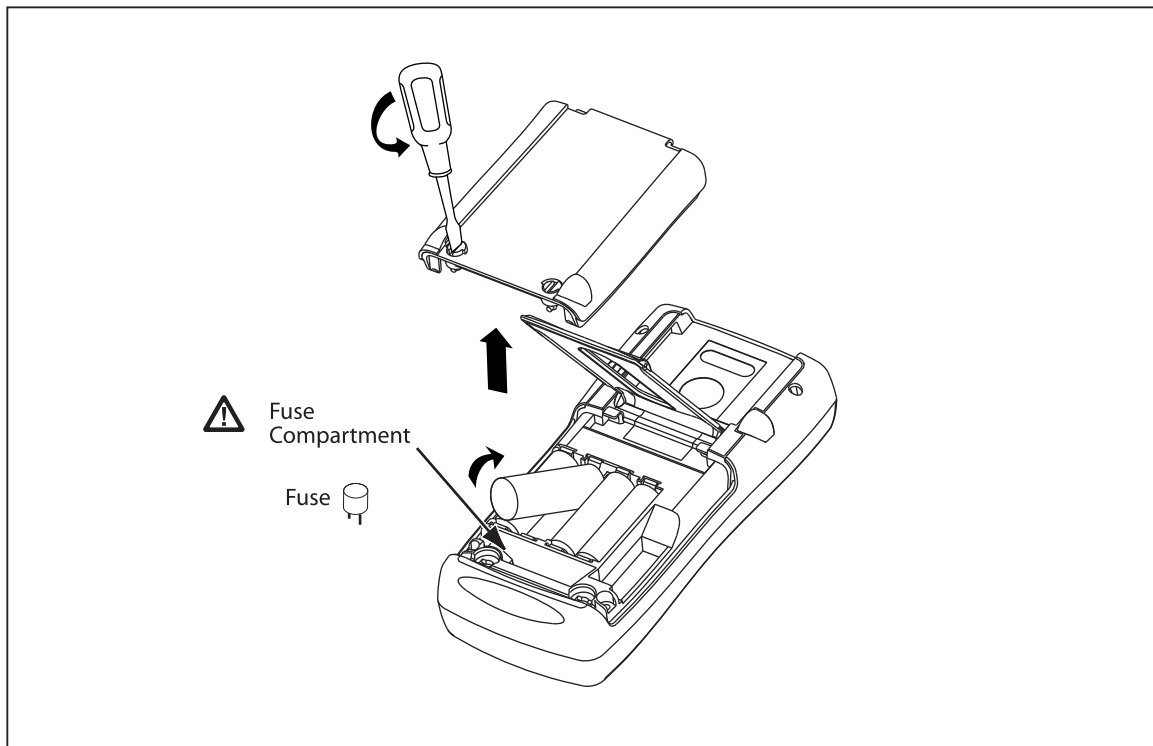


Figure 1. Replacing the Batteries and Replaceable Fuses

aal01f.eps

Fuses



To avoid electrical shock:

- **Remove the test leads from the calibrator before opening the battery door. Close and latch the battery door before using the calibrator.**
- **Use only the specified replacement fuses listed under “Replaceable Parts”.**
- **Do not allow water into the case.**

Note

724 and 725 Version 2.x and lower.

Over time, the input protection has been modified to increase reliability. There will either be self-resetting fuses, or replaceable fuses in sockets. The self-resetting fuses open when heated by a current overload, and close when they cool down. When an input's fuse is open, the input's functions will not work.

The time required for a self-resetting fuse to reset depends on the magnitude of the overload. If a self-resetting fuse does not reset, return the Calibrator to an authorized service center for repair.

If a replaceable fuse has been damaged, it needs to be replaced. The fuses can be removed and checked for resistance. A value of $< 10 \Omega$ is good.

The calibrator comes equipped with three 0.2 A 250 V socketed fuses.

- Problems while measuring with the right jacks indicate that F3 may have opened.
- Problems while measuring or sourcing with the center jacks or the TC jacks indicate that F2 may have opened.
- If you can't measure or source current with the left jacks, F4 may have opened.

To access the fuses, refer to instructions under “Replacing the Batteries”. The fuse compartment is located below the battery compartment. Use needle-nosed pliers to remove them and test them with a multimeter. Replace the fuse with the proper replacement fuse and follow the directions for reassembling the Calibrator. Refer to Figure 1.

Remote Control Interface (725 and 726)

The Calibrator's serial interface and remote control commands let you use a PC to remotely select Calibrator functions and read the Calibrator's display. This remote interface is especially useful if you want to write your own calibration software.

The 726 and 725 with V3.0 and higher firmware remote control interface is always active.

To activate the 725 with firmware V2.xx or lower remote control interface, proceed as follows:


1. Turn off the UUT; then use the Fluke 700SC serial interface cable to connect the UUT to a serial port on the PC. Push and hold 0% when the unit is turned on to find the firmware version of a 72x. Continue to hold during the 30 V warning for about 5 seconds. Then the firmware version is shown in the right-hand section of the display. If the unit does not show the 30 V warning or a firmware version, it is an early V1.xx firmware.
2. Start the terminal communication software on the PC. Create a new connection with the following properties:
 - Bits per second: 9600
 - Data bits: 8
 - Parity: None
 - Stop bits: 1
 - Flow control: None
 - Local echo on
3. Hold down the Calibrator's  button while turning the Calibrator on.
4. Use the commands given in Tables 2 through 4 to remotely control the Calibrator.

Table 2. Upper Display Remote Commands (725 with V2.xx and lower)

Remote Command	Description
i	mA measurement
L	mA Loop Power
E	Voltage measurement
B	Single broadcast of the most recent upper display value and units
(Single broadcast of most recent upper display value without header or units

Table 3. Lower Display Remote Commands (725)

Remote Command	Description
A	mA measurement
a	mA source
I	mA 2W Sim
V	Voltage measurement
v	Voltage source
M	mV measurement
m	mV source
K	kHz measurement
k	kHz source
H	Hz measurement
h	Hz source
P	CPM measurement
p	CPM source
O	Ohms measurement (default 2W)
o	Select Ohms source
W	2-wire measurement (Ohms and RTDs)
X	3-wire measurement (Ohms and RTDs)
Y	4-wire measurement (Ohms and RTDs)
T	Thermocouple measurement (default Type J). Use "S" command to select a sensor type.
t	Thermocouple source (default Type J). Use "S" command to select a sensor type
C	Selects Centigrade (T/C-RTD)
F	Selects Fahrenheit (T/C-RTD)
R	RTD measurement mode (default Pt100 385). Use "S" command to select a sensor type
r	RTD measurement mode (default Pt100 385). Use "S" command to select sensor type.
u	Increment display source value
d	Decrement display source value
<	The < arrow key PC keyboard selects left arrow on 725
>	The > arrow key PC keyboard selects right arrow on 725
0-9 -. <CR>	Enter a source value using ASCII characters 0,1,2,...9,-,.terminated by <CR> (carriage return) The 725 can receive a maximum of 10 characters prior to the carriage return.
b	Single Broadcast of most recent lower display value and units
)	Single broadcast of most recent lower display value without header or units.

Table 4. Remote Commands for Sensor Selection (725 with V2.xx and lower)

Serial Input	Selection Entry		RTD Type
	No.	Thermocouple Type	
S	1	J	Pt100 (3926)
	2	K	Pt100 (385)
	3	T	Pt100 (3916)
	4	E	Pt200 (385)
	5	R	Pt500 (385)
	6	S	Pt1000 (385)
	7	B	Ni120
	8	L	-
	9	U	-
	A	N	-
	B	mV	-