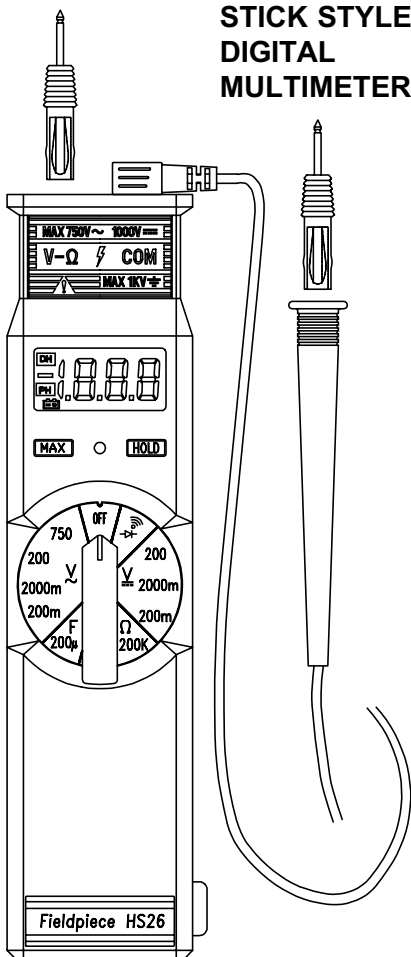
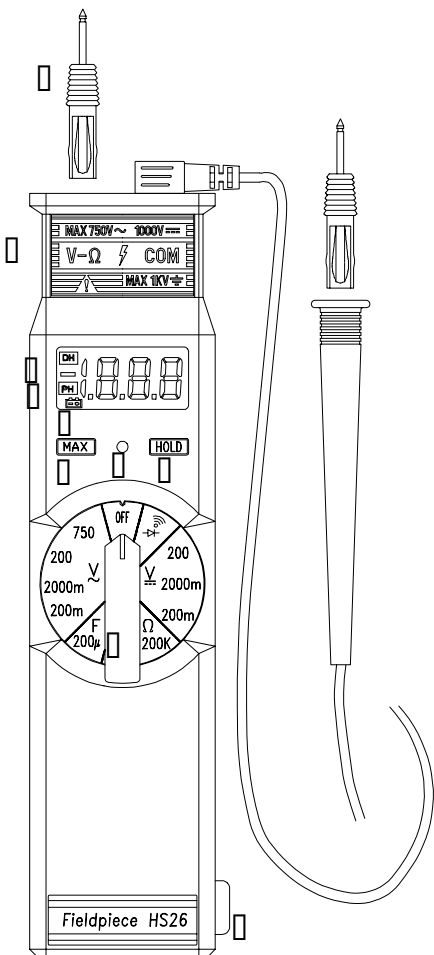


Fieldpiece




Model HS26 HEAVY DUTY STICK STYLE DIGITAL MULTIMETER



DISPLAY AND CONTROLS



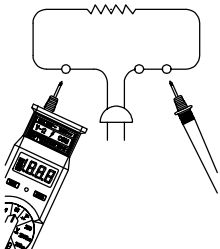
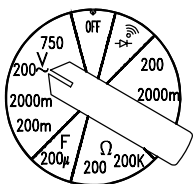
- Removeable test tip. Both input terminals accept standard sleeved banana plugs used on the removeable test tips or test leads.
- Non-slip rubberized finger pad.
- "Display Hold" indicator.
- "Max Hold" indicator
- Low battery indicator.
- "MAX" holds highest reading that is displayed. This function is intended to give a similar reading to a typical analog meter, although analog meters can vary significantly when measuring max current. Press again to return to normal operating mode.
- High voltage warning red LED flashes when voltages are measured over 30V. Beeper sounds intermittently.
- "HOLD" freezes display. Press again to normal operating mode.
- Single rotary switch for function and range selection:

V 	Volts DC
V 	Volts AC
F	Farads (capacitance)
Ω	Ohms
	Continuity beeper or diode test

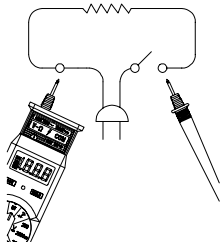
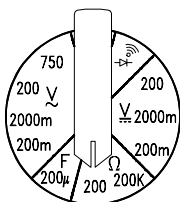
- Test lead holder.

MULTIMETER SETUP

VOLTS

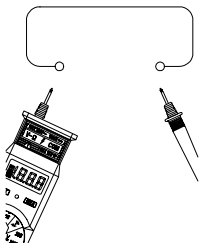
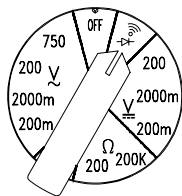


OHMS

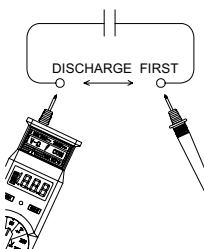
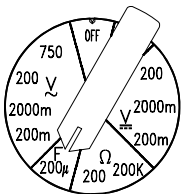


For DC Volts, set the meter to DC Volts instead of AC Volts.

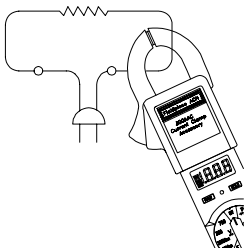
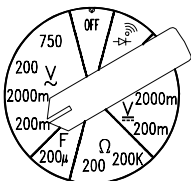
CONTINUITY



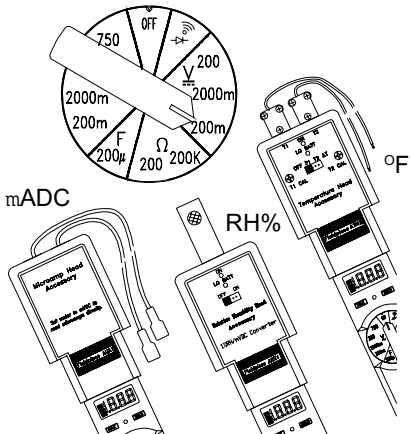
CAPACITANCE



AC AMPS



ACCESSORY HEADS



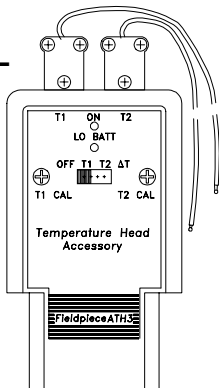
RANGE SELECTION

Choose range just above value you expect. If display reads overload ("OL") select a higher range.

OPTIONAL ACCESSORIES

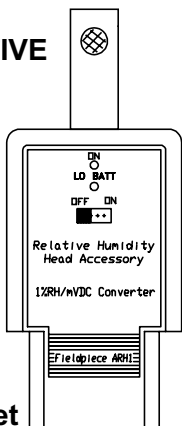
Model ATH3 DUAL TEMPERATURE HEAD

Converts any HS "Stick" series meter to a one piece dual-input temperature meter. Calibration pots on faceplate for in-field ice bucket calibration to 1 degree accuracy. Includes two K-type thermocouples.

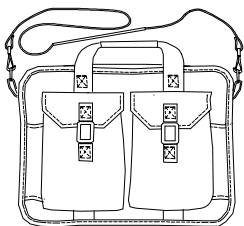


Model ARH1 RELATIVE HUMIDITY HEAD

Displays relative humidity directly, 10% RH to 95% RH. There's a chart on the back that converts relative humidity and ambient temperature to wet bulb.



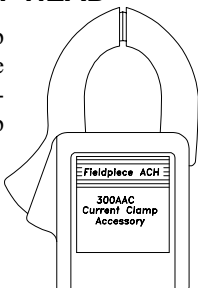
Model ANC3 Cordura Nine Pocket Instrument/Tool Briefcase



Four clear front interior pockets for up to two instruments and four accessory heads. Two flat clear front interior pockets for test leads etc. One back zippered pocket for paperwork. All pockets available from top.

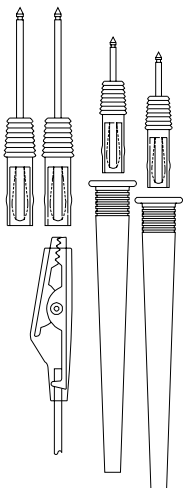
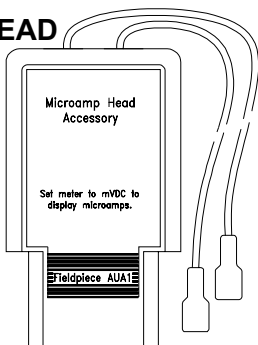
Model ACH 300A AC CURRENT CLAMP HEAD

Measures currents up to 300AAC. Fits over the HS20 series meter to convert it to a digital clamp meter.



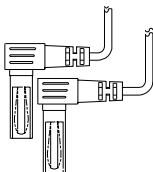
Model AUA1 MICROAMP HEAD

Display DC microamps with resolution to one tenth of a microamp.



Model ADK7 DELUXE TEST LEAD KIT

Deluxe pair of test leads with two pair of replaceable tips, one short and one long. Also includes alligator clip for grounding.



FOR YOUR SAFETY...

The Fieldpiece HS series was designed in accordance with IEC Publication 348, Class II, Safety Requirements for Electronic Measuring Apparatus for use by trained professional technicians, and has been supplied in a safe condition. Fire retardant plastics, metal oxide varistors (MOVs), and "O" ring seals have been used for protection. Electricity can cause severe injury or death even with low currents and voltages. Read this information before using the meter and follow all safety practices and operating instructions for the equipment being tested.

All Voltage Measurements

To avoid electrical shock hazard and/or damage to the meter, do not apply more than 1000VDC or 750VAC between earth ground and any input terminal. Use caution when measuring high voltage.

AC Measurements

Measurement of AC power sources with inductive loads or AC power sources during electrical storms may result in extremely high-voltage, high-energy transients that could damage the meter and expose the user to a dangerous shock hazard. Do not use during electrical storms.

Resistance and Capacitance Measurements

Turn off the power to the circuit or device being measured before taking measurements. Otherwise, damage may result. Fully discharge all capacitors before testing.

General

Inspect the test leads for damage to the insulation or exposed metal. Replace if suspect. When disconnecting from a circuit, disconnect the "RED" lead first, then the common lead. Work with others. Use one hand for testing.

WARNING!

**UNDER NO CIRCUMSTANCES
EXCEED THESE RATINGS:
750VAC or 1000VDC on voltage
ranges, 500V AC or DC on
ohms, capacitance, logic, and
continuity ranges.**

**FULLY DISCHARGE CAPACITORS
BEFORE TESTING!**

**DO NOT USE THE ACH 300A
CLAMP HEAD ON
UNINSULATED CONDUCTORS
ABOVE 600VAC/DC.**

**DISCONNECT THE METER
FROM THE CIRCUIT BEFORE
TURNING ANY INDUCTOR OFF,
INCLUDING MOTORS, TRANS-
FORMERS, AND SOLENOIDS.**

GENERAL SPECIFICATIONS

Display HOLD: "HOLD" button "locks" reading. Any range, any function.

MAX hold: "MAX" button displays the largest reading. Any range.

Dangerous voltage indication: red LED blinks and beeper sounds intermittently

Continuity beeper: (<150W) indicated by a continuous "beep" within 100 msec.

Low battery indicator in the LCD.

Heavy duty: Case design of hi-impact, fire retardant yellow Valox, fully "O" ring sealed. Meets MIL-T-28800 class II type A. 7.2"x1.9"x1", 185 grams.

Overload protection:

	Protective component	Specification	Warning
Volts steady state	Long creep and strike dimensions & resistors	1000VDC or 750VAC	LED blinks and beeper beeps for voltage over 30V
Volt transient	Metal oxide varistors (MOVs)	6 kV/10 μ s	
Ohms, cont, cap.	PTC	500V DC or ACRMS	

Temperature: Operating 32°F to 130°F @<70%RH; Storage -0°F to 140°F with batteries removed

Auto-power off: Approx. 1 hour.

Measurement rate: 2.5 times/sec.

LCD Display: (.375" high, 3.5 digits) is direct drive for maximum contrast.

Calibration cycle: 1 year.

Battery life: >300 hours typical.

Battery type: 9V NEDA 1604 type.

Functional Specifications

Accuracy specifications good for $75^{\circ}\text{F}\pm 5^{\circ}\text{F}$, relative humidity less than 70%. Accuracy specified as $\pm\%$ of reading \pm number of least significant digits. For example if the actual parameter is 100 and the accuracy is specified as $1\%\pm 3$, the measurement could be as high as 101.3 or as low as 98.7 on the 200 scale.

DC Voltage

Ranges: 200mV, 2000mV, 200V

Resolution: 0.1mV on 200mV range

Accuracy: $0.5\%\pm 1$

Input impedance: 10 M Ω

Normal mode rejection ratio: >50 dB
@ >49 Hz

Common mode rejection ratio: >120 dB
up to 1000VDC

AC Voltage

Ranges: 200mV, 2000mV, 200V, 750V

Resolution: 0.1mV on 200mV range

Accuracy: $1.2\%\pm 3$ @ 50Hz to 500Hz,
 $2.0\%\pm 5$ @ 500Hz to 1KHz, $2.0\%\pm 5$ @
50Hz to 500Hz on 750VAC range

Input impedance: 10M Ω

Conversion type: Average measuring,
rms indicating (sine wave).

Resistance

Ranges: 200 Ω , 200K Ω

Resolution: 0.1 Ω on 200 Ω range

Accuracy: $1\%\pm 1$

Open circuit voltage: <0.3 V, <3 V on
200 Ω range

Test current: <2 mA

Capacitance

Range: 200 μ F

Accuracy: $3\% \pm 5$

Tested at: 3V/42Hz

Diode test

Range: 2K Ω

Resolution: 1mV

Test current: 1.0 \pm 0.3mA

Open circuit voltage: 3.2V max

Measures forward voltage drops across diodes and transistor junctions. Connect red test probe to anode and black test probe to cathode. Shunting resistors under 1Kohm must be removed from the circuit before taking the measurement. Read forward voltage drop on digital display. Reverse the test probes connections to the diode to perform a reverse-leakage test of the diode. A "1" (overrange) indicates a good diode.

DIODE TYPE	FWD OK	REV OK	SHORT	OPEN
Silicone	0.6V	"1"	0.0V	"1"
Germanium	0.3V	"1"	0.0V	"1"

CALIBRATION

It is recommended that the multimeter be calibrated once each year and/or after it is repaired. Perform calibration at 77 \pm 5 $^{\circ}$ F and a relative humidity of 70% or less.

1. Allow multimeter to stabilize for at least thirty minutes.
2. Remove back cover.
3. Select the 2000mV DC range on the meter. Set the output of the DC calibrator for 1.900V \pm 0.02% and connect it to the V- \bar{w} and COM input connectors.
4. Use a small flat-tipped screw driver to adjust the pot located below the "HOLD" button (the only adjustable pot on the board) to obtain a reading of 1.900 in the digital display.
5. Disconnect the DC calibrator from the multimeter and replace the back cover.


USER MAINTENANCE

Regular operator maintenance of the multimeter consists of cleaning case and window, and battery replacement. All other repairs must be performed by a factory service center or other qualified instrument service personnel.

Cleaning case and window

Periodically wipe the case with a damp cloth and detergent, allow to dry completely before using; do not use abrasives or solvents.

Battery Replacement

When the multimeter displays the "" the battery must be replaced to maintain proper operation.

WARNING !

TO PREVENT ELECTRICAL SHOCK HAZARD, TURN OFF THE MULTIMETER AND DISCONNECT TEST LEADS BEFORE REMOVING THE BACK COVER

1. Disconnect the test leads and turn the meter off. Remove the test leads from the front terminals.
2. Position the meter face down. Remove the screws from the case bottom.
3. Lift the end of the case bottom until it gently unsnaps.
4. Lift the battery from the case top, and carefully disconnect the battery connector leads.
5. Snap the battery connector leads to the terminals of a new battery and re-insert the battery into the case top. Make sure that the battery leads do not become pinched between the case bottom and case top.
6. Replace the main O-ring seal.
7. Replace the case top. Reinstall screws.

TROUBLESHOOTING

The Fieldpiece HS series has been designed to be accurate, reliable and easy to use. However, it is possible that you may experience difficulties during operation. If there appears to be any kind of problem during use of the multimeter, please perform the following steps to help determine the source:

1. Review and comply with the operating instructions section of this instruction manual.
2. Test the battery, replace as necessary.
3. Check to see that the Function/Range Switch is in the correct position for the type of parameter and range of values being measured, and that the measurement value is within the capability of the multimeter.
4. Inspect the test leads for breaks or cracks, and ensure that the test leads are inserted fully into the input connectors.

If the preceding four steps fail to resolve the problem, please refer to the "Obtaining Service" section.

OBTAINING SERVICE

Send the meter freight prepaid to:

Fieldpiece Instruments
580 West Central Avenue, Suite A0
Brea, CA 92821

For warranty service also send proof of date and location of purchase. For out-of-warranty service send \$40, check or money order. Do not send cash. The meter will be completely repaired or replaced, at the option of Fieldpiece, and returned to you via least cost transportation. Response time is typically 24 hours after receipt of meter.

TWO YEAR LIMITED WARRANTY

This meter is warranted to the original purchaser against defects in material or workmanship for a period of two (2) years from the date of purchase. During the warranty period, Fieldpiece Instruments will, at its option, replace or repair the defective unit, subject to verification of the defect or malfunction.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the instrument.

ANY IMPLIED WARRANTIES ARISING OUT OF THE SALE OF A FIELDPIECE INSTRUMENT'S PRODUCT, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE ABOVE. THE MANUFACTURER SHALL NOT BE LIABLE FOR LOSS OF USE OF THE INSTRUMENT OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES, EXPENSES, OR ECONOMIC LOSS, OR FOR ANY CLAIM OR CLAIMS FOR SUCH DAMAGE, EXPENSES, OR ECONOMIC LOSS.

State laws vary, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



580 West Central Avenue, Suite A
Brea, CA 92821
(714)580-9060
Fax: (714)580-9069