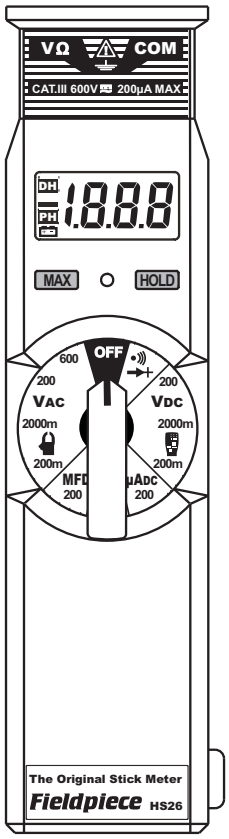
THE ORIGINAL STICK METER MODEL: HS26



Fieldpiece

OPERATOR'S MANUAL

Introduction

The HS26 is smaller, simpler and more rugged than it's bigger brothers, and still works with all Fieldpiece accessory heads. All Fieldpiece accessory heads slide on the top, enabling the user to test a wide variety of parameters. All this plus the removable tip test leads make safe one-handed testing a snap.

For Your Safety

General: Disconnect the test leads before opening the case. Inspect the test leads for damage to the insulation or exposed metal. Replace if suspect. Never ground yourself when taking electrical measurements. Do not touch exposed metal pipes, outlets, fixtures, etc., which might be at ground potential. Keep your body isolated from ground by using dry clothing, rubber shoes, rubber mats, or any approved insulating material. When disconnecting from a circuit, disconnect the "RED" lead first, then the common lead. Work with others. Use one hand for testing. Turn off power to the circuit under test before cutting, unsoldering, or breaking the circuit. Keep your fingers behind the finger guards on the probes. Do not measure resistance when circuit is powered. Do not apply more than rated voltage between input and ground.

Voltage tests: Do not apply more than 600VDC or 600VAC to V ranges.

AC tests: Disconnect the meter from the circuit before turning any inductor off, including motors, transformers, and solenoids. High voltage transients can damage the meter beyond repair. Do not use during electrical storms.

Maintenance

Clean the exterior with clean dry cloth. Do not use liquid.

Battery replacement: When the multimeter displays "[+ -]" the battery must be replaced. Disconnect and unplug leads, turn meter off, and remove the battery cover. Replace the battery with a NEDA type 1604 9V battery.

Symbols Used

- ⚠ Caution, refer to manual.
- ⏚ Ground
- ⧈ Double insulation
- ~ Alternating current
- ⎓ Direct current

⚠ WARNINGS ⚠

DISCONNECT AND UNPLUG TEST LEADS before opening case.

CE

This instrument complies with the requirements of the following European Community Directives: 89/336/EEC (Electromagnetic Compatibility) and 73/23/EEC (Low Voltage) as amended by 93/68/EEC (CE Marking).

SPECIFICATIONS

Display: 3½ digit liquid crystal display (LCD) with a maximum reading of 1999.
Overrange: "OL" mark indication.
Auto power off: approx 60 minutes.
Operating environment: 32 to 122°F (0 to 50°C) at <70% R.H.
Storage temperature: -4 to 140°F (-20 to 60°C), 0 to 80% R.H. with battery removed.
Accuracy: Specifications good in ambient conditions of 73°F ±9°F (23°C ±5°C), <75% relative humidity.
Temperature Coefficient: 0.1×(specified accuracy) per °F/°C. (32 to 64°F(0 to 18°C), 82 to 122°F(28 to 50°C)).
Power: Single standard 9-volt battery, NEDA 1604, JIS 006P, IEC 6F22.
Battery life: 150 hours typical with carbon zinc, 300 hours typical with alkaline.
Accessories: 400AAC current clamp, one pair test leads, one pair alligator clips, carrying case, 9V battery (installed), and operating instructions.

AC Volts (50Hz - 500Hz)

Ranges: 200mV, 2000mV, 200V, 600V
Resolution: 0.1mV
Accuracy: ±(1.2% rdg + 3 dgts)
±(2.0% rdg + 5 dgts) on 600V range
Input impedance: 1MΩ
Overload protection: 600VDC or AC rms, 600VDC/AC rms 15 sec on 200mV range
Transient protection: 6kV for 10µ sec

Diode Test

Test current: ~1mA
Accuracy: ±(1.5% rdg + 3 dgts)
Open circuit volts: 3.0VDC typical
Overload protection: 500VDC or AC rms

Continuity

Audible indication: Less than 100Ω
Visual indication: Green LED will be on continuously.
Response time: 100ms
Overload protection: 500VDC or AC rms

Capacitance (MFD)

Range: 200µF
Resolution: 0.1µF
Test frequency: 42Hz
Test voltage: <3.0V
Accuracy: ±(3% rdg + 5 dgts)
Overload protection: 500VDC or AC rms

DC Current

Ranges: 200 µA
Resolution: 0.1µA
Accuracy: ±(1.0% rdg + 2 dgts)
Voltage burden: 1V
Overload protection: 500VDC or AC rms

DC Volts

Ranges: 200mV, 2000mV, 200V
Resolution: 0.1mV
Accuracy: ±(0.5% rdg + 1 dgt)
Input impedance: 1MΩ
Overload protection: 600VDC or AC rms, 600VDC/AC rms 15 sec on 200mV range
Transient protection: 6kV for 10µ sec

Resistance

Ranges: 200Ω
Resolution: 0.1Ω
Accuracy: ±(1.0% rdg + 3 dgts)
Open circuit volts: 3.0VDC typical
Overload protection: 500VDC or AC rms

Safety

Conforms to **UL**61010-1, **CE** (EN61010-1), CATIII 600V, Class II, Pollution Degree 2, Indoor Use Only.
CATIII: Is for measurements performed in the building installation.
EMC: Conforms to EN61326-1.

Limited Warranty

This meter is warranted against defects in material or workmanship for one year from date of purchase. Fieldpiece will replace or repair the defective unit, at its option, subject to verification of the defect.

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 from the sale of a Fieldpiece product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. Fieldpiece 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 of such damage, expenses, or economic loss.

State laws vary. The above limitations or exclusions may not apply to you.

Obtaining Service

Call Fieldpiece Instruments for one-price-fix-all warranty service pricing. Send check or money order for the amount quoted. Send the meter freight prepaid to Fieldpiece Instruments. Send proof of date and location of purchase for in-warranty service. The meter will be repaired or replaced, at the option of Fieldpiece, and returned via least cost transportation.

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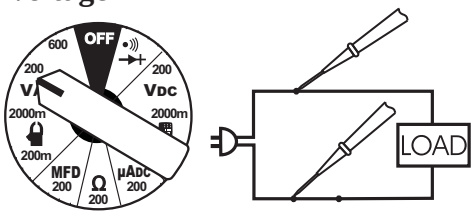
Designed in USA
MADE IN TAIWAN

Selecting Ranges

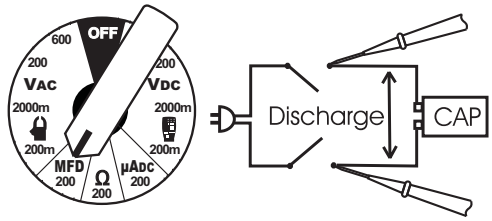
For DC voltage, set the meter to the VDC parameter instead of VAC (shown below).

For all ranges choose a range just above the value you expect. If display reads “OL” (overload), select a higher range. If display shows less than three numbers, select a lower range for better resolution.

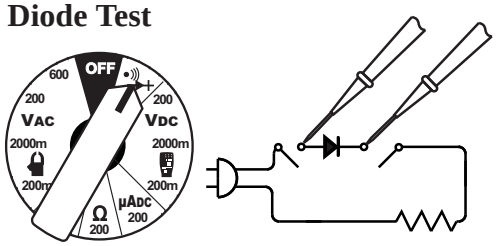
Voltage



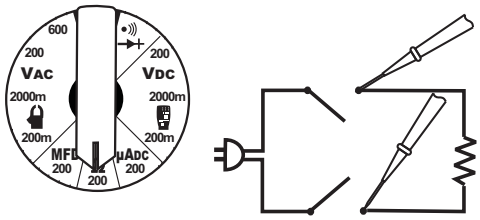
Capacitance



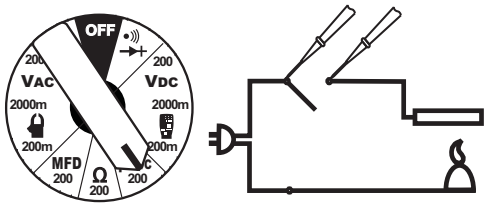
Diode Test



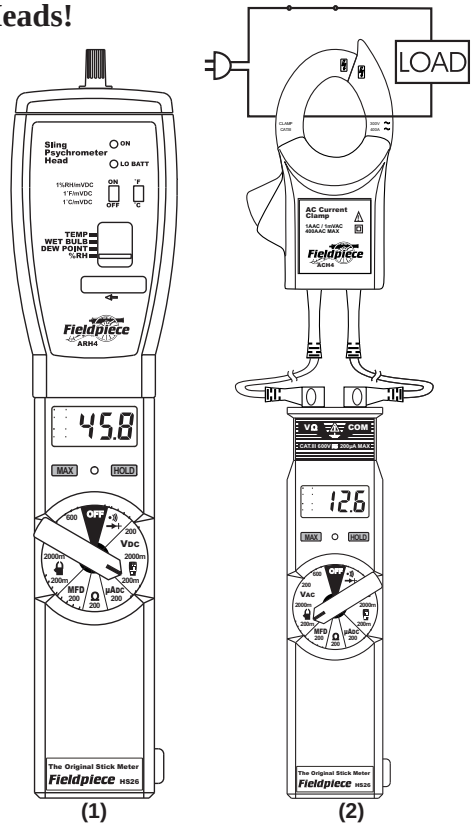
Resistance



Flame rectification



Works With Fieldpiece Accessory Heads!



Connect to Fieldpiece accessory heads by simply attaching them to the top of meter **(1)** or attach remotely through leads **(2)**. For most heads, move dial to mVDC range shown **(1)**. For the AAC clamp (ACH4), move dial to VAC range **(2)**.

Hi Voltage Indicator

In any VAC/VDC range, when you touch a voltage greater than 30V, the beeper will beep and the red Hi-V LED will blink. BE CAREFUL!

Capacitance

For motor-start and motor-run capacitors. Disconnect the capacitor from power first. Short the terminals to discharge the capacitor. Disconnect any resistors that might be between the terminals of the capacitor.

MAX and Data HOLD

Press MAX to store highest reading on the display. Press MAX again to return display to real-time reading. Press HOLD to hold current data on the display.

Silicone Leads

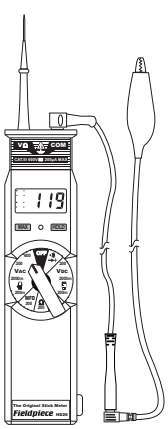
Because the wire insulation is silicone the leads will stay flexible in cold weather and will not melt if bumped by a soldering iron.

Safe One-Handed Testing

When testing electrical circuits with two hands, there is a risk that a careless mistake may complete a circuit through your body and potentially cause death or injury.

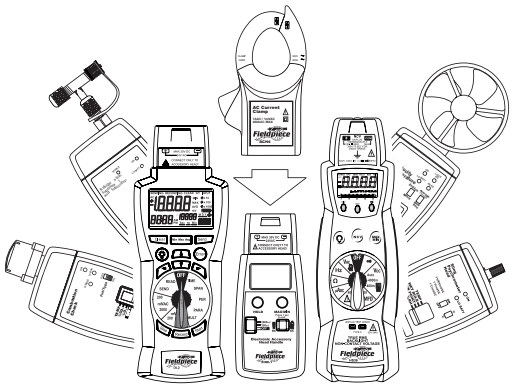
First disconnect the top half of red test lead and plug tip directly into Volts jack. Plug alligator clip lead into the COM jack (you may need to use a lead with tip removed as an extension). Then clip the alligator lead to one test point.

With the black alligator lead secured, you’re now free to hold the meter with one hand and touch other test points with the probe tip.



Modular Expandability

Modular expandability is the ability for accessory heads and meters to change configurations to match the various needs of an HVAC/R technician.



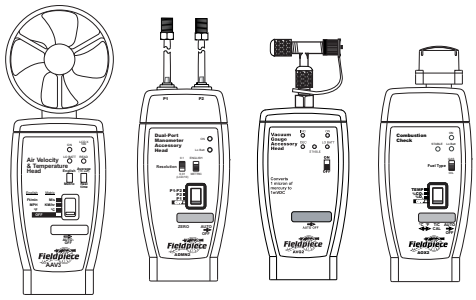
Accessory heads (the sensors) send a mV signal, which represents the value of the parameter being tested. Heads can attach directly to the top of a Stick meter, DL3 data logger, or EHDL1. They can also plug into any meter with mV ranges using ADLS2 leads.

Accessory Heads

Accessory heads, like the included ACH4, are the sensors of multiple parameters measured by technicians every day. They plug into a mV range (depending on the head) of a multimeter. The multimeter will display whatever the head is measuring. Instead of having to purchase and carry a separate instrument for each parameter, a technician can use multiple heads and a single multimeter to do the job.

Here are four of the many heads available:

AAV3	Air Velocity and Temperature
ADMN2	Dual-Port Manometer
AVG2	Digital Vacuum Gauge
AOX2	Combustion Check



AAV3 ADMN2 AVG2 AOX2

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