SPERRY Form #314

Automatic Circuit Breaker Finder
With Multitest™ Functions

The task of locating AC circuits is now made quick and easy. No more guessing or trial and error when it comes to locating the correct circuit breaker supplying power to an AC outlet or lighting fixture.

CAUTION:
Use extreme care when working around AC circuits, severe shock hazards exist. Your Automatic Circuit Breaker Finder is not intended to replace good electrical practices, but to assist you in knowing how your home or work-place is wired. A qualified electrician should perform all corrective work. Follow applicable electrical codes. If used on a circuit controlled by a dimmer, turn the dimmer to the highest on position. Do not use in cardiac care areas. Always double check with a voltage tester/meter that the correct breaker or fuse was turned off before performing any work.

BATTERY INSTALLATION:
Remove battery cover. Connect battery as shown in Fig. A. Insert new battery into battery compartment and re-install battery cover.

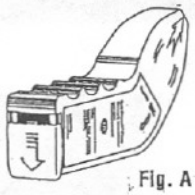
Fig. A

OPERATION:

Self-Test
Turn the receiver's power switch to the on position. The unit will perform a self-test to ensure proper operation.

Low Battery Detection
After performing the self-test the receiver will verify the voltage of the 9Vdc battery. If the battery voltage is below 7.3 volts, the receiver will beep three times and turn itself off. Remove the old battery, and replace it with a standard 9Vdc battery.

Idle Mode
Provided the battery is good, the receiver will enter the idle mode. The receiver's LED will glow yellow and the receiver will continually check for an active signals.

Non-Contact Voltage Test
Point the receiver's nose towards a live AC receptacle or power cord. Once an AC Voltage field of > 50V is sensed, the receiver will switch to Voltage Sensor mode. The receiver's LED glows red, and steadily beeps on/off. The beeping speed will increase when the receiver is moved closer to the AC power source, and slows when the receiver is moved further away. Once the receiver senses a signal from the transmitter, it will stay in the circuit identifier mode. To leave this mode and use the receiver for AC Voltage detection, turn the power switch off, then on again.

Locating A Circuit Breaker or Fuse:
1. Verify the proper AC voltage level at the wall outlet with an voltage tester.
2. Plug the transmitter into the receptacle.
3. Go to the circuit breaker panel box.
4. Turn the receiver on, and allow it to complete its self-test.
5. Place the flat surface of the tapered end of the receiver directly onto the circuit breaker or fuse as shown in Fig B. If the receiver is held at any other angle inaccurate readings may occur.
6. Move the receiver slowly down each side of the panel passing over each breaker or fuse. This will calibrate the receiver to the signal from the transmitter.
7. Move the receiver slowly down each side once more. On the second pass, the receiver will beep and the LED will glow green at the circuit powering the transmitter.
8. Check that the LED's of the transmitter, in the outlet are off to confirm you have selected the correct breaker or fuse to turn off.

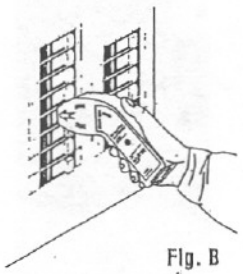
Fig. B

Locating a Circuit Breaker or Fuse Controlling an Incandescent Light Fixture
1. If the incandescent light fixture is controlled by a wall switch, make sure the wall switch is OFF.
2. Remove light bulb.
3. Install Screw-in socket adapter.
4. Plug the transmitter into the adapter.
5. Turn on the wall switch and follow the procedure described in Locating a Circuit Breaker or Fuse steps 3 through 8.

Receiver Auto Power Off:
If the receiver is left on and not utilized for 10 minutes (no energized AC circuit or transmitter signals are detected) it will automatically shut down to conserve its battery life.

Verifying Receptacles for Correct Wiring:
Plug the transmitter into a standard 120 Vac receptacle. The three LED lamps on the transmitter will indicate the wiring configuration, the label on the transmitter indicates each sequence.

Testing GFCI Receptacles:
1. Consult the GFCI manufacturer's installation instructions to determine that the GFCI is installed in accordance with the manufacturer's specifications.
2. Check for correct wiring of receptacle and all remotely connected receptacles on the branch circuit.
3. Operate the test button on the GFCI. The GFCI must trip. If it does not – do not use the circuit – consult an electrician. If the GFCI does trip, reset the GFCI. Then, insert the GFCI tester into the receptacle to be tested.
4. Activate the test button on the GFCI tester for a minimum of 6 seconds when testing the GFCI condition. Visible indication on the GFCI tester must cease when tripped.
5. If the tester fails to trip the GFCI, it suggests: A wiring problem with a totally operable GFCI, or b) proper wiring with a faulty GCFI. Consult with an electrician to check the condition of the wiring and GFCI.

Caution: When testing GFCIs installed in 2-wire systems (no ground wire available), the tester may give a false indication that the GFCI is not functioning properly. If this occurs, recheck the operation of the GFCI using the test and reset buttons. The GFCI button test function will demonstrate proper operations.

NOTE:

- All appliances or equipment on the circuit being tested should be unplugged to help avoid erroneous readings.
- Not a comprehensive diagnostic instrument but a simple instrument to detect nearly all probable common improper wiring conditions.
- Refer all indicated problems to a qualified electrician.
- Will not indicate quality of ground.
- Will not detect 2 hot wires in circuit.
- Will not detect a combination of defects.
- Will not indicate reversal of grounded and grounding conductors.

SPECIFICATIONS:

Operating Frequency: 47-63Hz
Maximum Load: 18A (4ms) at 120VAC, 200mW max. at 120VAC
Duty Cycle: Max: 4mS every 16.6mS (continuous); (:24%)
Weight (excluding battery): Transmitter approx 50gr., Receiver approx. 85 gr.
Power Supply: 9VDC battery
Operating Temperature: 0 to 50°C