



# THE SUPER BEAST

20 AMP SECONDARY SERVICE CONDUCTOR TESTER

**SERVICE TESTING MADE EASY**

**✓ Digital Precision**

*\*Digital readouts provide fast, accurate voltage readings*

*\*Indicates problems within seconds on secondary service conductor, detects open neutral accurately*

**✓ Efficient 20 Amp Load Testing**

*\*Applies a 20 Amp artificial load to simulate household usage, eliminating the need for the homeowner to be present during testing*

*\*Quickly identifies if the utility service drop is providing proper voltage/load*

*\*Determines if the fault is on the line side (utility) or consumer side*



PART #: HJA-469-D

**SAFETY ★ SERVICE ★ SAVINGS**



**Arnett Industries**  
*Built on a legacy of innovation and service as a trusted leader in accredited testing services and manufacturing of diagnostic testing equipment for 50+ years.*



SCAN TO LEARN MORE

503-692-4600

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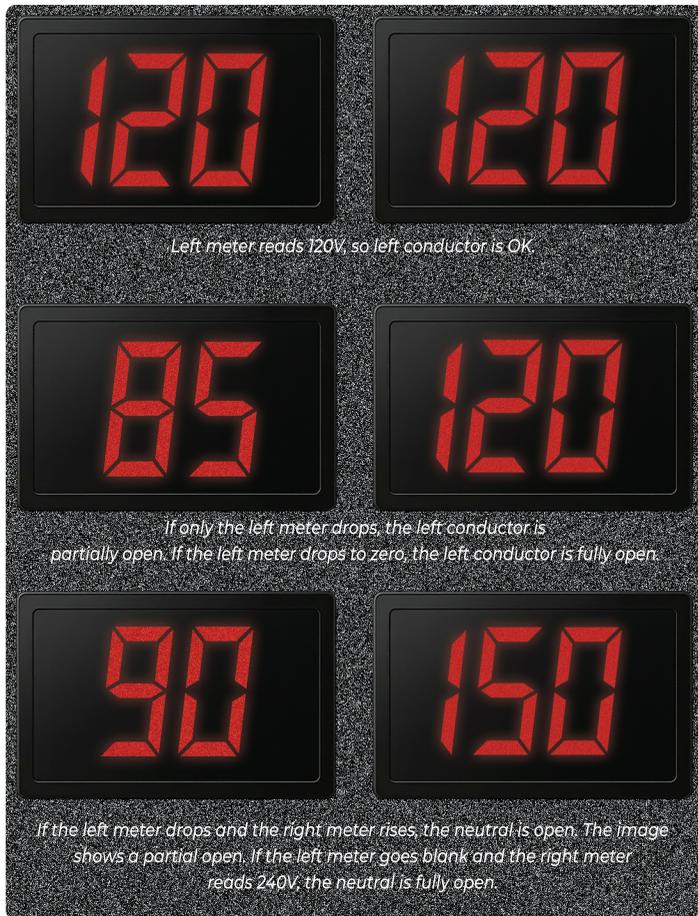


# OPERATING INSTRUCTIONS

**CAUTION:** Always wear approved PPE when working on or near energized conductors.

- 1** Remove the kWh meter and inspect the base for loose connections or visible issues. Connect the white clip to neutral. Insert Super Beast in the meter base.
- 2** Rotate the switch to the left and read the meters. One of the following readings below will appear.
- 3** Rotate the switch to the right and read the meters. One of the following readings below will appear.

**NOTE: A VOLTAGE DROP OF 5-7 VOLTS MAY INDICATE A PROBLEM FOR MOST UTILITIES. DETERMINE YOUR STANDARDS BEFORE BEGINNING YOUR TESTING.**



## VOLTMETER TEST JACKS

Use the front-panel banana jacks as test points for measuring AC voltage with digital or analog meter. The white jack (neutral) is common to both red and black; connect it to the meter's common lead.

To measure voltage, touch the other meter lead to the "Right Conductor" jack for the right meter, then repeat using the "Left Conductor" jack for the left meter.

**\*NOTE:** If the neutral is not properly connected—either through the meter base adapter, the unit's clip connection, or if the neutral is completely open—the digital meter may flicker. This can happen when trying to turn on the load for the right or left meter using the center toggle switch.

## 3-PHASE APPLICATION

The Super Beast can be used on 120/208V 3-phase Wye systems with a Portable Meter Base Adapter (MBA).

Connect clips of the adapter to neutral, line 1 and 2. Then take readings on line 1 and line 2.

Move one clip lead from either line 1 or line 2 to line 3. Take readings again and interpret results the same as for single phase operation.

**\*NOTE:** Do **NOT** use the Super Beast on 120/240V 3-phase Delta systems—high voltage exists between ground and the high phase.



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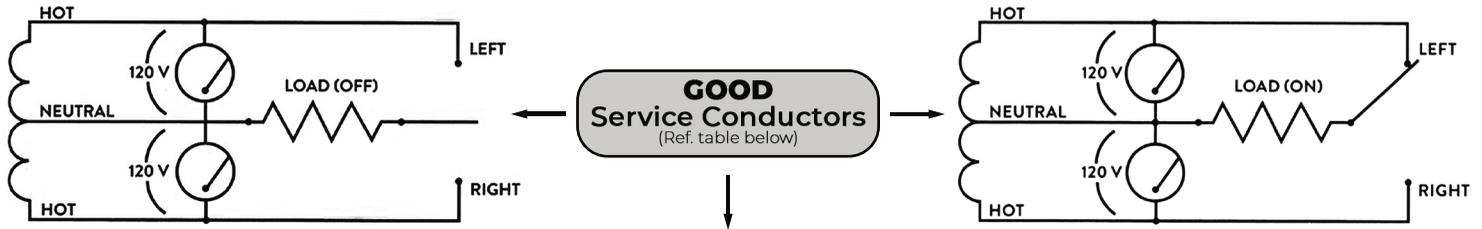


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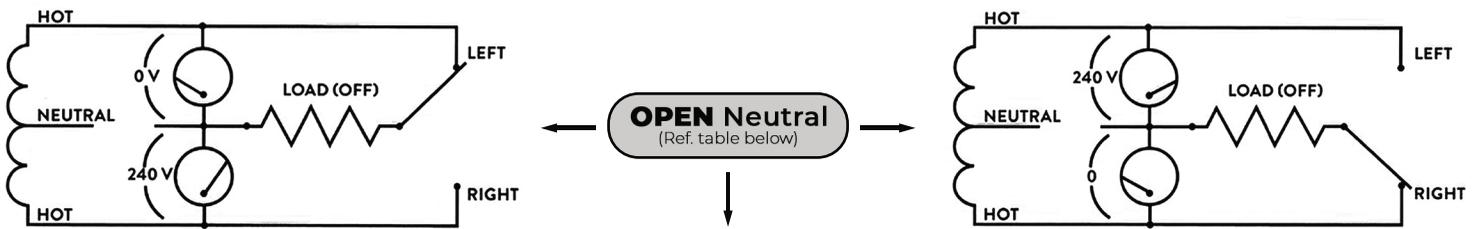
# SUPER BEAST: HOW IT WORKS



When the load switch is in the center position, each meter reads 120V, since they are tied across each 120V hot leg to neutral.

The meter should read 120V, and the load should operate. A slight voltage drop may occur on the selected meter (usually just a few volts) due to the load. The other meter, connected to the other leg and neutral, should read 120V.

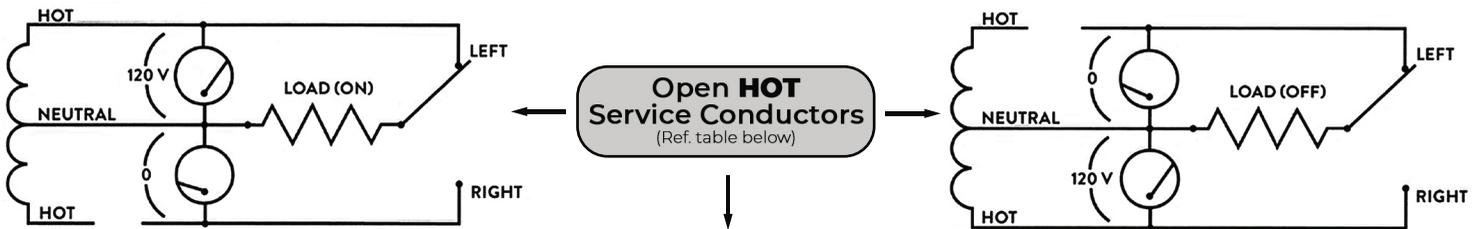
SWITCH POSITION	LOAD	LEFT METER	RIGHT METER
Center	Off	120V	120V
Left	On	120V	120V
Right	On	120V	120V



Since there are 240V across the meter socket terminals with an open neutral, one display will go blank and the other display will show 240V.

When the load switch is flipped to either side, the load current flows through the opposite meter because the neutral is open. The meter's high resistance prevents enough current for the load to operate, so almost all 240 VAC is dropped across the opposite meter, which reads 240 VAC while the selected meter reads 0V.

SWITCH POSITION	LOAD	LEFT METER	RIGHT METER
Center	Off	120V	120V
Left	Off	0V	240V
Right	Off	240V	0V



The final service problem happens when one hot conductor is open. The meter on that leg reads 0V, while the other meter reads 120V. The load operates because its hot leg and neutral are still intact.

The conductor to the load and its meter is open, so neither operates. The other meter is still connected to a good conductor and neutral and reads 120V.

Fully Open RIGHT Conductor				Fully Open LEFT Conductor			
SWITCH POSITION	LOAD	LEFT METER	RIGHT METER	SWITCH POSITION	LOAD	LEFT METER	RIGHT METER
Center	Off	120V	0V	Center	Off	0V	120V
Left	On	120V	0V	Left	Off	0V	120V
Right	Off	120V	0V	Right	On	0V	120V

**\*NOTE:** Voltage readings under Super Beast load will vary depending on the service issue



# THE SUPER BEAST SERIES

## 3 Super Beast Platforms



**Digital**  
PART #: HJA-469-D

*\*Digital readings make voltage display readings easy to read. Accurately displays condition of the secondary service conductor*



**Analog**  
PART #: HJA-469-S

*\*Analog readings quickly and accurately display condition of the secondary service conductor*



**Pulse**  
PART #: HJA-469-P

*\*Adds **Pulsing** feature—pulses the 20A load ON/OFF every 3 seconds so only one person is needed to identify the tested conductor with an ammeter*

## SAVE with the COMBO

### COMBO



*\*can be purchased separately*

**Super Beast Bag** →  
PART #: HJA-469-501

*\*Optional tote bag is equipped with thick cushioning on all sides to protect the Beast. Nylon reinforced construction with water repellency gives it excellent weather resistance and protection.*

**Meter Base Adapter** →  
PART #: HJA-469-500

*\*Optional portable adapter for use on non-standard meter bases and for 3-phase applications. Adds 7' of cord with spring clips to test from underground or overhead secondary junction points.*

*\*How To Use: Insert Super Beast into base → attach spring clips to correct conductors → systematically proceed down secondary feeder to isolate the voltage problem*



**Digital Combo**  
PART #: HJA-469-DSCO



**Analog Combo**  
PART #: HJA-469-SCO



**Pulse Combo**  
PART #: HJA-469-PSCO

## SUPER BEAST SPECIFICATIONS

Feature	Details	Feature	Details
Voltage Range	84-264 RMS	Storage Temperature Range	-40° C to +50° C
Display Resolution	1 VAC	Load Element	2 each, 1600 watts, 120 VAC
Accuracy	± 1V (typ), ± 2V (max) @ 25°	Base Connectors	Standard KWH meter
Reading Settling Time	Approximately 4 seconds	Size	7 1/4" (W) x 7 1/4" (D)
Operating Temperature	-25° C to +50° C	Weight	Net 6 lbs., shipping 8 lbs
Range Humidity	0 - 90% rH (non-condensing)		

**\*Warranty:** One year parts and labor under normal use. Not responsible for misuse.

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