



# THE MEGA BEAST

**80-AMP LOAD SERVICE CONDUCTOR TESTER**

**UNLEASH THE BEAST**



### Powerful Testing

*\*Simulates up to **80A** load in **20-amp** increments  
4 times the load of the Super Beast!*

*\*Detects open neutrals, faulty conductors, and weak connections quickly and accurately*



### Quick Troubleshooting

*\*Cuts diagnostic time by eliminating the need for the homeowner to be present as the test is performed right at the meter socket*



### Field-Ready Design

*\*Portable, rugged hard case to keep unit protected from harsh weather conditions*

*\*Built-in circuit protection and fusing for user safety*



PART #: HJA-900-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



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Tualatin, OR 97062

# 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. If possible, isolate the neutral and connect the white clip to neutral. Connect the Mega Beast voltage clips to the meter socket (black to left, red to right).
- 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:** Do **NOT** use the Mega Beast on 120/240V 3-phase Delta systems—high voltage exists between ground and the high phase.

## 3-PHASE APPLICATION

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

During setup, feed the white clip through the bottom of the MBA and connect it to neutral. From the MBA, connect white to service neutral, black (left) to Line 1, and red (right) to Line 2.

For 3-phase testing, move the red lead from Line 2 to Line 3, take readings again, and interpret the results the same as a single-phase service.

**\*NOTE: NEVER** connect leads to any leg of conductor measuring over 120V



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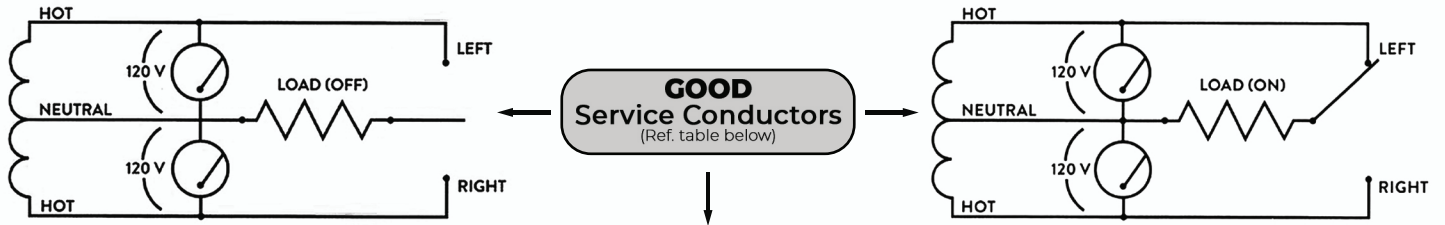
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# MEGA BEAST: HOW IT WORKS

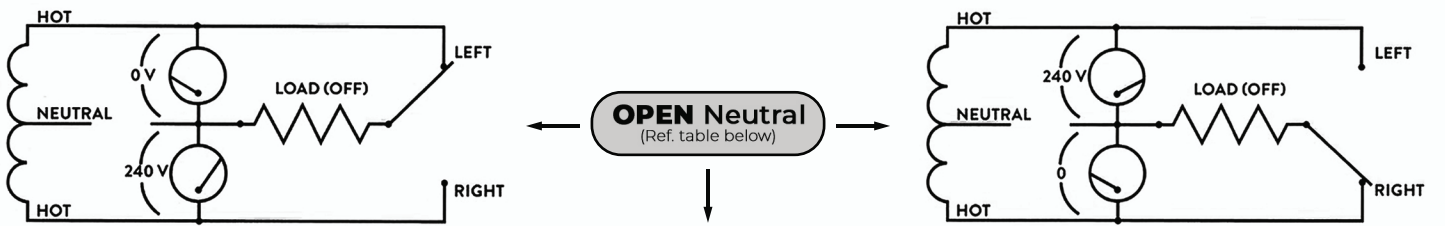


When the load switch is in the center position, each meter reads 120V, since they are tied across each 120V hot leg to neutral.

When the load switch is flipped to either the Left or Right position (load connected), good conductors respond as shown above, with 120V across the load meter.

*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.*

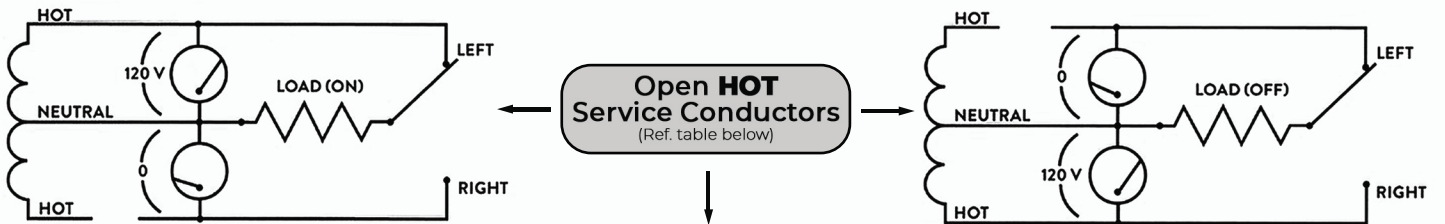
SWITCH POSITION	LOAD	LEFT METER	RIGHT METER
Center	Off	120V	120V
Left	On	120V	120V
Right	On	120V	120V



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 Mega Beast load will vary depending on the service issue



# THE MEGA BEAST COMBO

**INCLUDES: METER BASE ADAPTER + ALLIGATOR CLIP ADAPTER**



**Part #:** HJA-900-D-COMBO



**Meter Base Adapter**  
Adds 3' of cable!  
**Part #:** HJA-900-D-PLUG



**Alligator Clip Adapter**  
**Part #:** HJA-900-D-CLIP

## MEGA BEAST SPECIFICATIONS

**\*NOTE:** The Mega Beast is not designed, built, or intended for continuous load

Short Circuit & Fire Protection		Line Input	
Main Line Protection	100 Amp, 240 VAC Circuit Breaker for Line 1 and Line 2	Line Input Cable	3-Wire 8GA, 600 VAC, 9' long. Enters on Front Panel
Load Element Fuse	4 Each, 1 Fuse for every 2 load elements, 25A/250V	Line Input Clips	3 Each, 75 Amp Clips with Insulators
Control Panel		Enclosure	
Line Switch	ON-OFF-ON to Select Line 1 Input, No Line Input, or Line 2 Input	Case	Heavy Duty "Suitcase" made from black Structural Resin
Element Switches	4 Each, 1 Switch for Every 2 Load Elements, ON-OFF	Air Inlets	(x3) 3" holes on front/back panel with finger guard screens attached
Ungrounded	Front Panel is not connected to ground wire	Air Outlets	(x8) 2" holes, 4 on each side panel, for load element air outlet
Voltmeters	2 Each, 84-264 VAC Digital Meters	Size (L x W x D) & Weight	18.5" x 15.25" x 6.875" Approximately 23 lbs.



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