

# Resonating Inductor and Adapter Kits



## DESCRIPTION

The resonating inductor is an accessory used to expand the capacitance range of the DELTA automated insulation power factor test sets and the semi-automatic 12-kV extended range capacitance and dissipation factor test set.

The resonating inductor is connected in parallel with the internal power supply of the test set. A manual tuning wheel on the resonating inductor varies the inductance to tune the parallel circuit for minimum load current.

The resonating inductor is self-contained and air-insulated. The housing is a sturdy metal enclosure welded throughout to withstand the rigors of field operation. Large wheels and handles are provided for convenience in transportation.

Megger offers two resonating inductor models:

- C/N 670600 is used with Megger DELTA2000 or DELTA3000 and the semi-automatic model.
- C/N 670600-1 is used with Megger DELTA4000.

## ADAPTER KITS

### Solutions for Existing Resonating Inductors

Megger provides adapter kits that offer solutions for users who already own a resonating inductor and need to connect a new power factor test set. Examples that adapter kits may be required when:

- Users who own a Megger DELTA4000 power factor test set want to use a Megger resonating inductor C/N 670600.
- Users who own a Megger DELTA4000 power factor test set want to use a Doble resonating inductor, C/N DOB-TYPE\_C.

- **Expands the range of Capacitance and Dissipation Factor (Power Factor) Test Sets**
- **Capable of tuning capacitances up to 1 $\mu$ F at 10 kV**
- **Hand-crank tuning wheel**
- **Core gap gauge that displays position of inductor core**
- **Large wheels and handles for easy transport**
- **Adapter kits available to use with older Resonating Inductor models**

## APPLICATIONS

Capacitance and dissipation factor "power factor" testing is used to determine the quality of electrical insulation.

The insulating quality of electrical insulation may deteriorate due to manufacturer's defects, contamination, physical damage, in-service fault conditions or normal aging.

When the insulating quality of electrical insulation deteriorates, leakage paths develop that allow current to pass through the insulation.

Dissipation factor measurements are used to detect these problems before complete insulation breakdown occurs.

The Resonating Inductor allows the user to perform capacitance and dissipation factor tests on such high-capacitance items as large motors, large generators and long cable runs.

Dissipation factor testing also can be performed on transformers, bushings, circuit breakers, insulators, capacitors, surge arresters, insulating liquids or any other type of equipment that contains electrical insulation.

**SPECIFICATIONS**

15 min on, 2 hrs off

**Maximum Capacitive Load**1  $\mu$ F at 60 Hz1.2  $\mu$ F at 50 Hz**Minimum Capacitive Load**0.05  $\mu$ F**Tuning**

Manual tuning by hand crank

**Test Configuration**

Designed for use in ungrounded specimen test (UST), grounded specimen test (GST) and grounded specimen test using guard connection (GST-G) test modes

**Environmental****Operating Temperature Range**

-4 to +140° F (-20 to +60° C)

**Storage Temperature Range**

-58 to +158° F (-50 to +70° C)

**Relative Humidity**

0 to 90%, noncondensing (operating)

0 to 95%, noncondensing (storage)

**Dimensions****Resonating Inductor**

(including wheels and handles)

38.7 H x 21.4 W x 25.3 D in.

(983 H x 543 W x 641 D mm)

**Adapter Kit**

8 H x 16 W x 13 D in.

(203 H x 406 W x 330 D mm)

**Weight****Resonating Inductor**

280 lb (127 kg)

**Adapter Kit**

18 lb (8.16 kg)

**ORDERING INFORMATION**

<b>Item (Qty)</b>	<b>Cat. No.</b>
Resonating Inductor for use with DELTA2000/DELTA3000	670600
Resonating Inductor for use with DELTA4000	670600-1
<b>Included Accessories</b>	
High-voltage interface cable, 8 ft (2.4 m)	
With purchase of C/N 670600	30012-6
With purchase of C/N 670600-1	30012-13
Ground interconnect lead, 8 ft (2.4 m)	30991-1
Inductor return cable, 8 ft (2.4 m), with connector	
With purchase of C/N 670600	34654
With purchase of C/N 670600-1	1001-802
Ground lead, 15 ft (4.6 m)	4702-5
Cable bag	18313
Instruction manual	AVTM670600a

**ADAPTER KITS**

Adapter kit for use with DELTA4000 and resonating inductor C/N 670600	1002-231
Includes:	

High-voltage interface cable, 8 ft (2.4 m), with  
DELTA4000 high-voltage inboard termination  
[C/N 30012-12]

Inductor return cable, 8 ft (2.4 m), with connector  
for DELTA4000 [C/N 1001-802]

Adapter box with 8-ft (2.4 m) lead that has  
the DELTA2000 high-voltage termination to  
plug into resonating inductor C/N 670600 and  
DELTA4000 high-voltage female connector

**Required accessories already  
included with C/N 670600:**

Ground interconnect lead, 8 ft (2.4 m)	30991-1
Ground lead, 15 ft (4.6 m)	4702-5

Adapter kit for use with DELTA4000 and Doble® resonating inductor	1002-455
Includes:	

High-voltage interface cable, 8 ft (2.4 m), with  
DELTA4000 high-voltage inboard and Doble  
outboard termination [C/N 30012-14]

Inductor return cable, 8 ft (2.4 m), with  
connector for DELTA4000 inboard and  
banana male outboard [C/N 1001-802]

Adapter kit with 8-ft (2.4 m) lead and  
Doble high-voltage termination to plug into  
Doble Resonating Inductor and the DELTA4000  
high-voltage female connector

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