



INSTRUCTION MANUAL

LINE IMPEDANCE

STABLIZATION

NETWORK (LISN)

MODEL ANS-25/2

10 kHz – 100 MHz

INSTRUCTION MANUAL

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LINE IMPEDANCE STABILIZATION NETWORK (LISN)

ELECTRO-METRICS

MODEL ANS-25/2

SERIAL NO: N/A

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WARRANTY

This Model ANS-25/2;Line Impedance Stabilization Network is warranted for a period of 12 months (USA only) from date of shipment against defective materials and workmanship. This warranty is limited to the repair of or replacement of defective parts and is void if unauthorized repair or modification is attempted. Repairs for damage due to misuse or abnormal operating conditions will be performed at the factory and will be billed at our commercial hourly rates. Our estimate will be provided before the work is started.

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APPENDIX 1
ANS-25/2 ACCESSORIES

The following accessories are standard with the **ANS-25/2 Power Line Impedance Stabilization Network**.

a. 50-ohm Termination, BNC Connector.

b. Six (6) Superior Plug/Pin Connectors:

INPUT: 3

OUTPUT: 3

**DESCRIPTION AND USE
LINE IMPEDANCE STABILIZATION NETWORK
ELECTRO-METRICS MODEL ANS-25/2**

1.0 Introduction

The Model ANS-25/2 Line Impedance Stabilization Network (LISN) is a two-channel low pass filter network used to isolate an electrically operated device from an external power source. The ANS-25/2 is used when high frequency conducted measurements are made in accordance with certain FCC and VDE standards.

The LISN is nominally designed for a 25 A (ampere) maximum load capacity which can be increased to 30 A provided that the duty cycle is reduced to 20%. The maximum line to ground voltage is set at 220 VAC and the maximum line to line voltage at 440 VAC.

2.0 Specifications

2.1 Electrical

Frequency Range	10 kHz-100 MHz
Impedance Characteristics:	
	In accordance with the requirements of CISPR 16 1987, VDE 0876 Part 1/9.78, FCC Part 15 Appendix A 5/81, ANSI C63.4.1988, VCCI.
Power Line Frequency:	DC to 400 Hz 25 A Maximum Continuous Current 2 Lines
Maximum AC Input:	Line to Line: 440 VAC Line to Ground: 220 VAC
Connectors:	BNC
Monitor Ports:	Superior Plug/Socket Receptacles
Power Input/Output:	

2.2 Mechanical

Height:	162 mm (6.375")
Length:	411 mm (16.2")
Width:	274 mm (10.8")
Weight:	8.9 kg (19.6 lbs)

3.0 Operating Instructions

Line side of the LISN (rear panel) is connected to the power source using the three plug sockets provided (Superior Plug Sockets). Attach these plugs to the pin receptacles located on the rear panel. Ground is made through either the ground receptacle (marked GND) or a brass stud, both located on the rear panel.

WARNING

SAFETY GROUND SHOULD BE CONNECTED FIRST AND DISCONNECTED LAST ON INPUT POWER SIDE OF LISN.

NOTE

A BRASS RF GROUND STUD IS PROVIDED ON BOTH THE FRONT AND REAR PANELS FOR CONNECTING TO A SHIELDED ENCLOSURE OR GROUND PLANE.

Load side of the LISN (front panel) is connected to the load through the two socket receptacles. If a ground contact to the instrument under test is made to the power supply ground, it can be made through the ground terminal (socket receptacle or ground stud) on the front panel. No isolation is provided in this line.

The BNC type coaxial connector of the line under test (monitor ports designated L1 and L2) is connected to the interference analyzer, field intensity meter, or spectrum analyzer input. The other BNC connector must be terminated with a 50-ohm RF termination (included with LISN). It is advisable to connect the input and output terminals to their proper power lines and loads before connecting the line under test to the measurement instrumentation, otherwise it is possible to damage the input circuitry (attenuators, mixers, etc) of the test instrumentation due to power surges. Removal of a termination and connection of the BNC receptacle will not generate power surges. In addition, when power is to be disconnected, remove the power source first.

TABLE 1.0
LISN CORRECTION FACTORS
FOR
ELECTRO-METRICS MODEL ANS-25/2

FREQUENCY (kHz)	CORRECTION FACTOR
10.0	4.90
15.0	2.86
20.0	1.83
25.0	1.25
30.0	0.91
35.0	0.69
40.0	0.53
50.0	0.35
60.0	0.25
70.0	0.18
80.0	0.14
90.0	0.11
100.0	0.09
125.0	0.06
150.0	0.04

The correction factor is to be added to the meter reading of the receiver or spectrum analyzer (in dB). At very low frequencies, the power main to receiver coupling capacitor (0.22 μ F) attenuates the interference voltage to a lower indicated value. The correction factors shown are for a 50-ohm measuring system.

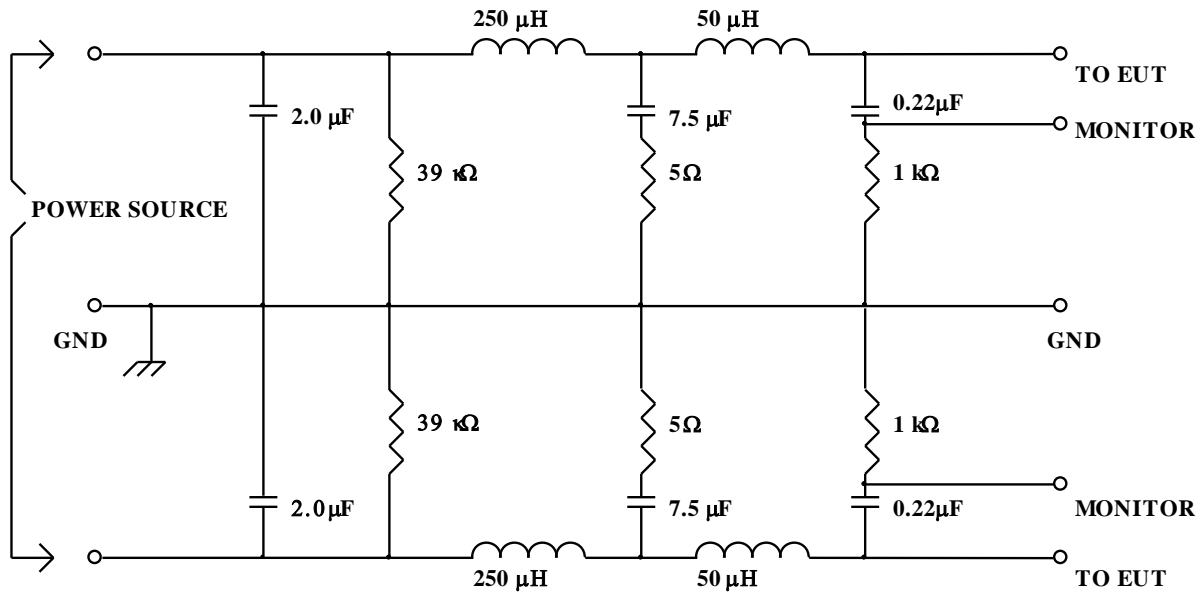


FIGURE 1
SCHEMATIC DIAGRAM ANS-25/2