

NAVSEA
STANDARD ITEM

FY-11

ITEM NO: 009-22
DATE: 19 JUL 2007
CATEGORY: II

1. SCOPE:

1.1 Title: Shipboard Electric Cable; test

2. REFERENCES:

2.1 None.

3. REQUIREMENTS:

3.1 Accomplish an insulation resistance test of each electric cable conductor using a 500 volt, direct current megger.

3.1.1 Disconnect low voltage equipment associated with circuits to be tested to prevent damage during tests.

3.1.2 Minimum acceptable readings of each cable conductor to ground and between conductors:

Lighting Circuit	0.5 Megohm
Power Circuit	1.0 Megohm
Degaussing Circuit	0.1 Megohm
Interconnecting Control Circuit	1.0 Megohm
Interior Communication Circuit	0.2 Megohm
Sound Powered Telephone Circuit	
(with telephone disconnected)	0.05 Megohm

3.1.3 Minimum acceptable reading of coaxial cable:

<u>LENGTH (FEET)</u>	<u>INSULATION RESISTANCE (MEGOHMS)</u>
100 (or less)	40,000
200	20,000
500	8,000
1,000	4,000

3.1.4 Discharge coaxial cable to ground following insulation resistance test.

3.2 Test each cable conductor for continuity and complete circuit. Ensure terminal connections are tight.

3.3 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.1 and 3.2, including circuit number, lead numbers, and readings obtained, to the SUPERVISOR within 48 hours of completion of tests.

3.3.1 Identify defective cables by circuit number, lead numbers, type, size, approximate length, and readings obtained.

4. NOTES:

4.1 A new circuit is defined as a cable not previously installed.

4.2 Pulled-back cables are those which are disconnected and physically removed from a wireway, conduit, or cableway to protect the cable from industrial work.

4.3 Reused cables are those cables disconnected from the equipment to facilitate equipment removal.