



TRANSDUCER/CABLING LEAKAGE CHECKS

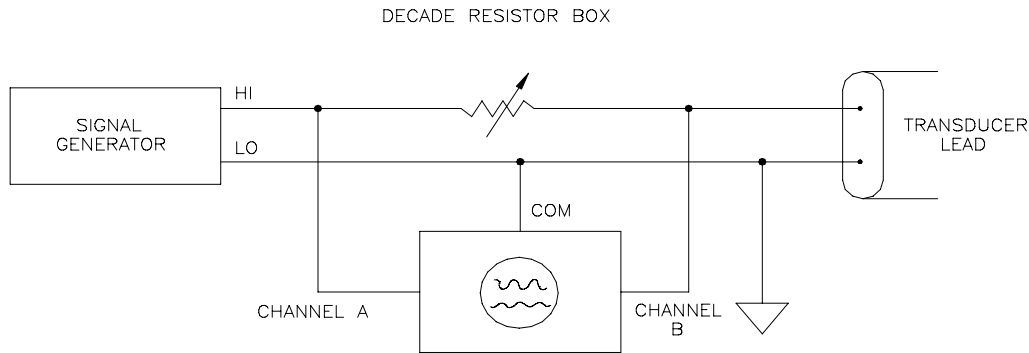
The transducer and associated cabling needs to be checked for insulation resistance (leakage) using the Meg-ohm meter. Select the 1000V range for the meter. With the transducers disconnected from the system, apply the meter to the following transducer leads and **verify all readings shall be greater than 100M-ohms**.

1. Transducer positive to Shield _____M-ohms
(For Syqwest/Ocean Data systems Mil Spec connector Pin A to C)
2. Transducer negative to Shield _____M-ohms
(For Syqwest/Ocean Data systems Mil Spec connector Pin B to C)
3. Transducer Shield to Ships Hull _____M-ohms
(For Syqwest/Ocean Data systems Mil Spec connector Pin C to hull)

Note: Do not connect the meg-ohm meter from transducer Positive to transducer Negative. Damage to the transducer may result.

TRANSDUCER IMPEDANCE CHECK

In order to obtain accurate results, the impedance measurement should be made with the transducer(s) immersed under water.



Transducer Impedance Test Diagram

Step 1 Set the signal generator for approximately 10 Vrms output at the center frequency of the transducer.

Step 2 Measure the signal generator output with channel A.

Step 3 Measure the voltage drop across the transducer with channel B.

Step 4 Adjust the *decade resistor box so that channel B is exactly one half of channel A.

Step 5 Read the value of the decade resistor box. This value is the impedance the transducer.

***Note 1: A potentiometer can be used in place of the decade resistor box. We use a 1k-ohm, 1W, 20 turn type of potentiometer**

Note 2: For TR-109 transducer arrays, the specified impedance may be obtained at a frequency slightly higher than 3.5 KHz (typically around 4.0 KHz).