

FIGURE 2

SHIELD OR SHIELD/ARMOR RESISTANCE MEASUREMENT

STEP 1

SETTINGS ON TEST SET

- Set "RES.-VAR-MUR" Key to "RES".
- Set "RVM-GA-HIL" Switch to "RVM".
- Set "INT-BA-EXT" Switch to "INT".
- Connect Pair to Terminals X_1 and X_2 as shown.

PROCEDURE

- Null galvanometer by operating "MULTIPLY BY" and "DECADE" dials of bridge. Use lowest sensitivity range.
- Multiply "DECADE" reading in ohms by "MULTIPLY BY" ratio to obtain value of the Loop Resistance (R_1). Record this value.

STEP 2

SETTINGS ON TEST SET

- Set Keys and Switches as in STEP 1, A through C, above.
- Connect Shorted Pair and Shield to Terminals X_1 and X_2 as shown.

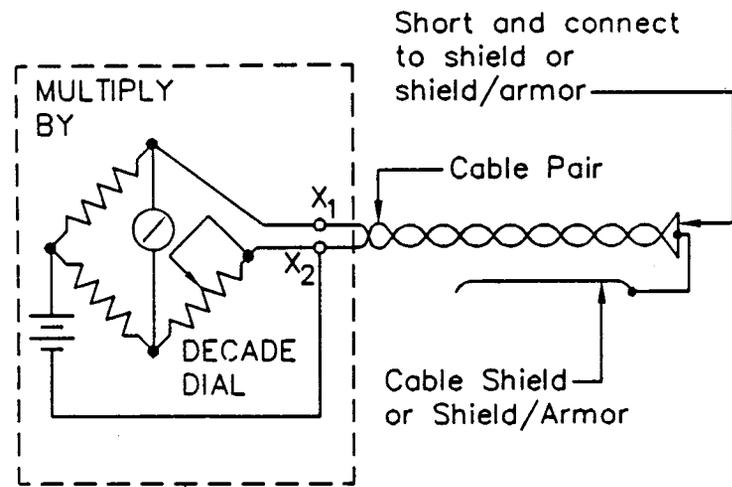
PROCEDURE

- Null galvanometer as in STEP 1, E, above.
- Obtain value of Resistance (R_2) as in STEP 1, F, above.

STEP 3

COMPUTE THE SHIELD OR SHIELD/ARMOR RESISTANCE (R_S)

$$R_S = R_2 - \frac{R_1}{4}$$



Wheatstone Bridge (Leeds & Northrup 5430A or equivalent)

