

RESISTOR TRANSDUCER ADAPTER

USER'S GUIDE



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Calibrating the Resistor Transducer Adapter

The Vanguard Resistor Transducer Adapter must be calibrated each time a different resistor transducer is connected to the adapter. Follow the steps below to calibrate the adapter:

- a. Connect the resistor transducer to the adapter.
- b. Turn on the circuit breaker timer. The following "RUNNING" screen will be displayed on the resistor transducer adapter's LCD screen:

```
      RUNNING
      Res Enc Rev: 1.00
```

Press either the [▲] or [▼] key to access the Main Menu.

- c. The Main Menu will be displayed:

```
  CALIBRATE ENCODER
  ADJUST CONTRAST
  <DIAGNOSTIC>
```

Press the [▲] key to select the *CALIBRATE ENCODER* option:

```
<CALIBRATE ENCODER>
  ADJUST CONTRAST
  DIAGNOSTIC
```

Press the [ENTER] key.

- d. The following screen will be displayed:

```
  SET ENCODER TO
  POSITION 1
  "ENTER" WHEN DONE
```

Move the resistor transducer to one end of its travel and then press the [ENTER] key.

- e. The following screen will be displayed:

```
  SET ENCODER TO
  POSITION 2
  "ENTER" WHEN DONE
```

Move the resistor transducer to the opposite end of its travel and then press the [ENTER] key.

- f. The following screen will be displayed:

```
↑/↓ TO SET DISTANCE
5.00 IN      12.70 CM
"ENTER" WHEN DONE
```

Press the [▲] or [▼] key to set the value to the known traveled distance (distance between the endpoints of the transducer) and then press the [ENTER] key. The following screen will be displayed momentarily:

```
CALIBRATION SAVED
```

The following screen will then be displayed:

```
RUNNING
Res Enc Rev: 1.00
```

Adjusting the Screen Contrast

Follow the steps below to adjust the adapter's screen contrast

- a. From the "RUNNING" screen, press either the [▲] or [▼] key to access the Main Menu. The following screen will be displayed:

```
CALIBRATE ENCODER
ADJUST CONTRAST
<DIAGNOSTIC>
```

Press the [▲] key to select the *ADJUST CONTRAST* option:

```
CALIBRATE ENCODER
<ADJUST CONTRAST>
DIAGNOSTIC
```

Press the [ENTER] key.

- b. The following screen will be displayed:

```
ADJUST CONTRAST
↑/↓ TO ADJUST
"ENTER" WHEN DONE
```

Press the [▲] or [▼] key to adjust the screen contrast to the desired level and then press the [ENTER] key. The "RUNNING" screen will be displayed again.

Performing Diagnostics

Follow the steps below to perform diagnostics and confirm that the adapter is calibrated properly:

- a. Move the resistor transducer to one end of its travel.
- b. From the "RUNNING" screen, press either the [▲] or [▼] key to access the Main Menu. The following screen will be displayed:

```
CALIBRATE ENCODER
ADJUST CONTRAST
<DIAGNOSTIC>
```

The DIAGNOSTIC option should be highlighted. Press the [ENTER] key.

- c. The following screen will be displayed:

```
ENCODER TRAVEL :
0.00 IN          0.00 CM

"ENTER" WHEN DONE
```

Move the resistor transducer and observe the distance values on the screen:

```
ENCODER TRAVEL :
2.23 IN          5.66 CM

"ENTER" WHEN DONE
```

Move the resistor transducer to the other end of its travel and observe the screen:

```
ENCODER TRAVEL :
5.00 IN          12.7 CM

"ENTER" WHEN DONE
```

The value should be the distance between the two endpoints of the transducer. If this value is not correct, you should calibrate the adapter.

Connection Illustrations



Figure 1. Typical Connection to ABB AHMB Transducer



Figure 2. Typical Connection to a Resistor Transducer



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