OVERVIEW

This document describes the connection of an encoder endpoint (transmitter), to an M2000 Mag Meter.

INTERFACE

Figure 1: M2000 Front Panel Buttons

PROGRAMMING THE M2000 FOR THE ENDPOINT

NOTE: Only one encoder output will be available when programming the M2000 for and encoder endpoint.

1. On the Numeric Entry screen press the **E** key to enter the **START** menu

2. Press **+** or **–** to move the menu text to **Quick Setup**, press **E** to enter

3. Press **+** or **–** to move the menu text to **Flow Unit**, press **E** to enter

4. Press **+** or **–** to move the menu text to your desired unit of measurement

5. Press **E** to select, this will also take you back to the **Quick Setup** menu

6. Press **+** or **–** to move the menu text to **Totalizer Unit**, press **E** to enter

7. Press **+** or **–** to move the menu text to your desired unit of measurement

8. Press **E** to select, this will also take you back to the **Quick Setup** menu

9. Press **E** twice to save the updated parameters

Programming for Encoder Output

1. In the **START** menu, use the **+** or **–** to move the arrow to **Main** menu, press **E** to enter

2. Press **+** or **–** to move the menu text to **Advanced**, press **E** to enter

3. Press **+** or **–** to move the menu text to **Totalizer Resolution**, press **E** to enter

4. Press **+** or **–** to scroll through **Resolution** selections, press **E** to select (sent the resolution you want)

5. Press **+** or **–** to move the menu text to **Encoder Protocol**, press **E** to enter

6. Press **+** or **–** to scroll through **Encoder Protocol** selections (V2 for Orion Cellular, V1 for all others), press **E** to select

NOTE: If you get an Error 100 when setting to V1, go to Totalizer Dials and set to six or less.

7. Press **+** or **–** to move the menu text to **Totalizer Dials**, press **E** to enter

8. Press **+** or **–** to scroll through the selections and select the **Totalizer Dials**

Additional Notes

If there is a reading on the M2000, The Encoder output will update the encoder within the hour (this will also clear tampers).

To use the reading from the endpoint in Reading Data Management Software, the correct Test Circle Code will also need to be added in the software. The Test Circle Code will depend on the number of dials and totalizer units programmed in the M2000. Refer to the Test Circle Code Charts for reference.

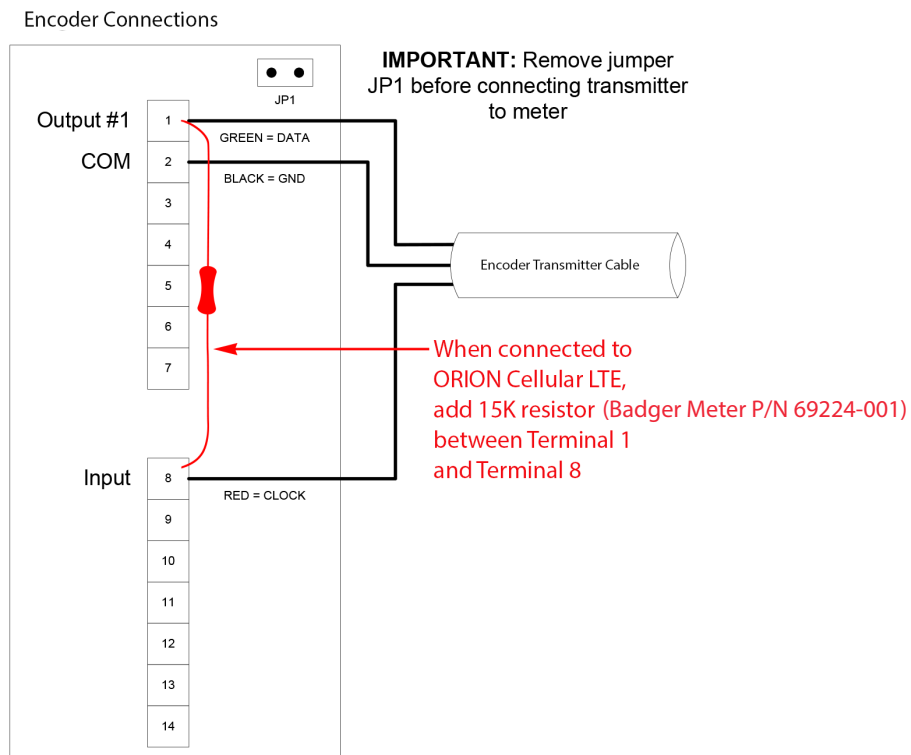## WIRING AN ORION ENCODER TRANSMITTER TO THE M2000

To connect the endpoint wires:

- Terminal 1: Green - DATA
- Terminal 2: Black - GROUND
- Terminal 8: Red – POWER/CLOCK

WIRING AN ITRON "W" TRANSMITTER TO THE M2000

To connect the endpoint wires:

- Terminal 1: Red - DATA
- Terminal 2: White - GROUND
- Terminal 8: Black – POWER/

Badger Meter

Application Brief

CONNECTIONS DIAGRAM

Encoder Connections

JP1

Output #1 — 1

GREEN = DATA

COM — 2

BLACK = GND

3

4

5

6

7

Input — 8

RED = CLOCK

9

10

11

12

13

14

IMPORTANT: Remove jumper JP1 before connecting transmitter to meter

Encoder Transmitter Cable

When connected to ORION Cellular LTE, add 15K resistor (Badger Meter P/N 69224-001) between Terminal 1 and Terminal 8

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