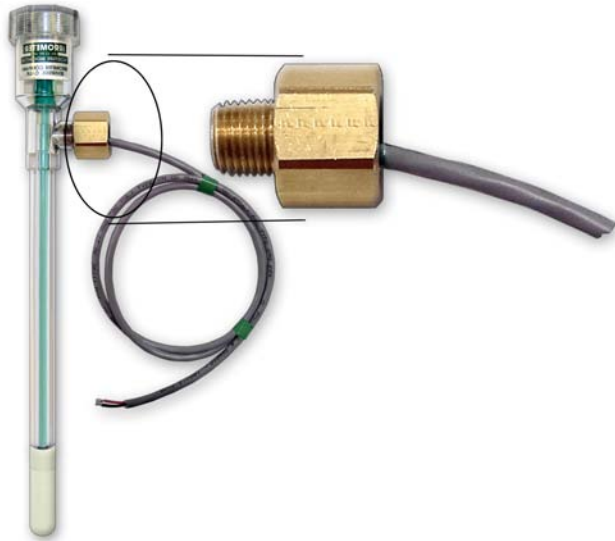


## INSTALLATION AND OPERATING INSTRUCTIONS



### RSU-V – Remote Sensing Tensiometer



The IRROMETER RSU-V incorporates a pressure transducer in a potted waterproof housing. The RSU-V can be installed in the gauge port of any IRROMETER, thus converting the reading to a voltage signal. Excitation voltage required is 5 VDC.

**Note 1:** Consult the factory if modifying an existing MLT.

**Note 2:** Three wire insulated cable (suitable for direct burial) should be used to connect RSU-V to Electronic Reading Device – #18 AWG size (standard preferred).

### Calibration Information

INPUT:	5 Volts
VOLTAGE RANGE:	0.5 - 4.5 Volts
SPAN:	4 Volt Span
TENSION RANGE:	0 - 94 kPa
CALIBRATION:	.0426 V/cb

### — WARNING —

**Do Not use water containing chlorine or sulfur (distilled preferred) or cleaners containing chlorine or sulfur with the RSU-V.**

**When de-airing the transducer equipped IRROMETER (Model RSU-V) care must be taken to release the vacuum slowly. A sudden release of the vacuum could cause damage to the pressure transducer, rendering the instrument inoperable. Transducers damaged by sudden release of the vacuum are unrepairable and would require complete replacement of the entire transducer assembly.**

### 900M-RSU-V ADAPTER BOARD WIRING

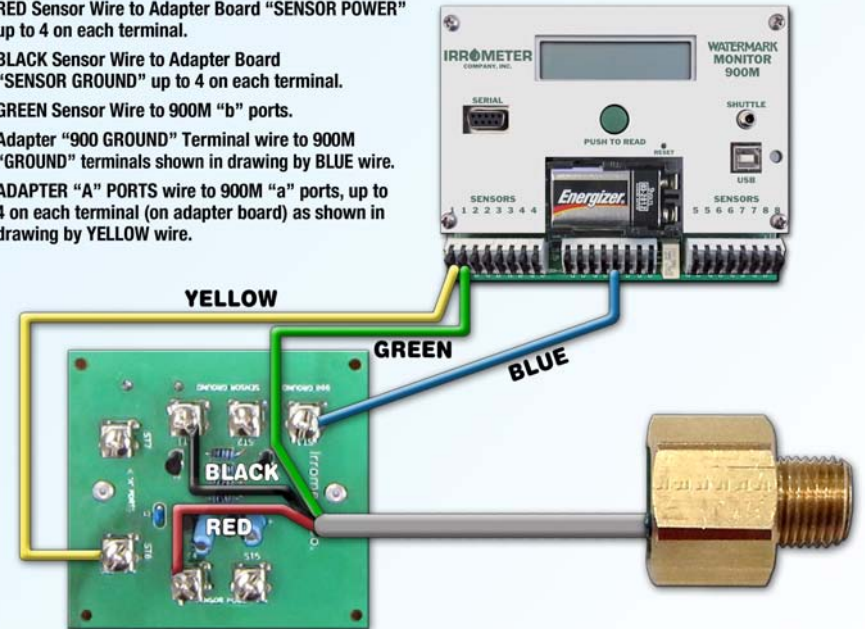
**RED Sensor Wire** to Adapter Board "SENSOR POWER" up to 4 on each terminal.

**BLACK Sensor Wire** to Adapter Board "SENSOR GROUND" up to 4 on each terminal.

**GREEN Sensor Wire** to 900M "b" ports.

Adapter "900 GROUND" Terminal wire to 900M "GROUND" terminals shown in drawing by **BLUE** wire.

**ADAPTER "A" PORTS** wire to 900M "a" ports, up to 4 on each terminal (on adapter board) as shown in drawing by **YELLOW** wire.

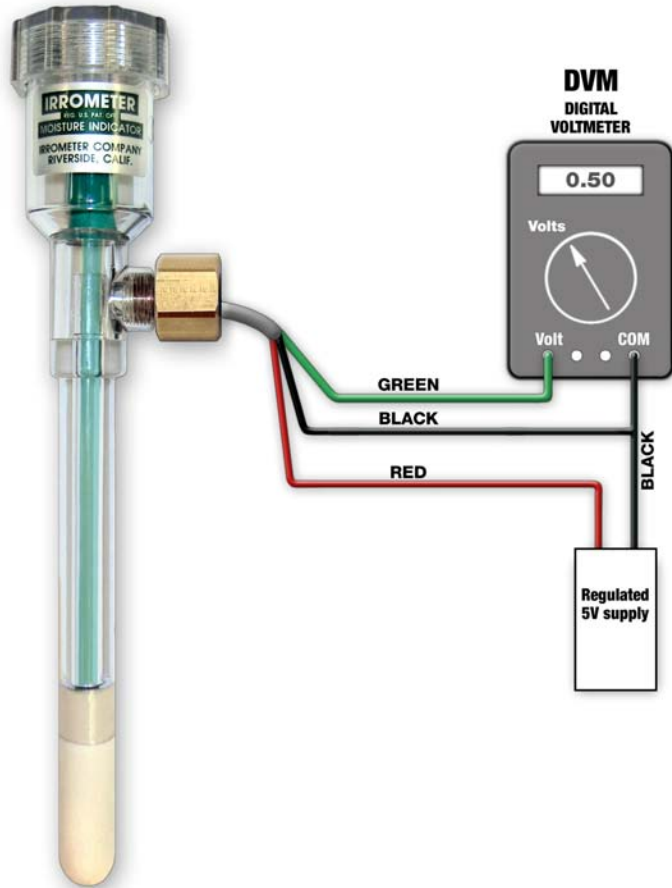


*The 900M-RSU-V Adapter board is used to adapt the RSU-V to the 900M series WATERMARK Monitor.*

*An adapter board can be used to connect up to eight RSU-V Transducers to the Monitor.*

*Four "AA" size batteries (included) are required to power the board.*

## Reading the RSU-V with a Digital Meter



VACUUM	<b>RSU-V</b> (Standard Instruments)
0 kPa	The DVM shows <b>0.5 V</b>
50 kPa	The DVM shows <b>2.63 V</b>
94 kPa	The DVM shows <b>4.5 V</b>



## Remote Sensing Units – RSU-V

Multi-conductor wire can be used and twisted pairs are recommended. All splices should be made with direct burial type waterproof splices, Spears DBY® or similar. The following table presents recommended maximum limits for cable extensions to RSU-V transducers. Following these guidelines should ensure that the voltage loss created by the wire length will not exceed 1 Centibar (kPa) of the calibrated value.

DISTANCE	WIRE SIZE
Up to 200 ft. (61 m) . . . . .	AWG UF 18 (1.02 mm, 0.82 sq mm)
Up to 300 ft. (91 m) . . . . .	AWG UF 16 (1.29 mm, 1.31 sq mm)
Up to 400 ft. (121 m) . . . . .	AWG UF 14 (1.63 mm, 2.08 sq mm)

**WARRANTY:** The IRROMETER COMPANY warrants its products against defective workmanship or materials under normal use for one year from date of purchase. Defective parts will be replaced at no charge for either labor or parts if returned to the manufacturer during the warranty period. The seller's or manufacturer's only obligation shall be to replace the defective part and neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or inability to use the product. This warranty does not protect against abuse, shipping damage, neglect, tampering or vandalism, freezing or other damage whether intentionally or inadvertently caused by the user.

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