



Badger Meter

Recordall®

Gas Transmitter (Gas-RT)



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SUGGESTED TOOLS

VOM Multi-Meter (Analog)	59987-001
Coax Stripper	59989-001
Wire Cutting Pliers	59991-001
Wire Stripper	59993-001
Parallel Pliers	59983-001
TORX® #T-10 Driver 1/4" - 3/4" Vari-Bit (Newark 81N2636) 3/32" Transfer Punch 3/16" Transfer Punch Double-Side Tape (3M 442PC)	62658-003

Table 1: Suggested tools

REQUIRED MATERIAL

NOTE: Numbers in the first column correspond to the parts shown in [Figure 3 on page 4](#).

1	*Gasket (1)	62838-001	Parts marked with * are included in the Installation Kit.
2	Outer cover		
3	*TORX screws (4)	31820-026	
4	*Gel connectors (2)	59761-005	
5	*Ear clamp (1)	59759-001	
	*Ear clamp (1)	59759-002	
—	Transmitter wire (Belden 9802) not shown	59604-003	

Table 2: Required materials

IDENTIFICATION

The Badger Meter Gas Recordall® Transmitter (Gas-RT) is available in two configurations: Clockwise Operation (CW) and Counterclockwise Operation (CCW), as identified on the frame (looking toward the index), with the markings CW or CCW for both configurations. The Gas-RT should be installed so that the wire port is at the lower edge. See [Figure 1](#).

Red/Black: Used with TRACE® Remote and Pit Transponders, Itron® ERT® Remote and Pit Transponders, and ORION® Pit and Remote Transponders.

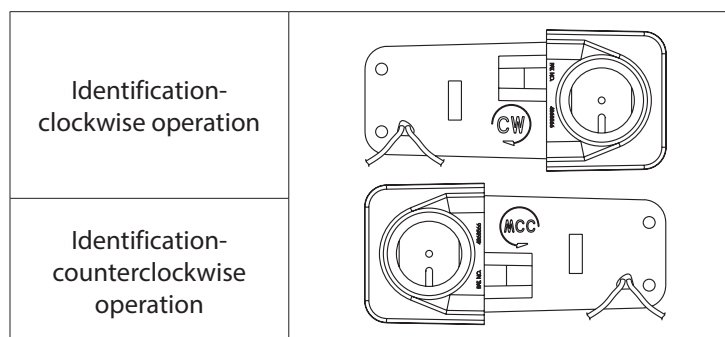


Figure 1: CW & CCW operation identification

The Gas-RT is available for a wide variety of gas meters. See ["Gas-RT Application Data" on page 6](#) for the correct unit.

Before proceeding with installation, be certain the meter type conforms to the rotation for your Gas-RT and the proper Gas-RT configuration, indicated above, has been supplied for the application.

INSTALLING GAS-RT ON INDEX COVER

1. Using the transmitter mounting hole pattern and matching your index cover, locate the correct hole centers with the appropriate transfer punch. Drill each hole with the Vari-Bit and remove all chips and burrs from the holes before proceeding. See [Figure 2](#)

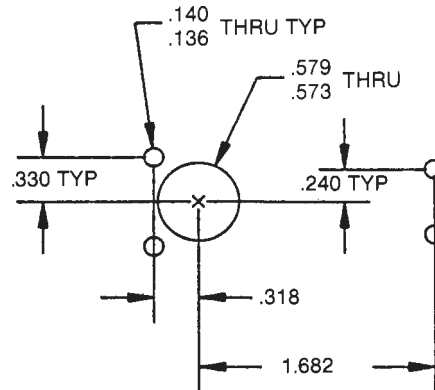


Figure 2: Mounting hole pattern

2. Mount the Gas-RT on the index cover using the TORX screws provided and reinstall the index cover on the meter. Operate the meter and observe the Gas-RT to ensure that no binding is occurring. See [Figure 3](#).

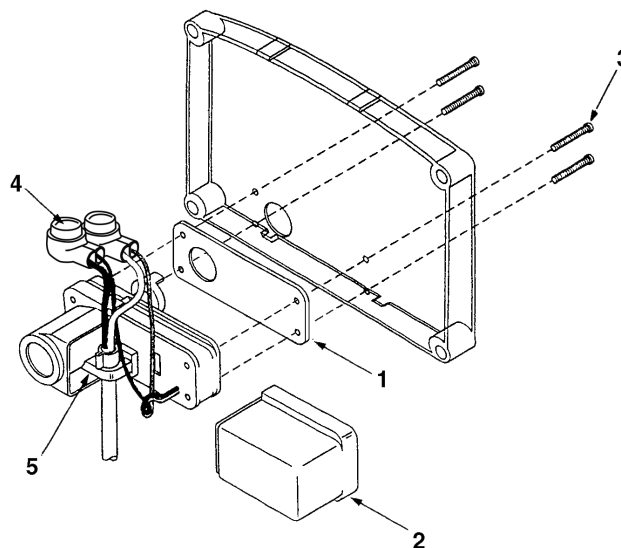


Figure 3: Mounting detail, see "Required Material" on page 3

WIRING GAS-RT

1. Feed the two-conductor shielded transmitter wires (Belden 9802) through the hole in the housing.
2. Strip approximately 1-1/2 inch of outer insulation sheath from the cable using the 59989-001 Coax Stripping Tool. Use caution removing the outer sheath so that the inner signal wire insulation is not damaged. See [Figure 4](#).

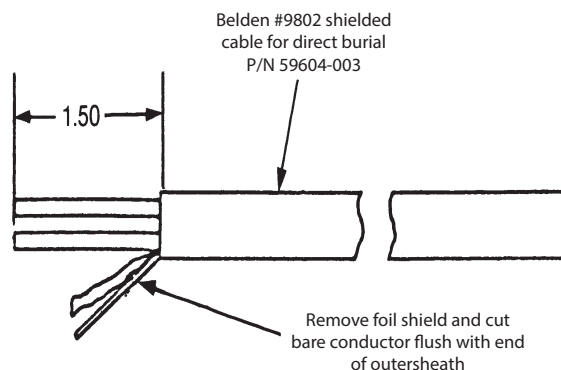


Figure 4: Cable stripping detail

3. Locate the bare conductor (shield drain) and cut it off flush with the end of the outer sheath. This is a "floating ground" and should never be terminated at the transmitter. Unwrap and remove the foil shield flush with the end of the outer sheath.
4. Place a strain relief clamp on the wire and secure it onto the outer sheath, approximately 1/8 inch from the end, by crimping each "ear" alternatively with the wire cutting pliers. See [Figure 5](#).

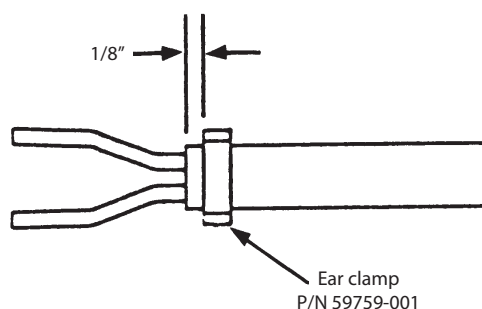


Figure 5: Strain relief

5. Connect the Gas-RT conductors to the remote cable conductors using the installation displacement gel-filled splices (59761-001) provided in the installation kit. Crimp the splices carefully and completely using a parallel jaw crimper, such as the Badger Meter crimper (59983-001). Polarity must be observed when connecting the Gas-RT to the remote. The black conductor of the Gas-RT is to be terminated to the negative (-) conductor. See [Figure 6](#).

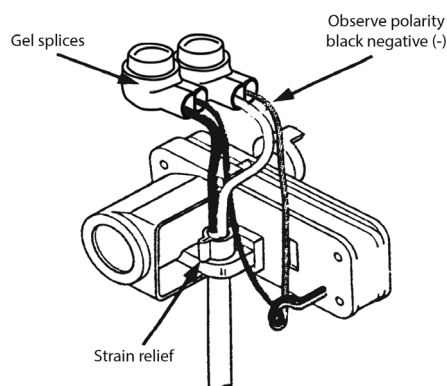


Figure 6: Gas-RT wiring

6. Test the entire installation including the Gas-RT and remote unit in accordance with the manufacturer's instructions.
7. Carefully fold the wires and splices to fit and then slide the Gas-RT cover into place until it snaps.
- NOTE:** The cover is designed for tamper protection and cannot be removed without damage. To remove the cover, press the blade of a screwdriver into the indentation in the cover; doing so releases the hatch.

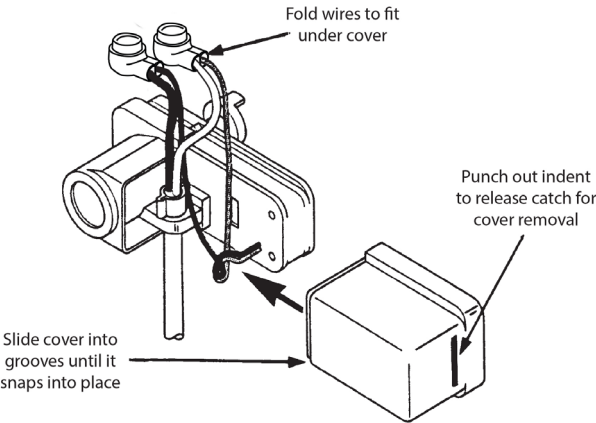
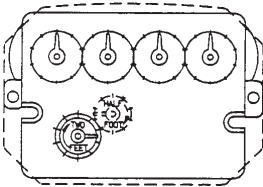
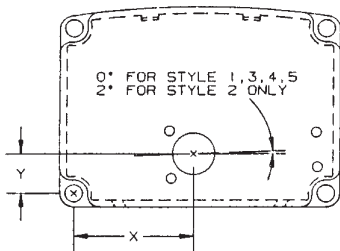


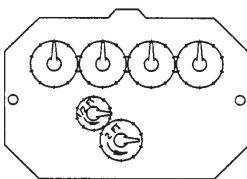
Figure 7: Cover placement

GAS-RT APPLICATION DATA

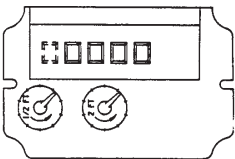
Sensus®/Rockwell®/Equimeter®



Index style #1

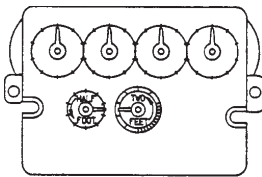
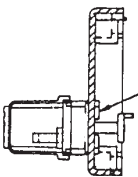


Index style #2

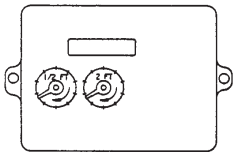


Index style #3

X	Y	Index style	Index drive dial rotation
1.465	1.020	#5	Clockwise
1.176	.861	#4	Counterclockwise
1.503	.773	#3	Counterclockwise
1.632	.552	#2	Counterclockwise
.966	.594	#1	Clockwise

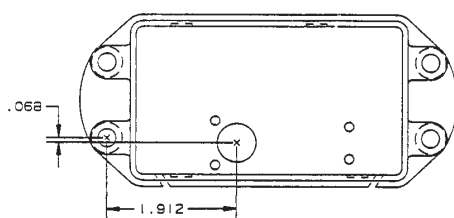
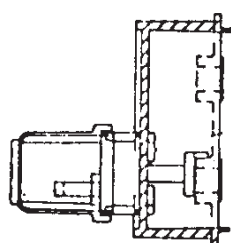


Index style #4

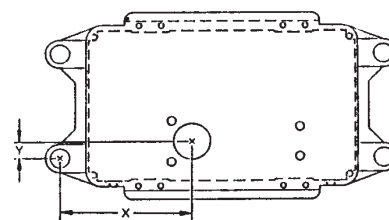


Index style #5

American®



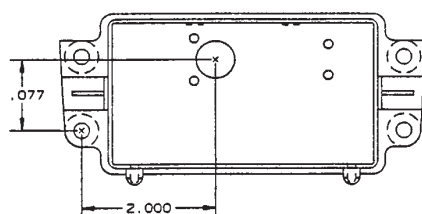
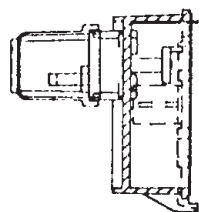
American aluminum case meter
(counterclockwise index drive dial rotation)



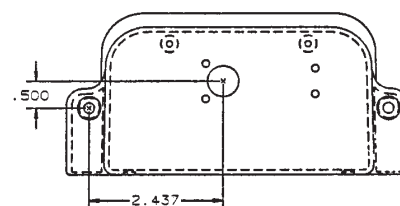
American iron case meter
(index drive dial rotation)

X	Y	Description
2312	.265	10B-Counterclockwise
2.062	.265	5B-Metric counterclockwise

Lancaster®/National®

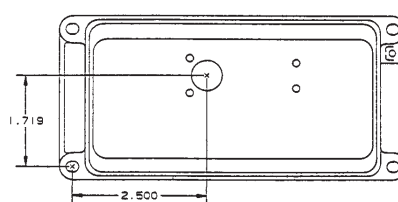
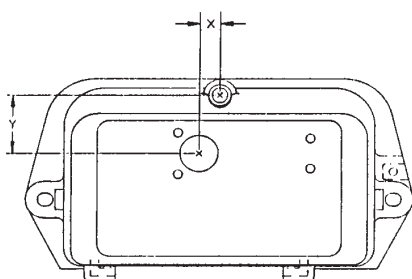


National/Superior
(counterclockwise index drive dial rotation)

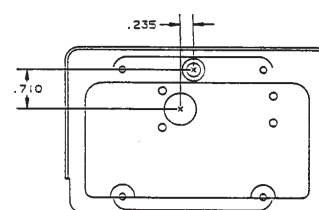


Lancaster
(counterclockwise index drive dial rotation)

Itron®/Actaris®/Sprague®/Schlumberger®



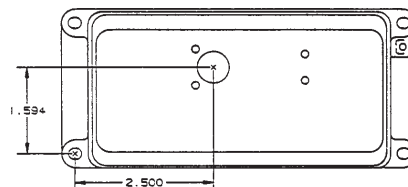
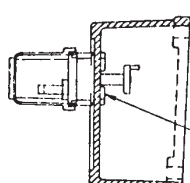
Sprague — 1000 S.I.
(counterclockwise index drive dial rotation)



Sprague — 1A, 175, 240 NON S.I.
(counterclockwise index drive dial rotation)

X	Y	250 S. I. Models	Index drive dial rotation
.403	.925	Sprague 400 S. I.	Counterclockwise
.309	.925	Sprague 175, 240	Counterclockwise

Sprague — 175, 240, 250, 400 S.I.



Sprague — 675 S.I. (counterclockwise index drive dial rotation)

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