

## **Automated Meter Reading (AMR)**

### **Transmitter Mounting Instructions**

### **For American Gas Meters**



### **Applicable Meters**

AC250, AL175, AL250, AL5B (=AL225), AL425 and any other American Meter model with a standard residential index.

### **RF Exposure Note**

In order to comply with FCC RF Exposure requirements, the Automatic Meter Reading unit must be installed in such a way that there is a 20c"m separation distance between it and all persons during normal operation.

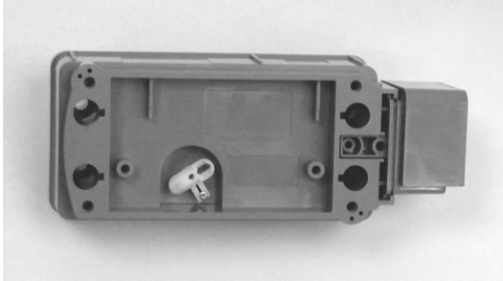
The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety code 6, obtainable from Health Canada's website [www.hc-sc.gc.ca/rpb](http://www.hc-sc.gc.ca/rpb)

**NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT**

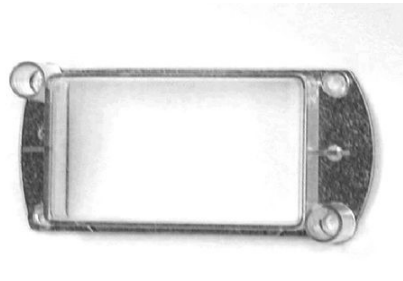
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## Components

Verify that all the required components for the installation are available:



GS0001 AMR Transmitter



Index cover (supplied with the transmitter)

## Hardware

Screw kit (see **Appendix – Transmitter Installation Screws** as identification guide):

- 4x mounting screws (thread length 1")
- 2x index screws (thread length  $\frac{3}{8}$ " )
- 4x index cover screws (thread length  $\frac{3}{4}$ " )
- 2x snap seals



## Tools

Verify that all the required tools for the installation are available:

- #1 Phillips screwdriver
- Flat screwdriver (blade size  $\frac{1}{4}$ " )
- Small flat screwdriver (blade size  $\frac{5}{32}$ " )
- Stiff blade putty knife
- Pointed tweezers (required for index screw placement)
- $\frac{1}{4}$ " Nut driver

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- *Mint* handheld terminal (HHT)



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# AMR Transmitter Installation

## Installation Tasks

1. Remove index cover.
2. Remove index from gas meter.
3. Mount AMR transmitter onto gas meter.
4. Assemble index and cover onto AMR transmitter.
5. Initialize AMR transmitter with HHT.

## Remove index cover

1. Use small flat screwdriver to punch out the seals that cover two (2) of the four (4) index cover screws.



2. Remove and properly dispose the four (4) screws holding the index cover onto meter, with flat screwdriver. If two (2) or more screws shear off during the cover removal (or were previously sheared off), the meter will need to be replaced by a qualified utility representative. Reinstall any index cover screws that were removed and cap with seals if possible. Enter the appropriate information in the Mint HHT and skip to the next work order.
3. Remove the index cover and dispose of properly.

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## Remove index

1. Remove and properly dispose the two (2) screws holding the index onto the meter, with small flat or Phillips screwdriver.



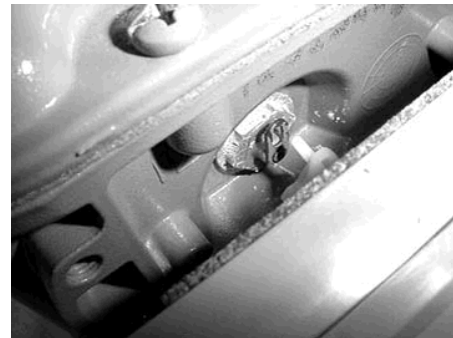
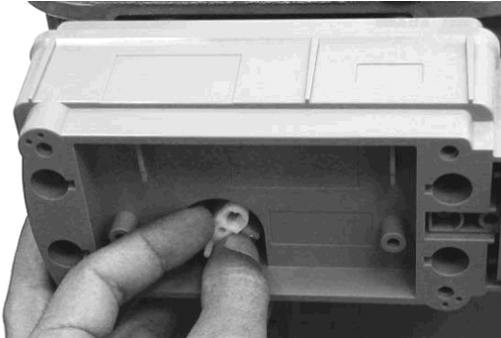
2. Remove the index and carefully clean any debris from it. Inspect for proper index operation by turning the input shaft and verifying that the gearing turns freely. Also, inspect the index for any missing or broken hands. Place the index, or a new index if necessary, on a clean surface near you for reinstallation later.
3. With a putty knife, scrap away any gasket material that remained on the meter when the index cover was removed.

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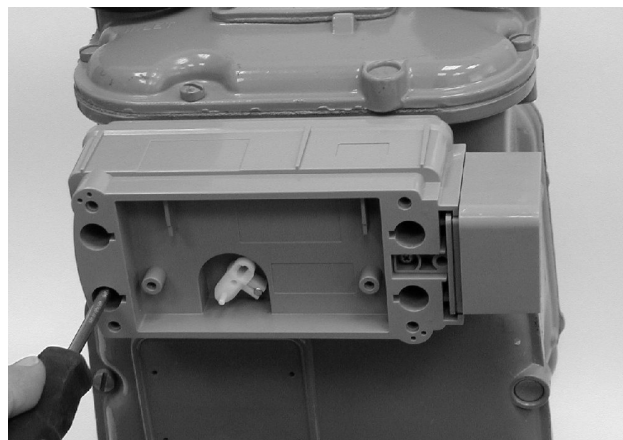
## Mount Transmitter on meter

Insure the four (4) mounting screws are available and within reach.

Place the AMR Transmitter onto the gas meter, aligning the Transmitter's shaft with the gas meter's male or female wriggler; adjust the Transmitter shaft's position by holding it on the front side, and insert pin into hole.



1. While holding the Transmitter in place, check that the shafts are aligned by gently rotating the Transmitter's shaft with your other hand. There should be just a slight freedom of motion.
2. Attach the Transmitter to the meter using the four (4) mounting screws with #3 Phillips screwdriver. Place all screws, then torque down two (2) diagonal screws. Check shaft alignment again, then tighten the last two (2) screws.
3. Should two (2) or more screws shear or strip during the installation, the meter will need to be replaced by a qualified utility representative. Remove the transmitter and reinstall the index and index cover on the meter with the original screws. Enter the appropriate information in the Mint HHT and skip to the next work order.



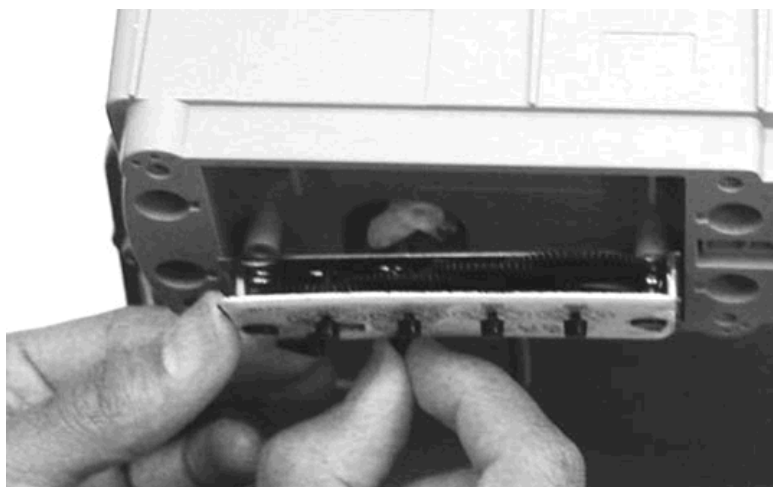
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## Assemble index and new cover onto transmitter

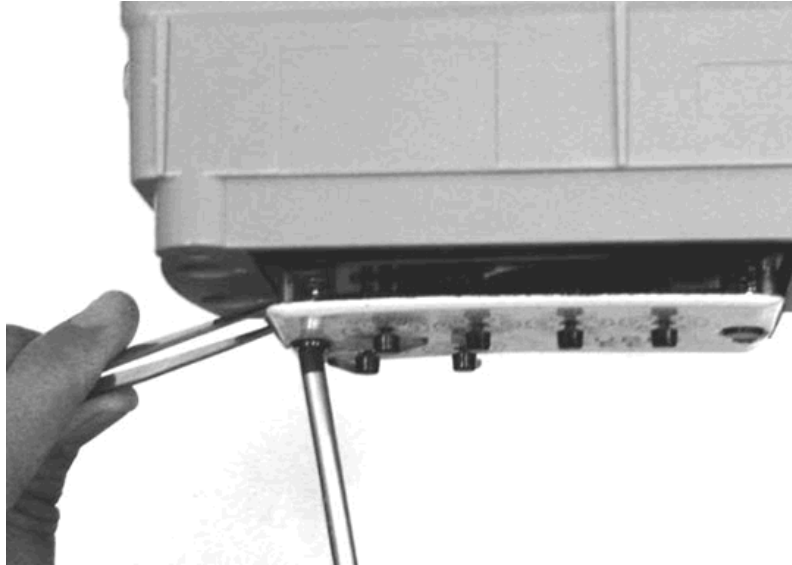
1. Insure the two (2) index screws are available and within reach.
2. Install the right side index screw to its place in the index (use tweezers if more convenient). Skip this step if assembling a plastic index.
3. Insert #1 Phillips screwdriver to hold screw in place, while placing the index onto the Transmitter, then insert the screw **just 2-3 turns**, so that the index fits loosely on the Transmitter. In case of a plastic index, or an index with open screw positions, first insert the right screw 2-3 turns and then slide the index mounting slot behind the screw head.



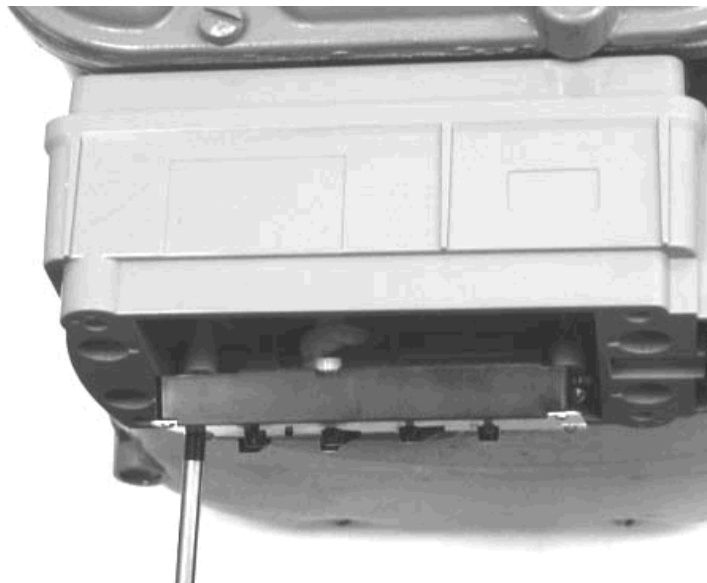
4. Align the index male or female wriggler with the Transmitter's shaft; adjust the wriggler's position by holding the proving hand on the index front side, and insert pin into hole.



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5. Install (use tweezers) the left side index screw to its place in the index. Use left hand to install the screw and secure index into place.



With plastic index:



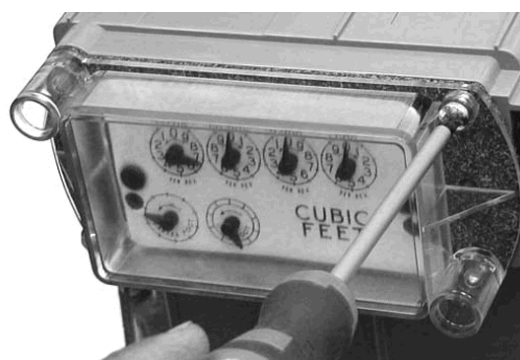
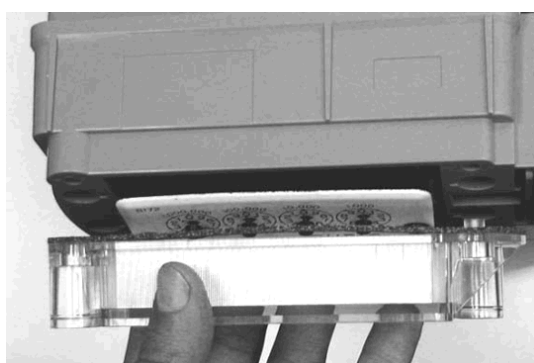
6. While the index is still a bit loose, centralize its position. Check that the motion is smoothly transferred and there is no binding between the shaft and wiggler, by gently rotating back and forth the index's proving hand.
7. Tighten the index screws, securing the index to the Transmitter.

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8. Install the index cover supplied (it only fits in one direction – the bump fits in the right side of the Transmitter). Check that the gasket is properly aligned and fasten to the Transmitter with the four (4) index cover screws.



**CAUTION**

Use care when working with a power screwdriver to insert screws in the plastic Transmitter box. Over tightening will damage the box and/or weaken the contact.



9. Install the two snap seals in the index cover and insert fully with the aid of a 1/4" nut driver. Align the end of the nut driver on the snap seal and tap the end of the nut driver handle with your hand until it is fully seated.



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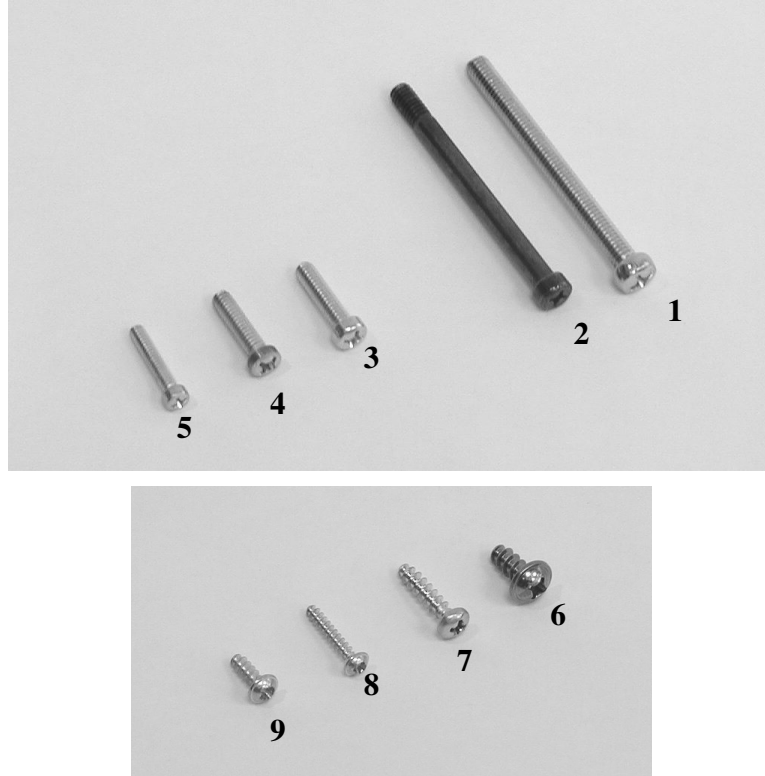
## Initialize AMR Transmitter with HHT

On operating the *Mint* HHT, see **Gas AMR Installation HHT (*Mint*) User's Guide**. When you are ready to initialize (program) the AMR Transmitter, position the HHT with the upper back part of the HHT against the Transmitter receive area (indicated below) and press the PRG key (7-dot mark).



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## Appendix – Transmitter Installation Screws



### Mounting Screws

1. Equimeter/Rockwell commercial meter (e.g. R750) – 5/16" x 3 1/2" combo fillister
2. American commercial meter (e.g. AL800) – #18-18 x 84 Phillips pan head
3. American residential meter (e.g. AC250) – 1/4" x 1" Phillips fillister
4. Schlumberger/Sprague residential meter (e.g. S175) – 10-24 x 1" Phillips fillister
5. Equimeter/Rockwell residential meter (e.g. R275) – 10-24 x 1" Phillips fillister

### Index Screws

6. Equimeter/Rockwell commercial meter (e.g. R750) – WN1411 KA 60x14 Phillips
8. Equimeter/Rockwell residential meter (e.g. R275) – WN1412 KA 35x22 Phillips
9. American & Schlumberger/Sprague residential meter – WN1411 KA 40x12 Phillips

### Index Cover Screws

7. All residential meters – WN1412 KA 50x20 Phillips