

ET GAGE & ENCLOSURE



SERVICING

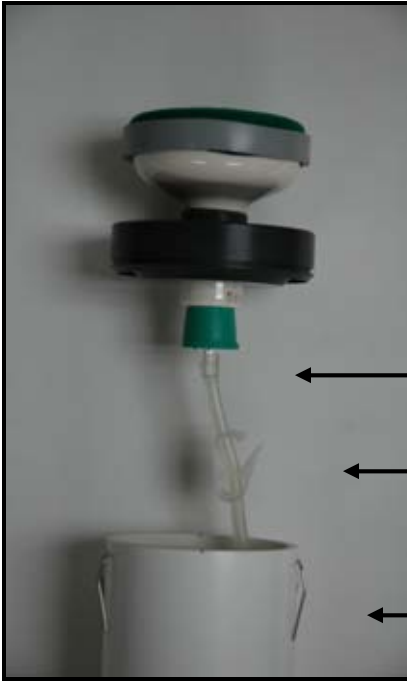


making water work

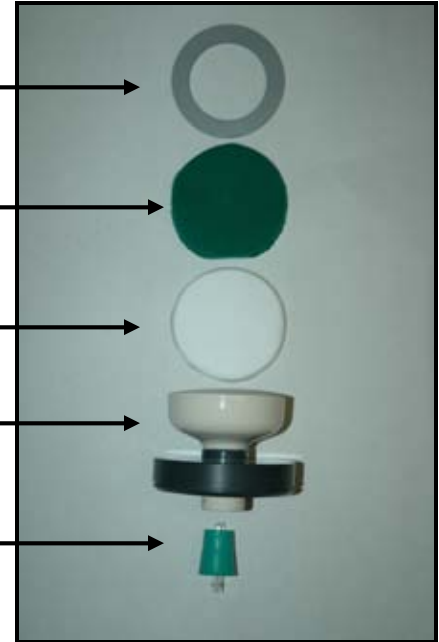
since 1986

ET GAGE & ENCLOSURE, PARTS IDENTIFICATION

UPPER BODY



CERAMIC CUP ASSEMBLY



RUBBER RETAINING RING

CANVAS COVER

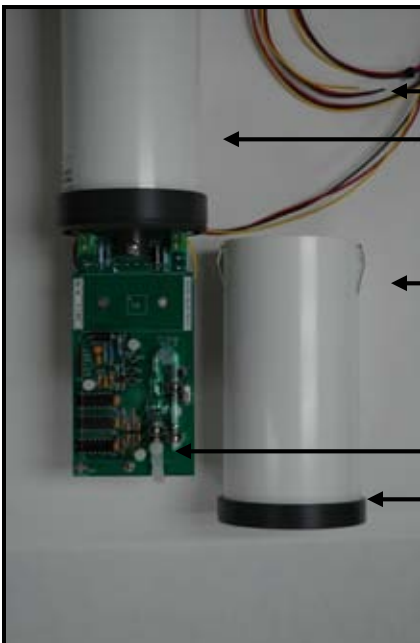
DISPOSABLE WAFER ASSEMBLY

RUBBER HOSE

RUBBER HOSE CLIP

RUBBER STOPPER

CERAMIC CUP CLIPS



STAINLESS STEEL WIRE CAP

(-G) OPTION WIRE HARNESS

DISTILLED WATER RESERVOIR

STAINLESS STEEL MOUNTING BRACKET

ELECTRONICS HOUSING CLIPS

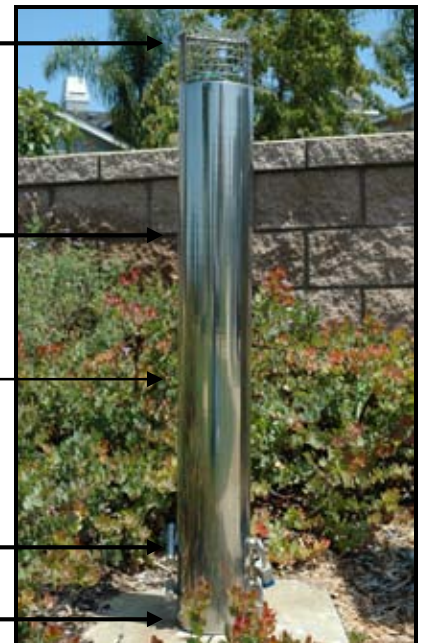
STAINLESS STEEL PROTECTIVE HOUSING

CIRCUIT BOARD

ELECTRONICS HOUSING

STAINLESS STEEL T- HANDLES

CEMENT SLAB MOUNTING BRACKET



LOWER BODY

STAINLESS STEEL ENCLOSURE



ET GAGE & SERVICING

The *Calsense* ET Gage requires periodic servicing. This section deals with servicing only. If your ET gage requires troubleshooting refer to the Troubleshooting section of the Manual. There are five areas to this section they are:

- 1) Yearly Servicing.
- 2) Et Gage servicing procedures.
- 3) Monthly refilling and priming.
- 4) Resetting the ET Gage percentage at the controller.
- 5) Ceramic cup maintenance.

REQUIRED TOOLS

- Two gallon plastic bucket.
- 1 quart of regular household bleach.
- 1 gallon container of distilled water.
- One 4" square silicon carbide paper (between 240 and 600 grit).
- New canvas cover.
- New disposable wafer assembly
- Plastic syringe.
- Clean cloth or paper towels.



CAUTION:

DO NOT clean the ceramic or any surface of the ET gage with soap or detergent.

DO NOT get any part of the electronic printed circuit board (PCB) wet. Any droplets of water left on the PCB may cause corrosion and damage to the board.



 **YEARLY SERVICING
STEP 1**

Fill the 2 gallon plastic bucket with tap water.



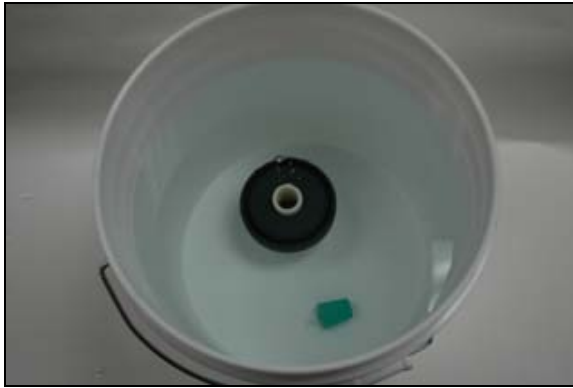
 **YEARLY SERVICING
STEP 2**

Add 3 tablespoons of regular household bleach to the bucket of tap water.

 **YEARLY SERVICING
STEP 3**

Remove the ceramic cup from the Gage body. Disconnect rubber hose and stopper.





**YEARLY SERVICING
STEP 4**

Remove diffusion covers and rubber stopper from ceramic cup. Put the ceramic cup and stopper in the bucket of bleached water.

**YEARLY SERVICING
STEP 5**

Empty the Gage reservoir of distilled water.



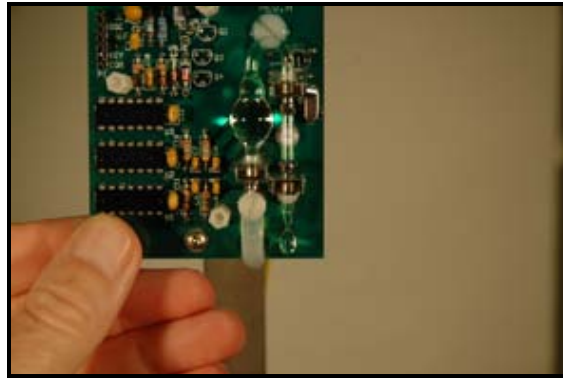
**YEARLY SERVICING
STEP 6**

Refill the Gage reservoir with the bleached water used for soaking the ceramic cup.



YEARLY SERVICING STEP 7

Remove bottom cover from ET Gage body. Press solenoid switch at lower left-hand corner of the circuit board to activate valve. Hold the button for 10 seconds. This will allow the bleached water to pass through the tubing and glass vile.



YEARLY SERVICING STEP 8

Attach syringe to the end of the rubber hose. Hold syringe in the palm of your hand. With your thumb, push upward on syringe to draw water slowly through the tube. Draw through the tube 20 cc's of bleached water.

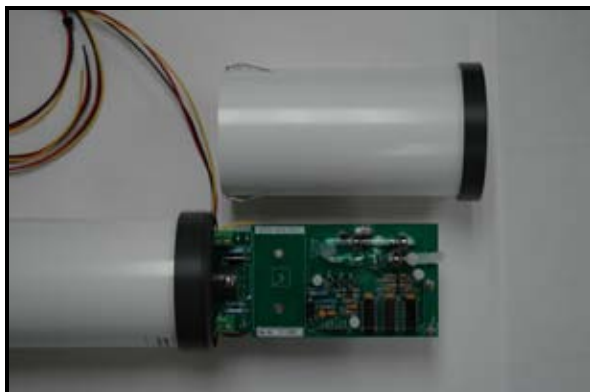
YEARLY SERVICING STEP 9

Allow the gage to sit for 10-15 minutes. While you are waiting, proceed to:

“Ceramic cup maintenance”.

YEARLY SERVICING STEP 10

Replace the bottom cover that protects the PCB Board.



YEARLY SERVICING STEP 11

Empty the bleached water from the ET Gage reservoir.

YEARLY SERVICING STEP 12

Thoroughly rinse the reservoir with tap water. Holding your hand over the end of the reservoir, carefully shake the reservoir back and forth, and empty the tap water. Repeat this two (2) more times.



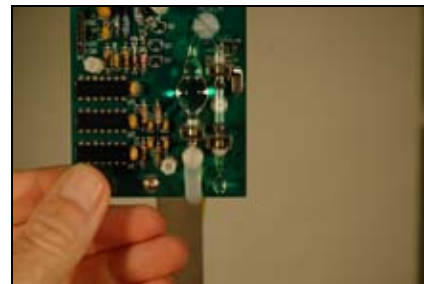


 **YEARLY SERVICING
STEP 13**

With the reservoir emptied of tap water. Fill the reservoir with distilled water.

 **YEARLY SERVICING
STEP 14**

Remove the bottom cover from the ET Gage body. Press the button at the lower left hand corner of the circuit board to activate valve and allow water to run through the glass vile. Hold the solenoid switch for 10 seconds, pause, and hold the button for another ten seconds. This will allow the distilled water to pass through the tubing and glass vile to thoroughly flush out the bleached water



 **ET GAGE SERVICE
PROCEDURE
STEP 1**

Attach syringe to end of rubber hose. Hold the syringe in the palm of your hand. With your thumb, push upward on syringe and slowly draw through the tube 20 cc's of the distilled water. Repeat two (2) more times.

**ET GAGE SERVICE
PROCEDURE
STEP 2**

Clip rubber hose closed and remove syringe from rubber hose.



**ET GAGE SERVICE
PROCEDURE
STEP 3**

Top off ceramic cup with distilled water and insert rubber stopper.

**ET GAGE SERVICE
PROCEDURE
STEP 4**

Attach rubber hose to glass tube of stopper.





 **ET GAGE SERVICE
PROCEDURE
STEP 5**

Release the clip on the rubber hose.

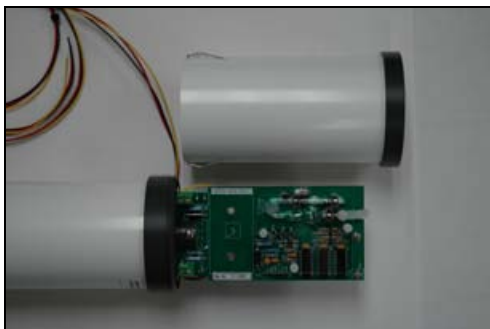
 **ET GAGE SERVICE
PROCEDURE
STEP 6**

Reinstall the ceramic top on the Gage body.



 **ET GAGE SERVICE
PROCEDURE
STEP 7**

Reinstall the bottom PCB Board cover.



NOTE

See:

“Resetting ET percent at controller”.

**MONTHLY REFILLING
AND PRIMING
STEP 1**

Remove ceramic cup from the Gage body.



**MONTHLY REFILLING
AND PRIMING
STEP 2**

Clip the rubber hose and disconnect the rubber hose from the stopper.



 **MONTHLY REFILLING
AND PRIMING
STEP 3**

Remove the stopper. Top off the ceramic cup with distilled water and replace the rubber stopper in the ceramic cup.

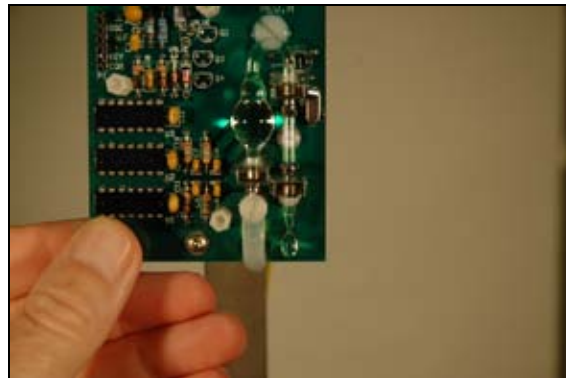


 **MONTHLY REFILLING
AND PRIMING
STEP 4**

Add distilled water to the reservoir. (full is 1" inch below the top of the reservoir).

 **MONTHLY REFILLING
AND PRIMING
STEP 5**

Remove the bottom cover of the Gage body. With the Gage powered up. Press the button at the lower left hand corner of the circuit board to activate valve and allow water to run through the glass vile until clear of bubbles.





**MONTHLY REFILLING
AND PRIMING
STEP 6**

Attach syringe to end of rubber hose. Release clip on rubber hose. Hold the syringe in the palm of your hand. With your thumb, push upward on syringe to draw water slowly through the tube until it is full and free of bubbles.

**MONTHLY REFILLING
AND PRIMING
STEP 7**

Clip the rubber hose closed and remove the syringe from the hose.



**MONTHLY REFILLING
AND PRIMING
STEP 8**

Attach the rubber hose to the glass tube in the rubber stopper.



 **MONTHLY REFILLING
AND PRIMING
STEP 9**

Release the clip on the rubber hose.



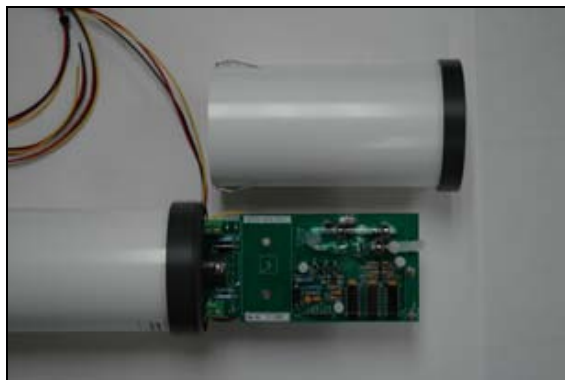
 **MONTHLY REFILLING
AND PRIMING
STEP 10**

Reinstall the ceramic cup on to the Gage body.



 **MONTHLY REFILLING
AND PRIMING
STEP 11**

Reinstall the bottom PCB Board cover.



RESETTING THE ET % AT THE CONTROLLER

ET1: Press the percentage key and use the **UP** and **DOWN** arrow keys to set ET% to 99%. Press **ENTER** to set.

ET2000 (400 series): Press **MAIN MENU, WEATHER, ET GAGE, SET GAGE TO 99%**.

ET2000 (500 series): Press **MAIN MENU, WEATHER, ET GAGE**, use **LEFT** or **RIGHT** arrows to highlight "Gage is **% full". Use **PLUS** or **MINUS** key to adjust % to 99%.

CERAMIC CUP MAINTENANCE STEP 1

Remove the ceramic cup from the bucket of bleached water.



CERAMIC CUP MAINTENANCE STEP 2

View the surface of the ceramic by holding it below level eye sight. Glossy areas and orange stains indicate contamination.



 **CERAMIC CUP
MAINTENANCE
STEP 3**

Under running tap water, vigorously sand the top of the ceramic cup with silicon carbide paper.



 **CERAMIC CUP MAINTENANCE: FLAT CLAY TYPE
CONTINUED**

If stains remain after sanding, re-soak for 15 minutes and lightly re-sand. Thoroughly rinse the ceramic under running tap water. Under running tap water rinse the canvas cover and allow to air dry. Return to:

“Yearly Servicing step 11”.

This concludes ET Gage servicing.



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