

Humidity Generation and Calibration Equipment

**THUNDER SCIENTIFIC®**  
**CORPORATION** THE HUMIDITY SOURCE

# *Model 3900*

## **Methanol Filling Procedure**



Tech Support Document TSD-0290  
Revision Date: December 4, 2018

623 WYOMING BLVD. SE



ALBUQUERQUE, NM 87123-3198  
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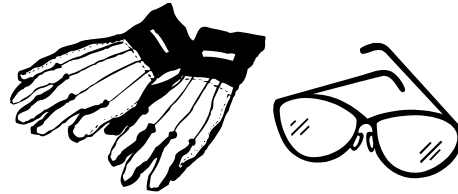


TEL: 505.265.8701  
FAX: 505.266.6203

## 3900 Methanol Filling Procedure

### Equipment Required:

1. 1.5 gallons (5.675 Liters) of anhydrous methanol
2. 7/8" (23 mm) socket with 6" (0.15 m) extension
3. 3/16" (4.5 mm) ball/hex driver (to remove counter top bolts)
4. 3/8" (9.5 mm) ball/hex driver (to remove Methanol Expansion Tank Fill Port Plug)
5. Funnel
6. Gloves and goggles



### Reference Drawings:

At the end of procedure 08D39922 Methanol Fill Level, and 18D39923 Counter Top Mounting Locations

## CAUTION!

### METHANOL IS FLAMMABLE AND POISONOUS

Keep away from sparks, flames, or other ignition sources. Avoid prolonged or repeated breathing of vapors or contact with skin. Do not allow material to contaminate water sources.

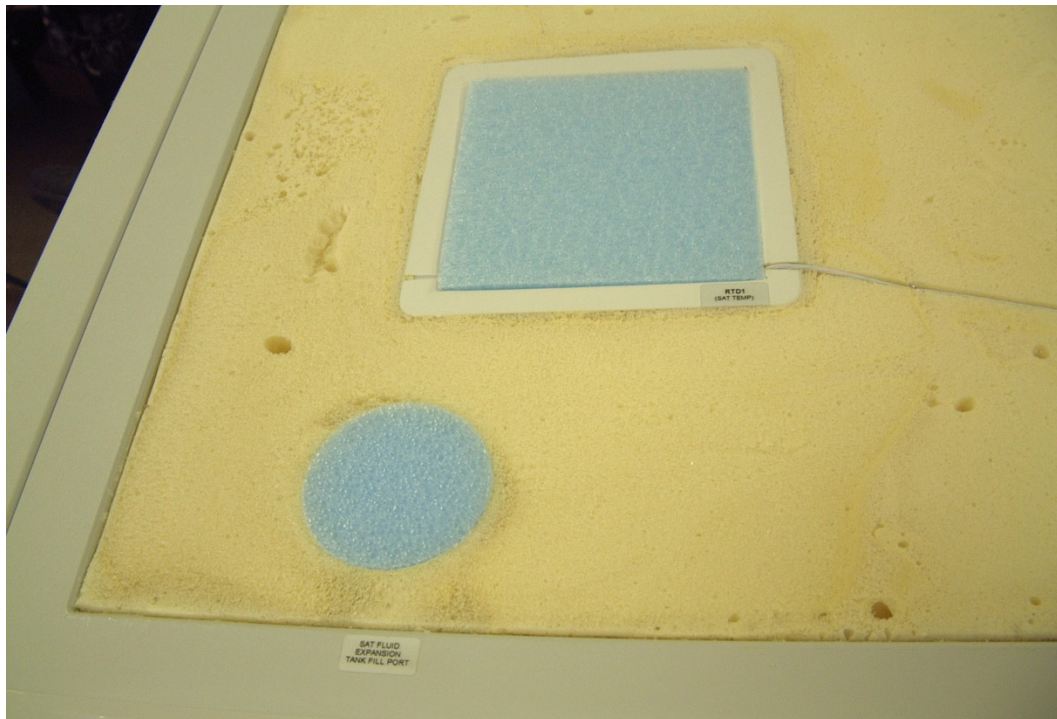
1. Make sure the main power source is not connected.
2. Remove left and right side console panels.



3. Using 3/16" ball/hex driver, remove 4 securing bolts near corners, and remove counter top.



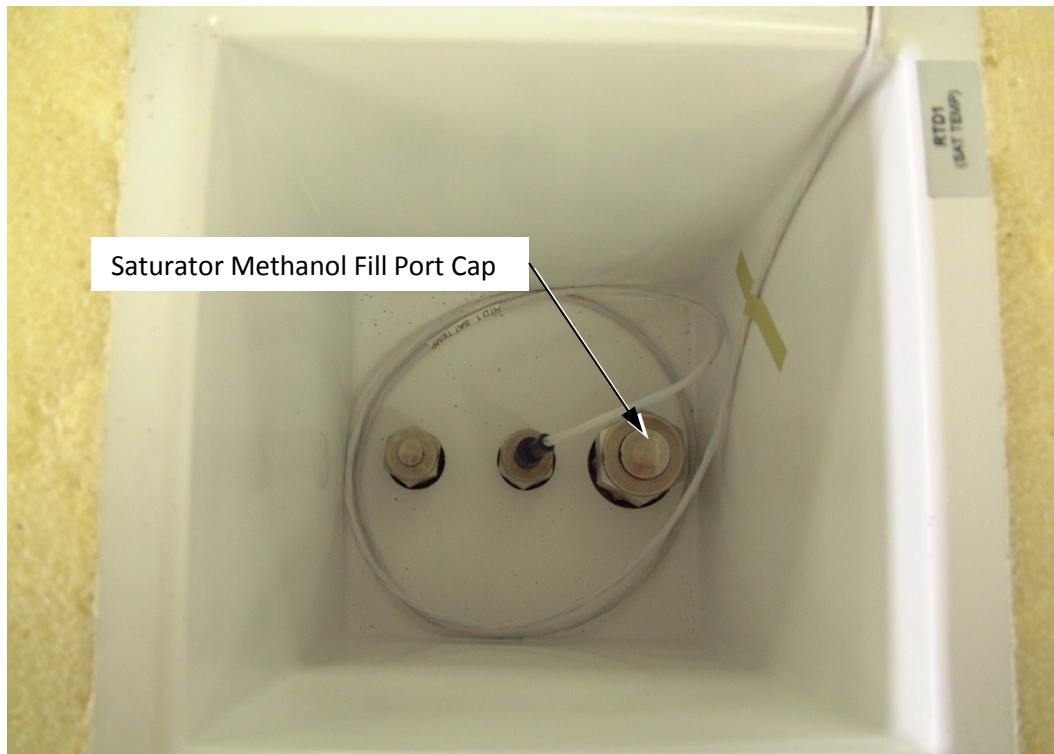
4. Locate and remove RTD1 access insulation.



5. Get the 7/8" socket with 6" extension.



6. Remove the Saturator Methanol Fill Port Cap from the top of the saturator.





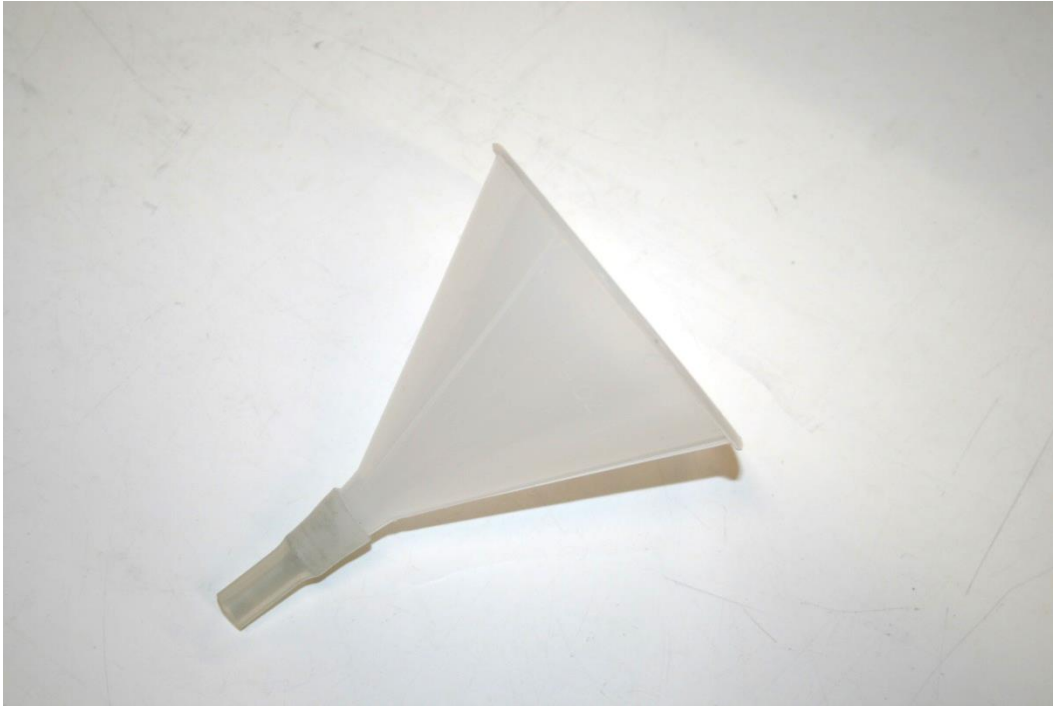
7. Remove circular insulation and the Methanol Expansion Tank Fill Port Plug.



8. Using a 3/8" (9.5 mm) ball/hex driver remove Methanol Expansion Tank Fill Port Plug.



9. Insert the funnel into the Methanol Expansion Tank Fill Port. Slowly and carefully fill the saturator assembly until methanol is observed just below the Saturator Methanol Port Fitting located on top of the saturator (in the square insulation area).



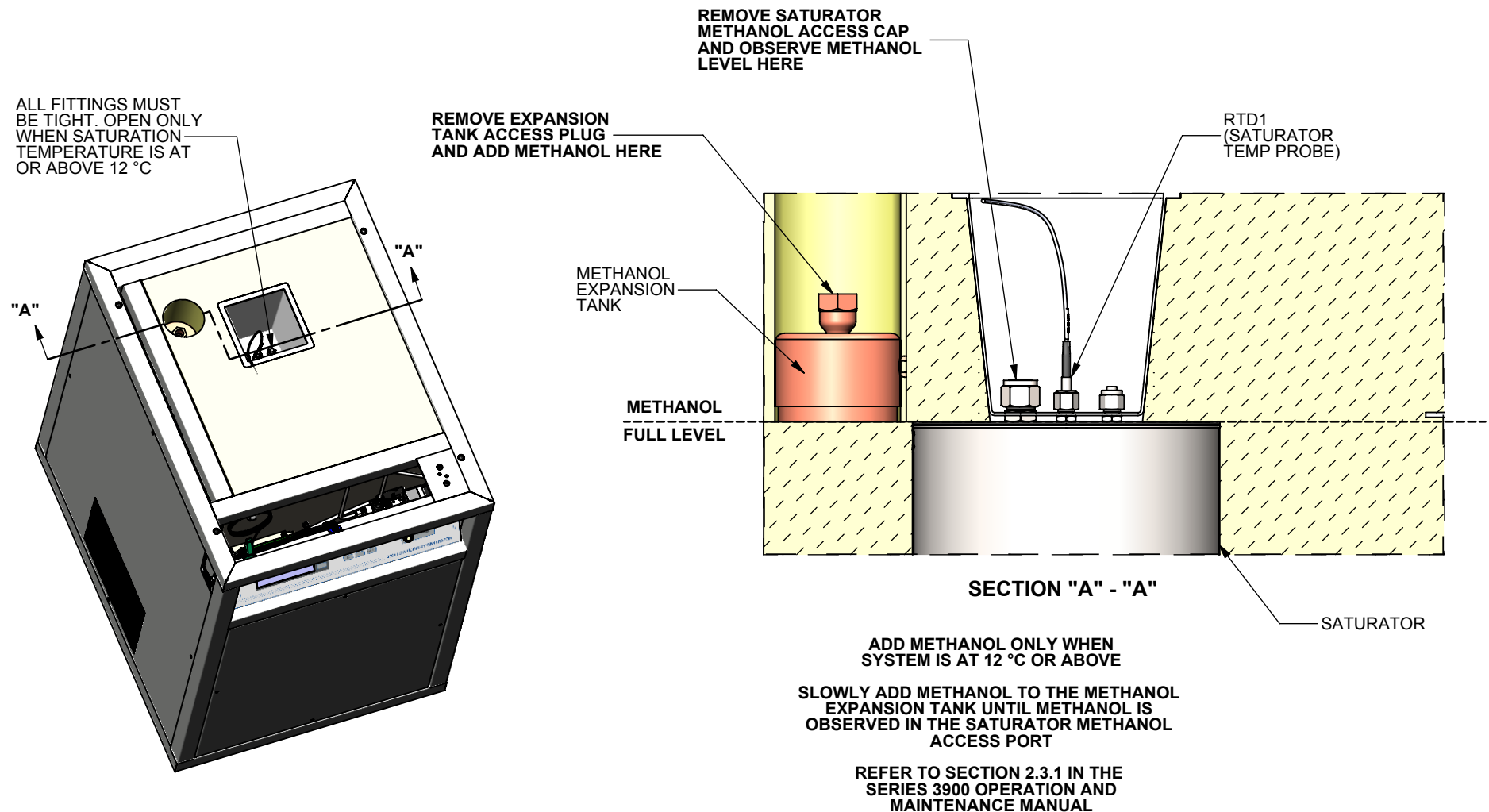
Note - The methanol must be added slowly as it is being gravity fed through 3/8" tubing between the methanol expansion tank and the saturator. Do not allow funnel to fill.

Methanol degrades the urethane foam insulation; sponge dry any methanol spilled during the filling operation!

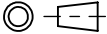
10. Replace the saturator methanol port cap (tighten 1/4 turn past finger tight).
11. Replace methanol expansion tank fill port plug.
12. Replace all insulation.
13. Replace counter top tighten screws just snug do not over tighten as the inserts in the counter top can be damaged.
14. Replace both right and left console panels.

Please Call 1-800-872-7728, or E-mail [support@thunderscientific.com](mailto:support@thunderscientific.com) should you have any questions.

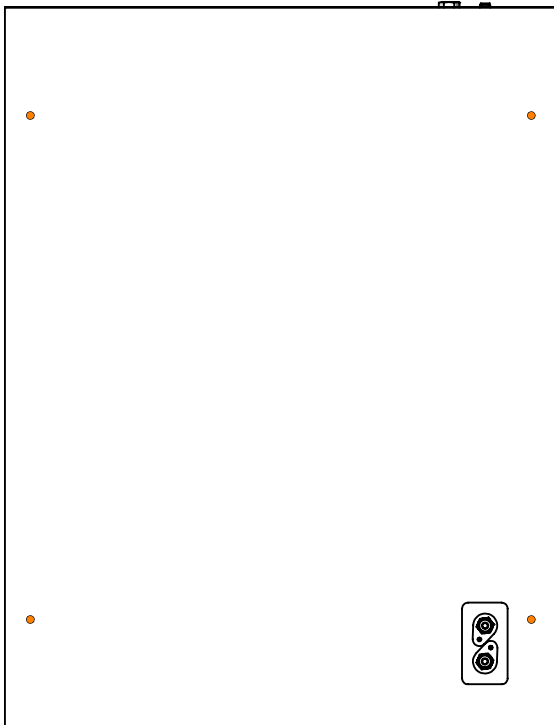
REVISIONS				
DWN	REV.	DESCRIPTION	DATE	APP. BY
DWF	A	DRAWN TO SW	6/14/2018	BB



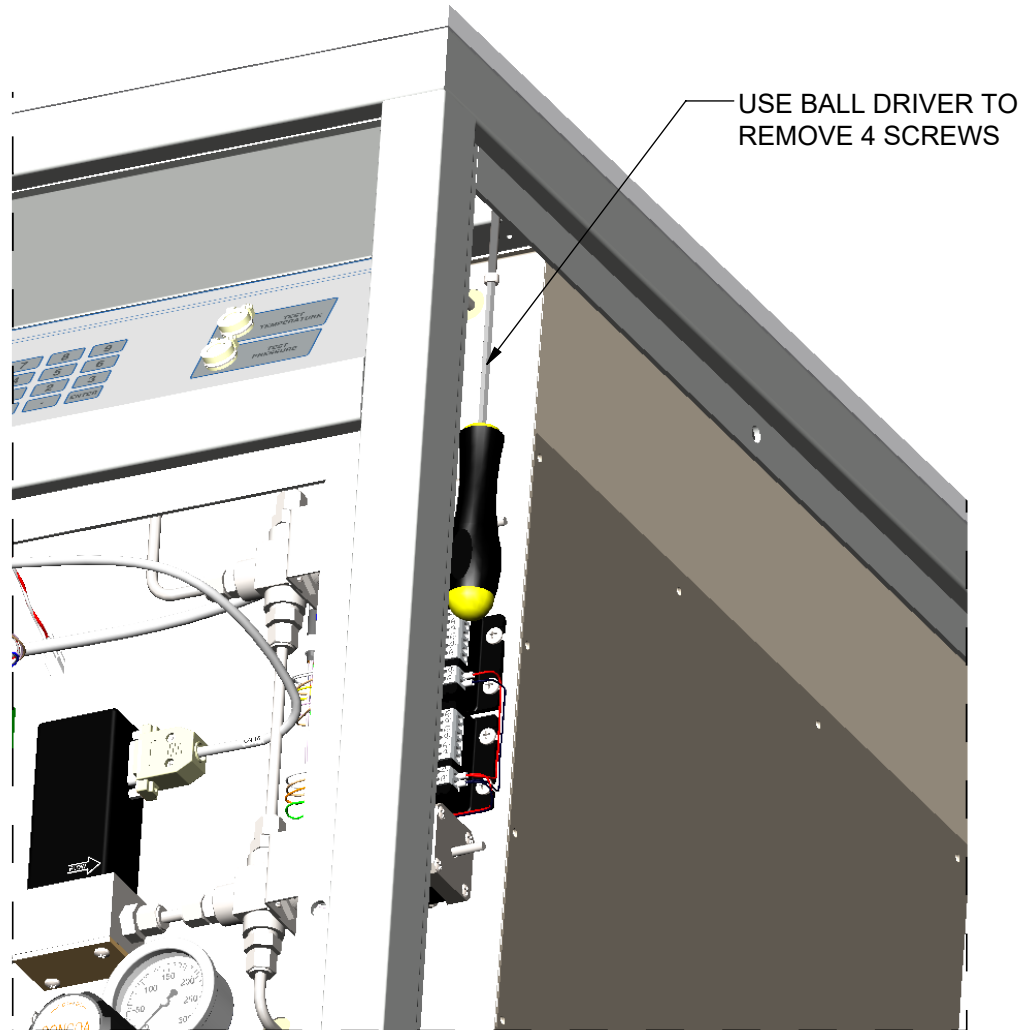
**SERIES 3900  
LOW HUMIDITY  
GENERATOR**


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					<b>Methanol Fill Level Drawing</b>					
					<b>TOLERANCES</b> .XXX ±.010 .XX  ±.015 ∠   ±.50° UNLESS NOTED OTHERWISE	DRAWN   FURRY	7/08/2008	<b>SIZE</b> <b>A</b>	DWG. NO.	REV
NEXT ASSY	USED ON					APPROVED BB	7/11/2008		<b>08D39922</b>	<b>A</b>
APPLICATION			ISSUED   GMF	7/11/2008		WT. 326.65	SHEET 1 OF 1			

REVISIONS				
DWN	REV.	DESCRIPTION	DATE	APP. BY



REMOVE RIGHT AND LEFT SIDE PANELS  
TO ACCESS THE #10 SOCKET HEAD SCREWS  
SECURING THE COUNTER TOP TO THE 3900 FRAME



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						Counter Top Mounting Locations						
	3900					<div>TOLERANCES</div> <div>.XXX ±.010 .XX ±.015 ∠ ±.50° UNLESS NOTED OTHERWISE</div>	DRAWN	FURRY	11/30/2018	SIZE <b>A</b>	DWG. NO.	REV
NEXT ASSY	USED ON						APPROVED	BB	11/30/2018		<b>18D39923</b>	-
APPLICATION		ISSUED	DWF	11/30/2018	WT. 448.37		SHEET 1 OF 1					