

ULTRAPROBE 9,000 STEAM INSPECTION



9,000 STEAM INSPECTION



Ultraprobe 9,000 Steam Inspection

NOTE: UE DMS software available for download at www.uesystems.com

FUNDAMENTALS



Ultrasonic steam inspection is a non intrusive, real time route based OR trouble shooting assessment of steam systems and individual steam traps. The Ultraprobe 9,000 allows for immediate analysis of steam traps identifying inefficiencies within the system.



With steam systems being an extremely costly operation, identifying failing components within a system is a tremendous opportunity for waste identification and energy conservation.



SAFETY: WRIST STRAP WORN ALL TIMES

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INITIAL SETUP



To power on the Ultraprobe 9,000, pull and hold the instrument trigger. Keep trigger pulled for instrument to remain **ON**. The unit will power on in the main display.



The Ultraprobe 9,000 will power on in default mode of 40 kHz with sensitivity at maximum.

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INITIAL SETUP



To set up the Ultraprobe 9,000 for Steam Inspection, set the frequency to 25 kHz using the sensitivity dial. “Click” dial until “KHZ” is flashing, then spin to the desired frequency.

Once 25 kHz is reached, click the sensitivity dial again to set that frequency.



Then insert the **Stethoscope Module (STM)** into the module port. Modules are removed by pulling module straight out of port without twisting. **ONLY USE THE STEHOSCOPE MODULE FOR STEAM INSPETIONS.**



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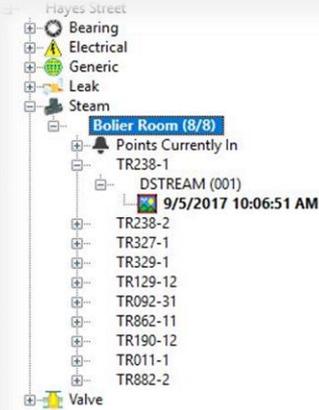
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INITIAL SETUP

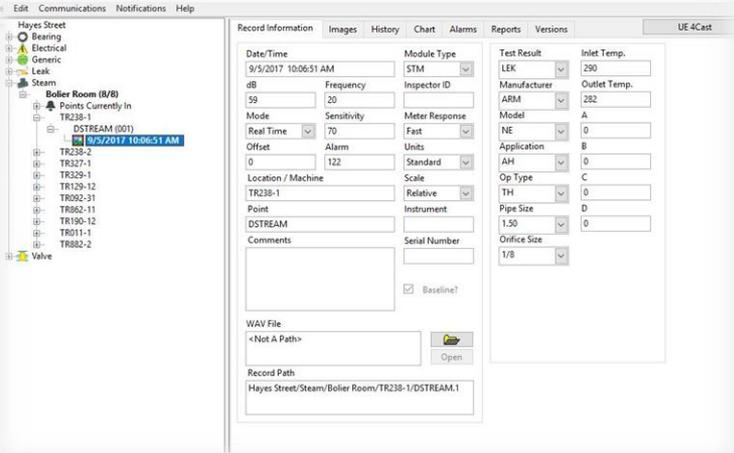


Initially, downloading the DMS software from UESystems.com will allow inspectors to build a database for each steam trap within the facility.

Each route can be downloaded to the Ultraprobe 9,000 for organized data collection.



Each route is stored within the plant created within the DMS software and is available for download at anytime. Each route can house up to 400 individual steam traps.



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INSPECTION PROCEDURE



The factory settings on the Ultraprobe 9,000 allows inspectors to name each steam trap within each route upon initial inspection. To turn this function **OFF** and allow for “quick store” functionality, enter the setup menu #7, “Text Editor Select”.



To enter the setup menu options, power on the Ultraprobe 9,000 by pressing and holding the **trigger**, the **STORE** button and the **sensitivity dial** simultaneously for approx. **3 seconds**. Then spin the sensitivity dial to menu #7. Click the dial to enter the menu, spin to desired selection, then click to save.

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INSPECTION PROCEDURE



With the route downloaded to the Ultraprobe the text editor function turned **OFF** and the frequency set the **25 kHz**, inspectors can collect data. First, make contact with the steam trap near the discharge orifice location using the **STM**.



Adjust and optimize the sensitivity and tune frequency (if necessary) to obtain a good quality signal. Listen for any operational deviations for a minimum of **ONE COMPLETE CYCLE**. Ensure inspectors have adequate operational knowledge of each type of steam trap prior to inspection.



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INSPECTION PROCEDURE



When optimizing the sensitivity, arrow indicators alert inspectors as to which direction to spin the sensitivity dial. A **RIGHT** arrow indicates the sensitivity is too low and the dial must be turned to the right to obtain a decibel. A **LEFT** arrow indicates the sensitivity is too high.



When the sensitivity is optimized a **decibel (dB)** populates on the screen, ready to be stored and permanently saved.



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SAVING DATA



When inspecting steam traps, a decibel can be stored for future assessment. Saving the decibel is accomplished by selecting the **STORE** button.



Once **STORE** button is pressed, the display will indicate if previous data has been stored, if No Data has been stored, “**Not Used**” will be displayed as well as the current data being stored. Press the **STORE** button again to permanently save the data.

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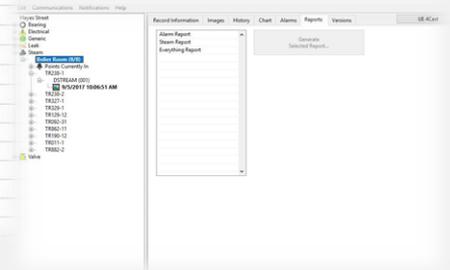


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SUPPORTIVE SOFTWARE

Number	Area	Location	System Pressure	Location Description	Man	App. Type	Model	Trap Type	Pipe Size	Orifice Size	Inlet Temp	Outlet Temp	Inlet Pressure	Outlet Pressure	Test Results	%	Lbs./Hour	dB	Cost	Comments
1	TR238-1	DSTREAM	0		ARM	AH	NE	TH	1.50	1/8	290	282	42.9 PSIG	36.1 PSIG	LEK	50	7.673	59	\$ 8.40	
2	TR238-2	DSTREAM	0		ARM	AH	NE	TD	2.00	1/8	303	289	55.4 PSIG	42.0 PSIG	LEK	50	10.05	0	\$11.00	
3	TR327-1	DSTREAM	0		SAR	RAD	NE	FT	2.00	1/8	361	348	140.3 PSIG	116.5 PSIG	LEK	50	13.767	121	\$15.07	
4	TR329-1	DSTREAM	0		BES	HE	NE	TH	1.00	1/8	269	253	26.5 PSIG	16.7 PSIG	BLW	100	8.744	75	\$19.15	
5	TR129-12	DSTREAM	0		ARM	AH	NE	TD	2.00	1/8	229	227	5.7 PSIG	4.9 PSIG	OK	0	5.252	22	\$ -	
6	TR092-31	DSTREAM	0		ARM	AH	NE	FT	2.00	1/8	0	0	0.0 PSIG	0.0 PSIG	NIS	0	5.255	0	\$ -	
7	TR862-11	DSTREAM	0		YAR	HE	NE	FT	2.00	1/8	226	213	4.6 PSIG	0.3 PSIG	LEK	50	6.786	33	\$ 7.43	
8	TR190-12	DSTREAM	0		ARM	RAD	NE	IB	2.00	1/8	296	290	48.4 PSIG	42.9 PSIG	LEK	50	7.235	69	\$ 7.92	
9	TR011-1	DSTREAM	0		SAR	AH	NE	FT	2.00	1/8	325	302	81.5 PSIG	54.4 PSIG	OK	0	14.95	121	\$ -	
10	TR882-2	DSTREAM	0		ARM	AH	NE	IB	1.50	1/8	289	266	42.0 PSIG	24.5 PSIG	BLW	100	11.51	55	\$ 25.21	



For program optimization, download the DMS software from UESystems.com. Once downloaded, build routes for each steam trap within the facility. Designating specific inspection locations and processes. Directly supporting organization and repair. All reports are generated in Excel formatting.

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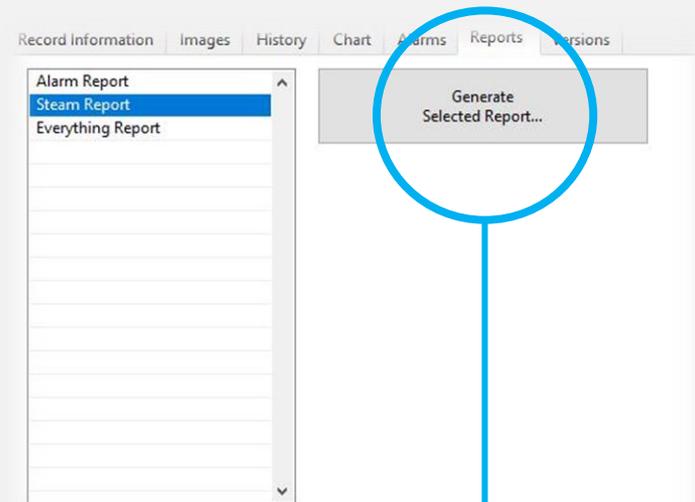
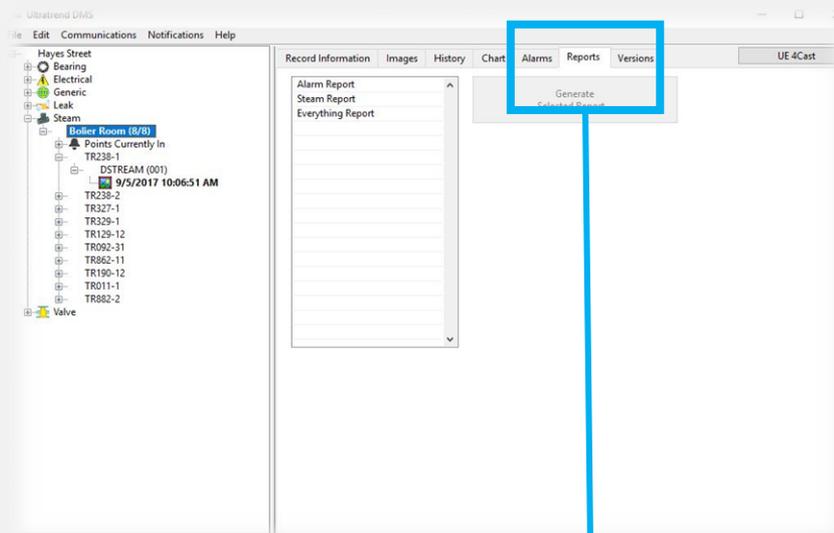
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SUPPORTIVE SOFTWARE



The DMS Software Allows for data storage and report generation. From the reports tab, select the desired report to generate, then select “Generate Selected Report”.

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