

PHOENIX™

QUICK REFERENCE GUIDE

A. Sensor Head Inspection

Examine your new Phoenix™ and Eon-LT™ for any signs of physical damage that may have occurred during shipping. Make sure that the tamper-evident labels are intact. Before shipping, your Phoenix™ and Eon-LT™ were calibrated and tested by Colnatec to meet the highest quality standards. It is important that you take a few minutes to inspect the product to ensure that your equipment was not damaged or otherwise tampered with during transit.



B. Removing Mock Crystal

Mock crystal acts as placeholder to protect sensor components during shipping.



Turn cap COUNTER CLOCKWISE to loosen and remove.



Flip cap over to access crystal retainer ring. Turn retainer ring COUNTER CLOCKWISE until loose.



Remove retainer ring to access mock crystal.



Remove mock crystal from sensor head cap.

C. Adding New Crystal



Rotate crystal carousel until the round opening appears above an available crystal.



Place rear of sensor head against the opening.



Flip crystal carousel and allow crystal to drop into sensor cap housing.



Use a plastic prod to adjust crystal position until crystal rests snugly in the crystal seat.



Place the threaded side of the retainer ring onto the corresponding threads of the sensorcap. Tighten the retainer ring by turning the ring CLOCKWISE.



Place cap onto corresponding threads of crystal compartment. Turn CLOCKWISE until secure.

WARNING

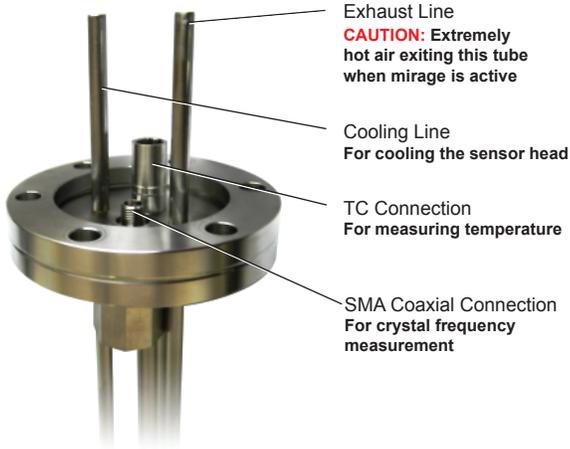


WARRANTY LABEL
If the warranty label has been tampered with, "VOID" will appear where the warranty label was originally placed. If this is visible at the time of arrival, it is important that you contact Colnatec immediately after receiving the product.



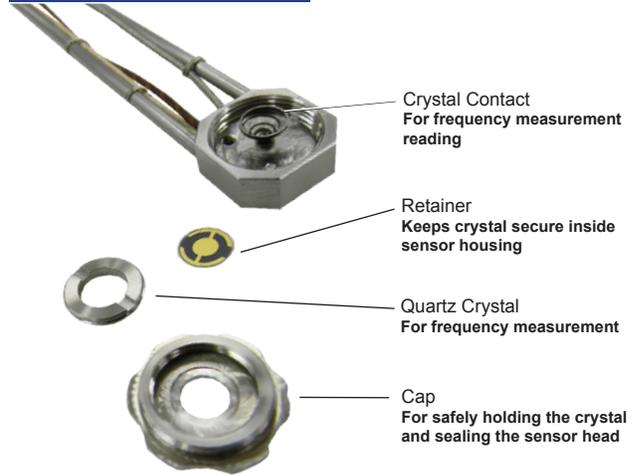
Length between the Phoenix™ crystal compartment and Eon-LT™ should NOT exceed 30 inches (76 cm) to avoid erratic noise levels in oscillation reading.

Phoenix™ Base Connections



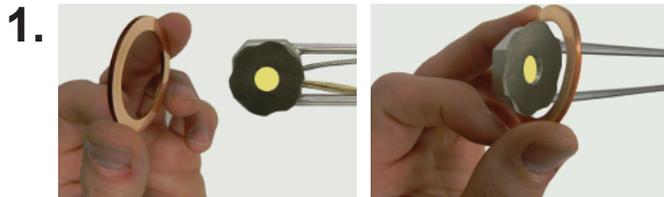
- Exhaust Line
CAUTION: Extremely hot air exiting this tube when mirage is active
- Cooling Line
For cooling the sensor head
- TC Connection
For measuring temperature
- SMA Coaxial Connection
For crystal frequency measurement

Phoenix™ Sensor Head



- Crystal Contact
For frequency measurement reading
- Retainer
Keeps crystal secure inside sensor housing
- Quartz Crystal
For frequency measurement
- Cap
For safely holding the crystal and sealing the sensor head

D. Chamber Installation



1.

Remove copper gasket from packaging and thread onto sensor head.



2.

Fit gasket into circular groove on Conflat.



3.

Hold copper gasket in place while inserting sensor head into chamber feedthrough.



4.

Press sensor head and feedthrough flanges together. Align bolt holes. Apply bolts and plate-nuts. Tightening bolts compresses copper gasket between a sharp edge and a tapered groove, thus creating a near-perfect seal.

WARNING



Microfractures may develop in copper gasket if flange bolts are over-tightened. Seal may become weakened, resulting in chamber leakage.



Hand-tighten flange bolts before using wrench, alternating among bolts and using a sequential torque pattern.

E. Connecting Phoenix™ to System



1.

Connect SMA Coaxial Cable to Phoenix™

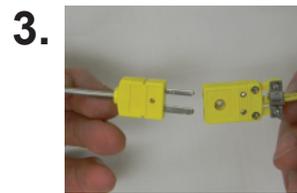
Spin cable in place using cable shaft until resistance is felt. (Twisting cable shaft past point of resistance may damage cable). Roll fingertip over connector to tighten. Length between the Phoenix™ crystal housing and Eon-LT™ should NOT exceed 30 inches (76 cm)



2.

Connect Phoenix™ to Eon-LT™

Connect BNC extension cable to SMA, which then connects to the BNC adapter cable using the provided BNC union. Then, connect the other end of the BNC extension cable to the Eon-LT™ coaxial input (either sensor 1 or 2).



3.

Connect Phoenix™ TC Connector to TC Extension Cable

Connect Phoenix™ thermocouple cable to thermocouple extension cable. Wide blade (-) fits into wide slot on female thermocouple socket. Narrow blade (+) fits into narrow socket.



4.

Male TC Adapter to Eon-LT™ TC Female Socket

Plug thermocouple extension cable connector into the Eon-LT™ thermocouple socket with the wide blade (-) corresponding to the upper slot and narrow blade (+) fitting into lower slot.

EON-LT™

If this user guide accompanied the complete Phoenix-Eon-LT™ system, please begin on the Phoenix™ side.

QUICK REFERENCE GUIDE

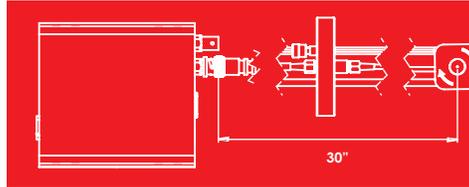
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A. Connecting Phoenix™ to Eon-LT™

1.



BNC Coaxial Cable to Eon-LT™
Slide coaxial connector onto BNC Sensor Input 2.



In order to avoid erratic noise levels in oscillation reading, length between the Phoenix™ crystal compartment and the Eon-LT™ SHOULD NOT exceed 30 inches (76.2 cm)

B. Connecting Eon-LT™ to PC

1.



Install Eon-LT™ Software onto PC
Insert the accompanying Eon-LT™ software CD into disc drive. Follow prompts to install software onto PC.

2.



RS-232 to Eon-LT™
Plug RS-232 connector into male serial port on rear panel.

WARNING

⚠ If drivers are already installed, simply update the drivers when installing software

⚠ Ensure that the software has been fully installed before connecting the USB drivers

⚠ Only use the provided USB cable

⚠ Fully reboot the computer after the software installation to prevent drivers issues

3.



Connect RS-232 cable to USB Adapter
Plug the other end of the RS-232 cable into the USB-to-RS-232 adapter.

4.



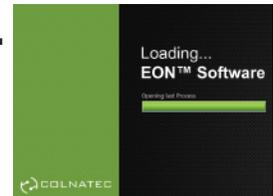
Plug USB-to-RS-232 Adapter into PC
Plug USB-end of the USB-to-RS-232 adapter into PC.

5.



Connect Power to Eon-LT™
Plug Eon-LT™ power adapter into AC outlet. Then plug DC connector into the Eon-LT™.

6.



Start Eon-LT™ Software
Start Eon-LT™ software and follow the First Start setup procedure described in the Eon-LT™ User Manual (available on the Eon-LT™ software CD).

ADVISORY



WARRANTY LABEL

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INSPECT PRODUCT CONDITION ON ARRIVAL

Examine Your new Eon-LT™ for any signs of physical damage. Make sure that the tamper-evident labels are intact. Before shipping, your Eon-LT™ was calibrated and tested by Colnatec to meet the highest quality standards. It is important that you take a few minutes to inspect the product to ensure that your equipment was not damaged or otherwise tampered with during transit.

SEE PRODUCT CD FOR A USER MANUAL, A DIGITAL COPY OF THIS QUICK-START GUIDE, AND OTHER HELPFUL RESOURCES

Facilities Requirements

While Colnatec tries to include in your shipment everything you will need to begin using your new system, be advised that there are certain items needed for the operation of the system that must be provided by the facilities. This preparation guide will help you prepare in advance, ensuring that all the required items are available at the time of installation.

Eon-LT™	Computer	<ul style="list-style-type: none"> • Windows XP or newer • One USB port • Minimum 1GB free hard disk space • Minimum 1GB ram
	Power	<ul style="list-style-type: none"> • 120-240vac 50/60 Hz Mains
Phoenix™	All of the required items are included with the shipment	

Crystal Buying Guide

	SuperQuartz  CNT06SQG CNT06SQPN CNT06SQA	HT Quartz  CNT06HTIA CNT06HTG	RC Quartz  CNT06RCIA CNT06RCIG CNT06HTIG	AT-Quartz  CNT06IG CNT06IS CNT06IA
PVD, OLED				20-100°C
ALD, OLED, CVD			20-250°C	
ALD, CVD		250-400°C		
ALD, CVD	400°C+			

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