

TROUBLESHOOTING NYAD MOISTURE ANALYZER

<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
Display "hang up on power up.	"E-PROM inserted improperly.	Power off – reinsert E-PROM.
Display "hang up during operation.	Noise induced program interruption.	Reset unit by turning power off and on.
Display garbled.	Faulty display.	Power off and on. On power up, observe Display. First display all segments on (see Section 3, part a). If all display segments are not functioning, replace display.
Display shows E-Lo.	Probe disconnected, bad cable, or sensor failure.	Check probe connection, if O.K. return probe and cable to factory for evaluation.
Display shows Er-Lo.	Sample dewpoint higher than calibration range of sensor.	Check for wet sample. Dry gas should bring unit back on scale. If the unit will not come back, return probe to factory for evaluation.
Display shows Er-HI.	Sample dewpoint lower than calibration range of sensor.	Expose sensor to wet sample. If normal operation resumes recalibration recommended.
Displays "INT followed by 9999 after startup Routine.	Indicates all operating data is being taken from internal memory (mother board). Probe lost memory. This will be followed by the internal memory default "9999".	Send probe back to factory to reload data.
Noise or Radio Interference	Alarm intermittent or instrument changes from degrees C to F or PPM on it's own.	A noise filter or metal enclosure may need to be installed. Contact Nyad.

TESTING/CHECKING FOR 4-20mA OUTPUT

- 1) On Nyad motherboard, locate IC-1220 chip on position U-11. This will determine if the unit is equipped with 4-20mA output.
- 2) Test motherboard using a voltage meter. Measure in mA at TB1 6 and 7pin (7 pin negative ground). Indicator will read Lo 4 and Hi 20. Measuring in voltage, indicator will read 24V.

TESTING OPERATING SYSTEM

- 1) Power unit off.
- 2) Attach moisture probe and apply power.
- 3) THE INSTRUMENT WILL PROCEED THROUGH IT'S STARTUP ROUTINE WITH THE DISPLAY AND INITIATING LED'S STEPPING THROUGH THE FOLLOWING SEQUENCE.
 - a. All display segments ON – all LED indicators ON. This tests the display and LED's to ensure all are working.
 - b. "NYAD" is display – all LED indicators OFF.
 - c. Operating System Version.
 - d. "EE2 is displayed.
 - e. Last four digits of the probe serial number will display. The serial number is engraved on the moisture probe near the bendix connector.
 - f. On completion of the startup routine the measure moisture value is display in unites of dewpoint either degrees C, F or PPM.
- 4) IF THE STARTUP ROUTINE WAS SUCCESSFUL, THIS MEANS THE MAIN MOTHER BOARD OF THE ANALYZER CYCLED CORRECTLY AND THE INTERCONNECTING CABLE IS WORKING PROPERLY
 - a. If the above is followed by an error message, for example E-lo, this is an indication your probe is bad or the probe is not getting a connection from the cable. Check connections.
 - b. If the above is followed by erratic readings, this also could be an indication of a bad probe or a processor on the motherboard.
 - c. Check alarm setpoints or re-enter.

RESETTING DEFAULTS SERIES 100 MOISTURE ANALYZER

- 1) Disconnect moisture probe from probe cable.
- 2) Power unit OFF.
- 3) Push UP switch and MODE button simultaneously, HOLD and power unit ON. Continue to hold buttons until the number 3 displays, then release.
- 4) Unit will cycle through factory defaults.
- 5) Power unit OFF.
- 6) Reconnect moisture probe.
- 7) Power unit ON to download probe data.
- 8) The instrument will proceed through Nyad's startup routine.