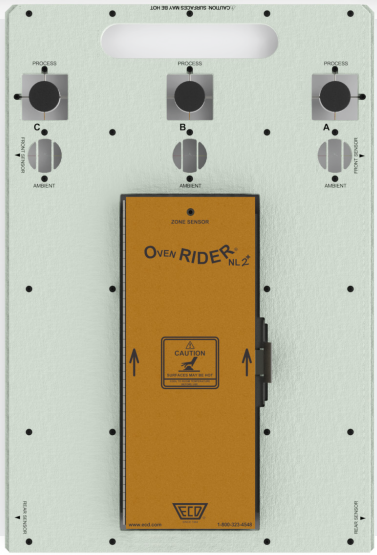
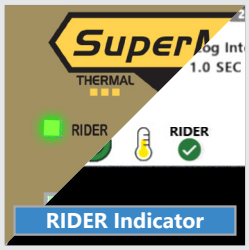
OvenRIDER™ NL 2+

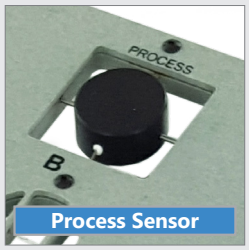
Convection Reflow Oven Verification

The patented OvenRIDER® NL 2+ travels through your oven with a M.O.L.E.® inside collecting data for analysis and SPC charting. A combination of thermal and process sensors measure oven performance, delivering consistent data that can be used to identify modest trends which may be developing, or serious conditions that have already arrived. Simple PCB profiling cannot detect all the subtleties which can have a profound effect on PCB production quality.





RIDER Indicator



Process Sensor

FEATURES | BENEFITS

Process Sensors

Three high mass pucks measure the effect of convection to drive heat evenly into a product. Each oven zone reports a Process Delta to verify convection consistency for SPC. This detects a failed fan, restricted vent or incorrect oven convection setting.

Ambient Sensors

Three exposed fast response thermocouples average the center 70% of the measured air temperature in each zone to verify consistency for SPC. This detects a failing heater or wrong oven setting. The NL 2+ pallet design offers added protection from accidental damage.

Speed Sensors

Front & Rear Speed Sensors define process origin and conveyor speed with rail-mounted 'Start' magnet. Belt speed verified for consistency (SPC). Detects the wrong oven setting or maintenance requirement.

RIDER Indicator

The Rider LED Indicates when SuperM.O.L.E.™ Gold 2 is connected to a OvenRIDER® NL 2+ test pallet. And when connected to a M.O.L.E.™ EV6, a "RIDER" symbol appears on the display. This also automatically sets the M.O.L.E.'s configuration.

WHAT'S IN THE KIT

KITS INCLUDE:

- OvenRIDER® NL 2+ pallet
  - Includes 6 sensors & thermal barrier
  - 9", 12", & 18" widths
- Start/zones magnet kit
- M.O.L.E.™ MAP Software
- Quick reference guide
- Carrying box
- 1 year warranty on materials and workmanship

SYSTEM KITS:

- OvenRIDER® NL 2+ Standard Systems
  - E56-6836-05: 168 mm [6.6 in] wide pallet
  - E56-6836-15: 305 mm [12 in] wide pallet
  - E56-6836-25: 458 mm [18 in] wide pallet
- OvenRIDER® NL 2+ Custom System
  - E56-6836-35: >167 mm [6.6 in] wide pallet

SPECIFICATIONS:

PHYSICAL

Length (Pallet): 452 mm [17.8 in]
Height (Thermal Barrier): 31.75 mm [1.25 in]
- 20.55 mm [0.81in] above conveyor chain

Width:
- Standard: 167 mm [6.6 in], 305 mm [12 in], 458 mm [18in]
- Custom: >167 mm [6.6 in]

Weight:
- 6.6": 1.74 kg [3.84 lb], 12": 2.81 kg [6.19 lb], 18": 3.54 kg [7.8 lb]

Max. Operational Temperature (Pallet): 300°C [572°F]
Max. Operational Temperature (Thermal Barrier):
200°C (392°F) for 9.5min. / 230°C (446°F) 8 min.

PALLET SENSORS

6 - Type K (Process & Ambient)
Special Limits of Error K-Type thermocouple wire
(± 1.1°C or 0.4%, whichever is greater)

COMPLIANCE

CE UK CA

PATENT

Patent No. 6,062,728 | 6,375,351 | 6,520,675

WARRANTY

1 year parts and labor

PRODUCT PAGE

ecdusa.co/or

All information is subject to change at any time without notice.

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