More Information

For more detailed information on the use of precision noncontact sensors visit our web site at www.lionprecision.com.

For applications assistance or customer service:
Call 651-484-6544
E-mail info@lionprecision.com

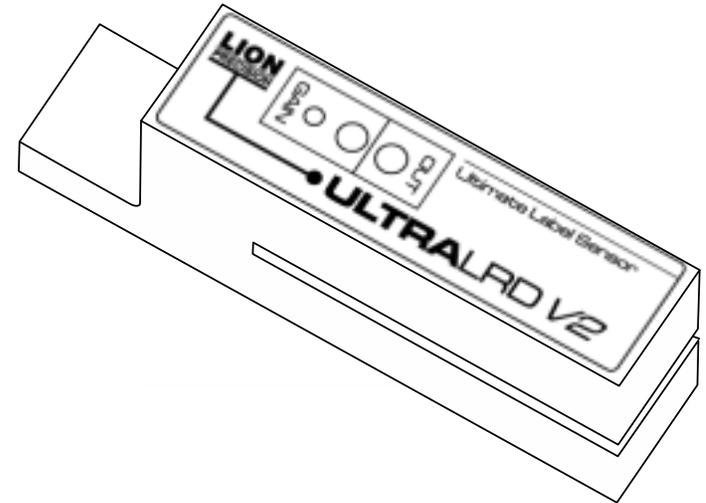**TWO YEAR WARRANTY**

AUTOMATED QUALITY TECHNOLOGIES INC., and its division LION PRECISION warrants to the Purchaser that the LRD Product will be free from defects in material and workmanship and will be in conformance with the Purchaser's specifications when such specifications are accepted by specific contract. The foregoing warranty is exclusive and in lieu of all other warranties whether written, oral, or implied (including any warranty of fitness for purpose). If it appears within two years from the date of shipment by the Corporation that the equipment as delivered does not meet the warranties specified above and the Purchaser so notifies the Corporation promptly, the Corporation shall correct any defect, including non-conformance with the specifications, at its option, either by repairing any defective part(s), or by making available at the Corporation's plant, a replacement or required part.

The above warranty is null and void if the equipment is used or serviced in a manner that does not conform to the ratings and specifications as defined by the Corporation or if the equipment has been damaged or altered. The foregoing shall constitute the sole remedy of the Purchaser and the sole liability of AUTOMATED QUALITY TECHNOLOGIES, INC.

User's Guide
for the
ULTRA-LRD V2
Ultrasonic Label Sensor
from
Lion Precision

Lion Precision
563 Shoreview Park Road
St. Paul, MN 55126
651-484-6544
www.lionprecision.com
Document Number: M015-7605.05

Description

The ULTRA-LRD V2 is an ultrasonic label sensor which works with all label materials. It is reliable and easy to setup. If you have any questions please call us at 651-484-6544 or visit our label sensing website at www.labelsensors.com.

Connecting to the Sensor

The ULTRA-LRD V2 uses a standard, micro-connector sensor cable, such as:

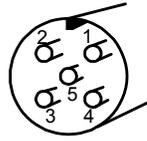|	
Lion Precision	6200-0080 (Shielded – 6200-0081)
Lumberg	RKT 5-612/2M
ConXall	305S2
Brad Harrison	805 000 A09M020

Warnings:

Unused wires must be insulated from contact with other objects.

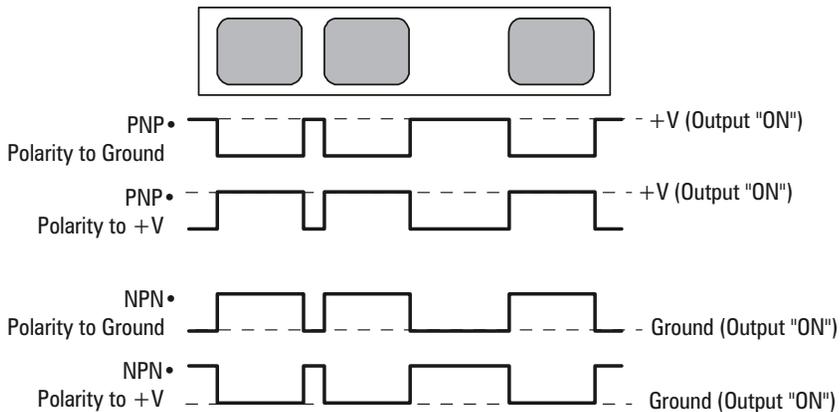All power must be off when installing the sensor.

Gray wire (Output Polarity) must be connected to +V or Ground for reliable operation.

Wire (Pin)	Connection
Brown (1)	+V, 11-28VDC @ 125mA
White (2)	NPN Output, 150mA maximum
Blue (3)	Ground
Black (4)	PNP Output, 150mA maximum
Gray (5)	+V – Dark Switching, NC
	Ground – Light Switching, NO
Shield (if present)	Ground

Connector on sensor body

PNP •
Polarity to Ground — +V (Output "ON")

PNP •
Polarity to +V — +V (Output "ON")

NPN •
Polarity to Ground — Ground (Output "ON")

NPN •
Polarity to +V — Ground (Output "ON")

Output LED

The Output LED is red during a gap when Output Polarity (gray wire) is grounded. It is red during a label when Output Polarity (gray wire) is at +V.

Setup Procedure

Note: Early models have a 20-turn metal adjustment. Later models use a 4-turn white plastic adjustment.

1. Place web material only in the sensor (remove a label or carefully position a gap in the sensor).
2. Turn Gain adjustment until the Gain LED is amber.

   (If the Gain LED is green, turn clockwise, if red, turn counter-clockwise)

3. Setup Complete
4. Gain can also be adjusted while labels are running if required. If the Output LED is not consistently turning red during a gap, adjust Gain clockwise. If the LED is not consistently turning off during a label, adjust Gain counter-clockwise.

   If the liner material is very thick, and the Gain LED cannot be adjusted to achieve an amber LED (LED is always green), the liner material is too thick to work with the sensor.

Mechanical Detail

inch (mm)

5.5 (140)
4.4 (112)
2.7 (68.6)
Sensor
0.725 (18.4)
0.16 (4.1)
2.0 (50.8)
0.84 (21.3)
0.50 (12.7)

M4x.7 (x4)
0.80 (20.3)
1.25 (31.8)
1.00 (25.4)
0.20 (5.1)
0.60 (15.2)