### Operational:

**Type:** Handheld Lidar offering Tracking mode, Single Shot mode, and Time/Distance mode.

**Acquisition Time:** 0.33 second

**Nominal Range:**
- Minimum < 5 feet (1.5 meters) – Speed mode 45 feet (113.7 meters)
- Normal = 2500 feet (762 meters) approaching targets
- Maximum > 8000 feet (2438 meters)

**Range Accuracy:** ± 1 foot (0.3 meter *)

**Speed Measure:**
- 1 mph to 299 mph (2 km/h to 481 km/h; 2 knots to 260 knots)
- ± 1 mph (±1 km/h, ± 1 knot)

**Speed Accuracy:**
- Test/Alignment mode: Enter using the TEST key and the Trigger. Used to test HUD alignment using audio tone.

**Metric, Knots Operation:**
- Setup menu selectable

**Lidar trigger modes:**
- 1. Constant trigger depression for constant XMIT
- 2. Separate trigger depressions to start/stop XMIT

**Time/Dist. trigger mode:**
- Separate trigger depressions when target enters and exits speed zone

**Inclement Weather mode:**
- Suppresses target returns from targets closer than approximately 250 ft to reduce interference from rain, fog, and snow

**Remote Trigger:**
- Remote trigger signal available through I/O Port

**Target Speed Tone:**
- Variable audio tone corresponding to target speed. A fast target generates a higher tone and a slow target generates a lower tone

**Target Return Tone:**
- No tone when beam is off target; tone repetition increases as beam moves into target and return signal quality increases

**I/O Signals:**
- Ext. Trigger, Tx, Rx, Gnd, and Switched battery voltage.

### Physical

**Dimensions:**
- 8.9” Height, 4.7” Length, and 4.7” Width
- 22.6 cm Height, 11.9 cm Length, 11.9 cm Width

**Weight:**
- Including Battery Handle - 2.3 lbs (1.05 kg)

**Housing:**
- High impact resistant polymer housing

**Shoulder Stock:**
- Accessory shoulder stock is available

**Input Voltage Range:**
- Battery Handle: 6.4V to 9.0V @ 400 ma. Nominal
- Cigarette Cable: 6.4V to 16.0V @ 400ma. Nominal
- Low Voltage inhibit activates between 6.4V and 6.8V

**Low Voltage Inhibit:**
- Inhibits all readings while input voltage is below the low voltage inhibit level

**Low Voltage Standby:**
- After 10 seconds of inactivity (unit not transmitting), power consumption is reduced to 63% of nominal

**Input Power Protection:**
- Solid state automatically resettable fuse

**Environmental:**
- -22° to +140° F (-30° to +60° C), operating
- -40° to +185° F (-40° to +85° C) non-operating

**Humidity Protection:**
- +37 C, 90% Relative Humidity, 8 hours minimum, operating

**EMI:**
- RFI icon indicates that the unit is in a high EMI field.

**¾ “x 20 Tripod Mounts:**
- Attachable bracket provides tripod mounting in normal orientation

**I/O Connector:**
- 12-pin I/O connector on lower left side of case.

### Transmitter & Receiver:

**Operating Wavelength:** 905 ± 10 nm Peak @ 25° C

**Spectral Bandwidth:** 5 ± 3 nm FWHM

**Laser Type:** MOCVD InGaAs Stacked Array Pulsed Laser Diode

**Eye Safety:**
- FDA/CDRH CLASS 1M Laser Device (Rated Eyesafe)

**Pwr. Output:**
- 50uW maximum average power. 385 nJ maximum pulse energy. (meets FDA/CDRH regulations)

**Pulse Width:**
- < 30 nsec.

**Pulse Repetition Rate:**
- Fixed, 130 Hz (±0.1 % at 8.40 VDC)

**Beam Divergence:**
- < 3 ± 0.5 mrad FWHM

**Optical Design Type:** Bistatic (dual aperture)

**Targeting:**
- Illuminated Open E, keyboard adjustable intensity.

**Range and Speed Data:**
- Range: Four 7-Segment Digits (8888)
- Speed: Three 7-Segment Digits (±888)

**Speed Measure:**
- 1 mph to 299 mph (2 km/h to 481 km/h; 2 knots to 260 knots)
- ± 1 mph (±1 km/h, ± 1 knot)

**Speed Accuracy:**
- Test/Alignment mode: Enter using the TEST key and the Trigger. Used to test HUD alignment using audio tone.

### SWITCH DEFINITION

**TRIGGER:**
- Setup Menu Selectable:
  1. Constant trigger depression for constant XMIT
  2. Separate trigger depressions to start/stop XMIT

**TRIGGER:**
- Separate trigger depressions when target enters and exits speed zone

**PWR:**
- Toggles main power ON/OFF

**TEST:**
- Performs a complete self-test

**HUD Light:**
- Toggles the HUD intensity from low to high through six levels when pressed

**SPEED/RANGE:**
- Used to select Tracking mode, Single Shot mode, Inclement Weather mode, and to toggle between SPEED only, RANGE only, and simultaneous SPEED and RANGE display. Used to exit from MIN, MAX, and TIME/DIST modes.

**PANEL LIGHT:**
- Toggles both the LCD backlight and the keyboard backlight ON and OFF

**AUDIO:**
- Used to adjust the volume of the speaker in 4 steps

**TIME/DIST:**
- Selects TIME/DIST mode

**MAX:**
- Used in TIME/DIST mode to display/update maximum range

**MIN:**
- Used in TIME/DIST mode to display/update minimum range

**DISPLAY MESSAGES**

**Enc:**
- This message indicates that a measurement error has occurred

**Pass:**
- This message (with “happy tone”) indicates that a self-test has successfully completed