**General Specifications**

Type: Dual Antenna Moving/Stationary Doppler Radar

Operating Frequency: 33.4 GHz - 36.0 GHz (Ka-Band)

Stability: ±100 MHz (Ka-band)

Power Requirements: 
- 9.0 to 16.0 VDC. (currents are typical at 12VDC)
- XMIT with all displays on: 1.3A (Ka)
- XMIT with all displays off: 1.1A (Ka)
- XMIT with no target: 1.2A (Ka)
- Standby with no target: 0.7A (Ka)

Environmental: 
- -30 to +70 °C, 90% Relative Humidity Operating
- -40 to +85 °C, non-operating

Display: Triple 3-digit Light Emitting Diode (LED) for target, lock, and patrol, plus LED icons

Mechanical:
- Display Unit: Wt. - 0.5 lb. 1.65° Height, 1.05° Depth, and 5.50° Width
- Counting Unit: Wt. - 1.6 lbs. 1.65° Height, 3.90° Depth, and 5.50° Width
- Antenna: Wt. - 1.4 lbs. (Ka) 2.50° Dia. X 4.60° (Ka)
- Remote: Weight - 0.4 lb. .80° Height, 6.50° Length, and 2.70° Width

Accuracy: 
- ±1.2 mph stationary, ±2 mph moving
- ±1.6 km/h, -3.2 km/h stationary, ±3.2 km/h moving

Automatic Self-Test: Performed every 10 minutes while transmitting

Stationary Speed Range: 12 mph to 200 mph Standard
- 2 mph to 200 mph (set-up menu selectable)

Moving Speed Range:
- Patrol speed - Selectable with P.S. 5/20 key:
  - 5 in patrol window for acquisition of 5 to 90 mph
  - 20 in patrol window for acquisition of 20 to 90 mph
- Patrol speed, once locked, will track to 150 mph

Same lane patrol speed must be greater than 15 mph

Opposite lane target speed - 200 mph Max closing
- For 5 mph patrol speed: 20 mph to 195 mph
- For 70 mph patrol speed: 35 mph to 130 mph

Same lane target speed - Related to patrol speed:
- ±70% of patrol speed to within 5 mph of patrol speed
- i.e. For 50 mph: 15 → 44 mph and 55 → 85 mph

Fastest Speed - Same speed range as opposite lane speed

**Microwave Specifications**

Antenna: Conical horn with corrective lens

Polarization: Circular

3 dB Beam width: 12° nominal

Microwave Source: Gunn-Effector diode

Receiver Type: Direct Conversion Homodyne using low-noise Schottky barrier mixer diode

Power Output:
- 10 mw min (Ka-band)
- 25 mw nom (Ka-band)
- 50 mw max (Ka-band)

Power Density: 2 mw/cm² maximum at 5 cm from lens

**Display Messages**

PASS: PASS spelled out in display with a 4-beep “happy” tone indicates the unit has just passed self-test.

FAIL: FAIL spelled out in display with a 15-beep tone indicates a circuit malfunction has been detected, in which case speed readings are inhibited. Remove the unit from service and repair. FAIL will remain on the display until reset by being powered off.

SEn 1, SEn 2, SEn 3 or SEn 4:
- SEn 1 thru SEn 4 is used to indicate the current range (sensitivity) setting. SEn 1 is minimum; SEn 4 is maximum. Opposite lane sensitivity is independent of same lane sensitivity. They are separately set.
- 5 or 20: 5 or 20 spelled out in the patrol window indicates the low-end patrol speed is set to either 5 mph or 20 mph
- Aud 0, Aud 1, Aud 2, Aud 3, or Aud 4:
  - Aud 0 thru Aud 4 spelled out on the display unit indicates the current speaker volume setting. Aud 0 is off; Aud 4 is loudest.
- bri 1, bri 2 bri 3, bri 4, bri 5, or bri 6: bri 6 is the brightest.
- Hot: The display flashes Hot and powers down when the internal temperature exceeds specifications. Automatically resumes operating when the temperature drops.
- Lo V: A Lo V message indicates the input voltage is too low. Operation is inhibited while the Lo V message is displayed but normal operation will resume automatically when the input voltage is restored. All other speed windows will be blanked.

**Remote Control Functions**

SAME/OPPPOSITE: The SAME/OPPPOSITE key is used to alternate between same lane moving mode and opposite lane moving mode. The SAME icon toggles on and off to indicate same lane mode.

LOCK/RELEASE: The LOCK/RELEASE key is a dual function key. This key alternates between the lock and the release functions.

LOCK is used to transfer the contents of the target window to the lock window. RELEASE clears the locked contents of the lock window and the patrol window.

Ant: During lock, the patrol window will lock the present patrol speed and the LOCK icon will light. The target window and Doppler audio remain active after locking.

ANT: Used to switch between the front and rear antenna. The FRONT or REAR icon will light. A 1-beep tone corresponds to the front antenna while a 2-beep tone corresponds to the rear antenna. The counting unit can sense the presence or absence of either antenna.

XMIT/HOLD: Toggles between xmit and hold (standby). The XMIT icon will light.

MOVING/STATIONARY: Toggles between moving and stationary modes.

FASTEST: Used to select fastest mode. A high pitched tone indicates that fastest mode is selected. Any power off event will reset the fastest mode to OFF.

SLOWER: The SLOWER key is used to toggle between fast target same lane mode and slow target same lane mode. The SLOW icon is on for a slower target.

SEn: Used to adjust the range (sensitivity) at any time.

Maximum sensitivity is SEn 4; minimum sensitivity is SEn 1. Opposite lane sensitivity is independent of same lane sensitivity. They are separately set.

SQL: Toggles the squelch override on and off. In the normal (off) position, audio will only be heard when a target is being tracked.

P.S. 5/20: Used to select a low-end patrol speed of either 5 mph or 20 mph. For example:
- 5 in patrol window for speed of 5 to 70 mph
- 20 in patrol window for speed of 20 to 70 mph

TEST: Performs a complete self-test on display/counting unit and the selected antenna. The display unit shows speeds of 10, 35, and 65; temperature inside the display/counting unit in °F (e.g., 110 °F); and input battery voltage (e.g., bAt 13.8); followed by "PASS" and a 4-beep “happy” tone or “FAIL” and a 15-beep tone.

Used to adjust the volume of the Doppler audio up or down. Aud 0 is off; Aud 4 is loudest.

P.S. BLANK: Dual function key. Used to re-acquire patrol speed. Also, blanks the patrol speed after a target speed and patrol speed are locked. Pressing the P.S. Blank key again restores the blanked speed.

Dual function key. A single depression of the F key activates the keyboard backlight for six (6) seconds. Two rapid depressions of the F key activates the display brightness control. Additional depressions of the F key toggles display brightness from bri 1 (low) to bri 6 (high).