**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 moving target: 1.3A (Ka)
  - XMIT with no target: 1.2A (Ka)
- **Environmental:**
  - -30 to +70 C, 90% Relative Humidity Operating
  - -40 to +85 C, non-operating
- **Display:**
  - Type: Triple 3-digit Light Emitting Diode (LED) for target, lock, and patrol, plus LED icons
- **Mechanical:**
  - **Display Unit**
    - WL: -0.5 lb.
    - 1.65" Height, 1.05" Depth, and 5.50" Width
  - **Counting unit**
    - WL: -1.6 lbs.
    - 1.65" Height, 3.90" Depth, and 5.50" Width
  - **Antenna**
    - WL: -1.4 lbs. (Ka)
    - 2.50" Dia. X 4.60" (Ka)
- **Accuracy:**
  - F.S. ±1.6 km/h, ±3.2 km/h stationary, ±3.2 km/h moving
- **Automatic Self-Test:**
  - Performed every 10 minutes
- **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
    - 10 in patrol window for acquisition of 10 to 90 mph
    - 20 in patrol window for acquisition of 20 to 90 mph
    - Patroll 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 to 44 mph and 55 to 65 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-Effect diode
- **Receiver Type:** Two Direct Conversion Homodyne receivers using four low-noise Schottky barrier mixer diodes
- **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, 10, or 20:**
  - 5, 10, or 20 spelled out in the patrol window indicates the low-end patrol speed is set to either 5 mph, 10 mph, or 20 mph
  - Aud 0 thru 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.
  - Aud 5 or, or SEn 4:
    - Aud 5 is loudest.
  - Aud 0 thru Aud 4:
    - Aud 4 is loudest.
  - Aud 5 or: Aud 5 is loudest.
  - Aud 0 thru Aud 4:
    - Aud 4 is loudest.
  - Aud 5 or: Aud 5 is loudest.
  - Aud 0 thru Aud 4:
    - Aud 4 is loudest.
  - Aud 5 or: Aud 5 is loudest.
  - Aud 0 thru Aud 4:
    - Aud 4 is loudest.

**Remote Control Functions**

- **SAME/OPOSE: **The SAME/OPOSTE 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. 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.
- **FASTER:** In opposite lane and stationary modes, the FASTER key is used to select faster mode. A high-pitched beep tone (for fast) indicates that faster mode is selected. A normal beep tone indicates that faster mode is turned off.
  - When the faster mode is selected and when no LOCK target is present, the middle window is used to track the faster target in the radar beam. Faster mode is turned on and off by alternately pressing the FASTER key. The presence of the FAST icon indicates that the faster mode is selected. FASTER is not active in the Same Lane mode.
- **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 off and on. In the normal (off) position, audio will only be heard when a target is being tracked.
  - Used to select a low-end patrol speed of either 5 mph, 10 mph, or 20 mph.
  - For example: 5 in patrol window for speed of 5 to 70 mph
  - 10 in patrol window for speed of 5 to 70 mph
  - 20 in patrol window for speed of 20 to 70 mph
  - 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.

**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.
- Used to adjust the volume of the Doppler audio up or down.
  - Aud 0 thru Aud 4 is loudest.
  - Dual function key. A single depression of the light key activates the keyboard backlight for six (6) seconds. Two rapid depressions of the light key activates the display brightness control. Additional depressions of the light key toggles display brightness from bri 1 (low) to bri 6 (high).