## General Specifications

<table>
<thead>
<tr>
<th>Type:</th>
<th>Dual Antenna Direction Sensing Moving/Stationary Doppler Radar</th>
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<tbody>
<tr>
<td>Operating Frequency:</td>
<td>33.4 GHz - 36.0 GHz (Ka-Band)</td>
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<tr>
<td>Stability:</td>
<td>±100 MHz (Ka-Band)</td>
</tr>
</tbody>
</table>
| Power Requirements: | 10.0 to 16.4 VDC. (currents are typical at 13.6 VDC):  
  XMIT with all displays on: 1.28A  
  XMIT with all displays off: 1.08A  
  XMIT with moving target: 1.15A  
  XMIT with no target: 1.11A  
  Standby with no target: .8A |
| Environmental: | -30° to +70° C, 90% Relative Humidity Operating  
  -40° to +85° C, non-operating |
| Display: | Triple (red, green, amber) 3-digit Light Emitting Diode (LED) for target, lock, and patrol, plus LED icons |
| Mechanical: | 
  **Display Unit**  
  Weight - 0.5 lb.  
  Size - 1.65" Height, 1.05" Depth, and 5.50" Width  
  **Counting unit**  
  Weight - 1.6 lbs.  
  Size - 1.65" Height, 3.90" Depth, and 5.50" Width  
  **Antenna**  
  Weight - 1.4 lbs.  
  Size - 2.50" Dia. X 4.75" Length  
  **Remote**  
  Weight - 0.4 lb.  
  Size - 1.00" Height, 6.20" Length, and 2.25" 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 or 2 mph to 200 mph (set-up menu selectable) |
| Stationary Fastest Speed: | Same speed range as stationary speed |
| Moving Speed Range: | **Patrol speed** – Once acquired, will track to 150 mph. Acquisition speed is selectable with P.S. 5/20 key.  
  5 in patrol window for patrol speed acquisition speeds of 5 to 90 mph;  
  20 in patrol window for patrol speed acquisition speeds of 20 to 90 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.  
  **Opposite lane Fastest Speed** – Same speed range as opposite lane speed  
  **Same lane target speed** – Related to patrol speed: ±70% of patrol speed within 5 mph of patrol speed. For 50 mph patrol speed: 15 → 45 mph and 55 → 85 mph.  
  Same lane patrol speed must be greater than 15 mph |

## Microwave Specifications

| Antenna: | Conical horn with corrective lens |
| Polarization: | Circular |
| 3 db Beam width: | 12° ±1° |
| Microwave Source: | Gunn-Effect diode |
| Antenna Receiver Type: | Two Direct Conversion Homodyne receivers using four low-noise Schottky barrier mixer diodes |
| Power Output: | 10 mW minimum  
  25 mW nominal  
  50 mW maximum |
| 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.
- **[ ], SC, SA, or S:** Indicates the radar mode of operation in the patrol speed window. [ ] or a speed display in the patrol window indicates moving mode radar operation. SC indicates stationary operation with display of closing targets only. SA indicates stationary operation with display of targets proceeding away from the radar unit. S_ is a mode for stationary operation which allows the display of targets in both directions.
Remote Control Functions

**STRONG LOCK/REL**

The STRONG LOCK/REL key alternates between the lock and the release functions for the strong target. LOCK is used to transfer the contents of the target window to the lock window. REL 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 lock.

**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.

**MOV/STA:**

Sequences between Moving mode and three stationary modes of operation: targets closing only, targets away only and targets in either direction.

**SAME/OPP:**

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

**FAST LOCK/REL**

The FAST LOCK/REL key alternates between the lock and the release functions for the fast target. LOCK is used to lock the contents of the fast window and REL clears the locked contents of the fast window. During fast lock, both the FAST icon and the LOCK icon will light and the patrol window will lock the present patrol speed. The target window and Doppler audio remain active after locking.

**STOPWATCH MODE:**

Toggles the unit from radar mode to stopwatch mode and back again.

**S/S:**

In Stopwatch Mode, the S/S (or START/STOP) key is used to start and stop the electronic timing of the target vehicle as it enters and exits the speed measurement zone.

**100:**

In stopwatch mode, this key can be used to change the timing distance in 100 yard increments.

**10:**

In stopwatch mode, this key can be used to change the timing distance in 10 yard increments.

**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:**

The SQL key toggles the squelch override on and off. In the normal (off) position, audio will only be heard when a target is being tracked. When the Doppler audio menu is displayed, this key can be used to change the voice volume.

**PS 5/20:**

Used to select a low-end patrol speed of either 5 mph or 20 mph. For example: 5 in patrol window for patrol speed acquisition of 5 to 90 mph 20 in patrol window for patrol speed acquisition of 20 to 90 mph

**SELF TEST:**

In radar operation, 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. At the end of a successful test, the FORK icon is lit on the display to allow a measurement of non-directional speeds such as that produced by a tuning fork.

** Aud 0  is off; Aud 4  is loudest.

**P.S. BLANK:**

In radar operation, this is a three 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. When the Doppler audio menu is displayed, this key can is used to change the beep volume.

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