

***Falcon HR
(Ontario)***

Traffic Safety Radar

OPERATOR'S MANUAL

6. TESTING PROCEDURES

6.0 GENERAL

The internal circuit and antenna tests are periodically performed automatically while the unit is in use.

6.1 POWER ON

Press and release the PWR switch. The unit will turn on all the LCD segments for a display test and perform a crystal cross check to verify the accuracy of the speed processing circuitry.

If these tests pass, the unit will display "PAS" in the TARGET display window, stationary mode, or in both TARGET and PATROL display windows in the moving mode. This will remain for approximately one (1) second. The displays will clear and the unit will be operational.

6.2 AUTOMATIC SELF-TEST

As long as the unit is turned on, the Falcon HR performs an internal accuracy test every 5 minutes or whenever the unit's mode of operation is changed, such as moving to stationary, and each time the target speed is locked.

This test is automatic and will not interfere with any radar speed readings being taken. The test passing does not appear in the displays, but if an error is detected during this test, the TARGET window will indicate "Err" and further speed-readings are prohibited.

SECTION 6 - TESTING PROCEDURES

6.3 MANUAL TEST

The operator can manually perform the indicator and internal tests at any time during normal radar operation—just press and release the Test switch. The indicator test will be performed followed by the display of “PAS” in the TARGET window in Stationary Mode and in both Target and PATROL windows in Moving Mode.

NOTE: The unit will remain in the TEST state for 30 seconds after releasing the TEST switch, indicated by the flashing TEST indicator.

7.1.3 LOCATION

1. For stationary operation, select an area that provides a good view of the traffic to be monitored.
2. Check the immediate area for potential interference sources, such as large reflecting signs in the direct path of the radar's microwave beam, power substations and other potential sources of electrical interference.
3. Position the patrol vehicle in a safe location, with easy access to the roadway.

NOTE: Cosine effect, the angle between the target's direction of travel and the path to the radar, in the stationary mode, will ALWAYS be in the driver's favor. Refer to the National Highway Traffic Safety Administration's "Basic Training Program in RADAR Speed Measurement" for speed reduction information due to cosine angle.

7.2 OPERATION - HANDHELD

7.2.1 SETUP

1. Attach the corded or battery handle. Turn the unit on. Place the system in Stationary Mode "ALL" with the transmitter in HOLD.
2. Set the range and audio levels as needed.
3. Point the Falcon HR at the intended target vehicle, pull and hold the trigger to take the transmitter out of HOLD, and complete the tracking history.
4. Complete a tracking history on the target vehicle.
 - A. Observe the target and surrounding traffic.
 - B. Estimate the speed of the target vehicle.
 - C. Listen to the audio pitch and compare the pitch to the estimate of speed in B.
 - D. Observe the speed reading shown on the TARGET window. It should correspond with B and C above. Continue tracking the target vehicle as required for proper target identification.
 - E. If any of the above elements do not agree, the reading must be disregarded.

SECTION 7 - OPERATION

7.2.2 TARGET LOCK

1. To lock the target speed reading, release the trigger. A short audio alert tone will be heard in the speaker and the target speed will be locked and flash in the LOCK window.
2. To allow additional tracking of the target vehicle, the Falcon HR will continue to transmit and display the Target speed for 5 seconds after the trigger is released. At the end of that time, the TARGET display will blank.
3. To release a locked speed, pull and release the trigger. The LOCK window will blank. No speeds can be recalled.

7.3.2 STATIONARY MODE

There are three modes of stationary operation:

- Approaching only (Apr), receding vehicles not displayed.
 - Receding only (rEc), approaching vehicles not displayed.
 - All (ALL), targets from both directions are displayed and the direction of travel is indicated.
1. Complete a tracking history as described in Sec. 7.2.1 Step 4.
 2. To lock a speed, press LOCK/REL on the remote control. To release a locked-in speed, press again. See Sec. 7.2.2 for details.
 3. To shut off the transmitter, press HOLD on the remote. The HOLD indicator will light, and the TARGET display will blank (locked speeds will remain). To return to normal radar operation, press HOLD again.
 4. The Falcon HR allows two methods of fastest vehicle mode operation while dash-mounted (push and hold or toggle control). See the Sec. 14.1.5 for selecting the preferred method. When the fastest mode is activated, the FAST indicator will light, the fastest speed will be displayed in the LOCK window, and the strongest signal speed will be displayed in the TARGET window.