



GENESIS 3™

TECHNICAL SPECIFICATIONS

GENERAL: Genesis 3 Traffic

Radar Device

The Genesis 3™ traffic radar device provides the highest quality and reliability standards for speed violation detection.

TYPE: Genesis 3 is a dash mounted, dual antenna, moving/stationary Doppler radar with a three-window computer/display unit

MATERIAL:

Computer and display - unit is made of high strength, light weight aluminum.

Antenna - constructed with ABS plastic. Making the entire unite lightweight, yet incredibly strong.

Electric lens of the antenna is made of impact-resistant Rexolite™ plastic.

SIZE: Display unit is 5.25 in (13.34 cm) wide x 1.45 (3.68 cm) high x 0.7 in (1.8 cm) deep and weighs 3.8 oz (0.11 kg).

Computer is 5.25 in (13.34 cm) wide x 1.45 (3.68 cm) high x 2.5 in (6.35 cm) deep and weighs 9.9 oz (0.45 kg).

REMOTE SIZE: 4.56 in x 1.56 in x 1.12 in (11.58 cm x 4.00 cm x 1.84 cm) 2.56 oz (0.068 kg)

ANTENNA SIZE: 2.85 in x 3.8 in (7.16 cm x 8.9 cm) 9.25 oz (0.25 kg)

TRUE DOPPLER AUDIO: Target signals are digitally filtered to enhance target identification. The audio pitch is derived from the Doppler Signal and corresponds with the target's actual speed

Power Source

TYPE: 12-volt power supply (cigarette lighter) receptacle. Genesis 3 requires 10.8VDC to 16.5VDC, 1.1 A max.

Signal Processing

DSP:

Genesis 3 uses 32-bit floating point signal processing to identify the target, than computes and verifies speeds at 100 times per second for quick, accurate target speed tracking.

RANGE CONTROL:	Genesis 3 has selectable range control using the wireless remote control. User can determine range for application.
ACCURACY:	Genesis 3 has a display accuracy oh within ± 1 MPH (± 1 KPH) when stationary and ± 1 MPH (\pm KPH) while moving.
SPEED RANGES:	Genesis 3 processes and displays speeds within 12-210 MPH (16-338 KPH) when stationary. Moving patrol speed, it processes and displays speeds within 5-100 MPH (8-145 KPH). In Moving Mode Opposite Direction, the target closing speed range is from 12-210 MPH (16-338 KPH). In Moving Mode Same Direction, the target range is from 3 MPH to 75% of the current patrol speed (5 KPH to 75% of the current patrol speed).
DISPLAY CONTROL:	Display photocell automatically dims or manually dim (8 levels) the display at night for less glare while driving and brightens the display in daylight conditions.
SPEED DISPLAY :	Speeds can display in miles per hours (MPH) or kilometers per hour (KPH).
REMOTE CONTROL:	<p>Buttons on the wireless hand held remote control the following functions :</p> <p>FRONT ANT - Activates and deactivates the front antenna</p> <p>REAR ANT - Activates and deactivates the rear antenna</p> <p>LOCK - Copies the target speed from the target window into the LOCKED speed window</p> <p>FAST - Selects the next strongest target vehicle going faster than the strongest in Opposite Moving Mode and Stationary Mode. (When in Same Direction Mode the FAST button toggles between Target Slower and Faster processing)</p> <p>MODE - Selects between Opposite Moving Mode, Same Direction Mode and Stationary Mode.</p> <p>VOLUME - Increases and decreases the audio volume in 8 steps</p> <p>RANGE - Increases and decreases the range</p> <p>TEST - Performs an extensive self test of the radar unit</p> <p>SQL - Toggles between squelched and unsquelched audio and mute</p> <p>PWR - Turns on and off the radar. The radar recalls the last operational settings from when you last turned it off</p>
TUNING FORKS:	Genesis 3 includes 2 Ka tuning forks for testing radar unit.
MANUAL:	Genesis 3 includes a user manual.
TESTING:	Entire radar unit's electronic circuitry is burned in at 140°F for at least 16 hours. After this. The radar unit is computer tested and road tested for performance acceptability.

Antenna

TYPE: Ka Directional

TRANSMISSION

PARAMETERS: 33.5 GHz Nominal horizontal beam width is 12°.

ENVIRONMENT:

Operating temperature ranges from -22°F to +158°F (-30°C to +70°C). Water resistance meets International Robustness Standard IEC 529:1989 and European community Standard EN60529 Classification IP55.

MICROWAVE

SOURCE: Antenna uses a Gunn effect diode as the microwave source.

RECEIVER: Antenna uses a low-noise Schottky diode as the receiver with balance mixer.

Operating Modes

STATIONARY MODE:

Stationary Mode displays the speed of the target moving toward or away from the stationary patrol vehicle.

MOVING MODE

OPPOSITE DIRECTION: Moving Mode Opposite Direction displays the speed of a target moving the opposite direction of the patrol vehicle.

MOVING MODE

SAME DIRECTION: Moving Mode Same Direction displays the speed of a target vehicle traveling the same direction as the patrol vehicle.

FASTER MODE:

In Faster Mode, the radar unit evaluates multiple targets and displays the speed of the next strongest target going faster than the strongest.

Directional:

Directional Software isolates targets in stationary mode to determine receding and descending