RL100 OWNERS MANUAL

K40
E L E C T R O N I C S

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**Register your K40 RL100 today to
activate your guarantees:**

Guaranteed immunity from speeding tickets
If you get a speeding ticket within one year of purchase,
we'll reimburse you for the full cost of the ticket.*

Guaranteed performance
If your K40 radar detection system does not outperform any
other radar detector you've owned, return it within 30 days
for a full product credit.

One year warranty
K40 offers a one-year "repair or replace" warranty if your
product fails to work properly.

*Offer not valid for speeding ticket violations incurred in school or
construction zones, or connected with a DUI.

Register your RL100 online today by visiting
K40.com/register

Mounting and Powering the RL100

Mounting Instructions

To help ensure that your RL100 functions properly and offers maximum protection, please follow these mounting instructions:

1. **Clean** the area of the windshield where the unit will be mounted.*

2. **Attach** the supplied **Windshield Mounting Bracket** to your car's windshield by firmly pressing the suction cups in the bracket to the windshield.
   a. Mount the bracket as low as possible near the center of the windshield.
   b. Do not mount the unit behind wipers or any metal obstructions.

3. **Slide** the RL100 unit itself on to the bracket to complete the mounting.

4. **Level** the radar detector, if necessary, by carefully bending the Windshield Mounting Bracket.

*IMPORTANT NOTE: Some windshields include a metallic coating that can significantly affect reception of radar signals. Consult with your dealer or check your vehicle's owner 's manual to determine if your windshield has such a coating.

Power Connection

1. Plug the small end of the supplied **Power Cord** into the **Power Input Jack** on the side of the radar detector.

2. Plug the large end of the **Power Cord** into your vehicle's cigarette lighter socket or other 12V outlet.

3. Switch on the RL100 by turning the **Power On/Volume Control Wheel** located on left side of the unit.

No power? See Troubleshooting Guide on page xx.

Quick Start
(using factory default settings)

Once your K40 RL100 has been mounted and had the power connected, you may begin using immediately by following these steps:

1. **Switch on the RL100** – **Turn the Power On/Volume Control Wheel** on the side of the unit.

2. **Wait for Test Scan to complete** – The radar detector will announce(voice) and display(screen) `K40 SCAN` then go through a "wake up sequence" lasting approximately <u>5 seconds</u>.
   a. You will hear and see all bands tested. Adjust the volume during this test.
   b. Upon completion of the sequence scan, the screen will display `HIGHWAY`.

3. **Wait for GPS Connection** – After searching for available satellites, the unit will announce "GPS Connected" then display `GPS`.

4. **You're ready to drive!** – The RL100 will now display your speed and direction of travel. For example, if you are driving west at 57 mph the display will show `W 57`.

Please read the entire Owner's Manual to fully understand all of the RL100's operations and functions.

Receiving Alerts

The K40 RL100 provides a combination of audio and visual alerts to warn you when radar and laser signals are detected.

Radar Alert Sequence

The RL100 detects X, K and KA-Band radar signals. When a signal is identified:

• A voice alerts which band was detected. (This assumes the factory default "Voice ON" setting has not been changed.)

• A series of beeps indicates the strength of the signal. Each band has its own distinctive beep. (Volume reduces automatically after 5 seconds.)

• The display will provide you band and strength information.

Radar source strength:	low	medium	strong
Display reading:	123	456	789
Audio alert beeps:	slower		**faster**

Radar Alert Examples:

You are driving 45 mph and a low K-Band is detected.

Visual Alert: K 2 45

Audio Alert: Voice announces "K-Band" followed by slow beeps.

As you approach the source, you slow to 40 mph and the signal becomes stronger:

Visual Alert: K 8 40

Audio Alert: Beeping is faster due to stronger signal.

Laser Alert Sequence

When the RL100 detects a laser signal:

• A voice alerts announces "Laser." (This assumes the factory default "Voice ON" setting has not been changed.)

• You then hear a distinctive audio tone. (Volume reduces automatically after 5 seconds.)

• Display indicates laser has been detected and reports your speed.

• **NOTE:** Unlike radar, signal strength from laser remains constant.

Laser Alert Example:

You are driving 55 mph and laser is detected.

Visual Alert: `LASER   55`

Audio Alert: Voice announces "Laser" followed by unique tone.

Alerts from non-police signals

Your RL100 is sensitive enough to detect signals generated by non-police equipment, such as bank security systems. To learn how to deal with these signals, please read about FILTER options (page xx) and the MARK Location function (page xx).

Special Features/Functions

Mute Sounds

Using the **MUTE** button, the RL100 provides you two ways to mute audio alerts (both voice and tones) for either 15 seconds or 2 minutes:

• OPTION 1: Silence all audio after an alert has sounded.

• OPTION 2: Silence all audio for a preset time before any alert occurs. (*Example: You may mute sounds for 2 minutes prior to making a phone call.*)

For either option, here's how to mute your device:

Mute audio for **15 second**s *or* the duration of the alert	**Press and release MUTE button**
Mute audio for **2 minutes** *or* the duration of the alert	**Press and hold MUTE button** for **3 seconds**

After pressing the MUTE button, the display will show `Mute On` and the voice will announce "Mute On."

NOTE: While this feature is engaged you will only receive new alerts as visual indications on the display.

Mark Location

The "Mark" function conveniently allows you to store specific locations and provide you two levels of alert:

Level 1, MUTE — Mute a future alert from a location known to contain non-police signals, such as a bank that's known to transmit security signals that trigger your detector.

- To activate, **press and release MARK button** when you are at the location.

- Display shows `Mute Loc` and voice announces "Location Muted".

- In the future, alerts will be muted within a 1500-foot radius of the point marked.

- Though muted, you will still receive full visual indication of the alert.

Level 2, FULL ALERT — Provides you both audio and visual alerts for a specific location you've stored. *(Examples: school zone, speed camera, red-light camera intersection).*

- To activate, **press and release MARK button <u>twice</u>** when you are at the location.

- Display shows `Alrt Loc` and voice announces "Marked to Alert"

- After marking the location, in the future the RL100 will alert you:

When you arrive…	You will hear a…
…within 1500 foot radius of the marked location	…"Bing Bong" tone and the display will show `Alrt Loc`
…at a marked location	…single "Bing" tone

To remove a previously marked location: Press and release MARK button while in that location.

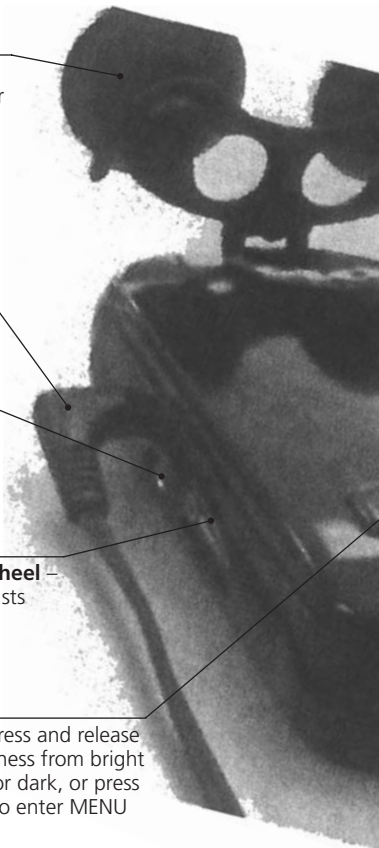**To remove all currently stored locations: Press and hold MARK button** for 5 seconds at any time.

**Windshield Mounting Bracket
(with suction cups)** – For proper
installation, see page XX

Power Cord – Plug into
cigarette lighter or other
12v outlet

Power Input Jack – Insert
small end of power cord
here

Power On/Volume Control Wheel –
Turn on the RL100 unit and adjusts
volume of voice/tones

MENU/DIM Button – Press and release
to change display brightness from bright
(factory default) to dim or dark, or press
and hold for 3 seconds to enter MENU
mode (page XX)

Speaker – Alerts delivered via voice and tones

FILTER Button – Press and release to select level of alert sensitivity (page XX), or enter "Speed Monitor" function by pressing and holding for 3 seconds (page XX)

MARK Button – Choose two levels of alert at specific locations you identify and "mark" (page XX)

MUTE Button – Press and release mutes audio alerts for 15 seconds, or press and hold for 3 seconds to engage a 2-minute mute (page XX)

Alphanumeric Display – Provides alert information as well as speed, direction and setting status

To Set Preferences – Both MENU and MUTE buttons are used to change settings of programmable features (pages XX – XX).

Filter Operation
(i.e. signal sensitivity)

The Filter system on the RL100 offers you 3 levels of sensitivity settings to accommodate various driving situations. To change the level at any time, **press and release FILTER button**.

Level / Mode	Sensitivity	Recommended Use
1. Highway *(factory default setting)*	Detects all types of police radar or laser signals at full sensitivity.	For highway travel or in any area in which you are un-familiar with the types of radar used.
2. City	The X-Band sensitivity is reduced. This is because it is the most common source of non-police radar signals. K, KA and Laser remain at full sensitivity.	When traveling in an urban area with minimal non-police radar signals.
3. Filter	Eliminates X-Band detection completely. Reduces K and KA Band sensitivity. Laser detection will remain at full sensitivity.	When traveling in a congest-ed traffic area with a high concentration of non-police radar signals.

Low Speed Mute

The Low Speed Mute function automatically silences all radar and laser alerts when traveling <u>under 27 mph</u>. (Factory default setting for Low Speed Mute is "On." To turn off and allow alerts at any speed, see page xx.)

NOTE: Points of interest or other "Marked" locations you've chosen (as described above) are not affected by the Low Speed Mute function and will initiate alerts at any speed.

Speed Monitor

The Speed Monitor function alerts the driver when a pre-selected speed is exceeded. The Speed Monitor can be set to any speed between 40-100 mph in 5 mph increments.

When the preset speed is exceeded:

• The RL100 emits a "Slow Down" voice alert accompanied by the visual display `SlowDown`.

• The alerts will continue until the vehicle's speed is reduced to below the Speed Monitor setting.

The factory default setting for speed monitor is "Off." To access and turn on this function:

• **Press and hold FILTER button** for 3 seconds.

• **Press and release MUTE button** to select the desired maximum speed for alerts.

• 5 seconds after your speed is selected, your setting will be saved, the voice will announce "Exit" and your display will return to the main screen.

Menu / Customizable Settings

The RL100 comes with factory default settings on certain features that we've learned are desirable for the majority of our customers. However, we provide you with the option of changing the settings based on your preferences.

To access and change any of the 12 selectable preferences:

• **Press and hold MENU button** for 3 seconds. The voice will announce "Menu" and the display will read **＊MENU＊**.

• **Press and release MENU button** to scroll through the preferences in the order listed on the following page. Continue until you reach the option to be changed.

• To change setting, **press and release MUTE button**. Both the display and voice will announce the change.

• **Press and release MENU** to continue scrolling to another preference.

	Menu Options *(in order displayed)*	**Default Setting**	**Description**
1	Voice Type	Female	Choose male or female voice for audio alerts.
2	Audible Voice	On	For all initial audio alerts: "Voice On" uses voice; "Voice Off" uses tones only.
3	Test	On	Controls length of startup sequence after powering on unit. "Test On" is standard 5-second test. "Test Off" uses an abbreviated sequence.
4	Speed Displayed	On	"Speed On" displays current speed in mph when driving over 5 mph. "Speed Off" turns off this display.
5	Compass Heading	On	Displays current compass heading when driving over 5 mph.
6	POP Radar Band	Off	Enables the detection of POP radar, a very short transmission signal that does not transmit long enough to gather information needed to issue a speeding ticket.
7	Low Speed Mute	On	Audio alerts are automatically muted at speeds below 27 mph. (read more on page xx)
8	X-Band	On	Enables the detection of X-Band radar.
9	K-Band	On	Enables the detection of K-Band radar.
10	KA- Band	On	Enables the detection of KA-Band radar.
11	Laser	On	Enables the detection of laser.
12	Factory Reset	RESET!	Returns the K40 to its original factory defaults for all settings.

To save your settings and exit:

- **Press and hold MENU button** for 3 seconds. (or do nothing for 10 seconds)

- The display will show EXIT and the voice will announce "Exit".

Troubleshooting Guide

Problem	Possible Cause	Solution
No visual display or audio (unit not receiving power)	Plug not inserted properly	Reinsert plug and rotate
	Defect in power cord	Replace fuse with 1 amp 250 Volt 3AG fuse
	Lighter socket not clean or negatively grounded	Consult your dealer or auto mechanic
	Defective fuse or electrical wiring for lighter socket	Consult your dealer or auto mechanic
Week or no detection range	Partially blocked antenna or lens opening	Reposition the unit to ensure unobstructed view of the road ahead
	Radar/laser signals unable to pass through windshield	Determine if your vehicle has a heated windshield or is covered with a metallic sun-screen. Check your auto's owner manual or consult with your dealer.
Erratic or frequent alerts	High concentration of non-police X-band sources	Use Filter Mode (see page xx)

***If you have any problems or questions, please call
one of our experienced product consultants
toll-free at 800.323.6768***

Warranty

K40 Electronics offers a one-year "repair or replace" warranty if your RL100 fails to work properly. **To ensure you are covered by our warranty please register your product online today by visiting K40.com/register**

Product subject to one or more of the following patents:

RL100 SPECIFICATIONS

Radar

Receiver type : Dual conversion super-heterodyne
Antenna type : Linear polarized, self-contained
Detector type : Scanning frequency discriminator
Frequency operation : X-band; 10.525 GHz ±50 MHz
K-band; 24.150 GHz ±100 MHz
Ka-band (super-wide); 34.700 GHz ±1,300 MHz

Laser

Receiver type : Pulsed laser signal receiver
Detector type : Digital signal processor pulse width discriminator
Optical sensor : Dual convex condenser lens and high speed photo diode detector, 800~1,100nanometers (nm)

General

Operating Temperature Range : -20° C to +80° C
Storage Temperature Range : -30° C to +100° C
Power requirements : 12V to 16V DC, 250mA, negative ground
Dimensions HxWxL : 29.3 x 69 x 115 mm

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