===
    FEATURE
===

1. GPS (On/Off)

2. User Mark Register/Delete (register up to 500 user points)

3. User Mark Alert

5. Store and Update DB (Store up to 20,000 points)

6. POI Alert (On/Off)

    1) Speed Camera

    2) Red-light Camera

7. Red-light Camera Point Delete

9. X, K, Ka Band, Laser Detection (On/Off). X Band Detection is Off as default.

10. Display : 160 X 32 OLED(Full Color)

12. Top Button : 4pcs [POWER], [VOL-], [VOL+], [MENU]

13. Front Button : 2pcs

    [MUTE/DIM], [MARK]

14. Front Button Backlight (On/Off)

15. Volume : 0~6 Level

16. Dim Mode : AUTO -> BRIGHT -> DIM -> DIMMER -> DARK -> OFF

17. City Mode : HIGHWAY -> CITY -> ADVANCED

18. Advanced Mode : User defined sensitivity for X, K, Ka (100~40%, Step : 20%)

19. Mute On/Off

20. Display & Voice Message Language : English

21. Display Mode : Scan Display -> Mode Display -> Time Display

22. Background Color : Blue->Amber->Green->Pink->Gray-> Red->White->Purple

23. left Display : Speed -> Speed + Compass -> Compass (8 directions) -> Voltage -> Altitude.

24. Speed Unit : mph or km/h

26. User Speed Limit Alarm (Off, 50~100mph , 80~160km/h)

27. GMT Settings (-12~+12hr)

28. DST(Daylight Saving Time) On/Off

29. Voice On/Off

30. Ka POP On/Off

31. K Band Filter On/Off

32. Ka Band Filter On/Off

33. TSF On/Off

34. K Narrow /Wide

35. Ka Narrow/ Wide

36. Signal Priority/ Ka Priority

38. All Threat Display (On/Off)

39. Selectable Alert Tone : X, K, Ka, Laser (Total of 12 kinds of Alert Tones)

40. Auto Mute (Off, On : 0~5 Volume Level)

41. Low Battery Voltage Warning (On/Off)

42. Vehicle Battery Saver (On/Off)

43. Self Test (Self Test Off / Self Test On)

44. Save User Settings

45. Factory Reset Mode

47. User Mark All Delete

48. Power Cord Alert LED / Mute Button

49. Software Version Display

50. DB Version Display

51. Software Update

52. Ka Frequency Voice Alert (On/Off) : Announce a detected Ka band frequency, e.g. "34.71" it will say "thirty four seven one" when DFR9 alerts to a Ka band signal.

54. Dark Mode Dim : User can set Alert Brightness (Bright <-> Dim <-> Dimmer)

53. Auto Dim : Users can set Brightness in the Menu. (Auto Dim is operated by Light sensor in DFR9 unit.)

54. OverSpeed Alert Mute : Users can mute OverSpeed alert of POI OverSpeed Warning and User Limit Speed until it's gone by short pressing MUTE/DIM key

OverSpeed Alert Mute will be reset in 10 seconds after alert is gone (the Mute is cancelled in 10 seconds after alert is gone).

===
   DISPLAY
===

1. Display by User Settings – Speed(mph or km/h), Speed + Compass, Compass, Voltage, Altitude(feet or meter).

Left Display shows "Voltage" regardless of User settings if GPS is off.

1.1. Display : Speed (Speed Unit : mph)

Speed (Speed Unit : km/h)

1.2 Display: Speed + Compass

1.3 Display: Compass
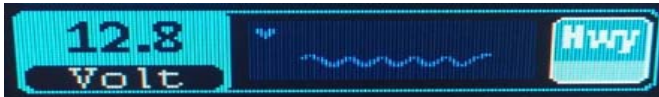

1.4. Display: Voltage

1.5. Display : Altitude (feet)

2. Display Mode (Scan Display -> Mode Display -> Time Display)

2.1 Scan Display : The scan graph is displayed and the Heart symbol is indicated whenever one scan cycle is complete.

.   **HIGHWAY**

CITY

ADVANCED

2.2. Mode Display

4.2.1. HIGHWAY

4.2.2. CITY

4.2.3. ADVANCED

2.3. Time Display

4.3.2.1. HIGHWAY

4.3.2.2. CITY

4.3.2.3. ADVANCED

===
Alarm
===

1. Laser / Radar Alarm

1.1. Laser Alarm (Voice & Beep alerts)

1.2. X Band Alarm (Voice & Beep alerts)

1 Level

2 Level

3 Level

4 Level

5 Level

1.3. K Band Alarm (Voice & Beep alerts)
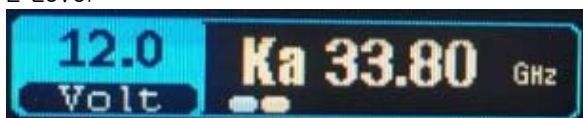
1 Level

2 Level

3 Level

4 Level

5 Level

1.4. Ka Band Alarm (Voice & Beep alerts)

1 Level

2 Level

3 Level

4 Level

5 Level

2. **GPS Alarm**

   2.1. GPS Connected : Voice announcement with the following display. If Self Test is Off, "GPS connected" voice announcement is skipped.

   2.2. Speed Camera Alarm : if there is speed camera point within 300 meters

   - **Voice ("Speed Camera Ahead")**
   - **Speed Camera Distance Display**

   2.3. Red Light Camera Alarm : if there is Red Light Camera point within 300 meters.

   - **Voice ("Red Light Camera Ahead")**
   - **Red Light Camera Distance Display**

2.4. User Mark Alarm : if there is User Mark within 1500ft (458meters)

      -Voice ("User Mark Ahead")
      -User Mark Distance Display

2.5. POI Over Speed Warning : If user is speeding over the POI speed limit (speed limit of Speed Camera in the area).

  - Voice ("You are exceeding the speed") with a sound effect and the Right Display shows "Over Speed".
  - The Left Display shows the current speed if the Left Display setting is "Speed".

2.6. User Limit Speed Warning : If user exceeds the speed limit preset by user.

  - Voice ("Attention reduce speed") with a sound effect and the Right Display shows "Over Speed".
  - The Left Display shows the current speed if the Left Display setting is "Speed".

3. Low Car Battery Voltage Warning
  Alert low battery voltage warning under 11.0V every 30 minutes

4. Vehicle Battery Saver Alarm

: If the speed stays "0" for more than an hour or GPS is not connected for more than an hour,
 Unit alerts "Auto Power Off" for 10sec and turns off the power.
 If any button on top pressed during Auto Power Off alarm, the alarm ends.

Power Off : 9

1 Beep, 10sec. before Power Off
↓

Power Off : 8

1 Beep, 9sec. before Power Off
↓

Power Off : 7

1 Beep, 8sec. before Power Off
↓

Power Off : 6

1 Beep, 7sec. before Power Off
↓

Power Off : 5

1 Beep,　6sec. before Power Off
↓
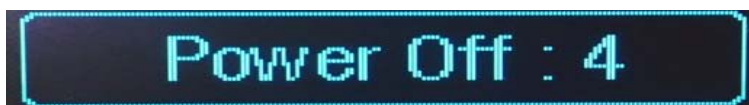
Power Off : 4

1 Beep,　5sec. before Power Off

Power Off : 3

1 Beep,　4sec. before Power Off
↓

Power Off : 2

1 Beep, 3sec. before Power Off

Power Off : 1

1 Beep, 2sec. before Power Off
↓

Power Off : 0

1 Beep, 1sec. before Power Off
↓

Power Off

5. GPS Error

The following GPS error message displays with Voice if the unit does not receive GPS signals for 30 seconds.

GPS Error

===
   Alarm Priorities
===

1. GPS Connected/ GPS Error / Speed Camera / Red Light Camera / User Mark Detect Alarm / POI Limit Speed Alarm

2. Laser

3. X, K, Ka Band

4. User Limit Speed Alarm

5. Low Car Battery Voltage Warning, Vehicle Battery Saver Mode(Auto Power Off)

==
   Preamble
==

1. Starting Display

2. When Self Test is On

       Self Test Start Message

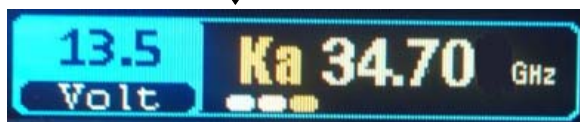 **X Band Alarm (Voice On : 2 Beep + Voice, Voice Off : 3 Beep)**

↓

↓

↓

  K Band Alarm (Voice On : 2 Beep + Voice, Voice Off : 3 Beep)

↓

↓

↓

Ka Band Alarm (Voice On : 2 Beep + Voice, Voice Off : 3 Beep)

↓

↓

Laser Alarm (Voice On : 2 Beep + Voice, Voice Off : 3 Beep)

or

===
  Button functions
===

[POWER]	Short Press	Power On/Off
[VOL+]	Short Press	Volume Level Up (Display & 1 Beep) : 0 -> 6 Level
[VOL-]	Short Press	Volume Level Down (Display & 1 Beep) : 6 -> 0 Level

[MENU]	Short Press	MENU Mode
	Long Press	Highway -> City -> Advanced
[MUTE/DIM]	Short Press	1. Mute On (Display Only) <-> Mute Off (Display Only) 2. Mute Red-light Camera voice alert 3. Mute "OverSpeed Alert" of POI OverSpeed Warning and User Limit Speed
	Long Press	1. Auto -> Bright -> Dim -> Dimmer -> Dark -> Off (Dim level cannot be changed by long press during RLC alert.) 2. Delete Red-light Camera Point during RLC alert
[MARK]	Short Press	User Mark Add / Del
	3sec Press	User Mark All Delete

===
  Mute On/Off & Auto Demute
===

1. **Mute On can be activated by pressing Mute button when unit is detecting (alerting) Laser or Radar signals.**

2. **Press Mute button again to turn off Mute mode.**

3. **Unit turns back into Mute Off from Mute On automatically 10sec after the radar/laser alarm ends.**

4. **Unit turns back into Mute Off from Mute On if the Laser/Radar band changes.**

5. **Unit turns back into Mute off from Mute On if the Menu mode is selected**

===

Menu Mode

===

1. Menu List (**When "GPS" is On**)

Menu List	Menu Setting
City Mode	**Highway -> City -> Advance**
X Band Attenuation (Advanced Mode)	100~40%, Step : 20%
K Band Attenuation (Advanced Mode)	100~40%, Step : 20%
Ka Band Attenuation (Advanced Mode)	100~40%, Step : 20%
GPS On/Off	**"GPS On"<-> "GPS Off"**
Speed Camera Alarm On/Off	**"Speed Camera On"<-> "Speed Camera Off"**
Red Light Camera Alarm On/Off	**"Redlight Cam On"<-> "Redlight Cam Off"**
Voice On/Off	**"Voice On" <-> "Voice Off"**
Ka Frequency Voice On/Off	**Ka Freq Voice On <-> Ka Freq Voice Off**
X Band On/Off	**"X Band On" <-> "X Band Off"**
K Band On/Off	**"K Band On" <-> "K Band Off"**
Ka Band On/Off	**"Ka Band On" <-> "Ka Band Off"**
Laser On/Off	**"Laser On" <-> "Laser Off"**
Ka POP On/Off	**"Ka POP On" <-> "Ka POP Off"**
K Band Filter On/Off	**"K Filter On" <-> K Filter Off**
Ka Band Filter On/Off	**"Ka Filter On" <-> Ka Filter Off**
TSF On/Off	**"TSF On" <-> TSF Off**
K Narrow / Wide	**K Narrow <-> Wide**
Ka Narrow/Wide	**Ka Narrow <-> Ka Wide**
Signal Priority/ Ka Priority	**Signal Priority <-> Ka Priority**
All Threat Display On/Off	**All Threat On <-> All Threat Off**
Background Color	**Blue <-> Amber <-> Green <-> Pink <-> Gray<-> Red<->White<->Purple**
Display Mode	**Scan Display -> Mode Display -> Time Display**
Left Display (GPS On)	**Display: Speed <-> Display: Spd +Compass <-> Display: Compass <-> Display: Voltage < -> Display: Altitude**
Speed Unit	**"Speed Unit : mph" <-> "Speed Unit : Km/h"**

X Band Tone	X Band Tone : 1 ~ 12
K Band Tone	K Band Tone : 1 ~ 12
Ka Band Tone	Ka Band Tone : 1~ 12
Laser Tone	Laser Tone : 1 ~ 12
Auto Mute On/Off	"Auto Mute On" <-> "Auto Mute Off"
Auto Mute Volume	Auto Mute Vol : 0 ~ 5
Dark Mode Dim	Press MENU Key to enter the submenu (Dark)
Dark Level Set (Submenu of Dark Setting)	Dark Level : Bright -> Dim -> Dimmer
Auto Dim Setting (Auto Dim Setting is activated in the MENU only when Dim Mode is set to Auto)	Press MENU Key to enter the submenu (Bright -> Dim)
Bright Level Set (Submenu#1 of Auto Dim Setting)	Bright Level : Bright -> Dim -> Dimmer
Dim Level Set (Submenu#2 of Auto Dim Setting)	Dim Level : Dim -> Dimmer -> Dark -> Off
Backlight On/Off	"Backlight On" <-> "Backlight Off"
Limit Speed	Limit Speed Off <-> Limit Speed On Limit Speed (mph) Range : 50~100 mph Step : 5 mph Limit Speed (km/h) Range : 80~160 km/h Step : 10 km/h
GMT Mode	"GMT -12 Hour" ~ "GMT +12 Hour"
DST (Daylight Saving Time)	"DST On" <-> "DST Off"
Low Battery Voltage Warning	"BAT Warning On" <-> "BAT Warning Off"
Vehicle Battery Saver	"BAT Saver On" <-> "BAT Saver Off"
Self Test On/Off	"Self Test On" <-> "Self Test Off"
Factory Reset	"Factory Reset? -> Reset Completed"
User Mark Point All Delete	"Delete All User?" -> "Delete Completed"
S/W Version / RD Version	S/W Version / RD Version Display (e.g. Ver: 1.30 / 1.95)
DB Version	DB Version Display (e.g. DB Ver: 17/04/05)
MENU Exit	MENU Exit

2. Menu List (When "GPS" is Off)

Menu List	Menu Setting
City Mode	Highway -> City -> Advance
X Band Attenuation (Advanced Mode)	100~40%, Step : 20%
K Band Attenuation (Advanced Mode)	100~40%, Step : 20%
Ka Band Attenuation (Advanced Mode)	100~40%, Step : 20%
GPS On/Off	"GPS On" <-> "GPS Off"
Voice On/Off	"Voice On" <-> "Voice Off"
Ka Frequency Voice On/Off	Ka Freq Voice On <-> Ka Freq Voice Off
X Band On/Off	"X Band On" <-> "X Band Off"
K Band On/Off	"K Band On" <-> "K Band Off"
Ka Band On/Off	"Ka Band On" <-> "Ka Band Off"
Laser On/Off	"Laser On" <-> "Laser Off"
Ka POP On/Off	"Ka POP On" <-> "Ka POP Off"
K Band Filter On/Off	"K Band Filter On" <-> "K Band Filter Off"
Ka Band Filter On/Off	"Ka Band Filter On" <-> "Ka Band Filter Off"
TSF On/Off	"TSF On" <-> "TSF Off"
K Narrow/Wide	"K Narrow" <-> "K Wide"
Ka Narrow/Wide	Ka Narrow <-> Ka Wide
Signal Priority/ Ka Priority	Signal Priority <-> Ka Priority
All Threat Display On/Off	"All Threat On" <-> "All Threat Off"
Background Color	Blue<-> Amber<->Green<->Pink"<->Gray<->Red->White<->Purple
Display Mode	Scan Display -> Mode Display -> Time Display
X Band Tone	X Band Tone : 1 ~ 12
K Band Tone	K Band Tone : 1 ~ 12
Ka Band Tone	Ka Band Tone : 1~ 12
Laser Tone	Laser Tone : 1 ~ 12
Auto Mute On/Off	"Auto Mute On" <-> "Auto Mute Off"
Auto Mute Volume	Auto Mute Vol : 0 ~ 5
Dark Mode Dim	Press MENU Key to enter the submenu (Dark)
Dark Level Set (Submenu of Dark Setting)	Dark Level : Bright -> Dim -> Dimmer
Auto Dim Setting (Auto Dim Setting is activated in the MENU only when Dim Mode is set to	Press MENU Key to enter the submenu (Bright -> Dim)

Auto)	
Bright Level Set **(Submenu#1 of Auto Dim Setting)**	**Bright Level : Bright -> Dim -> Dimmer**
Dim Level Set **(Submenu#2 of Auto Dim Setting)**	**Dim Level : Dim -> Dimmer -> Dark -> Off**
Backlight On/Off	**"Backlight On" <-> "Backlight Off"**
Low Battery Voltage Warning	**"BAT Warning On" <-> "BAT Warning Off"**
Self Test On/Off	**"Self Test On" <-> "Self Test Off"**
Factory Reset	**"Factory Reset? -> Reset Completed"**
S/W Version / RD Version	**S/W Version / RD Version Display (e.g. Ver: 1.30 / 1.95)**
MENU Exit	**MENU Exit**

3. Button functions on Menu Mode

   3.1. [VOL+] Button : Step down on the Menu list with 1beep.

   3.2. [VOL-] Button : Step up on the Menu list with 1 beep.

   3.3. [MENU] Button : Change options on Menu or Select an option.

   3.4. [POWER] Button : Power Off

4. Exit Menu

   3.1. Select Menu Exit

   3.2 Press [MENU] button for one second

   3.3. Automatically exit Menu If there is no button operation in Menu mode for 10 seconds.

===
  Unit of Measure for Quiet Ride and Speed Limit
===

: If User changes the unit of measure for speed, the preset value for Quiet Ride and Speed Limit will automatically change based on the following table.

1. mph -> km/h

mph	->	km/h
5	->	10
10	->	20
15	->	20
20	->	30

25	->	40
30	:	50
35	->	60
40	->	60
45	->	70
50	->	80
55	->	90
60	->	100
65	->	100
70	->	110
75	->	120
80	->	130
85	->	140
90	->	140
95	->	150
100	->	160

2. km/h -> mph

km/h	->	mph
10	->	5
20	->	10
30	->	20
40	->	25
50	:	30
60	->	35
70	->	45
80		50
90		55
100		60
110		70

120		75
130		80
140		85
150		95
160	->	100

==
User Setting Memory
==

Mode	Kind of Mode	Factory Default
Dim Mode	**Auto -> Bright -> Dim -> Dimmer -> Dark -> Off**	**Auto**
City Mode	**Highway <-> City <-> Advanced**	**Highway**
X Band Attenuation (Advanced Mode)	**100~40%, Step : 20%**	**100%(Full sensitivity)**
K Band Attenuation (Advanced Mode)	**100~40%, Step : 20%**	**100%(Full sensitivity)**
Ka Band Attenuation (Advanced Mode)	**100~40%, Step : 20%**	**100%(Full sensitivity)**
GPS On/Off	**GPS On <-> GPS Off**	**GPS On**
Speed Camera Alarm On/Off	**Speed Camera Alarm On <-> Speed Camera Alarm Off**	**Speed Camera Alarm On**
Red Light Camera Alarm On/Off	**Red Light Camera Alarm On <-> Red Light Camera Alarm Off**	**Red Light Camera Alarm On**
Voice On/Off	**Voice On <-> Voice Off**	**Voice On**
Ka Frequency Voice On/Off	**Ka Freq Voice On <-> Ka Freq Voice Off**	**Ka Freq Voice Off**
X Band On/Off	**X Band On <-> X Band Off**	**X Band Off**
K Band On/Off	**K Band On <-> K Band Off**	**K Band On**
Ka Band On/Off	**Ka Band On <-> Ka Band Off**	**Ka Band On**
Laser On/Off	**Laser On <-> Laser Off**	**Laser On**
Ka POP On/Off	**Ka POP On <-> Ka POP Off**	**Ka POP Off**
K Band Filter On/Off	**K Band Filter On <-> K Band Filter Off**	**K Band Filter On**
Ka Band Filter On/Off	**Ka Band Filter On <-> Ka Band Filter Off**	**Ka Band Filter Off**
TSF On/Off	**TSF On <-> TSF Off**	**TSF Off**
K Narrow / Wide	**K Narrow <-> K Wide**	**K Wide**
Ka Narrow / Wide	**Ka Narrow <> Ka Wide**	**Ka Narrow**
Signal Priority/ Ka Priority	**Signal Priority <-> Ka Priority**	**Ka Priority**

All Threat Display On/Off	All Threat On <-> All Threat Off	All Threat Off
Background Color	Blue->Amber->Green->Pink->Gray-> Red ->White->Purple	Blue
Display Mode (GPS On)	Scan Display -> Mode Display -> Time Display	Mode Display
Display Mode(GPS Off)	Scan Display <-> Mode Display	Mode Display"
Left Display (GPS On)	Speed -> Speed + Compass -> Compass -> Voltage -> Altitude	Speed
Speed Unit	mph <-> Km/h	mph
X Band Tone	X Band Tone : 1~12	X Band Tone : 1
K Band Tone	K Band Tone : 1~12	K Band Tone : 2
Ka Band Tone	Ka Band Tone : 1~12	Ka Band Tone : 3
Laser Tone	Laser Tone : 1~12	Laser Tone : 4
Auto Mute On/Off	Auto Mute On <-> Auto Mute Off	Auto Mute On
Auto Mute Volume	Auto Mute Vol : 0~5	Auto Mute Vole : 2
Dark Mode Dim	Press MENU Key to enter the submenu (Dark)	
Dark Level Set (Submenu of Dark Setting)	Dark Level : Bright -> Dim -> Dimmer	Dimmer
Auto Dim Setting (Auto Dim Setting is activated in the MENU only when Dim Mode is set to Auto)	Press MENU Key to enter the submenu (Bright -> Dim)	
Bright Level Set (Submenu #1 of Auto Dim Setting)	Bright Level : Bright -> Dim -> Dimmer	Bright
Dim Level Set (Submenu #2 of Auto Dim Setting)	Dim Level : Dim -> Dimmer -> Dark -> Off	Dim
Backlight On/Off	Backlight On <-> Backlight Off	Backlight On
Limit Speed	Limit Speed Off <-> Limit Speed On 1) Limit Speed Off 2) Limit Speed (mph) 　Range : 50~100 mph 　Step : 5 mph 3) Limit Speed (km/h) 　Range : 80~160 km/h 　Step : 10 km/h	Limit Speed Off
GMT Mode	-12 ~ +12 Hour	-8 Hour

DST (Daylight Saving Time)	DST On <-> DST Off	DST Off
Low Car Battery Voltage Warning	Low Car Battery Voltage Warning On <-> Low Car Battery Voltage Warning Off	Low Car Battery Voltage Warning Off
Vehicle Battery Saver	Vehicle Battery Saver On <-> Vehicle Battery Saver Off	Vehicle Battery Saver Off
Self Test On/Off	Self Test On <-> Self Test Off	Self Test On
Volume Level	0 ~ 6 Level	4 Level

1.Mute On/Off settings can't be saved. Unit stays Mute Off after Power Reset or Factory Reset or Exiting Menu mode.

2.GMT settings will stay the same even after Factory Reset. GMT-8(west coast) is factory default.

3.Unit can store up to 20,000 DB points.

4.Unit can store up to 500 User Mark points.

===
   Red Light Camera Point Delete
===

Press and hold the MUTE/DIM on the R3 unit or MUTE button on the power cord while RLC Alert displays; the R3 displays a delete confirmation message. Press MUTE/DIM again to confirm.

1. Red Light Camera alert

2. The delete confirmation message displays as below if you press and hold (long press) the MUTE/DIM on the R3 unit or MUTE button on the power cord while RLC Alert displays.

3. Press the MUTE/DIM or MUTE button again to confirm.

==

 Dim Mode

==

Auto - Bright – Dim – Dimmer – Dark – Off

"Dark" is off unless you get an alert. "Off" is truly off all the time.

Auto Dim : Users can set Brightness in the Menu.   (DFR9 has a light sensor and Auto Dim is operated by the light sensor)

1) Set Dim Mode to "Auto" by long pressing MUTE/DIM key.   (Dim level cannot be changed by long pressing MUTE/DIM key during RLC alert.   Red-light Camera Point is deleted by long pressing MUTE/DIM key during RLC alert.)

2) Go to Auto Dim Setting in the MENU. (Auto Dim Setting is activated in the MENU only when Dim Mode is set to Auto)

3) Press MENU Key to enter the submenu (Bright -> Dim) and set Brightness.

Dark Mode Dim : User can set Alert Brightness in Dark Mode. If you set to Dimmer, the OLED brightness will be dimmer when an alert is announced.   .
1) Go to Dark Mode Dim in the MENU.
2) Press MENU Key to enter the submenu (Dark) and set Brightness (Bright <-> Dim <-> Dimmer).

==

 Highway & City & Advanced

==

 Highway : Full sensitivity

 City : Both X and K sensitivity is reduced. Ka remains the same as Highway

 Advanced mode : User defined sensitivity for X, K, Ka (100~40%, Step : 20%)

 User can adjust the sensitivity level between 100 ~ 40% for each band (X,K and Ka) as follows.

100% : Full sensitivity

80% : - 3.5dB attenuation

60% : - 7dB attenuation

40% : - 10.5dB attenuation

This is sensitivity reduction and does not mean the distance reduction.　For instance, 40% does not mean 60% reduction in detection distance compared with 100% (e.g. 100% : 1mile -> 40%(-10.5dB) : 0.4miles, It does not work this way).　Please explain this sensitivity reduction in the User manual for user to avoid any misunderstanding.

===
　　Signal Priority / Ka Priority
===
1. Signal Priority : Alert priority is decided by Radar signal strength.
With Signal Priority setting, R1 alerts to the strongest radar signal (X, K, Ka Band) when two or more signals are being detected at the same time.　.

2. Ka Priority : R1 alerts to Ka band signal regardless of Radar signal strength when two or more signals including Ka band signal are being detected at the same time.

3. Laser alert always takes priority over radar alerts.

===
　All Threat Display (On/Off)
===
All Threat display function shows all radar signals(up to 4 radar bands) being detected at the same time. Display priority (the main display) is decided by the Priority setting (Signal Priority / Ka Priority).

- Display strongest radar signal in the main and other signals on the left side of the display if Signal Priority mode is selected.

- Display Ka band radar signal in the main and other signals on the left side of the display if Ka Priority mode is selected.
- Display up to 4 radar signals

All Threat display with Signal Priority mode.
- Four radar signals as below display – "K 24.04GHz" strongest signal in the main and Ka(3 level) and different K band frequency(2 level) and X band(one level)


 - Two radar signals are being detected.

 - Three radar signals are being detected

- Unit keeps the user setting in the left display area in All Threat mode if there is no detection(standby) or only one radar detected. For example, if user selects "Voltage" for left display, Unit will display "Voltage" as below in All Threat mode when there is no detection and only one radar detected.

==
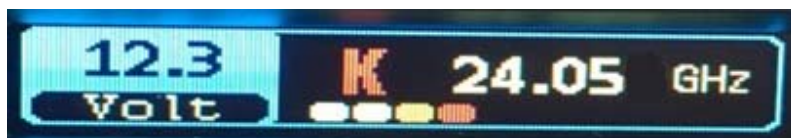
K Narrow/ Wide

==

K Narrow/ Wide: Selectable (Default: K Wide)

K Narrow scans K radar guns being used in U.S. only and reduce false alarms.

==

Ka Narrow / Wide

==

Ka Narrow/ Wide : Selectable (Default : Ka Narrow)

1. Ka Wide : It scans Super Wide Ka band.

2. Ka Narrow : It scans only Ka radar guns being used in the U.S. so you can reduce Ka false alarms and fast response to Ka POP radar guns with Ka Narrow.

==

Auto Mute Mode

==

AutoMute Mode : Selectable(On/Off)

1. Radar(X, K and Ka) : Current volume level stays for the first 3sec. after the alarm starts, and reduces to volume level 1.   AutoMute is not applicable to Laser alert.

2. AutoMute ends 10 seconds after the alarm ends. If the same radar is detected within 10 seconds, the unit keeps AutoMute On

3. When Unit is on AutoMute, and a different band signal is detected, AutoMute will be off and turn back to the current volume level.]

==

Power Cord Alert LED

==

1. Power Cord Alert LED turns on when the power turns on.

2. Power Cord Alert LED blinks when Laser or Radar(X, K, Ka) alarms

3. Power Cord Alert LED blinks slowly when the speed of Laser or Radar(X, K, Ka) alarms beeping sound is slow down and it blinks fast when the speed of the Laser or Radar alarm beeping sound increases.

===
   Power Cord Mute Button
===

The Mute Button on the power cord operates the same way (Mute On/Off, Red-light Camera Point Delete, OverSpeed Alert Mute) as the MUTE/DIM button.

Dim mode (Auto - bright – dim – dimmer – dark – off) can be changed by pressing and holding the MUTE button on Mute power cord or DSP Mute Key Hardwire. (Dim level cannot be changed by long pressing MUTE/DIM key during RLC alert. Red-light Camera Point is deleted by long pressing MUTE/DIM key during RLC alert.)

===
   DB Update
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Connect Unit to PC by USB cable and use DB Update Manager (PC Program) to download POI DB Points (Store up to 20,000 points)

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   Firmware Update
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Connect Unit to PC by USB cable and use Firmware Update Manager (PC Program) to update new firmware.

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  SPECIFICATIONS
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Receiver Type:		Antenna Type:	
Radar	Double Conversion Superheterodyne Self-Contained Antenna	Radar	Linear Polarized E-vector Vertical
Laser	Pulsed Laser Signal Receiver	Laser Front	Convex Condenser Lens
Frequency:		Laser Back	Concave Condenser Lens
X	10.525 GHz	Dimensions	126mm (D) x 79 mm (W) x 36 mm (H)
K	24.150 GHz	Weight	6 oz (170g)

Ka	33.400 - 36.000 GHz	Operating Temp.	-4° to +185° F (Radar/Laser)
			-20° to +85° C (Radar/Laser)
Laser	800 nm - 1100 nm	Storage Temp.	-22° to +203° F (Radar/Laser)
			-30° to +95° C (Radar/Laser)
Detector Type:		Operating Power Source	DC 11.0 to 16.0 V
Radar	Scanning Frequency Discriminator	USB Interface	USB Specification 2.0/1.1
Laser	Pulse Width Discriminator		
Alarm Type	Voice and Beep (Detected Band and Signal strength)		

FCC INFORMATION
FCC: AMWUA1801

FCC Compliance
This device complies with Part 15 of the FCC rules. Operation is subjected to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

- END -