

(Preliminary)

American-Radar Product Manual

(High Radar Performance with BlueTooth-Smart)

Models:

AR-7010BT/AR-6000BT/AR-8040BT/AR-9000BT

AR-9020BT/AR-9540BT/AR-9530BT/AR-9520BT

AR-9510BT/AR-9900BT

Date : June 28, 2016

Full Owner's Manual(PDF) : www.american-radar.com

Features

Radar Bands

-Detection: X, K, Ka,

-False-Rejection : Suppression of false alerts caused by K band Anti-collision radars.

-Improved-Sensitivity

-RDD_Undetectable : VG-2 & Spectre-Elite

-Laser Bands:

Detection: LTI Laser, LTI 20/20, Stalker Lidar, Kustom Laser, SpeedLaser /ProLaser II, Kustom

Laser 340

-Voice and Text in English.

-Display : Gray-Scale OLED Display.

-GUIs : more than 500 images were embedded to show you dynamic information.

-Radar Mode : 5 Mode(Highway, City1, City2, City3, City4)

Highway Mode: The most sensitive mode and full audio-alarming mode.

City1 Mode: X and K audio-alarming starts from level 3.

City2 Mode: X and K audio-alarming starts from level 4 and Ka audio-alarming starts from level 3.

City3 Mode: City2 is maintained and suppress false alerts caused by K band radar-signals.

City4 Mode: City2 is maintained and suppress false alerts caused by K band Anti-collision radar-signals.

-Radar Signal Power-Level: 1~6 Level.

-Satellite-Module is supported.

- Module : GPS / Glonass

-POI-Database : More than 12300 POIs(As of Feb,2016)

-Detectable POIs : SPEEDTRAP, SPECS, RISKZONE,, etc.

-Dual Update mode: (USB-update mode and BlueTooth-Smart update mode)

- All Users can update the latest database and firmwares via USB connection to PC
or BLUETOOTH connection to SmartPhone through Internet.

- Connection : USB, Bluetooth-Smart(BLE 4.0)

- Dedicated Updater softwares are supported.

- Updater Programs

- Support-OS for USB-Updater: MS-Windows 7 /8 /8.1/10, Apple OSX Yosemite / El-Capitan

Support-OS for BlueTooth-Updater: Google-Android 4.4 kitkat/5.0/5.1

Apple-iOS 8.0/9.0/9.1/9.2/9.3(iphone 4s/5/6/6s/6s plus)

Key Operation

1. 3 key type:

- Dim, Mute, City (for AR 7010BT, 9020BT, 9000BT, 9510BT, 9520BT, 9530BT)
- Menu entrance/Exit : Hold Dim+City for 2 seconds.

Menu keys : Dim(Left/-), Mute(Right/+), City(Select)

2. 4 key type:

- Prog, Dim, Mute, City (for AR 6000BT, 8040BT, 9900BT, 9540BT)
- Menu entrance/Exit : Press Prog button.

Menu keys : Dim(Left/-), Mute(Right/+), City(Select)

S/W Menus

- Quick-Start On/Off: You can shorten opening-time and remove opening-sound.
- Voice On/Off: Select Voice-Mode or Beep-Mode.
- AutoMute On/Off:
- X On/Off: Enable/Disable X-Band detection.
- K On/Off: Enable/Disable K-Band detection.
- Ka On/Off:Enable/Disable Ka-Band detection.
- Database On/Off: Enable/Disable All Database-detections.
- SpeedTrap Database On/Off: Enable/Disable SpeedTrap-detection.
- RedLightCamera Database On/Off:Enable/Disable RedLightCamera-detection.
- RiskZone Database On/Off:Enable/Disable RiskZone-detection.
- Dangerous Intersection Database On/Off:Enable/Disable DangerousIntersection-detection.
- SpeedCamera Database On/Off:Enable/Disable SpeedCamera-detection.
- Laser On/Off: Enable/Disable Laser detection.
- LimitSpeed Setting: User can set Speed-Value to control alarming-sound.

Most of alarming-sound will be must under Limit-Speed Value.

(FYI, This LimitSpeed Value is NOT related to Camera's SpeedLimit Value in the database.)

- OverSpeed-Margin Setting: User can set OverSpeedLimit Marginary value.

A Camera's LimitSpeed Value will be added by this margin value.

ex) If you set Margine value to 6 mph and current camera's limistspeed value is 30 mph, alarming-condition will be changed to 36 mph.

- Auto-City On/Off: This mode will adjust City mode automatically by LimitSpeed Value.
- Auto-Range On/Off: This mode will adjust POI detection distance automatically by current driving speed.

- SpeedUnit Setting: You can select speed unit(kph(Km/h) or mph(Mi/h))
- Summer-Time Setting: You can adjust summer-time manually.
- Delete UserPOIs: can delete User-POIs.
- Delete QuietPOIs: can delete Quiet-POIs.
- Factory-Reset: Recall factory values.
- BLE(BlueTooth-Smart):can update database through internal BlueTooth interface.
- USB Update Mode: can update new s/w or database through USB interface.

Software Update

- You can update the latest software or POI-database from our web-server through USB-connection

or BlueTooth-connection.

1.Using USB-connection.

- Please download our USB-updater from our web-site (www.american-radar.com)
- Connect GPS/Radar-Detector device to PC using usb-cable. And Enter the usb-update menu(Menu->USB_Update) and push City-button to go into usb-update mode. Then you can see USB-Update text on the display.
- Run AR-Updater.exe and click "Connect" button to connect update database or software.

2. Using BLE(BlueTooth-Smart)-connection.

- Please install our BLE-updater application from App-Store or Play-Store.
- Enter the BlueTooth-update menu(Menu->BlueTooth_Update) and push City-button to go into blurtooth-update mode.
- Run BLE-Updater app and click "Connect" button to connect update database.

Electrical and Electronic Conditions and Specifications

Standard Test Environmental:

- Temperature: +25 C +/-5 C
- Humidity: 20% to 60%
- Operating Voltage: 13.6V +/-1.0V

Electrical-Spec

- Operating Voltage Range : 16V~12.5V
- Max DC Current
Standby: 330 mA
Alarm: 500 mA (Full audio volume, full brightness on display for a X SSM6 alert)

Microwave Radar Specification

Detectable Bands

The following microwave-frequency guns, transmitters, and Radar Detector Detectors (RDDs) are to be detected:

Band	Modulation	Center Freq	Min. Dev	Units
X	none	10.525	+/-0.050	GHz
K	none	24.125	+/-0.125	GHz
Ka	None	34.700	+/-1.300	GHz

Undetectable Bands

VG-2	Swept	11.500	+/-0.250	GHz
Spectre1	Swept	13.300	+/-0.200	GHz

Spectre I/Elite Stepped	12.650	+/-0.025	GHz
	13.150	+/-0.025	GHz

Radar/Laser Sensitivity

10.525 GHz: -105 (+/-3) dBm

24.150 GHz: -120 (+/-2) dBm

33.800 GHz: -120 (+/-2) dBm

34.300 GHz: -120 (+/-2) dBm

34.700 GHz: -120 (+/-2) dBm

34.940 GHz: -120 (+/-2) dBm

35.500 GHz: -120 (+/-2) dBm

Laser : -128 / 115 dBJ/cm²

GPS & GLONASS

GPS & GLONASS Receiver 72-channel Receiver

Acquisition Times Hot < 3 sec typical

Warm < 10 sec typical

Cold < 40 sec typical
Time to Initial Fix -148dBm typical

Tracking Sensitivity -167dBm typical
Update Rate 1/sec

Mechanical Specification

: Mechanical-specs will be added.

FCC Statements

FCC Part 15.19 Warning Statement- (Required for all Part 15 devices)

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT 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 UNDESIRE OPERATION.

FCC Part 15.21 Warning Statement

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

FCC Part 15.105(b) Warning Statement- (ONLY Required for 15.109-JBP devices)

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.