WRAITH ARS 2X

POLICE RADAR AND PLATE READER

Operator's Manual

Last updated: 21/02/2020

TABLE OF CONTENTS

INTRODUCTION

The ***Wraith ARS 2X*** (Wraith Advanced Radar System) is a realistic police radar that takes heavy inspiration from the real Stalker DSR 2X radar system. It includes a plethora of features from the DSR 2X such as the new operator menu, to improve the realism and experience whilst using the newest instalment from the collection of Wraith radar systems. Previously with WraithRS, vehicle speeds were only displayed in the target window, with no priority to certain vehicles (such as large and slower vehicles, or smaller and faster vehicles). The ***Wraith ARS 2X*** tracks both large and faster, smaller targets and displays the speeds of both in the target windows, meaning the radar can track 4 different speeds with both antennas turned on and transmitting. At the press of a button, the operator can engage 'key lock' that prevents any of the key binds from working, helping to eliminate control conflicts. The system also has a plate reader built in that scans front and rear plates.

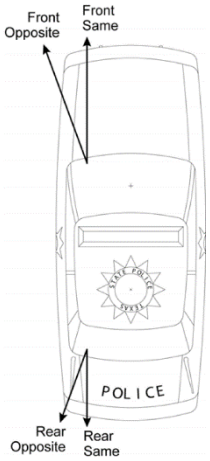
HOW THE RADAR SYSTEM WORKS

When the radar display is enabled and either/both antennas are transmitting, the system sends out a signal that acquires the speed and direction of travel from vehicles in the radar's line of sight. All the collected data is then sent to the radar's processing core that calculates which vehicle speed needs to be displayed in which box, the direction a vehicle is going relative to the operator's vehicle is also displayed next to the target windows. As the new system splits up larger and smaller but faster vehicles, the operator can more easily distinguish which vehicle in their view is being displayed on the radar's interface.

TARGET ZONES

Throughout this manual there are multiple references to the different areas of traffic that the radar system monitors, they are known as target zones. The ***Wraith ARS 2X*** can monitor up to two zones at a time whilst both antennas are transmitting. The four target zones are:

- Front Same
- Front Opposite
- Rear Same
- Rear Opposite



Due to the way that the radar system works, it treats the opposite target zones like lanes instead of a diagonal signal being emitted from the antennas.

As of the current version of the radar system (beta4), only two target zones can be monitored, in a future update, the system will be able to monitor four target zones up to the operator's discretion.

DEFAULT KEY BINDS

Below are a list of the default key binds that come with the ***Wraith ARS 2X***, please note, these can easily be changed by the administrators/developers who install this resource on their server. The key binds listed below may not work for you, if this is the case, then please contact the appropriate members of the server you are playing on for more information.

Action	Key
Open remote	F5
Close remote	ESC or right mouse button
Lock front antenna	Numpad 8
Lock rear antenna	Numpad 5
Lock front plate	Numpad 9
Lock rear plate	Numpad 6
Toggle keylock	K

Although most of the actions listed above are self-explanatory, the keylock action may not be. When the operator presses the key bind to toggle the keylock, all the radar's key binds seize to work until the operator toggles the keylock again. This functionality is like the keylock found in Lt. Caine's ELS.

STARTING THE SYSTEM

At first glance, the ***Wraith ARS 2X*** may seem quite daunting, but the system itself is in fact quite simple. Below are the steps which the operator should take to get the radar system and the antennas up and running.

1. Press the key to open the remote (default: F5)
2. Click the button at the top labelled "Toggle Display"
3. The radar interface should now be displayed, click the button on the radar labelled "PWR"
4. With the remote still open, click the button labelled "XMIT" for one or both antennas
5. Now that the antennas are in transmit mode, click the "SAME" or "OPP" button for one or both antennas

Following these steps will result in the radar system becoming operational and the antennas detecting vehicle speeds.

OPERATOR MENU

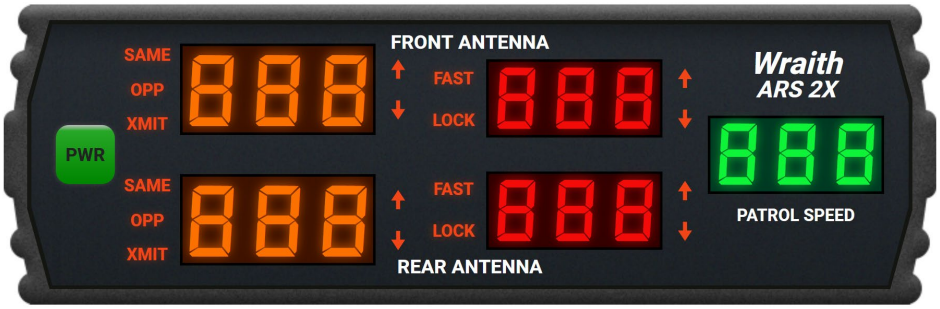
The ***Wraith ARS 2X*** features an operator menu that allows for configuration of a variety of settings for the radar system. To access the operator menu, the remote control and radar interface must be displayed, press the MENU button on the remote to access the menu. Subsequent presses of the MENU button step through the other options available within the menu. To change the value of one of the currently displayed settings, you must use the buttons on the remote with the arrows.

		FEATURE Iterate by pressing MENU button	**SETTINGS** Change using the ↓ and ↑ buttons
Menu position	Description	Fast Window	Patrol Window (**bold** is factory default)
1	Fast speed display On/Off	FAS	**On**/OFF
2	Same Lane sensitivity	SL SEn	1, 2, **3**, 4, 5
3	Opposite Lane sensitivity	OP SEn	1, 2, **3**, 4, 5
4	Beep volume	bEE P	OFF, 1, 2, **3**, 4, 5
5	Voice annunciator volume	VOI CE	OFF, 1, 2, **3**, 4, 5
6	Plate reader volume	PLt RUd	OFF, 1, 2, **3**, 4, 5
7	Units display	Un i tS	**USA**, Int
8 (only displayed if enabled in config)	Fast limit locking	FAS Loc	On/**OFF**
9 (only displayed if enabled in config)	Fast speed limit for locking	FAS SPd	5-200, default: **60**

Once you have finished in the operator menu, press any of the mode buttons on the remote to exit the menu and return to normal radar operation.

DISPLAY OPERATION

RADAR DISPLAY PANEL



The display of the ***Wraith ARS 2X*** has been completely redone to look more realistic whilst also giving the operator more information about what the radar system is currently doing.

FUNCTIONS OF THE DISPLAY UNIT

POWER BUTTON: The **POWER** button is a toggle switch that supplies the unit with power, the unit does not come on automatically with the patrol vehicle and must be manually turned on.

TARGET WINDOWS: The two orange windows on the left are the target windows. The top window displays the strongest speed for the front antenna, and the bottom window displays the strongest speed for the rear antenna. When a speed is displayed in one of the target windows, an arrow to the right of the window lets the operator know the direction the target vehicle is traveling relative to the patrol vehicle.

FAST/MIDDLE WINDOWS: The two red windows in the middle are multi-purpose windows, when the target windows are displaying a strong speed, the fast windows will display the faster target speed if there is one. The two icons to the left of the windows, **FAST** and **LOCK**, are used to indicate the state of the middle windows. Whilst a speed is displayed in either the target or middle windows, if the operator presses the front or rear lock key, a speed will then be locked into the relevant middle window, with the **LOCK** icon also lighting up. Every time an operator locks a speed, it will be followed by a two-word voice enunciator that lets the operator know the antenna/direction, these include: *FRONT/AWAY, FRONT/CLOSING, REAR/AWAY, REAR/CLOSING*.

PATROL WINDOW: The green window to the right is the patrol window, whilst the patrol vehicle is stationary, the symbol "⌐¬" will be displayed. When the patrol vehicle is moving, the speed will be displayed.

ICON DEFINITIONS

XMIT: When the **XMIT** icon is illuminated, it means that the associated antenna is transmitting. When it is off, the fast window will display HLd, indicating the associated antenna is in hold mode and is not transmitting.

SAME: When the **SAME** icon is illuminated, it means that the associated antenna is tracking targets in the same lane *Target Zone*.

OPP: When the **OPP** icon is illuminated, it means that the associated antenna is tracking targets in the opposite lane *Target Zone*.

FAST: When the **FAST** icon is illuminated, the associated fast target window will display faster targets captured by the radar. This will only be lit if the fast display is enabled in the operator menu. When the **FAST** and **LOCK** icons are illuminated, it indicates that a faster target speed has been locked.

LOCK: When the **LOCK** icon is illuminated, it means that the associated fast target window contains a locked speed. If the **FAST** icon is also illuminated, it means that the locked speed is a fast target speed.

↑ OR ↓: A ↑ or ↓ illuminated next to one of the target speed windows indicates the relative direction of travel of the target displayed in the associated target window. The table below defines what the arrows mean for the front and rear antenna.

ARROW DIRECTION DEFINITIONS

ANTENNA	DIRECTION	ARROW
Front	Closing	↓
	Away	↑
Rear	Closing	↑
	Away	↓