



speedtrap protection for high-performance cars

# Stinger System Installation Manual

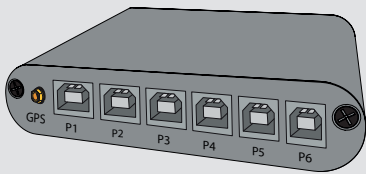


For optimal performance of the Stinger System it is important to carefully follow the directions provided in this installation manual. For questions please call Stinger technical support at the numbers shown below.

## Installers:

Please first confer with the customer to determine the desired position for the Strip or View display in the 'cockpit'. We generally advise to place the display so that it will be easily visible for - and within comfortable reach of - the driver.

This manual covers the three main hardware combinations that can make up a Stinger system. Make sure to (only) read the section that is applicable to the installation at hand:

<b>Section A</b>	<b>RADAR ONLY</b> Stinger System with Computer Center, no Laser Center
	
<b>PAGE 4 - 5</b>	

<b>Section B</b>	<b>LASER ONLY</b> Stinger System with Laser Center, no Computer Center

## Legality

Many countries in the world have their own, unique regulations regarding drivers being alerted to, and protected from, speed traps. Depending on the country, citizens may or may not have the freedom to receive information concerning speed traps and to be alerted accordingly. The rules regarding citizens having the liberty to freely receive the information from laser speed trap guns often differ per country.

In order to offer its products to car drivers throughout the world (like in the so called "common market" of the E.U., where the laws vary widely per country, as well as in many other countries and states on our planet), Stinger, in certain markets, only supplies versions of the Stinger system that are incapable of certain functionalities. Radar Alerting, Laser Alerting, LaserShield®, and SpotList may not be available on those versions.

Please remember that it is and always will be your personal responsibility to be aware of and abide by the locally applicable laws. Therefore, please always thoroughly check local legislation before using your Stinger system. If you are driving in a country where you do have the freedom to use Radar Alerting and/or Laser Alerting and/or LaserShielding and/or SpotList Alerting, you can download and install the software appropriate for that country.

Of course you can later delete this (new) functionality, in order to easily and completely stay in compliance with local legislation whenever entering a jurisdiction that does not allow one or more of the above mentioned functionalities. Erasing is achieved like this: on the View interface by pressing the 'S' key, then the Erase button in the next screen. On the Strip interface by simultaneously holding - and + for 3 seconds or longer. On the LED and button by pressing the button for 4 seconds. Erasing ensures that your Stinger system is incapable of Radar Alerting, Laser Alerting, LaserShield®, and sometimes SpotList Alerting. A new software download and installation (available where allowed) are required in order to once again change the version of your Stinger system.

Please be aware that all features and functionalities described in this manual are subject to the presence of the corresponding hardware modules.

**Note:** Under no circumstance does your Stinger constitute a license to exceed the posted speed limits. Alerts from your Stinger serve as an effective reminder to mind your speed. Always drive responsibly and pay full attention to traffic.

## Important Safety Instructions

### Read carefully, prior to operating the laser

Do not plug any third party equipment into any of the sockets in the Laser Center, and do not connect any part of the Stinger system to third party equipment. Doing so may cause fire or damage to the unit, and voids warranty.

Use of controls or adjustments or performance or procedures other than those specified herein may result in hazardous radiation exposure.

### Special Caution

The Stinger Laser Transmitter, may transmit a laser beam that can be harmful to sight. Never, under any circumstances look at the sensor while it is operating and / or it is connected to a power supply. This is especially true for looking into the Laser Transmitter from up close, or through any kind of optical lenses!

### Laser safety

The Stinger Laser has been tested and classified as a class 1 laser product in accordance to European and international eye safety regulations EN 60825-1 (2014) and IEC 60825-1 (2014) under normal operating conditions and those of single fault failure.

Definition: Class 1 laser products are safe under any reasonably foreseeable conditions of operation, but may be hazardous if a person employs optics within the beam. An outer transmitter of the Stinger Laser is labeled in accordance to regulations.

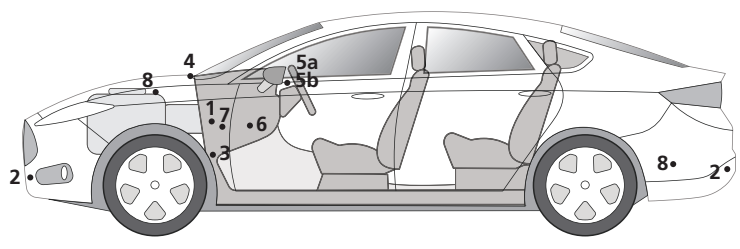


### Maintenance

The Stinger system is basically maintenance free, however, you should check periodically that lenses on outer sensors are clean. You can gently clean them with any water based means or using a simple wipe.



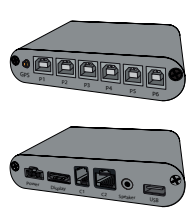
**SUGGESTED MODULE PLACEMENT**



- 1 Computer Center
- 2 HD+ Radar Antenna
- 3 Speaker
- 4 GPS Antenna
- 5a Strip display
- 5b View and View Holder
- 6 Cable for the USB Key
- 7 Power Plug
- 8 Extension Box (front&rear)

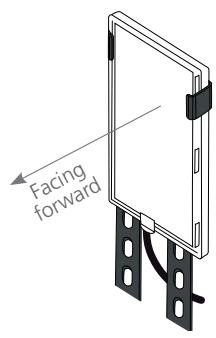
In or behind the bumper	Sky view	In the cockpit		Under the hood / In the trunk
2	4	5a	5b	8 Optional
Under the dashboard				
1	3	6	7	

**STEP BY STEP INSTRUCTIONS**



**1. Computer Center**  
The Computer Center must be placed in a dry and protected location such as in or under the dashboard.

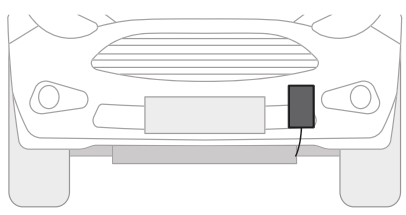
- Mount the Computer Center with tie-wraps or Velcro tape.
- Note: Connect one end of the USB Cable to the Computer Center and make sure the other end remains easily accessible, for instance lying free in the glove box.



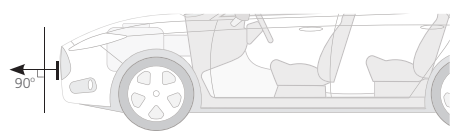
**2. HD+ Radar Antenna**  
Place the HD Antenna at the front of the car behind the bumper or spoiler. Preferably behind flat and smooth plastic, and certainly not behind metal.

- The large, smooth side that has no imprints, must face straight forward in the driving direction, preferably with the cable coming out of the bottom, as depicted.
- Connect the cable to the Computer Center.
- For maximum performance, please make sure the antenna receives sufficient airflow for cooling, with at least 1 cm of open space on all sides.

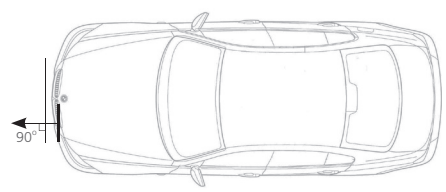
Standard position: Place antenna vertically (portrait orientation).



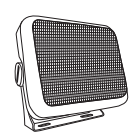
Place the HD+ Antenna facing straight forward in the driving direction, preferably with the cable coming out of the bottom.



Antenna must face outward and parallel to the road

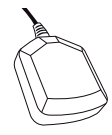


Aim antenna straight forward



**3. Speaker**  
Place the speaker under the dashboard.

- Connect the module to the Speaker port of the Computer Center.



**4. GPS Antenna**  
Place the antenna on the dashboard. For aesthetic reasons, and if the car has a heat-repelling or heated windshield, it is better to place the antenna outside the cabin of the car, for instance in a space at the top end of the hood.

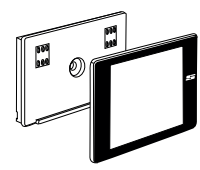
- Connect the cable of the antenna to the GPS port of the Computer Center.



**5. Display**  
**5a. Strip**  
Place the Strip display at a convenient location for the driver to see and control.

- The Strip can be placed either horizontally or vertically. If placed horizontally, make sure the + on the sticker is to the right (and the cable on the back is on top).
- Connect the Strip to the C1 port of the Computer Center.

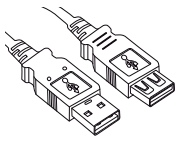
**Or:**



**5b. View & View Holder**  
Place the View Holder at a convenient location for the driver to see and control.

- Connect the module to the DISPLAY port of the Computer Center.
- Place the View display on the View Display Holder.

## STEP BY STEP INSTRUCTIONS (CONTINUED)



### 6. Cable for the USB Key

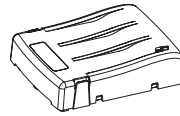
Place the cable with the female plug where it is easily accessible. For instance in the glove compartment or a compartment in the console.

- Connect the male plug of the cable to the USB port of the Computer Center.



### 7. Power plug

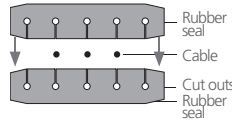
- Connect the black wire to a 'clean' metal ground-point of the car chassis, or directly to the negative pole of the car battery
- Connect the orange wire to the ignition-actuated 13.8V battery power (+15).
- Connect the red wire directly to the (continuous) 13.8V battery power (+30), protected by a 2.5A fuse.



### 8. Extension Box (Optional)

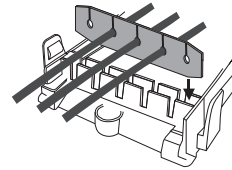
Place the Extension Box horizontally with the cover upwards (as depicted) under the hood, or in case of a HD+ Radar Antenna in the rear of the car, in the trunk in a moisture free location.

- Connect the Extension Box to port 1, 2, 3, 4, 5 or 6 of the Computer Center.



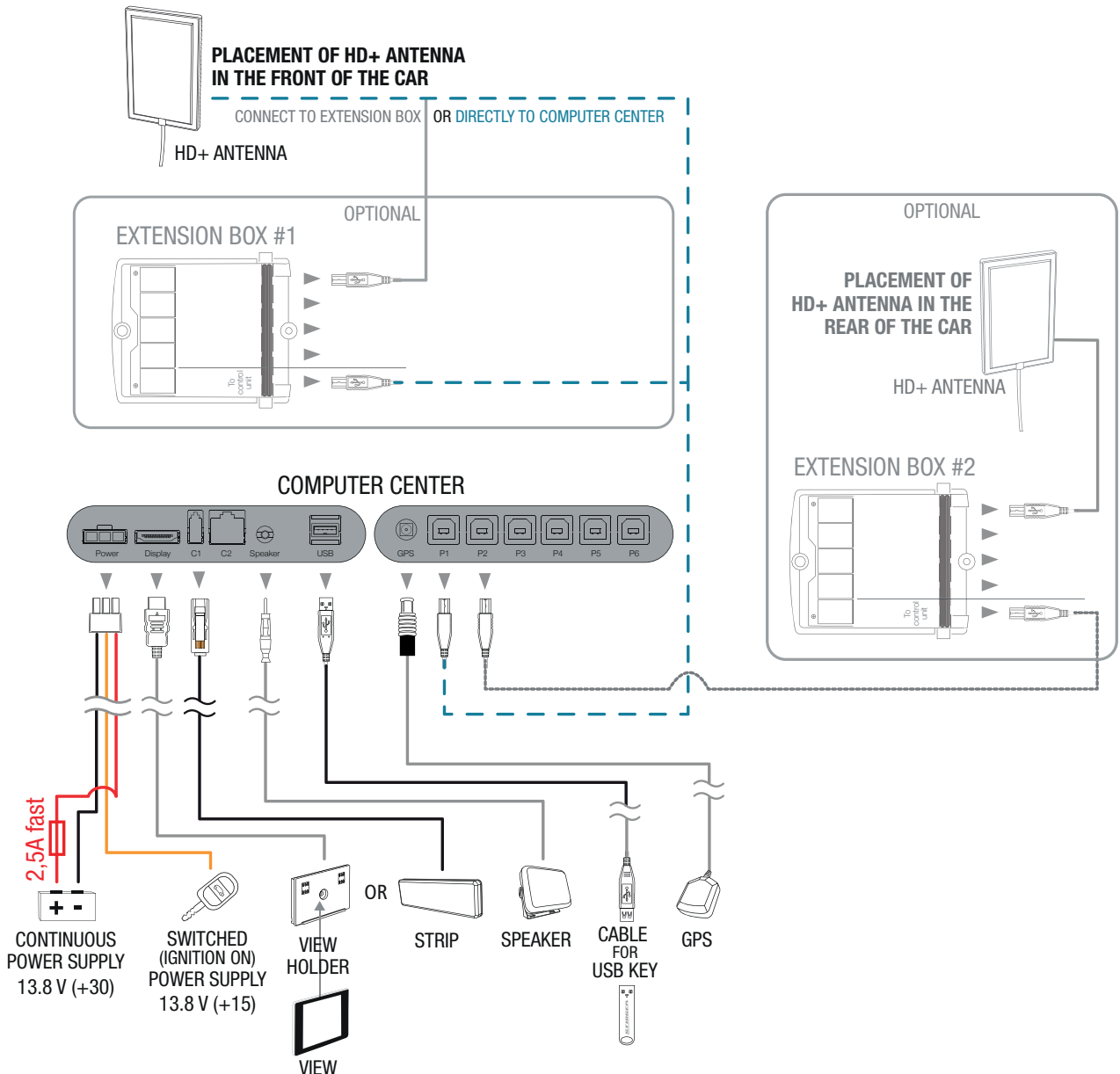
### Closing the Extension Box

When all the cables have been connected, it is important to close the box in a water resistant manner. Place the cables in the holes of the opposite facing 'rubber seals' (see example). This prevents moisture from getting into the box.



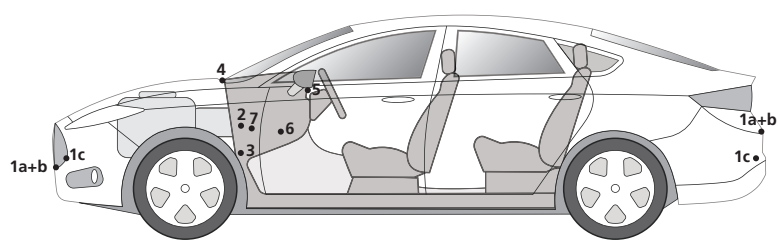
Next, place the rubber seals with the now inserted cables into the slot, as depicted in the example on the left. Make sure the rubbers are pushed down all the way using silicone spray to facilitate this. Put the lid back on so that it is tight and secure.

## WIRING DIAGRAM





**SUGGESTED MODULE PLACEMENT**



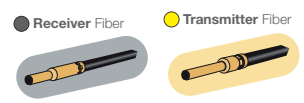
- 1a+b** Fiber Lasers (front&rear)
- 1c** Fiber Lasers (side)
- 2** Laser Center
- 3** Speaker
- 4** GPS Antenna
- 5** Strip display
- 6** Cable for the USB Key
- 7** Power Plug

<b>In the bumper or grill</b>	<b>Side of the car</b>	<b>In the cockpit</b>	<b>Sky view</b>
<b>1a+b</b> 	<b>1c</b> 	<b>5</b> 	<b>4</b> 
<b>Under the dashboard</b>			
<b>2</b> 	<b>3</b> 	<b>6</b> 	<b>7</b> 

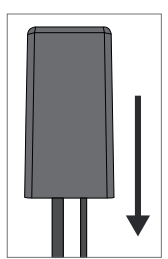
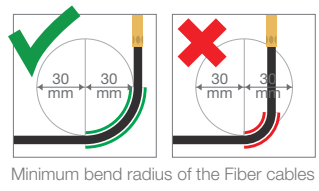
**STEP BY STEP INSTRUCTIONS**

**1. Fiber Lasers**

For laser detection combined with optional shielding and/or SafetySignal relay, Stinger's extraordinary Fiber Laser must be placed in pairs (consisting of a Fiber Laser Receiver and a Fiber Laser Transmitter). We refer to them as 'pairs' because a Receiver and Transmitter should be placed in each other's vicinity. (Receivers can be placed on their own, without any Transmitters, in case of a detection-only setup.)



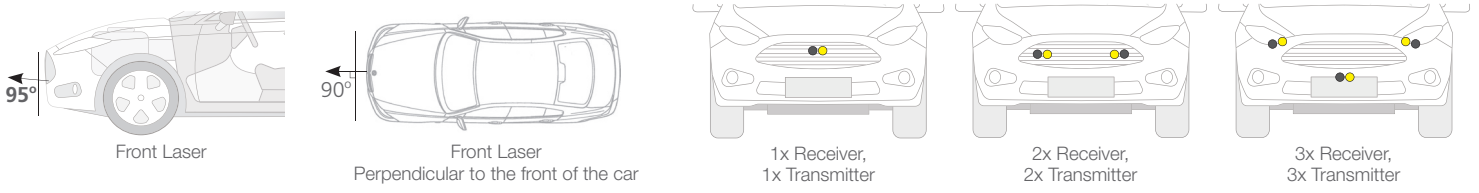
- Each pair of Fibers (one Receiver, one Transmitter) should be positioned near each other. If possible, not less than 1 cm, and not more than 20 cm apart. These are indications for optimal performance, but there's not necessarily a hard cut-off point.
- Fibers should be facing straight forward over the road, with an uplift of about 5 degrees: a mounting angle of anywhere between 0 degrees and 10 degrees is good, but try to make sure the Fibers are never aimed down (keep in mind the possible driver and passenger influence on the balance of the car) as this can reduce performance.
- Make sure a Fiber Laser Transmitter is never mounted in a way that its laser signals can hit a interfering nearby part of the vehicle (such as e.g. an ornament, emblem, or grill blade or such), as this can cause interfering reflections on the Receiver.
- Fibers can be mounted with the aid of e.g. heat shrink tubing, glue, or preferably into a drilled hole. The Receiver requires a 3.2 mm hole, the Transmitter a 2.6 mm hole.



**1a. Protecting the front of the car**

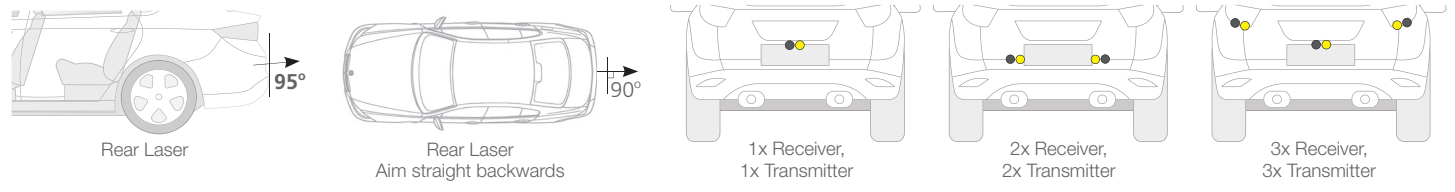
In case of one pair of Fibers (or of a single Fiber Receiver), make sure it's placed in the center of (the front of) the car laterally, at a height that is generally directly above the license plate area (see example). This should adequately protect the entire center mass section of the car.

- For more complete coverage of the entire front of the car, we recommend placing two pairs of Fibers, whereby the pairs should be evenly divided over the front of the car (laterally). In other words: one pair at circa 1/3 of the width of the vehicle and the other pair at 2/3 of the width with a maximum distance of 60 cm between the two pairs of Fibers (see example).
- For maximum protection, even of trucks and larger cars, three pairs of Fibers can be placed. In this case, make sure one pair of Fibers is placed in the center front of the car. Additionally, one pair of Fibers should be placed close by each headlight unit. Preferably directly on the sides of the headlights that are nearest to the center of the car, or directly underneath the headlights (see example).



**1b. Protecting the rear of the car**

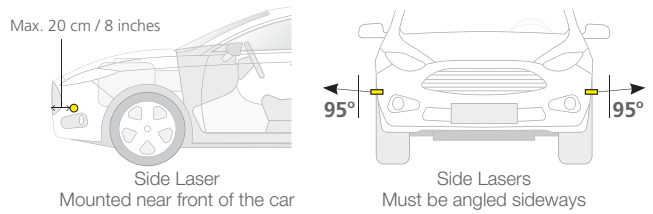
A single pair of Laser Fibers (or for detection-only just a Laser Fiber Receiver) should be mounted as close as possible to the license plate, and can usually even be placed in the (horizontal) center of the car under the rear bumper or spoiler. Additional Lasers may be placed closer to the outsides (see examples).



**1c. Protecting the side of the car**

For protection against automated laser speed traps placed on the side of the road (currently rare in North America, getting more common in other parts of the world), side facing Fibers can be installed.

- Drill a 2.6 mm hole in the sides of e.g. the bumper, spoiler, the license plate holder of the car, not more than 20 cm from the very front (or very rear) of the vehicle.
- The Lasers need to face in a 90 degree angle looking to the side of the road, with a circa 5 degree uplift (see examples).



## STEP BY STEP INSTRUCTIONS (CONTINUED)

### 2. Laser Center

The Laser Center must be placed in a dry location such as in or under the dashboard.

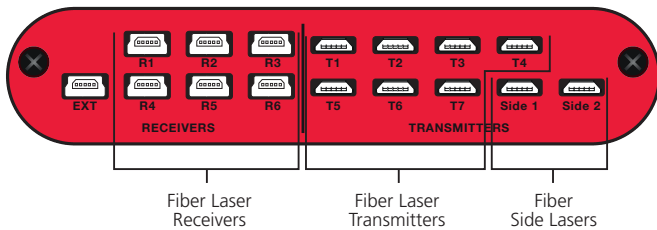
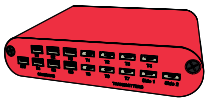
- Mount the Laser Center with e.g. tie-wraps or Velcro.

#### Connecting the Lasers to the Laser Center

Connect the **Laser Receivers** to the Mini USB Receiver ports (🔌) of the Laser Center, starting with port R1. For optimal performance, any additional Receivers need to be connected in sequential order to ports R2, R3 and so forth.

Connect the **Laser Transmitters** to the Micro USB Transmitter ports (🔌) of the Laser Center, starting with port T1. Any additional Transmitters need to be connected in sequential order to ports T2, T3 and so forth.

Connect the Side Lasers to the Micro USB Side ports (🔌) of the Laser Center: Side1 and Side2.



### 3. Speaker

Place the speaker under the dashboard.

- Connect the module to the Speaker port of the Laser Center.

### 4. GPS Antenna

Place the antenna on the dashboard. For aesthetic reasons, and if the car has a heat-repelling or heated windshield, it is better to place the antenna outside the cabin of the car, for instance in a space at the top end of the hood.

- Connect the cable of the antenna to the GPS port of the Laser Center.



### 5. Strip

Place the Strip display at a convenient location for the driver to see and control.

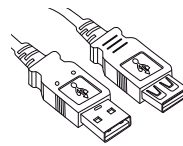
- The Strip can be placed either horizontally or vertically. If placed horizontally, make sure the + on the sticker is to the right (and the cable on the back is on top).
- Connect the Strip to the C1 port of the Laser Center.



### 6. Cable for the USB Key

Place the cable with the female plug in an easily accessible spot. For instance in the glove compartment or a compartment in the center console.

- Connect the male plug of the cable to the USB port of the Laser Center.

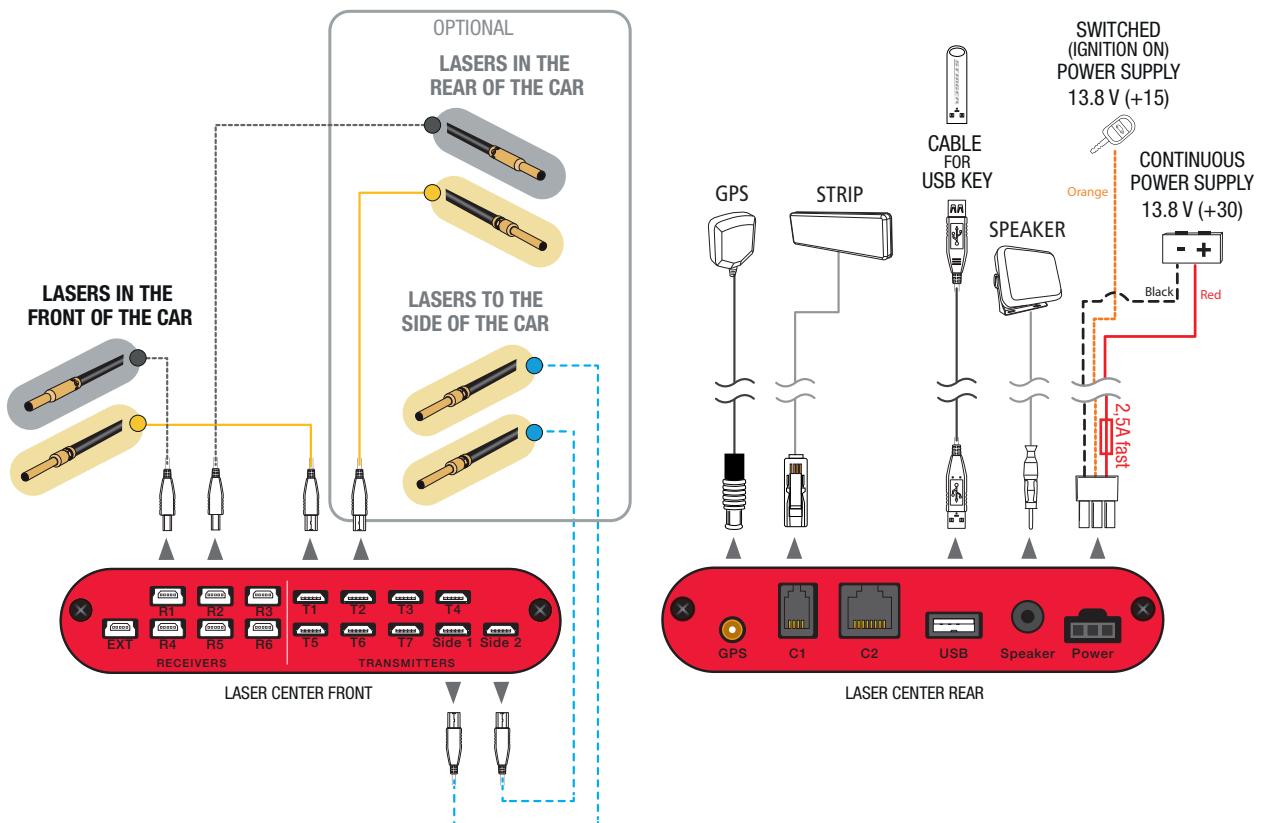


### 7. Power plug

- Connect the black wire to a 'clean' metal ground-point of the car chassis, or directly to the negative pole of the car battery
- Connect the orange wire to the ignition-actuated (switched) 13.8V battery power (+15).
- Connect the red wire directly to the (continuous) 13.8V battery power (+30), protected by a 2.5A (fast) fuse.

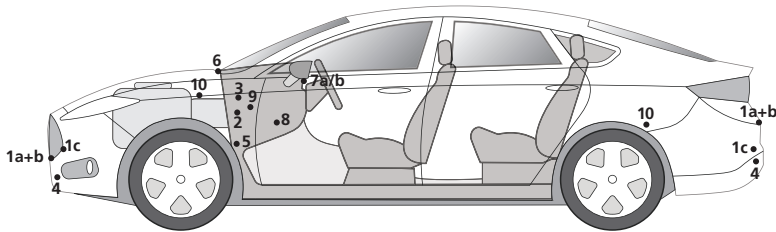


## WIRING DIAGRAM





## SUGGESTED MODULE PLACEMENT



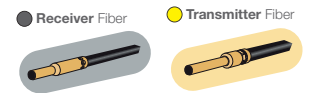
- |   |                                      |
|---|--------------------------------------|
| <b>1a+b</b> Fiber Lasers (front&rear)   | <b>7a</b> Strip display              |
| <b>1c</b> Fiber Lasers (side)           | <b>7b</b> View and Display Holder    |
| <b>2</b> Laser Center                   | <b>8</b> Cable for the USB Key       |
| <b>3</b> Computer Center                | <b>9</b> Power Plug                  |
| <b>4</b> HD+ Radar Antenna (front&rear) | <b>10</b> Extension Box (front&rear) |
| <b>5</b> Speaker                        |                                      |
| <b>6</b> GPS Antenna                    |                                      |

In or behind the bumper	In the bumper or grill	Side of the car	In the cockpit	Sky view
4	1a+b	1c	7a or 7b	6
Under the hood / In the trunk	Under the dashboard			
10 Optional	3	2	5	8
				9

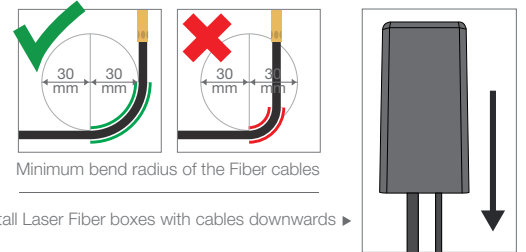
## STEP BY STEP INSTRUCTIONS

### 1. Fiber Lasers

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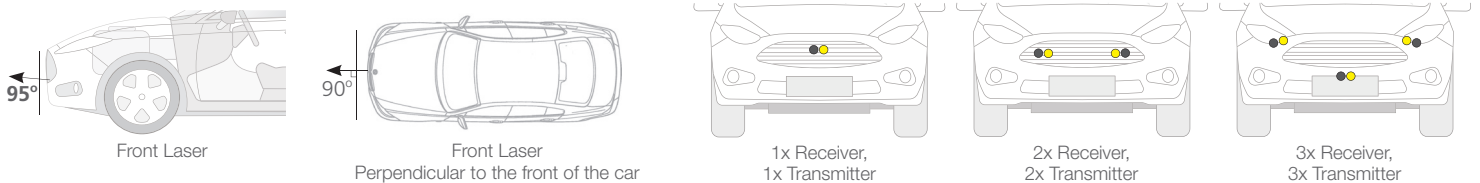
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- Make sure a Fiber Laser Transmitter is never mounted in a way that its laser signals can hit a interfering nearby part of the vehicle (such as e.g. an ornament, emblem, or grill blade or such), as this can cause interfering reflections on the Receiver.
- Fibers can be mounted with the aid of e.g. heat shrink tubing, glue, or preferably into a drilled hole. The Receiver requires a 3.2 mm hole, the Transmitter a 2.6 mm hole.



#### 1a. Protecting the front of the car

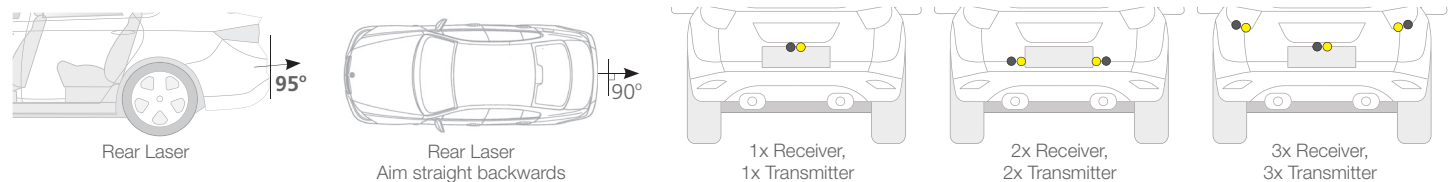
In case of one pair of Fibers (or of a single Fiber Receiver), make sure it's placed in the center of (the front of) the car laterally, at a height that is generally directly above the license plate area (see example). This should adequately protect the entire center mass section of the car.

- For more complete coverage of the entire front of the car, we recommend placing two pairs of Fibers, whereby the pairs should be evenly divided over the front of the car (laterally). In other words: one pair at circa 1/3 of the width of the vehicle and the other pair at 2/3 of the width with a maximum distance of 60 cm between the two pairs of Fibers (see example).
- For maximum protection, even of trucks and larger cars, three pairs of Fibers can be placed. In this case, make sure one pair of Fibers is placed in the center front of the car. Additionally, one pair of Fibers should be placed close by each headlight unit. Preferably directly on the sides of the headlights that are nearest to the center of the car, or directly underneath the headlights (see example).



#### 1b. Protecting the rear of the car

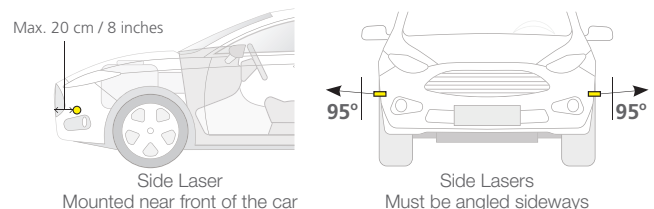
A single pair of Laser Fibers (or for detection-only just a Laser Fiber Receiver) should be mounted as close as possible to the license plate, and can usually even be placed in the (horizontal) center of the car under the rear bumper or spoiler. Additional Lasers may be placed closer to the outsides (see examples).



#### 1c. Protecting the side of the car

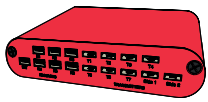
For protection against automated laser speed traps placed on the side of the road (currently rare in North America, getting more common in other parts of the world), side facing Fibers can be installed.

- Drill a 2.6 mm hole in the sides of e.g. the bumper, spoiler, the license plate holder of the car, not more than 20 cm from the very front (or very rear) of the vehicle.
- The Lasers need to face in a 90 degree angle looking to the side of the road, with a circa 5 degree uplift (see examples).





## STEP BY STEP INSTRUCTIONS (CONTINUED)



### 2. Laser Center

The Laser Center must be placed in a dry location such as in or under the dashboard.

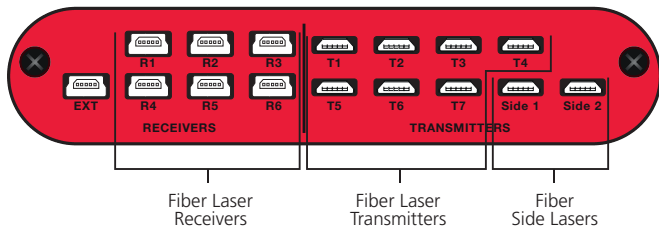
- Mount the Laser Center with e.g. tie-wraps or Velcro.

#### Connecting the Lasers to the Laser Center

Connect the **Laser Receivers** to the Mini USB Receiver ports (R1-R6) of the Laser Center, starting with port R1. For optimal performance, any additional Receivers need to be connected in sequential order to ports R2, R3 and so forth.

Connect the **Laser Transmitters** to the Micro USB Transmitter ports (T1-T7) of the Laser Center, starting with port T1. Any additional Transmitters need to be connected in sequential order to ports T2, T3 and so forth.

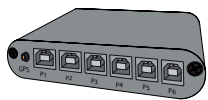
Connect the Side Lasers to the Micro USB Side ports (Side1 and Side2) of the Laser Center.



Fiber Laser Receivers

Fiber Laser Transmitters

Fiber Side Lasers



### 3. Computer Center

The Computer Center must be placed in a dry and protected location such as in or under the dashboard.

- Mount the Computer Center with tie-wraps or Velcro tape.
- Note: Connect one end of the USB Cable to the Computer Center and make sure the other end remains easily accessible, for instance lying free in the glove box.



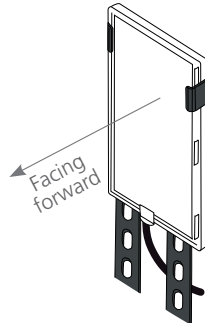
### 4. Bridge Cable

The Bridge Cable connects the Laser Center with the Computer Center.

- Connect one end of the cable in the P6 port of the Computer Center.
- Connect the other end of the cable in the C1 port of the Laser Center.



**Important:** the Bridge Cable provides power to the Laser Center. **DO NOT** connect a separate power cable to the Laser Center.

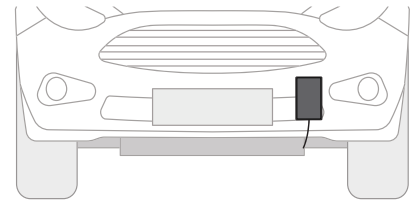


Standard position: Place antenna vertically (portrait orientation).

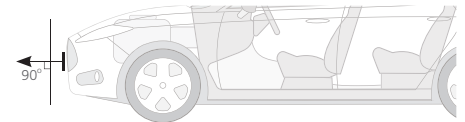
### 5. HD+ Radar Antenna

Place the HD Antenna at the front of the car behind the bumper or spoiler. Preferably behind flat and smooth plastic, and certainly not behind metal.

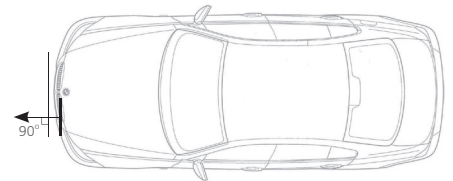
- The large, smooth side that has no imprints, must face straight forward in the driving direction, preferably with the cable coming out of the bottom, as depicted.
- Connect the cable to the Computer Center.
- For maximum performance, please make sure the antenna receives sufficient airflow for cooling, with at least 1 cm of open space on all sides.



Place the HD+ Antenna facing straight forward in the driving direction, preferably with the cable coming out of the bottom.



Antenna must face outward and parallel to the road



Aim antenna straight forward



STEP BY STEP INSTRUCTIONS (CONTINUED)



**6. Speaker**

Place the speaker under the dashboard.

- Connect the module to the Speaker port of the Laser Center.



**7. GPS Antenna**

Place the antenna on the dashboard. For aesthetic reasons, and if the car has a heat-repelling or heated windshield, it is better to place the antenna outside the cabin of the car, for instance in a space at the top end of the hood.

- Connect the cable of the antenna to the GPS port of the Laser Center.

**8. Display**

**8a. Strip**

Place the Strip display at a convenient location for the driver to see and control.

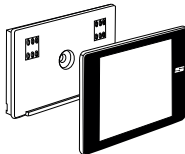


- The Strip can be placed either horizontally or vertically. If placed horizontally, make sure the + on the sticker is to the right (and the cable on the back is on top).
- Connect the Strip to the C1 port of the Computer Center.

Or:

**8b. View & View Holder**

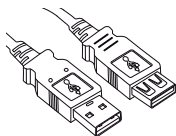
Place the View Display Holder at a convenient location for the driver to see and control.



- Connect the module to the DISPLAY port of the Computer Center.
- Place the View display on the View Display Holder.

**9. Cable for the USB Key**

Place the cable with the female plug in an easily accessible spot. For instance in the glove compartment or a compartment in the center console.

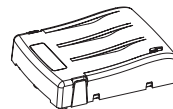


- Connect the male plug of the cable to the USB port of the Laser Center.



**10. Power plug (Computer Center)**

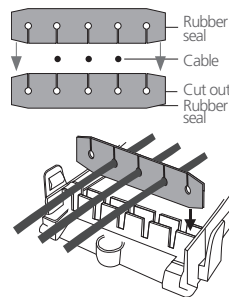
- Connect the black wire to a 'clean' metal ground-point of the car chassis, or directly to the negative pole of the car battery
- Connect the orange wire to the ignition-actuated (switched) 13.8V battery power (+15).
- Connect the red wire directly to the (continuous) 13.8V battery power (+30), protected by a 2.5A (fast) fuse.



**11. Extension Box (Optional)**

Place the Extension Box horizontally with the cover upwards (as depicted) under the hood, or in case of a HD+ Radar Antenna on the rear of the car, in the trunk in a moisture free location.

- Connect the Extension Box to port 1, 2, 3, 4, 5 or 6 of the Computer Center.

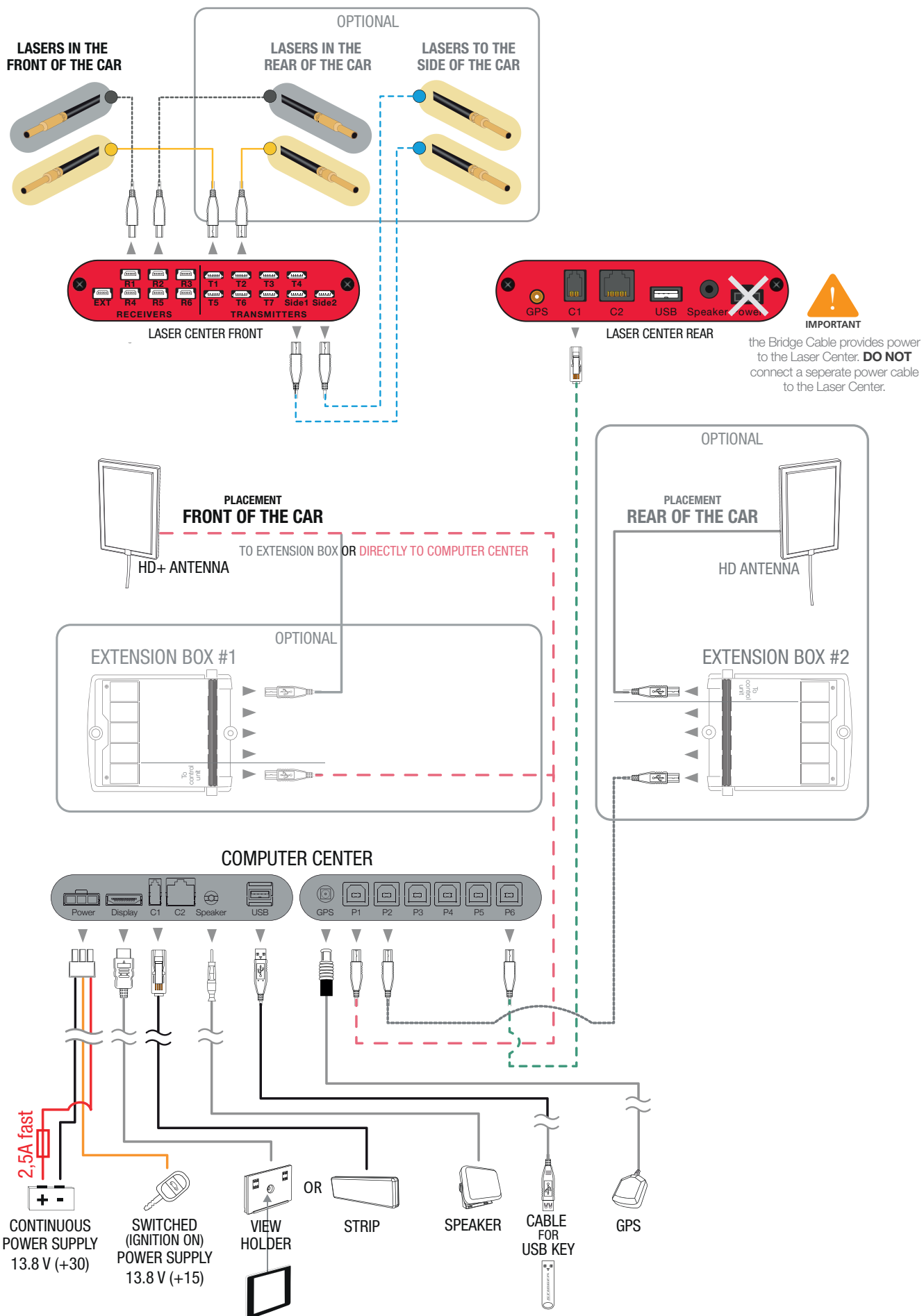


**Closing the Extension Box**

When all the cables have been connected, it is important to close the box in a water resistant manner. Place the cables in the holes of the opposite facing 'rubber seals' (see example). This prevents moisture from getting into the box.

Next, place the rubber seals with the now inserted cables into the slot, as depicted in the example on the left. Make sure the rubbers are pushed down all the way using silicone spray to facilitate this. Put the lid back on so that it is tight and secure.

## WIRING DIAGRAM



***STINGER***

speedtrap protection for high-performance cars