STINGER

speedtrap protection for high-performance cars

Stinger system installation manual

North America

SSIM-NA-V3.3

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:

SECTION A — **LASER ONLY**

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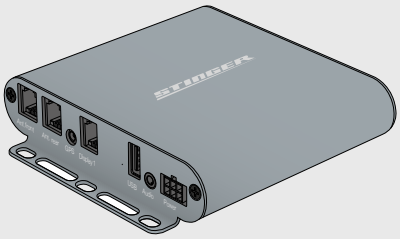
SECTION B — **RADAR ONLY**



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SECTION C — **LASER and RADAR**

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For optimal performance of the Stinger System it's important to carefully follow the directions provided in this installation manual. For questions please call Stinger technical support at the number 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.

Contact & Support Information

If, at any point, you have questions regarding your Stinger or Stinger dealers, please contact:

Sales & Service: USA
MSC America
(480) 372-2929
msc-america.com
sales@msc-america.com

Sales & Service: Canada
Mobile Solutions of Canada
(403) 698-3695
mobilesolutions-canada.com
sales@mobilesolutions-canada.com

General: United States & Canada
Carcomputer USA, Inc
(858) 230-6665
stinger.com/us
stinger@carcomputerusa.com

FCC information

FCC compliance statement

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 undesired operation.

Modification of this device may void the user's authority to operate the equipment under the FCC rules.

Canadian regulatory statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

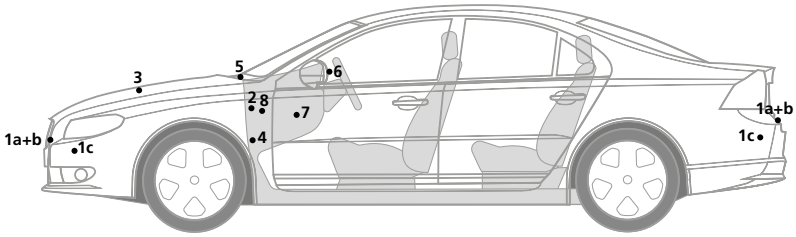
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC ID: 2ABKP-VIP201412

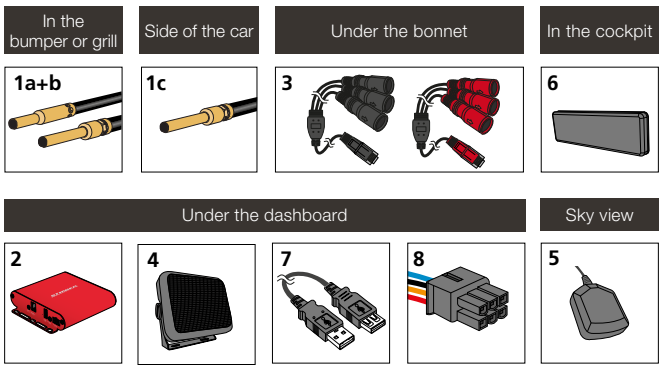
The relevant modules of this product comply with U.S. 21 CFR 1040.10 with deviations pursuant to Laser Notice no. 50 and with EN IEC 60825-1 (2007).

LASER ONLY

SUGGESTED MODULE PLACEMENT

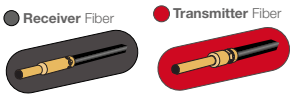


1a+b Fiber Lasers (front&rear)
1c Fiber Lasers (side)
2 Computer Box Laser
3 Fiber Laser Connection Cable
4 Speaker
5 GPS Antenna
6 Strip display
7 Cable for the USB Key
8 Power Cable



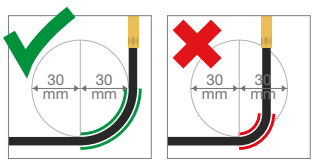
STEP BY STEP INSTRUCTIONS

1. Fiber Lasers



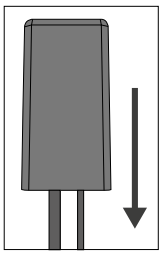
For laser detection combined with optional Shielding and/or SafetySignal relay, Stinger's extraordinary Fiber Laser must be placed in pairs (consisting of a Fiber Laser Receiver and a Fiber Laser Transmitter). We refer to them as 'pairs' because a Receiver and Transmitter should be placed in each other's 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 0.5 inch, and not more than 8 inches 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 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 (**not hot glue**), or preferably into a drilled hole. The Receiver requires a 3.2 mm hole, the Transmitter a 2.6 mm hole.



Minimum bend radius of the Fiber cables

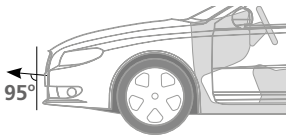
Install Laser Fiber boxes with cables downwards ▸



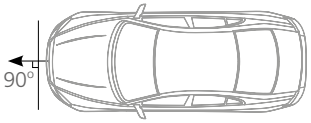
1a. Protecting the front of the car

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.

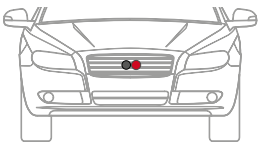
- For more complete coverage of the entire front of the car, we recommend placing two pairs of Fibers, whereby the pairs should be evenly divided over the front of the car (laterally). In other words: one pair at circa 1/3 of the width of the vehicle and the other pair at 2/3 of the width with a maximum distance of 60 cm between the two pairs of Fibers (see example).
- For maximum protection, including for 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).



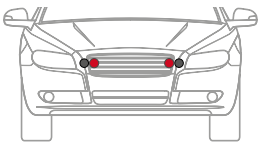
Front Laser
Aim slightly upwards



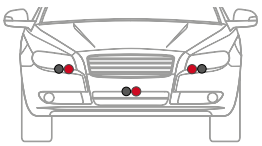
Front Laser
Perpendicular to the front of the car



1x Receiver,
1x Transmitter



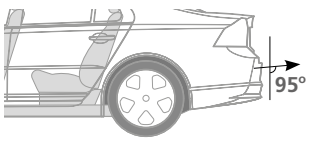
2x Receiver,
2x Transmitter



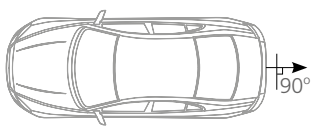
3x Receiver,
3x Transmitter

1b. Protecting the rear of the car

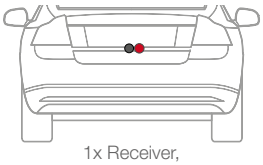
A single pair of Laser Fibers (or for detection-only just a Laser Fiber Receiver) should be mounted as close as possible to the license plate, and can usually even be placed in the (horizontal) center of the car under the rear bumper or spoiler. Additional Lasers may be placed closer to the outsides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



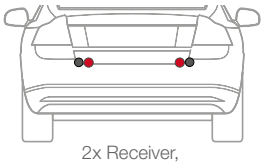
Rear Laser
Aim slightly upwards



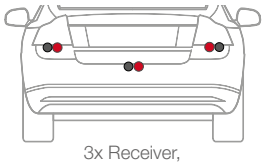
Rear Laser
Aim straight backwards



1x Receiver,
1x Transmitter



2x Receiver,
2x Transmitter

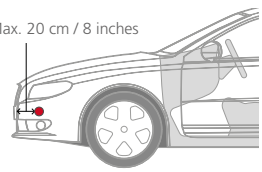


3x Receiver,
3x Transmitter

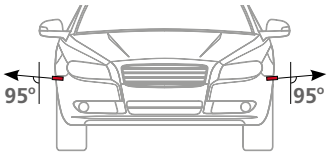
1c. Protecting the side of the car

For protection against automated laser speed traps placed on the side of the road, 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 / 8 inches 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).



Side Laser
Mounted near front of the car



Side Lasers
Must be angled sideways
and aimed slightly upwards

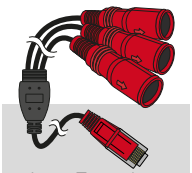
STEP BY STEP INSTRUCTIONS (CONTINUED)

2. Computer Box Laser

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

- Mount the Computer Box with e.g. tie-wraps or Velcro.

Laser Receiver Connectiion Cable in Rx port

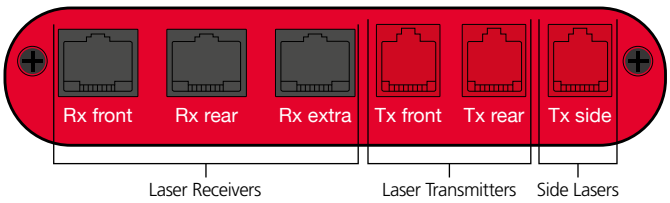


Laser Transmitter Connectiion Cable in Tx port

3. Connecting the Fiber Lasers

The Laser Connection Cables connect the Laser Fibers to the Computer Box. Make sure the cables don't touch any moving or hot parts, or interfere with car operation and maintenance.

- Take the adhesive heat shrink tube (supplied) and pull it over one of the mini-DIN connectors.
- Connect the male mini-DIN connector of the Lasers to the same color female mini-DIN connector port of the Connection Cable.
- Position the heat shrink tube over both connectors. Heat it gradually and evenly with a heat gun until it's shrunk tightly and uniformly around the connectors.
- Connect the other end of the Connection Cables to the same color port of the Computer Box. Make sure you connect the front, optional rear, and optional side Laser Connection Cables to the front, rear, and side ports in the Computer Box.



4. Speaker

Place the speaker in an open area, but preferably out of sight (e.g. under the dashboard) and connect it to the Audio port of the Computer Box.

5. GPS Antenna

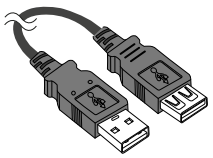
For best GPS reception it is best to place the GPS antenna outside the cabin of the car, for instance in a protected space at the top end of the hood. The GPS antenna must face up and should be covered by plastic, but not metal.

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

6 Strip

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

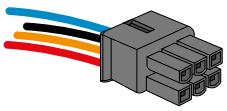
- If placed horizontally, make sure the + on the sticker is to the right (and the cable on the back is on top).
- Connect the Strip to the Display port of the Computer Box.



7. Cable for the USB Key

The Stinger system is updated with the Stinger USB Key and it's therefore important to choose an accessible and convenient place to install the cable.

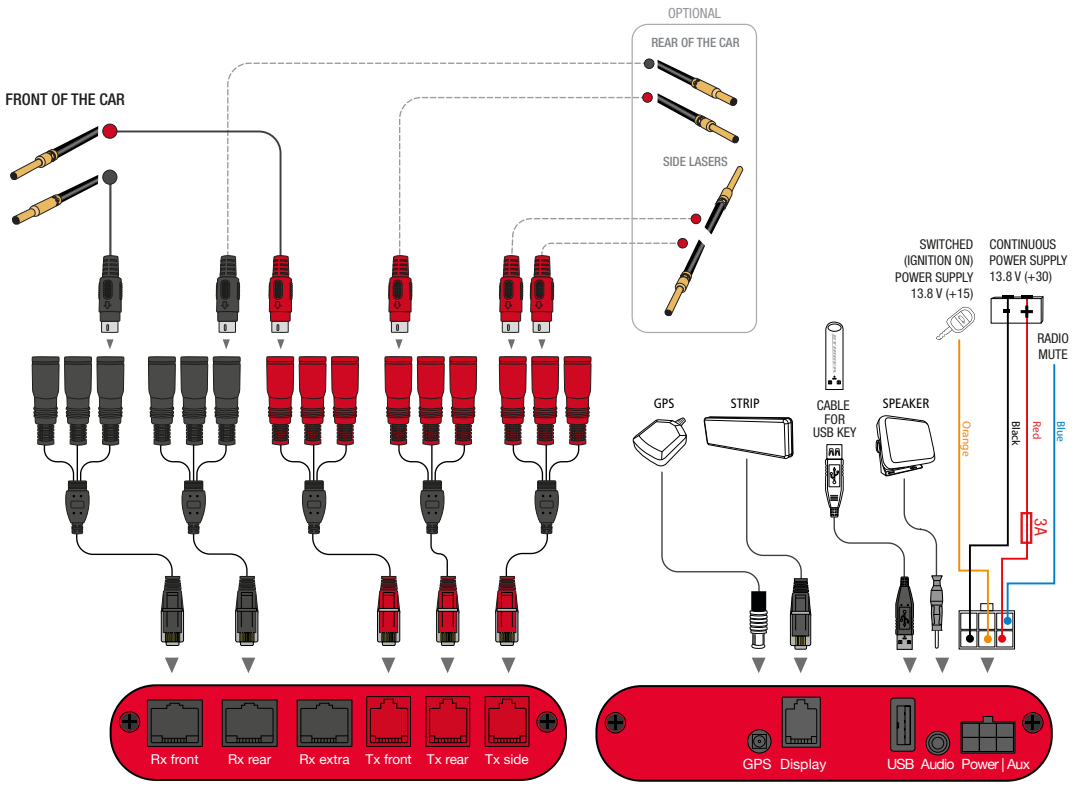
- Place the cable with the female connector for instance in the glove compartment.
- Connect the male plug of the cable to the USB port of the Computer Box.



8. Power Cable

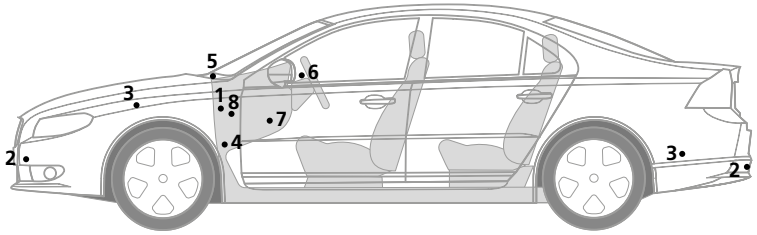
- Connect the black wire to a 'clean' metal ground-point of the car chassis, or directly to the negative pole of the car battery.
- Connect the orange wire to the ignition-actuated 13.8V battery power (+15).
- Connect the red wire directly to the (continuous) 13.8V battery power (+30), protected by a 3A fuse.
- Optional: Connect the blue wire to the radio mute option of the car stereo system.

WIRING DIAGRAM



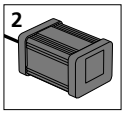
RADAR ONLY

SUGGESTED MODULE PLACEMENT

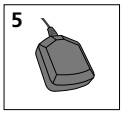


1	Computer Box Radar	**5**	GPS Antenna
2	S8 Radar Antenna	**6**	Strip display
3	S8 Connection Cable	**7**	Cable for the USB Key
4	Speaker	**8**	Power Cable

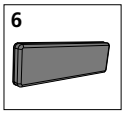
In or behind the bumper



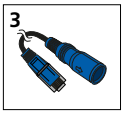
Sky view



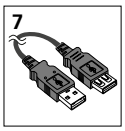
In the cockpit

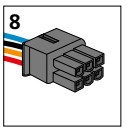


Under the hood / In the trunk



Under the dashboard



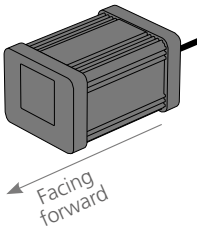


STEP BY STEP INSTRUCTIONS

1. Computer Box Radar

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

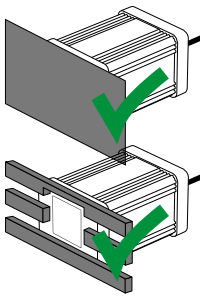
- Mount the Computer Box with tie-wraps or Velcro tape.
- Connect the cable for the Stinger USB Key to the USB port of the Computer Box and make sure the connector on the other side of the cable is easily accessible, for instance in the glove compartment. Also see instruction point 7.



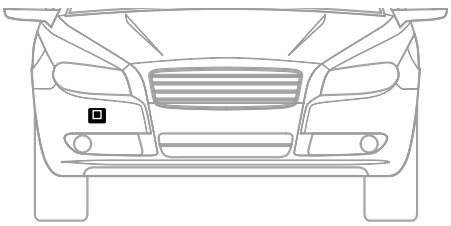
2. Placing the S8 Radar Antenna

Mount the S8 antenna at the front of the car behind the bumper or spoiler. Make sure the small square area on the front of the antenna has free 'sight' to the road, or is only behind flat and thin plastic. It may not be blocked by metal or conductive surfaces.

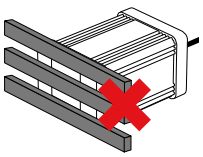
- The side with the square imprint must face straight forward in the driving direction, with the cable facing to the rear of the car, as depicted.
- For maximum performance, please make sure the antenna receives sufficient airflow for cooling, with at least 1 cm of open space on all sides.



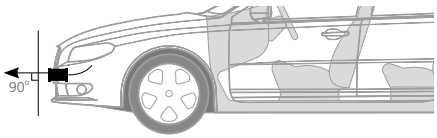
Place the S8 antenna behind thin and flat plastic and make sure the square shape on the front has free 'sight'.



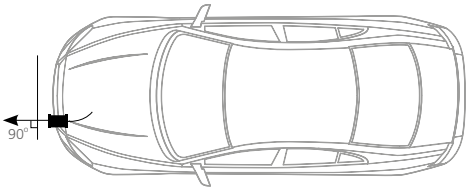
Place the S8 antenna facing straight forward in the driving direction, with the square imprint facing forward.



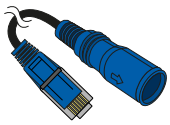
Do not place the S8 antenna behind uneven or thick plastic, metal or conducting materials, or behind uneven surfaces like a grill.



Antenna must face outward and parallel to the road



Aim antenna straight forward



3. Connecting the S8 Antenna

The S8 Connection Cable connects the S8 antenna (in or behind the bumper) to the Computer Box (under the dashboard). Make sure the cable doesn't touch moving or hot parts, or interfere with car operation and maintenance.

- Take the adhesive heat shrink tube (supplied) and pull it over one of the blue mini-DIN connectors.
- Connect the male mini-DIN connector of the S8 antenna to the female mini-DIN connector port of the Connection Cable.
- Position the heat shrink tube over both connectors. Heat it gradually and evenly with a heat gun until it's shrunk tightly and uniformly around the connectors.
- Connect the other end of the Connection Cable to the Computer Box.

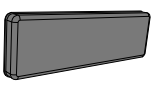
4. Speaker

Place the speaker in an open area, but preferably out of sight (e.g. under the dashboard) and connect it to the Audio port of the Computer Box.

5. GPS Antenna

For best GPS reception (especially if the car has a heat-repelling or heated windshield) as well as for aesthetic reasons, it is best to place the GPS antenna outside the cabin of the car, for instance in a protected space at the top end of the hood. The GPS antenna must face up – towards the sky – and should be covered by plastic, but not metal.

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

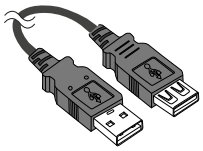


6. Strip display

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 Display port of the Computer Box.

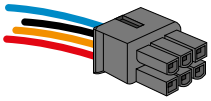
STEP BY STEP INSTRUCTIONS (CONTINUED)



7. Cable for the USB Key

The Stinger system is updated with the Stinger USB Key and therefore it's important to choose a convenient place to install the cable.

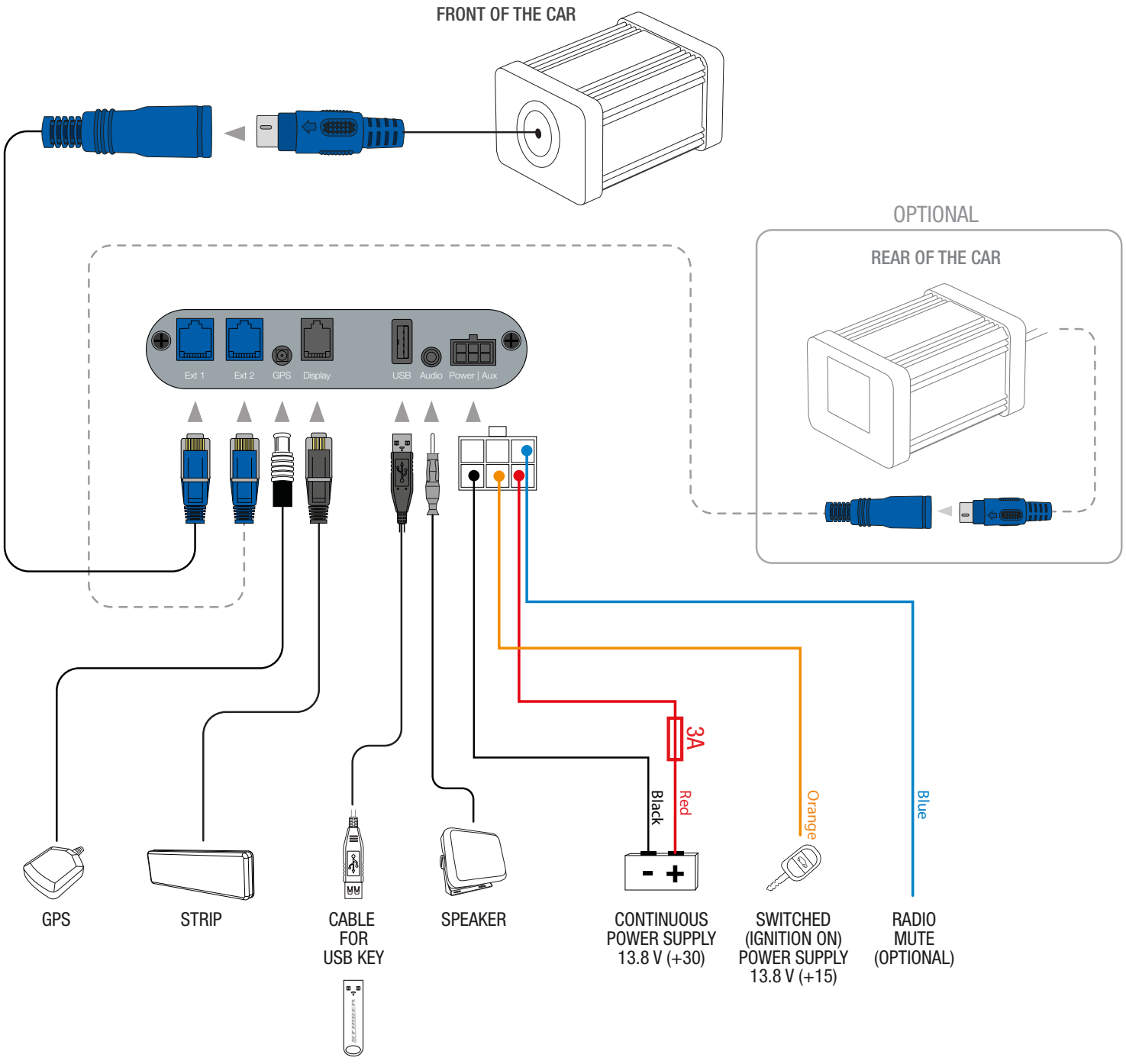
- Place the cable with the female connector where it's easily accessible. For instance in the glove box or a compartment in the console.
- Connect the male plug of the cable to the USB port of the Computer Box.



8. Power Cable

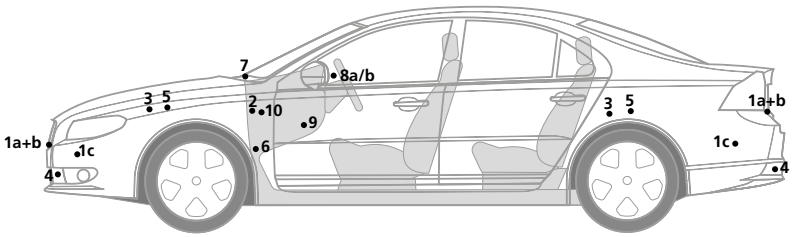
- Connect the black wire to a 'clean' metal ground-point of the car chassis, or directly to the negative pole of the car battery.
- Connect the orange wire to the ignition-actuated 13.8V battery power (+15).
- Connect the red wire directly to the (continuous) 13.8V battery power (+30), protected by a 3A fuse.
- Optional: Connect the blue wire to the radio mute option of the car stereo system.

WIRING DIAGRAM

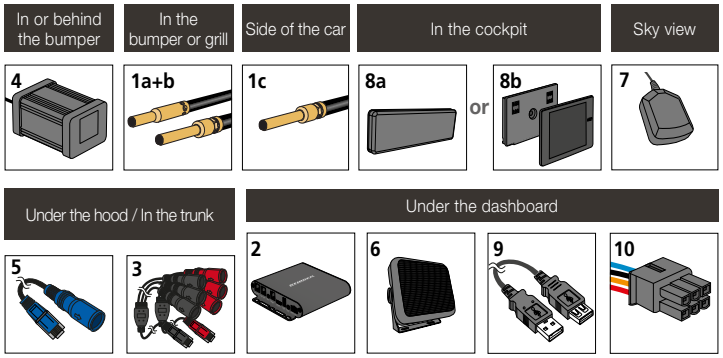


LASER + RADAR

SUGGESTED MODULE PLACEMENT

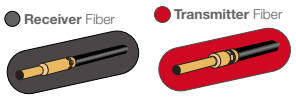


1a+b Fiber Lasers (front&rear)
1c Fiber Lasers (side)
2 Computer Box Laser + Radar
3 Fiber Laser Connection Cable
4 S8 Radar Antenna (front&rear)
5 S8 Connection Cable
6 Speaker
7 GPS Antenna
8a Strip display or;
8b View and Display Holder
9 Cable for the USB Key
10 Power Cable



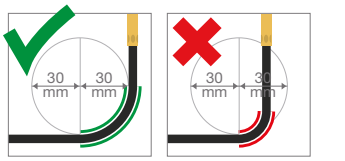
STEP BY STEP INSTRUCTIONS

1. Fiber Lasers



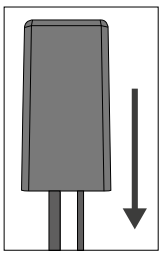
For laser detection combined with optional Shielding and/or SafetySignal relay, Stinger's extraordinary Fiber Laser must be placed in pairs (consisting of a Fiber Laser Receiver and a Fiber Laser Transmitter). We refer to them as 'pairs' because a Receiver and Transmitter should be placed in each other's 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 0.5 inch, and not more than 8 inches 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 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 (**not hot glue**), or preferably into a drilled hole. The Receiver requires a 3.2 mm hole, the Transmitter a 2.6 mm hole.



Minimum bend radius of the Fiber cables

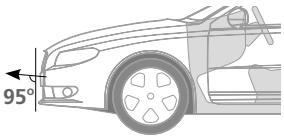
Install Laser Fiber boxes with cables downwards ▸



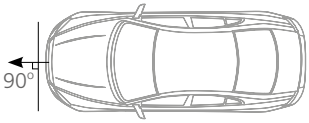
1a. Protecting the front of the car

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.

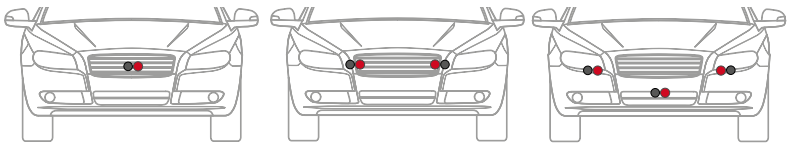
- For more complete coverage of the entire front of the car, we recommend placing two pairs of Fibers, whereby the pairs should be evenly divided over the front of the car (laterally). In other words: one pair at circa 1/3 of the width of the vehicle and the other pair at 2/3 of the width with a maximum distance of 60 cm between the two pairs of Fibers (see example).
- For maximum protection, including for 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).



Front Laser
Aim slightly upwards



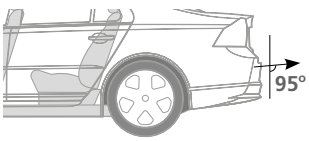
Front Laser
Perpendicular to the front of the car



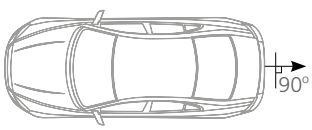
1x Receiver, 1x Transmitter
2x Receiver, 2x Transmitter
3x Receiver, 3x Transmitter

1b. Protecting the rear of the car

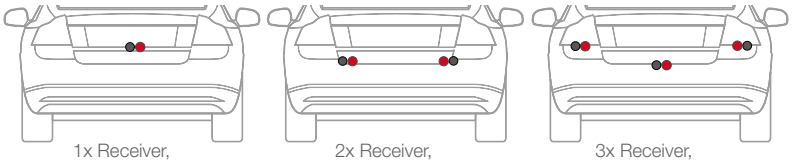
A single pair of Laser Fibers (or for detection-only just a Laser Fiber Receiver) should be mounted as close as possible to the license plate, and can usually even be placed in the (horizontal) center of the car under the rear bumper or spoiler. Additional Lasers may be placed closer to the outsides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



Rear Laser
Aim slightly upwards



Rear Laser
Aim straight backwards

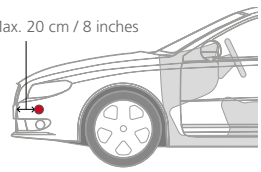


1x Receiver, 1x Transmitter
2x Receiver, 2x Transmitter
3x Receiver, 3x Transmitter

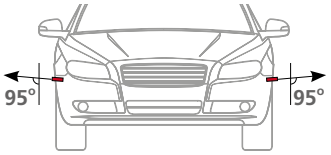
1c. Protecting the side of the car

For protection against automated laser speed traps placed on the side of the road, 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 / 8 inches 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).



Side Laser
Mounted near front of the car



Side Lasers
Must be angled sideways and aimed slightly upwards

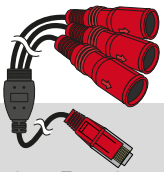
STEP BY STEP INSTRUCTIONS (CONTINUED)

2. Computer Box Laser + Radar

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

- Mount the Computer Box with tie-wraps or Velcro tape.
- Connect the cable for the Stinger USB Key to the USB port of the Computer Box and make sure the connector on the other side of the cable is easily accessible, for instance in the glove compartment. Also see instruction point 9.

Laser Receiver Connectiion Cable in Rx port

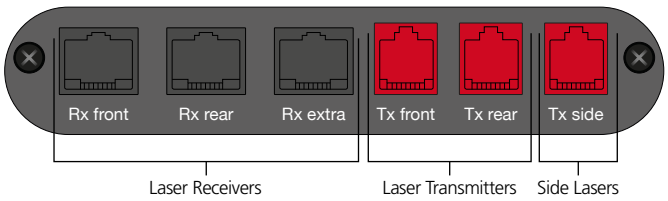


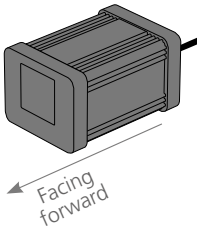
Laser Transmitter Connectiion Cable in Tx port

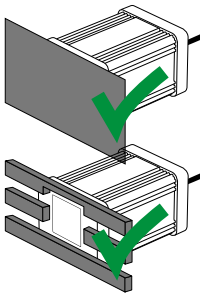
3. Connecting the Fiber Lasers

The Laser Connection Cables connect the Laser Fibers to the Computer Box. Make sure the cables don't touch any moving or hot parts, or interfere with car operation and maintenance.

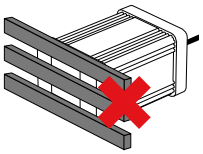
- Take the adhesive heat shrink tube (supplied) and pull it over one of the mini-DIN connectors.
- Connect the male mini-DIN connector of the Lasers to the same color female mini-DIN connector port of the Connection Cable.
- Position the heat shrink tube over both connectors. Heat it gradually and evenly with a heat gun until it's shrunk tightly and uniformly around the connectors.
- Connect the other end of the Connection Cables to the same color port of the Computer Box. Make sure you connect the front, optional rear, and optional side Laser Connection Cables to the front, rear, and side ports in the Computer Box.







Place the S8 antenna behind thin and flat plastic and make sure the square shape on the front has free 'sight'.

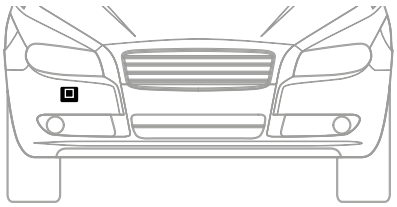


Do not place the S8 antenna behind uneven or thick plastic, metal or conducting materials, or behind uneven surfaces like a grill.

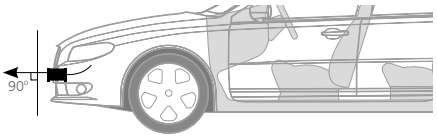
4. Placing the S8 Radar Antenna

Mount the S8 antenna at the front of the car behind the bumper or spoiler. Make sure the small square area on the front of the antenna has free 'sight' to the road, or is only behind flat and thin plastic. It may not be blocked by metal or conductive surfaces.

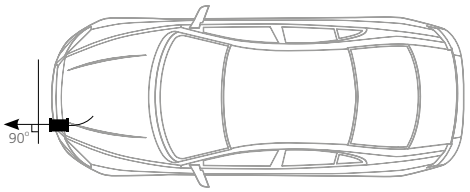
- The side with the square imprint must face straight forward in the driving direction, with the cable facing to the rear of the car, as depicted.
- For maximum performance, please make sure the antenna receives sufficient airflow for cooling, with at least 1 cm of open space on all sides.



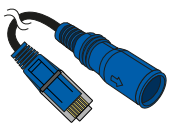
Place the S8 antenna facing straight forward in the driving direction, with the square imprint facing forward.



Antenna must face outward and parallel to the road



Aim antenna straight forward



5. Connecting the S8 Antenna

The S8 Connection Cable connects the S8 antenna (in or behind the bumper) to the Computer Box (under the dashboard). Make sure the cable doesn't touch moving or hot parts, or interfere with car operation and maintenance.

- Take the adhesive heat shrink tube (supplied) and pull it over one of the blue mini-DIN connectors.
- Connect the male mini-DIN connector of the S8 antenna to the female mini-DIN connector port of the Connection Cable.
- Position the heat shrink tube over both connectors. Heat it gradually and evenly with a heat gun until it's shrunk tightly and uniformly around the connectors.
- Connect the other end of the Connection Cable to the Computer Box.

See next page for more

STEP BY STEP INSTRUCTIONS (CONTINUED)

6. Speaker

Place the speaker in an open area, but preferably out of sight (e.g. under the dashboard) and connect it to the Audio port of the Computer Box.

7. GPS Antenna

For best GPS reception (especially if the car has a heat-repelling or heated windshield) as well as for aesthetic reasons, it is best to place the GPS antenna outside the cabin of the car, for instance in a protected space at the top end of the hood. The GPS antenna must face up – towards the sky – and should be covered by plastic, but not metal.

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

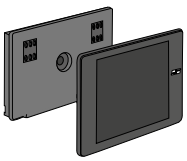
8. Display

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 Display port of the Computer Box.

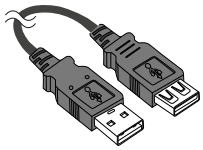
Or:



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 2 port of the Computer Box.
- Place the View display on the View Holder.



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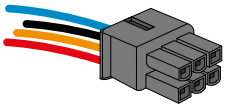

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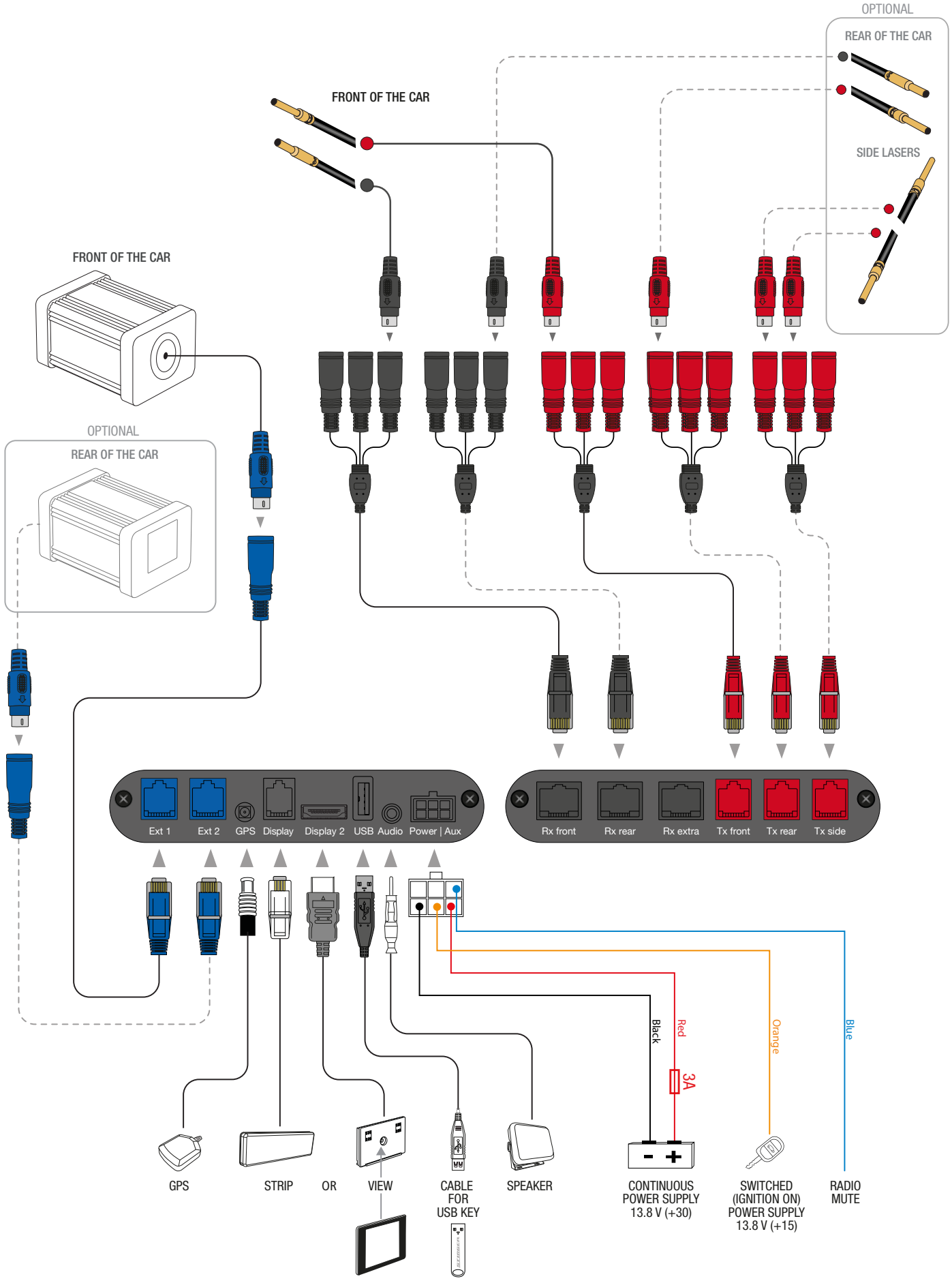
- Connect the orange wire to the ignition-actuated 13.8V battery power (+15).
- Connect the red wire directly to the (continuous) 13.8V battery power (+30), protected by a 3A fuse.
- Optional: Connect the blue wire to the radio mute option of the car stereo system.

WIRING DIAGRAM



speedtrap protection for high-performance cars