



## Third Eye inView™ Installation Guide and User Manual

### A quick look at Third Eye inView™



Congratulations! You now own one of the most significant advances in motorcycle safety. Studies from around the globe prove what we already know - motorcyclists get hit because they are not seen. **Third Eye inView™** was designed to improve your visibility by placing a brake and turn signal light where it is most visible – high and center.

Two patents provide a rich feature set and once installed, **Third Eye inView™** requires almost no user intervention.

Key features include:

Brake, Turn Signal and Hazzard light functionality

- Technology so efficient it doesn't need an on/off switch
- Automatic diagnostics that test function, LEDs and battery life
- Integration with the motorcycle braking and directional systems for consistent signaling
- Deceleration (down shifting) illuminates helmet light and accessory tail light (coming late Spring 2019)
- Ultra-bright LEDs – for daytime visibility
- Long battery life - utilizes common Lithium-ion AAA, easily replaced batteries
- Easily transferred between helmets
- Do-it-yourself installation

Third Eye Design was founded on the belief that we can make this world a better, safer place – thanks for helping us do this, one motorcycle at a time! *The Third Eye inView™ wireless helmet brake and turn signal light system is patent pending in the United States and worldwide.*



PLEASE READ BEFORE INSTALLING Third Eye Design products should be installed by a qualified, experienced motorcycle technician. If you are unsure of your ability to properly install a product, please have the product installed by your local motorcycle dealer. Third Eye Design takes no responsibility for damages caused by improper installation.

**INCOMPATIBILITY WITH INDIAN MOTORCYCLES -- PLEASE NOTE: Indian motorcycles use a constant positive signal and ECU flashed negative to control turn signals. This is opposite of how other motorcycles control brake and signal light activation. inView™ does not currently work with this system. A firmware update will address this in the spring of 2019.**

## Package Contents

- |  |  |
|--|--|
| (2) 3M Dual-Lock™ disks (to attach the helmet brake and signal light)              | (2) Posi-Lock™ connectors (accessory brake light)                                  |
| (4) Posi-Tap™ connectors (left directional, right directional, brake, ignition-on) | (1) 3M Double-sided foam mounting tape (to attach the motorcycle transceiver unit) |
| (1) Transceiver unit   | (2) AAA batteries  |
| (2) Fuse™  | (1) Accessory brake light  |
| (3) Alcohol prep pads  | (1) Double-sided mounting tape (to attach the accessory brake light)               |
| (1) Receiver Unit  |  |

## Installation Overview

These instructions are written to help guide you in installing the Third Eye inView™ brake and turn signal system. There are three parts to these instructions:

- I. Part one (I) explains how to install the wireless sending unit onto the motorcycle (transceiver unit).
- II. Part two (II) explains how to install the accessory brake light onto the motorcycle
- III. Part three (III) explains how to affix the wireless brake and turn signal LED assembly (receiver unit) onto the helmet.

IMPORTANT: Once installed, please update both the motorcycle and helmet units with the latest firmware! Full firmware update instructions and firmware can be found on our support page: <https://thirdeyedesigninc.com/support/>



**Installation Precaution Notice - Please read the following instructions thoroughly before installing the motorcycle transceiver and helmet receiver units.**

**NOTE:** These instructions are written for a person who has a good understanding of motorcycle maintenance - both electrical and mechanical. You must be comfortable in removing a seat, service covers or other motorcycle parts to expose your motorcycle's wiring. Additionally, you must have a good understanding of your motorcycle's wiring so you can locate the brake wire, right and left turn signal wires, and the power and ground wires.

**NOTE:** *If at any time during the installation process you feel uncomfortable in performing the tasks documented in these instructions, please consult an authorized motorcycle service center in your area for help.*

## **I. Part One: Mounting and Connecting the Motorcycle Transceiver Unit**

### **Required Components:**

- |  |   |
|--|---|
| (1) Transceiver unit   | (1) 3M Double-sided foam mounting tape  |
| (3) Posi-Tap™ connectors   | (1) Alcohol prep pad  |
| • Wiring diagrams and schematics as needed (many are located here: <a href="http://www.classiccycles.org/">http://www.classiccycles.org/</a> ) | • Required tools to access your motorcycle battery, mounting location and electrical components |

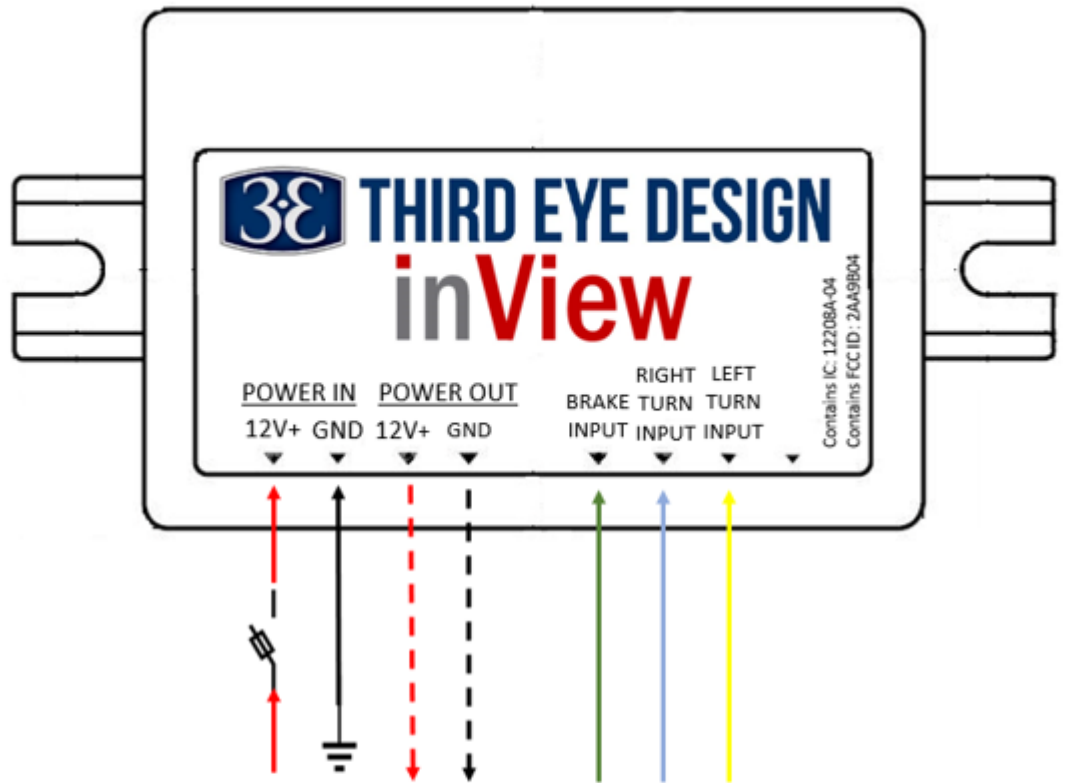
Before beginning the installation, take a look at the small motorcycle transceiver box that has the seven colored wires coming out of it. Locate space on the motorcycle that is large enough to safely house this box and its wires. The location must be positioned where the unit is protected from physical harm. While the unit is resistant to moisture, it should be located in a place where it is not exposed to water or excessive heat. Also consider that it is best if the location is not obscured by large metal surfaces which can interfere with signal transmission.

### **Wiring Instruction for the Motorcycle Transceiver Unit**

When wiring the motorcycle transceiver please remember to always test all the functions of the transceiver and ensure that the helmet lights function properly before cutting the wire leads to length and securing the transceiver to the motorcycle.

**Note:** The wiring taps (see Quick & Easy usage diagram below) supplied with your unit can be easily moved and reused until you are satisfied with your installation.

1. Find a safe, secure, and dry place to mount the transceiver box. We recommend mounting it under the seat or in the tail section if available. The clear translucent cover will allow you to see the power and signal LEDs inside the case that tell you that you have made a proper connection.
2. Lay out the Third Eye inView™ transceiver the way it will be installed onto your motorcycle. Review wire connections in steps 4-6 and make sure the wires are routed in such a way that they will not be pinched, cut, or exposed to direct heat or moving parts. If a power wire is pinched it could cause the transceiver to malfunction.



**POWER IN – 12V+ = ignition on** power input from motorcycle.  
**GND =** ground to motorcycle frame or battery.

**POWER OUT – 12V** power out to (included) accessory brake light.  
**GND =** Ground output to (included) accessory brake light.

**BRAKE INPUT** – Input signal from brake light. Please note: inVIEW requires a clean, steady (unmodulated) signal.

**RIGHT TURN INPUT** - Input signal from right turn signal. Please note: inVIEW requires a clean, steady (unmodulated) signal.

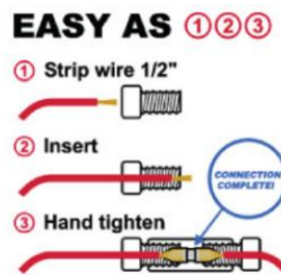
**LEFT TURN INPUT** - Input signal from left turn signal. Please note: inVIEW requires a clean, steady (unmodulated) signal.

3. Once the transceiver and wires are staged, clean the proposed transceiver mounting surface with an alcohol prep pad (included). The mounting surface should be between 45 and 85 degrees Fahrenheit to achieve the strongest bonding results from the double-sided adhesive.

**Note:** The surface area must be free of all oils, moisture, dirt and wax in order for the supplied adhesive tape to bond and adhere to the installation surface correctly. Mount the transceiver to your selected location with the double-sided 3M foam tape.

- Next, locate the wire marked POWER IN GND on the transceiver and attach it to ground, typically a bolt that fastens to the motorcycle's frame. **Note: Use caution that you do not pick a metal surface that is electrically insulated by plastic or rubber bushings. (The following steps require the use of Posi-Tap and Posi-Lock connectors per diagram below see detailed instructions here: <https://www.posi-products.com/instructions1.html> )**

- Find the motorcycle transceiver wire labeled "brake input" and attach it to the motorcycle wire that provides signal when the brake is engaged and the brake light is illuminated. **Do not confuse the brake wire with the tail light running light wire (which is always on when the motorcycle is running).**



Posi-Lock above, used for connecting Accessory Brake Light



Posi-Tap above, used for connecting Power, Brake and Turn signal wires

- Next, using the enclosed Posi-Tap™ connector, attach the wire labeled "right turn" to the motorcycle wire leading to the right turn signal that is "hot" (on) only when the right turn signal is engaged and blinking.

**Please note:** Some motorcycles have combination brake and turn signals (eg. Harley Davidson Street Glide) where the same tail light that is used for a running light is also used for a brake light. The inView motorcycle transceiver must have a connection to a single input source. The input wire cannot serve both as a brake and turn signal. If this is the case, you may need to pick up turn signal input from the front turn signals.

- Repeat step 6 above for the left turn signal.
- Last, connect the power wire labeled 12V + IN directly to a switched wire that is "hot" (on) when the motorcycle is on. Generally, good sources of power are switched accessory power outlets. Please consult your motorcycle manual or electrical diagram. If such a wire is not readily available, you can connect directly to the positive terminal on the battery. Once the wire is connected, install the supplied fuse and check to make sure the power LED is illuminated when the motorcycle is on.

**Note:** once the fuse is installed, an LED will illuminate in the motorcycle transceiver to indicate a proper power/ground connection and each time a signal is seen from a directional or brake (you will



see the LEDs illuminate through the clear cover. When the unit initially powers on, it will perform self-diagnostics and all LEDs will illuminate).

9. Test to make sure that each motorcycle transceiver LED glows when brake, left directional and right directional are activated. The power LED should remain on whenever the unit is connected and power is supplied.
10. Make sure you have proper clearances before reinstalling any covers or seats. Replace any parts of the motorcycle that were removed.

**Installation Tip:** If any of the wires need to be extended, be sure to use equivalent gauge or heavier automotive grade wire. If you are running wire and must go through the frame or any other metal parts, make sure to protect the wire by using a grommet or electrical tape.

## II. Part Two: Mounting and Connecting the Accessory Brake Light

### Required Components:

- (1) Accessory brake light
- (1) Double sided mounting tape
- (1) Alcohol prep pad
- (2) Posi-Lock™ connectors
- Required tools to run the accessory brake light wires to the motorcycle transceiver box.

Before beginning the installation, take a look at the accessory brake light included with the Third Eye inView™ system. This light is mounted with the enclosed 3M™ double-sided tape. From the back of the motorcycle, locate a suitable flat area, close to the motorcycle tail light, parallel to the ground to mount the light. The best locations are typically above or below the existing tail light. Once mounted, the light must face directly backwards and should not be angled up or down. The accessory brake light functions when the Third Eye inView™ motorcycle transceiver senses deceleration and sends a signal simultaneously to the accessory brake light *and* helmet light. This insures following motorists see (and understand) the relationship between the helmet light and the motorcycle accessory brake light

1. After identifying a suitable location, determine a clear path to route the wires to connect them to the 12V Power Out wires from the transceiver unit installed in the motorcycle.
2. Connect the accessory brake light to the motorcycle transceiver's 12V Power Out wires using the Posi-Lock™ connectors.



3. Secure the wires with the enclosed tie-wraps or electrical tape as necessary.

### III. Part Three: Mounting the Helmet Receiver Unit

#### Required Components:

- (1) Helmet brake and signal light
- (1) 3M Dual-lock™ mounting tape
- (2) AAA batteries
- (1) Alcohol pad



#### Instructions for Installing the Helmet Receiver Unit

**Note:** Installation of the helmet receiver unit is only for those helmets whose outer shell is a hard polycarbonate or similar shell.

1. Install the batteries by removing the 2 screws on the base of the helmet receiver unit and carefully pull the base and skirt away from the lens assembly.

**NOTE:** Be sure to install the batteries with correct polarity (as indicated).

***Please note:** Do not overtighten the screws! Just 3 inch-pounds of force (a gentle, finger tight) is necessary to tighten the back against the skirt gasket.*

2. Locate one of the 3M Dual-lock™ tape coins. With the adhesive side out and the protective tape in place, pinch the coin to the back of the helmet receiver's pre-installed 3M Dual-lock™ so that you have (2) pair of coins connected by the Dual-lock™ fastener.
3. Locate the area on the back of the helmet where you wish to install the helmet receiver base. The area should be smooth and clean. Without removing the protective tape to expose the adhesive, align the helmet receiver in the best location on the back of the helmet. When wearing the helmet in a normal riding position, the helmet receiver unit should point straight back. Test the area to ensure that the Dual-lock™ tape coin makes good contact and the flexible skirt fills the gap as best as possible. This is a good time to have someone help you pick the best spot on the helmet – it may be higher than you think. Please test the unit to insure the turn signals are correctly oriented!

#### Installation Tip:

- The helmet receiver must be applied so that the logo and writing on the base is right-side up. **NOTE: If installed upside down, it will beep and flash continuously, when it initially connects to the motorcycle to indicate that it is upside down.** This test only occurs once



when it initially connects to the motorcycle. Note: *Be careful not to remove and reinstall the helmet unit while the motorcycle is running since the test will not be performed until the unit reconnects to the motorcycle the next time it is started. Once corrected, the beeping and flashing will stop and the helmet receiver will return to normal operation.*

- The 3M Dual-lock™ tape should be applied directly to the helmet surface and not over decals or vents. The helmet and tape must be at room temperature. Once you have the area selected, use masking tape to mark reference points where the top, bottom and sides of the base will be on the helmet. This will help you properly align and attach the base.
4. Use an alcohol pad (included) to clean the mounting area on the helmet.
  5. Remove the protective tape from the Dual-Lock™ pads on the helmet receiver base to expose the adhesive. Be careful not to touch the adhesive with your fingers, and ensure it is not contaminated in any way prior to attachment to your helmet.
  6. Carefully align the base to the tape markings you made (see second bullet under “Installation Tip” above) and affix the base to the helmet.

**Important:** *Do not attempt to remove the pads or reposition the unit for at least 3 hours after mounting on the helmet. This allows time for the adhesive to bond correctly (note: the adhesive actually reaches its **full** bonding strength 48 hours after application). Once the tape has cured, you may carefully tilt the helmet receiver unit up or down to separate it from the helmet, reposition it, or to install it on a passenger helmet with the (supplied) extra Dual-lock™ coin.*

**Installation Tip:** The helmet receiver unit has a tested range of approximately 10 feet. If it seems that you do not have consistent functionality when in a riding position, then the transceiver unit attached to the motorcycle may be blocked or affected by its location. Try relocating the transceiver unit or repositioning it to increase antenna gain.

### General use and care:

**Operation:** Third Eye inView™ was designed as a set and forget device that requires minimal user intervention. Once connected, a double chirp and vibration will let you know the unit is functioning properly. When the unit disconnects (or goes back to sleep) the unit will alert you with a single chirp and vibration. The helmet unit should be visually inspected prior to each ride to insure it is installed correctly and working properly.

Each time the helmet unit connects to the motorcycle transceiver, the helmet unit will perform an inversion test to make sure it is installed correctly (and not upside down). If the helmet unit is installed upside down, it will flash and chirp repeatedly until it is correctly oriented. This test only





occurs once each time it connects to the motorcycle. Note: *Be careful not to remove and reinstall the helmet unit while the motorcycle is running since the test will not be performed until the unit reconnects to the motorcycle the next time it is started.*

**Battery Installation:** When changing the batteries, please make sure the motorcycle is off and not connected to the helmet unit. Please be sure the rubber skirt is properly in place to allow the back to seal against it. While the back is off, avoid exposure to dust, moisture or other contaminants. Do not overtighten the screws! Just 3 inch-pounds of force (a gentle, finger tight) is necessary to tighten the back against the skirt gasket.

Performance tip: Third Eye inView™ was designed for use with LI (lithium-ion) batteries which offer better power characteristics and, as an added benefit, are lighter weight.

**FCC 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. (2) This device must accept any interference received, including interference that may cause undesired operation.

**IC 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.