

Heads Up Braking System (HUB) Installation Instructions

- 1. Helmet Prep.** The Receiver (RX) unit will be mounted on or just above the DOT/Snell decal on back of helmet. Clean this area – set aside to dry. Go to step 2.
- 2. Confirm System Operation:** Remove the RX unit from the mounting bracket. Press the bracket release button and pull the RX unit vertically (UP) out of the bracket. Install batteries in both the Receiver (RX) and Transmitter (TX) units. Turn RX on by holding button for 2 seconds – lights should turn on. Wait for the fast flashing of the RX unit to change to a slow flash. This indicates the RX unit has started successfully and has completed its self-diagnostics. You can choose silent mode or beeper mode by pressing the RX power button 3 times quickly. We highly recommend you operate in beeper mode for the first few days. This allows you to gain a full sense of the how the Heads Up Braking system functions during use. The TX and RX signal should be locked / paired from the factory. If you do not have signal lock / pairing check the troubleshooting section #1 below and follow those steps.
 - Place the RX and TX units on a flat level surface and turn on the TX. The TX LED will flash quickly while starting, and then convert to slow flashing. The lights on the RX unit should then stop flashing. This confirms that the TX and RX units have locked to each other, and no other Heads-Up Braking System™ units or other signals can interfere.
 - To test if the Kelatronic (KEL) speed sensitivity / braking-detection is working, tip the TX unit so that the rear of the arrow is lifted up. This simulates the motorcycle/snowmobile/ATVs deceleration. The lights should flash on the RX unit for a few flashes. When the TX is hardwired, the KEL should also flash the taillights on your motorcycle/snowmobile/ATV at the same time. Move the TX unit back down to level (rear of arrow back down to flat). The RX unit should not flash. Repeat this test 2-3 times with the TX and RX units separated by greater distances – up to 10 feet apart.
 - If any of these tests fail, refer to the **Troubleshooting** section for help.
- 3. Installation of the Transmitter (TX) Unit on the Motorcycle/Snowmobile/ATV:** Once installed in the motorcycle/snowmobile/ATV, the TX unit can be powered by two AA batteries, or hard-wired to the motorcycle/snowmobile/ATV – using motorcycle/snowmobile/ATV power. If the TX unit is hard-wired to the motorcycle/snowmobile/ATV, it will operate the brake light when activated, and detect brake light activity to flash RX lights (dual mode). When hardwired you can remove the TX batteries as they are no longer needed.
 - The TX unit must be securely attached to the motorcycle/snowmobile/ATV (with the supplied bag of screws) in a LEVEL position and **arrow pointing forward**.
 - With TX side brackets attached, find a level spot on the motorcycle/snowmobile/ATV to attach the TX unit. This is typically under the seat or in a trunk. The leveling posts on the front and back of the TX unit should be adjusted to create a level installation parallel to the ground. Remember, the TX arrow must be pointing directly forward – if not, performance of braking detection will suffer. Use the supplied self-tapping screws and attach the TX to the motorcycle/snowmobile/ATV. Please note your HUB TX has leveling parameters in it. If you set the level too far up or down the TX will alert you by a continuous rapid flashing until you level it correctly.
 - When the TX has been securely attached to the motorcycle/snowmobile/ATV, tighten the locking nuts on the leveling screws, so the leveling screws will not move and the unit remains LEVEL. If the unit becomes loose (or not LEVEL) during operation, the RX lights will flash from vibration when no deceleration is occurring.
 - If the unit will be operated in battery mode only, the TX automatically selects single mode. When hard wired you have a choice of single mode or dual mode via the manual switch on your TX. Be sure to turn off the TX when using batteries only mode to conserve battery life when motorcycle/snowmobile/ATV is not in use.
- 4. Attaching the RX Unit to the helmet.** Attach the RX unit to the helmet mounting bracket. The RX unit and its mounting bracket must be attached to the helmet as one unit. The attachment process may flex the bracket in or out, flexing them together provides for a proper fit.
 - The location of the RX unit should be near the bottom of the back of the helmet as a starting point on a full face standard helmet. Since helmets vary in style, size and shape you will need to find the right position for optimal visibility of the HUB RX system. Have someone stand behind you as you sit on the motorcycle/snowmobile/ATV in your riding position with the helmet on. Confirm this with the other person before you attach permanently. Remove the plastic strip from the tape on the bracket and attach the bracket/RX unit to the helmet pressing very lightly on the corner ends only (should you need to re-position). If all is good then press firmly starting in the middle and moving outward. Warning – The adhesive tape is permanent, be sure to have the RX unit properly aligned during attachment.
- 5. Hard-wire installation of the TX unit: Warning:** Wiring the unit to the motorcycle/snowmobile/ATV is best done by a trained technician, as damage can occur to the TX unit or to your motorcycle/snowmobile/ATV if not installed properly. To use the bonus features /all features you must have a positive 12 volts going to the brake light when brake is applied to get all features. On some models (Canbus Systems), there is a constant 12 volts to the brake light which goes to ground when the

brake is applied. If you have this type of braking system, please refer to the Canbus System Installation diagram which can be found on the website (www.headsupbraking.com).

- The TX unit comes with a wiring harness with four wires. All these wires are labeled for you. The **Blue** harness wire is attached to the vehicles wire which powers the rear brake light of your motorcycle/snowmobile/ATV. The **Green** wire from the harness is attached to the motorcycle/snowmobile/ATV wire which comes on only when the ignition switch is turned on. **(NEVER ATTACH ANY WIRE DIRECTLY TO THE IGNITION SWITCH)** The **Black** harness wire is attached to the motorcycle/snowmobile/ATV ground wire from the brake light, and the **Red** harness wire is attached to the positive terminal of your vehicles battery post for 12V on demand power for trailer mode operation.

Tip: if trailer mode is not working start troubleshooting with this connection.

- It is generally not recommended that side crimp wire connectors be used to attach the wires to your motorcycle/snowmobile/ATV. Such connectors may fail over time which could cause your HUB system to fail. It is best to solder these wire connections then tape or insulate the resulting connections.

6. Trailer Mode: Trailer mode only works if the TX unit is hard-wired to the motorcycle/snowmobile/ATV. Trailer mode activates the brake light on the motorcycle, snowmobile or ATV whenever the trailer decelerates, converting your bike, snowmobile or ATV's brake light into the third brake light for your trailer.

- Trailer mode is activated by manually turning the TX unit on and is set to dual mode. You will see the taillights on your motorcycle /snowmobile / ATV flash. To test Trailer mode, turn off the ignition (remove key) of the motorcycle/snowmobile/ ATV, and either: a) tip up the rear of the TX unit if it is not attached; or b) decelerate the motorcycle/snowmobile/ATV while on a trailer. If the brake lights on the bike, snowmobile or ATV activates, trailer mode is working properly.

7. Proximity Automatic Hazard Detection (PAHL): When the RX unit moves outside a predetermined range monitored by KEL, the RX unit will start flashing. The distance at which this occurs can be adjusted by setting the transmitter signal strength switch on the TX unit. When the TX transmitter signal strength switch is set to maximum, the proximity distance will be extended.

Troubleshooting

1) RX and TX units don't recognize each other.

- If the RX unit does not stop blinking when the TX unit is turned on, the two units are not locked together. In order to lock the two units:
- Turn the RX and TX units on and wait for it to complete its self-checking diagnoses
- Push the RX power button 5 times quickly. Note the rapid flashing of the RX
- Push and release the TX power button quickly (do not hold the button down). Make sure you do not turn the TX off.
- The two units should now be synced to each other. This will be indicated by a small green LED in the RX unit which is blinking consistently. Any variation in that pattern means your signal is weak, move closer to the TX or switch to FULL POWER otherwise PAHL system will activate.

2) RX loses signal from TX and activates the Proximity

- **Automatic Hazard Detection (PAHL)**, even though the RX unit is close to the motorcycle/snowmobile/ATV.
- This could be caused by low battery if the TX unit is not hard-wired to the motorcycle/snowmobile/ATV. Replace the batteries.
- Or it could be caused by an obstruction blocking the signal – such as a passenger or a carry bag, back pack and so on.
- If the problem is caused by an obstruction, the problem may be solved by one of two ways. 1.) Remove the obstruction or 2.) Increasing the signal strength on the TX unit to full power. If full power is used, note that the proximity detection distance will be increased further out, especially if the obstruction is removed – so it is best to set signal strength back to normal once the obstruction or passenger is no longer obstructing the signal.

3) RX flashed and/or beeps when up-shifting.

- This is normal operation. It can be minimized by less aggressive acceleration and deceleration (lower RPM shifting),

4) Trailer mode does not work.

- Confirm that the TX is set to **Dual mode**, check that it is properly hard-wired to the motorcycle/snowmobile/ATV. Check the motorcycle/snowmobile/ATVs battery connections (HUB systems **Red** wire to the positive post of the battery).

5) Kelatronic. Speed Sensitivity / Deceleration does not activate on deceleration.

- It was designed to be triggered on signals over a predetermined G-force which is monitored by KEL. It is also designed to allow you to override KEL by pulling your clutch lever in at higher speeds for an instant on deceleration activation. Otherwise, when using gears at higher speeds, KEL may not trigger until your speed is reduced to below 60-70 mph on certain motorcycles.