

**12** At the front of the bike you can now connect the two 2-in-1 LED driving light/turn signal light circuit boards to the wires in the turn signal housing. To reduce the risk of static damaging the circuits ensure you touch a metal earth point on your bike, do this before handling the circuits as it will reduce any static that may have built up.

Remove the circuit boards one at a time from their anti-static bags ensuring you only handle the units by their edges. Do not touch or press down on any of the LED's or the electronic components of the board as this can cause damage.

Reconnect the existing ground and turn signal wires to the LED panel Ground connects to E (earth) The turn power wire connects to T and the new Weiser driving lights wire connects to +.

Make sure the spade connections are tight and not loose. Replace the turn signal lens taking care not to force the lens as this can break the plastic tab.



EXAMPLE OF REAR LIGHT CONNECTIONS

REPLACING THE LENS

**13** Install the 10A fuse into fuse holder.

**14** Turn on the ignition and test all operations. It's advised to do this first without the engine running Then repeat with the engine running.

The driving lights will come on with the ignition and stay on when the engine is running. Turn the left turn signal on and the driving light on the left will turn off and the amber turn signal will come on. Cancel the turn signal and the driving light will return. Repeat this operation to test the right side.

### **FIT 2-IN-1 BRAKE LIGHT/TURN SIGNALS**

*Refer to images from driving lights/turn signals section.  
(If fitting the driving lights/turn signals go to section 6)*

**15** Make sure the 10A fuse is removed from the fuse holder near the battery before commencing.

**16** Take off the clear lens from the turn signal housing by removing the screw (depending on your model the screw may be at the front or the back of the housing). Carefully remove the lens. Remove the bulb and reflector and unplug the two turn signal wires (ground and positive wires) from the back of the reflector.

**17** The bulb holder assembly that was removed incorporates a locking part that prevents the turn signal housing end separating from the stem. In your kit there are two locking keys that will do the same job. These should be inserted as indicated. Making sure the "cut out" side of the key faces inwards towards the bike. Ensure the key is pushed fully in so that the lens will fit back into position correctly when the time comes to replace.

**18** Fitting the two Weiser 3-in-1 wires requires feeding the plain

end of the wire marked "3-in-1" into the holes through the turn signal into the stem where the existing turn signal wires run leaving approximately 2 inches of wire in the housing (similar length to the existing wires). This operation needs to be repeated for the other housing on side of the bike. Depending on your bike model the wires can then be run both together (advised) to the relay you placed at the rear of bike. You may need to lower the panel holding the rear light assembly to access the area underneath to feed these wires through. Feed the wire from the right or left to the other side taking care to ensure the wires do not foul any moving parts or are near to any parts that may be very hot when the bike is running (such as the exhaust).

**19** The two 3-in-1 wires from the rear lights can then be joined using the blue Posi-twist to the 3-in-1 wire clearly marked on the relay. This finishes the 3-in-1 connections from to the rear turn signal housings to the relay.

**20** Connecting the trigger voltage from the rear brake lights to the relay is achieved by fitting a Posi-tap to the brake trigger wire in the main harness. You will need to identify the correct wire that has 12v when the brake is activated (a multimeter is useful if you don't know the color of the required wire on your bike). On most BMW bikes this is a gray wire with a black stripe and yellow banding. Unscrew the grey end of the supplied Posi-tap and put the end under the chosen wire screwing the main barrel of the Posi-tap onto the cap. Then taking the wire from the relay marked "brake trigger" connect this into the

other end of the Posi-tap. This completes all connections to the relay from the rear.

**21** At the front of bike you can connect the two Weiser 2-in-1 LED driving light/turn signal light circuit boards to the wires in the turn sign housing. To reduce the risk of static damaging the circuits, ensure you touch a metal earth point on your bike. Do this before handling circuits as it will reduce any static that may have built up.

Remove circuit boards one at a time from antistatic bags. Only handle the units by their edges. Do not touch or press down on any of the LED's or the electronic components of the board.

Reconnect the existing ground & turn signal wires to the LED panel. Ground connects to E (earth). The existing turn wire connects to T (turn) and the new Weiser brake lights wire connects to B.

**22** Make sure the connections are tight. Replace turn signal lens taking care not to force it on.

**23** Install the 10A fuse into fuse holder.

**24** Turn on the ignition and test all operations. It is advised to do this first with the engine not running and then repeat with the engine running. The brake lights will NOT come on with the ignition but only when the brake levers are activated.

While holding the brake on, turn the left turn signal on and the brake light on the left will turn off and the amber turn signal will come on. Cancel the turn signal and the brake light will return until the brake is released. Repeat this operation to test the right side.

**25** Finally, tidy your install by using the zip ties and insulating tape where required. Replace any panels you loosened or removed.

### **FIT 2-IN-1 DRIVING LIGHT/ BRAKE LIGHT/TURN SIGNALS TO NON CAN-BUS BIKES**

**26** This operation is very simple indeed and no relay is required. After reading through the instructions above you can miss out any sections relating to connecting the relay to the battery or the 3-in-1 wires and trigger wires to the relay.

**27** For the driving lights, using just the 3-in-1 wires and the blue Posi-twist, connect the jointed wire directly using the gray and red Posi-tap to any 12v feed when the ignition is on.

**28** For the brake lights, copy above procedure and connect to any 12v feed when brake light is on.

**29** The electronics on the lights themselves will identify the current switch and turn the relevant lights on and off as designed.

### **TROUBLESHOOTING**

*Feel free to contact us at 831.713.4365 or info@weisertechnik.com*

- i. Firstly please check all your connections have power where necessary you can do this with a multimeter if unsure.
- ii. Check you have identified the correct trigger wires in your bike's electronics harness if lights fail to illuminate.
- iii. Check connections on the back of each circuit board have not been miss-wired.
- iv. If a light works on one side and not the other, swap lights over to see if the problem persists. It could be a sign of a poor power connection to one side.

The relay & associated harness supplied with our kits is only intended for use with Weiser Technik's own products and is not necessarily compatible with any other manufacturers components.

 **EXTREME FROM 2006**

 **LEGACY I FROM 2004-2014**

**ULTRA BRIGHTS LED**

## **INSTALLATION INSTRUCTIONS**

### **2-IN-1 DRIVING LIGHT/TURN SIGNAL UPGRADES**

### **2-IN-1 BRAKE LIGHT/TURN SIGNAL UPGRADES**

### **USING THE 2-IN-1 ELECTRONIC RELAY\***



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## INSTALLATION INSTRUCTIONS

### 2-IN-1 DRIVING LIGHT/TURN SIGNAL UPGRADES AND BRAKE LIGHT/TURN SIGNAL UPGRADES

#### USING THE 2-IN-1 ELECTRONIC RELAY\*

Installation is very straight forward although reasonable understanding of the auto electrical system on your bike is advisable. If at any stage of the installation you do not fully understand what is required please seek help from a qualified electrical engineer, your local dealer or contact Weiser support for assistance.

The specially designed relay in this kit offers a much faster simpler way of installing Weiser 2-in-1 LED lighting products. This electronic relay module can control either the front drive lights or rear brake lights or both together. The make, model and year of your bike will determine the type of installation most suited to your bike.

Many bikes now use a "CAN-bus" electronics system and these normally require additional lights to be installed by the use of a relay this system is designed to make that as simple as possible. Some motorcycles brands or models currently in manufacture do not use the CAN-bus system and installation on these bikes can be made simply without using the relay.

**Note: if you have purchased either a driving lights kit or a brake lights kit you will find a dual electronic relay in each box. If you have purchased both and intend to install both on the same bike only one dual relay will be required. Included in your installation kit/s.**

 Weiser products are manufactured in USA & UK  
Dual Relay 2in1 Install Instructions  
10/16/19 v1.pdf

#### PACKAGE CONTENTS

- 1 x Weiser Dual Electronic Relay (included in both front and rear kits. All input and output wires clearly marked)
- 1 x 10A fuse

Both the 2-in-1 LED Driving Lights/Turn Signals & the 2-in-1 LED Brake Lights/Turn Signals can be installed together using this relay.

You will notice the relay has six wires coming from it. Two for the battery connection. Two for the driving & brake lights 3-in-1 connections to the lights themselves and two for the driving and brake lights trigger wire connections.

#### WEISER DRIVE/TURN KIT

- 2 x Weiser "3-in-1" wires (purpose marked)
- 1 x "3-in-1" drive wire
- 5 x cable ties
- 1 x Posi-twist
- 1 x Posi-tap
- 1 x Posi-lock
- 2 x Weiser locking keys

#### WEISER BRAKE/TURN KIT

- 2 x Weiser "3-in-1" wires (purpose marked)
- 5 x cable ties
- 1 x Posi-twist
- 1 x Posi-tap
- 2 x Weiser locking keys

#### BEFORE STARTING INSTALLATION

Check you have all parts and can identify them. You'll also need a few hand tools.

- A small Philips screwdriver to remove the turn signal lens retaining screw.
- Electrical wire cutters and strippers suitable for 20AWG wire. Some wires will require ends stripped before connecting.
- Spanner / screwdrivers / hex tools etc. for removing access panels and for the battery terminals.
- Insulation tape.
- A multimeter is useful and can aid installs if wire colors and locations are not identified in advance.

## INSTALLATION

Please see diagram for clarification.

### FIT DUAL ELECTRONIC RELAY

**\*Applicable for motorcycles with CAN-bus electronic systems. For fitting the above lights to non CAN-bus bikes please refer to alternative instructions towards the end of this guide.**

- 1 Make sure the bikes ignition is off before commencing install.
- 2 Remove the motorcycle seat or panels etc. to gain access to the battery. Take the Weiser Dual Relay and decide where you are going to route this from the battery. It is designed to be fitted to the battery and for the main relay connection wires (red and yellow) to be under the seat nearer the rear of the motorcycle. This is the easiest area to gain access to the bikes main electrical harness when you need to tap into the 12v "trigger" wires. Depending on your bikes model you may also decide to remove some side panels to make access easier too.

- 3 The relay harness is about 3ft long so allows good routing options back from the battery. We have made this harness long to suit some models when the battery is positioned towards the front of the motorcycle (as in BMW's 750 models).

- 4 Leaving the 10A fuse out at this stage, connect the relay to the battery terminals (the positive and ground wires are clearly marked on the relay).

- 5 **Note: If only installing drive or brake lights and not both you can ignore unused connections on the relay and insulate those.**

### FIT 2-IN-1 DRIVING LIGHTS/TURN SIGNAL LIGHTS (If fitting the brake lights/turn signals go on to section 15)

- 6 Take off the clear lens from the turn signal housing by removing the screw (depending on your model the screw may be at the front or the back of the housing). Carefully remove the lens. Remove the bulb and reflector and unplug the two turn signal wires (ground and positive wires) from the back of the reflector.



- 7 The bulb holder assembly that was removed incorporates a locking part that prevents the turn signal housing end separating from the stem.

In your kit there are two locking keys that will do the same job. These should be inserted as indicated. Making sure the "cut out" side of the key faces inwards towards the bike. Ensure the key is pushed fully in so that the lens will fit back into position correctly when the time comes to replace.



WEISER LOCKING KEY

- 8 Fitting the two Weiser 3-in-1 wires requires feeding the plain end of the wire marked "3-in-1" into the holes through the turn signal into the stem where the existing turn signal wires run leaving approximately 2 inches of wire with the female connector in the housing (similar length to the existing wires). This operation needs to be repeated for the other housing on side of the bike.

Depending on your bike model the wires can then be run both together (advised) down one side of the bike. Feed the wire from the right or left to the other side taking care to ensure the wires do not touch any moving parts or are near to any parts that may be very hot when the bike is running.

- 9 The two wires one from each turn signal housing are then connected to the by means of the blue Posi-twist connector supplied to the 3-in-1 drive wire.

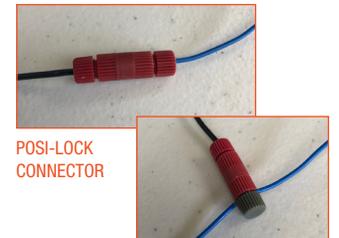
Remove the cap of the Posi-twist and making sure there is enough exposed copper wire twist them together and screw the cap back ensuring a good tight connection. (Do not insulate with tape until the circuit has been tested later). This wire will allow the 3-in-1 "drive out" wire to run back towards the rear of the bike to be connected to the Weiser 3-in-1 out wire on the relay.



POSI-TWIST CONNECTOR

Use cable ties to secure these wires in place when you are happy where they run.

- 10 Use the red double ended Posi lock connector to connect the 3-in-1 wire from the front of the bike to one end of the Posi-lock and the other to the 3-in-1 drive wire from the relay. This finishes the 3-in-1 connections from the turn signal housings at the front to the relay.



POSI-LOCK CONNECTOR

POSI-TAP CONNECTOR

- 11 Next connect a 12v power supply (when the ignition is on) to the relay. This will trigger the front driving lights as soon as the ignition is on. Typically this feeds the rear tail light/number plate light and is located in the main electrical harness that runs to the rear of the bike. On most BMWs this can be a gray wire with red stripe.

If you are fitting both driving lights and brake lights at the same time you can find the brake trigger wire in the same place in the electrical harness. If in doubt use a multimeter to test your chosen wire. In the kit you will find a red and gray Posi-tap connector. Unscrew the gray end and place under the 12v wire you chose. Screw the red side down tightly onto the wire. Then remove the red cap end of the Posi-tap and take the red wire marked "drive trigger" from the relay and connect this to the other end of the Posi-tap securely.