



# LED45HON-T-TS (CG) LIGHT KIT INSTALLATION INSTRUCTIONS

## INTRODUCTION

Congratulations on your purchase of the LED45HON-T-TS (CG) Light kit! Your new light kit has the following features:

- The light kit works on any motorcycle fitted with the top-mounted Honda 45L case.
- The lights significantly enhance your visibility on the road and improve the looks of the 45L case.
- The kit contains two flexible bi-color LED arrays, each with 48 high-powered LEDs, that fit behind the original lenses of the Honda 45L case.
- The mini-controller connects the light kit to your bike's tail light, brake light and turn signals and synchronizes them with the light kit.
- The mini-controller embedded in the main power harness fits neatly under your motorcycle seat or behind the tail light assembly.
- Your case lights will always be on as running lights when riding. The lights will brighten when you apply your brakes and will flash amber with your turn signals.



**IMPORTANT:** We make no guarantee that the LED45HON-T-TS (CG) Light Kit is legal for street use in your area. Be sure to check your local vehicle regulations before using.

### **WARNING**

**The LED45HON-T-TS (CG) Light Kit is intended to complement your bike's original safety lights for added safety. You should never rely on your LED45HON-T-TS (CG) Light Kit alone. ALWAYS ENSURE THAT YOUR STOCK BRAKE LIGHT AND TURN SIGNALS ARE FUNCTIONING PROPERLY BEFORE RIDING.**



## LED45HON-T-TS (CG) Light Kit Components

The LED45HON-T-TS (CG) Light kit contains the following components:

- 1 power harness with mini-controller
- 1 top case harness
- 2 bi-color LED arrays with loose connectors and matching 3-pin connectors
- 1 drill bit (7/16")
- 5 premium wire-tap connector with instructions
- Cable clamps
- Mini-controller programming instructions

## Tools Required

The following tools are required to complete your installation:

- Drill with standard drill bits
- #1 and #2 Phillips screwdrivers
- Painter's tape or electrical tape
- Utility knife
- Circuit tester (if available and necessary to troubleshoot)

## INSTALLING THE LED ARRAYS IN THE TOP CASE

Please read completely through these instructions once before beginning your installation.

Perform the following steps to install the LED arrays:

**Note:** These instructions are for the left side. Repeat these steps later for the right-side installation.

1. From inside of case, back out the eight (8) screws that hold the left and right lenses in place. Then lift up on the lenses to remove them from the case. Also remove the white plastic inserts from behind the lenses. These will be re-used.



**Note:** You don't need to completely remove them from the case. Just back them out far enough for them to release the lenses and allow the lenses to be slid up and out of the case. The two smaller screws at the front opening of the case may or may not be holding the lenses. Back them out anyway to be sure they release the lenses.

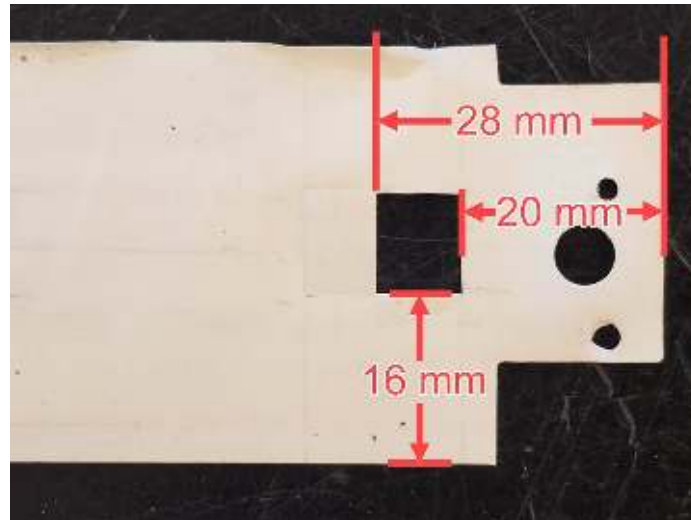
2. Using a 5/16" (8mm) drill bit, drill a hole through the case as indicated.

**Note:** The left side of the hole should be up against the first molded raised vertical land and down approximately 1.2" (30mm) from the top lip as shown.



3. Use a utility knife to cut a square hole in the white plastic insert big enough (approximately 8 mm x 10 mm) to accommodate the three LED array wires with 3-pin connectors.

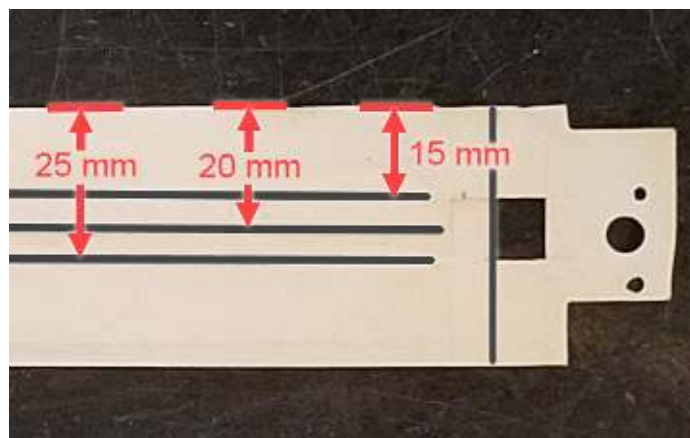
Make the hole in the position shown in the following picture.



4. Use a pencil to mark the proper mounting position of the LED array on the white plastic insert as shown. These lines will help you position the LED array correctly when installing them.



**Note:** The horizontal lines should be drawn in the following positions down from the top of the white plastic insert. (The center line is for reference only.) The top and bottom lines will indicate the top and bottom edges of the LED array when properly installed.

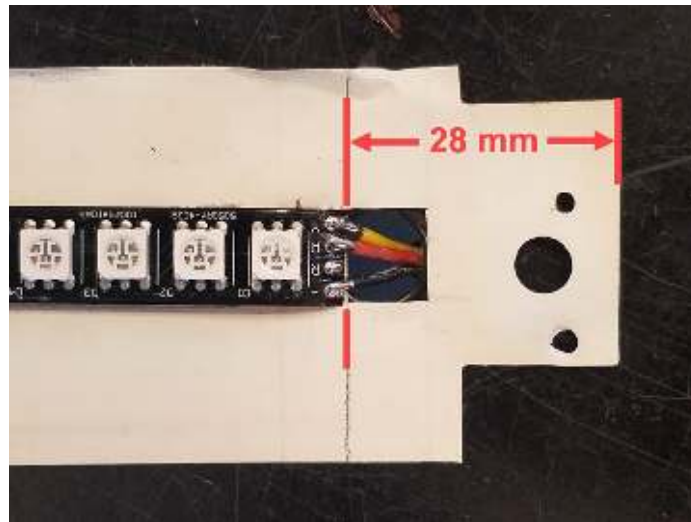


5. Install the white plastic insert back into place on the case making sure that it sits firmly at the bottom of the mounting slot and it is centered left-to-right. Temporarily hold it in place with painter's tape as shown.



6. Install the LED array onto the white plastic insert as follows:
  - a.) Remove the plastic backing from the first half of the back of the LED array (the half closest to the wire cable). Don't let it contact any surface until you are ready to install it.
  - b.) Thread the LED array three wires with their three pinned connectors through the hole in the plastic insert and through the hole in the case that was drilled in Step 2.

**IMPORTANT:** When installing the LED array, it must be positioned at the 28 mm mark with the edge of the array aligned with the edge of the square hole you made in Step 3, as shown. This ensures it will fit under the lens at the other end.



c.) Carefully align the edge of the LED array as shown above and press the first LED against the white plastic insert to hold it in position.

d.) Continue to lay the LED array down onto the plastic insert from right-to-left keeping the top and bottom of the array lined up with the pencil alignment marks on the insert you made in Step 4. Keep the array centered on the horizontal lines. (Once it's down, it's down and very hard to remove.)

e.) Lightly press the LED array against the plastic insert along its entire length to ensure that it's firmly held in place by its adhesive backing. The installed array should look like this.





7. Reinstall the lens as follows:

**CAUTION**

Do not try to install the lens over the LED array by sliding the lens down into place over the LEDs from the top. The LEDs stick out slightly and you may damage them if you contact them and push on them too hard with the lens.

a.) Insert the forward end of the lens under the retaining latch in the case as shown.



b.) Insert the rear end of the lens (near the handle) partially under the retaining latch and then push right until the lens seats under the retaining latch.





8. With the lens fully inserted, reinstall the screws one at a time. Start with the two screws at the open end of the case next to the handle. Push in lightly on the end of the lens when starting the screws in place and watch to see if the lens tries to move out away from the inside wall of the case.

**CAUTION**

Be sure that the screws go through the original screw holes in the lens. Wiggle the lens a bit until the screws and the holes line up. If you miss the hole and tighten the screws you may crack the lens.

9. Move to the screw at the left (forward) side of the case that holds the case lid retainer rope. Carefully start to reinstall that screw while holding the lens in place against the case.

IF...	THEN...
the screw and the original screw hole in the lens <u>line up</u>	continue to fully tighten the screw. Then, go to Step 11.
the screw and the original screw hole <u>don't line up</u> and the lens tries to move away from the inside wall of the case	you will have to drill a new hole in the lens that aligns with the screw. Go to Step 10.

**Note:** Step 10 is sometimes necessary since the LED array is fairly thick and pushes the lens out away from the case slightly. This effectively increases the position of the lens relative to the old screw holes in the case.

10. If the screw holes in the lens and the screws don't line up you must drill a new hole in the lens to correctly install it.
  - a.) Completely remove the screw.
  - b.) Select the correct size drill bit to match the outside dimension of the shaft of the screw including the threads.
  - c.) With the lens fully installed, insert the drill bit through the removed screw hole on the inside of the case and carefully drill a new hole through the lens.

**IMPORTANT:** Go slow! Do not drill a hole through the front of the case, just through the lens.

**Hint:** Wrap tape around the drill bit for a depth gauge before drilling.

See the example below which shows that the new hole had to be just slightly left of the original.





d.) Finish installing the screw through the new hole to complete the lens installation.

11. Your reinstalled lens and LED array should look like this.



12. Go to [INSTALLING THE WIRING HARNESES](#).

## INSTALLING THE WIRING HARNESES

### Installing the Top Case Harness

1. Determine your preferred routing of the top case harness inside the case and the therefor the location of the hole to drill on the inside of the case for the harness connector.

**IMPORTANT:** The location of the mounting hole will be dictated by the convenient routing of BOTH the internal top case harness the external power harness that connects to it which runs from the outside of the case to under the seat near the rear lights on the bike.



The connector can be mounted in various locations on the case, including bottom right corner, bottom, and bottom right back as in our example.

These are two possible locations for the connector shown from the outside of the case where the power harness connects to the internal top case harness.



*Bottom Right Corner*



*Bottom Right Back*

**Note:** If you change your mind later about the mounting location, we can supply complementary plugs to fill the unused 7/16" hole.

2. Route the top case harness inside the case as preferred. This example shows it routed around the right side of the case all the way to the right side of the handle where it can be connected to the LED array wires.



When you are satisfied with your cable routing, secure the harness with cable clamps.

**Note:** Be sure to clean the surface with an alcohol wipe prior to affixing the cable clamps to ensure maximum adhesion.

3. With your cable routed, use the supplied special 7/16" drill bit to drill the 7/16" hole at the desired location to mount the top case harness male connector inside the case.
4. From inside the case, insert the male end of top case harness through hole and secure on outside of case using supplied nut.

**CAUTION** Hand-tighten the plastic nut only. Do not over tighten!

The following pictures show the location of the cable connector for our example.

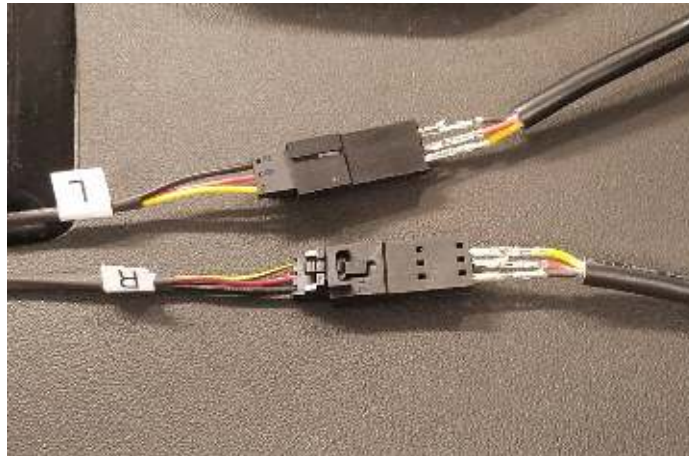


*Inside Case Connector Location*



*Outside Case Connector Location*

5. Assemble the 3-pin wire connectors to the three wires on the LED array cable as follows:
  - a.) Take each of the small, black, empty 3-pin connector housings and mate them to the corresponding connectors on the top case LED array harness.

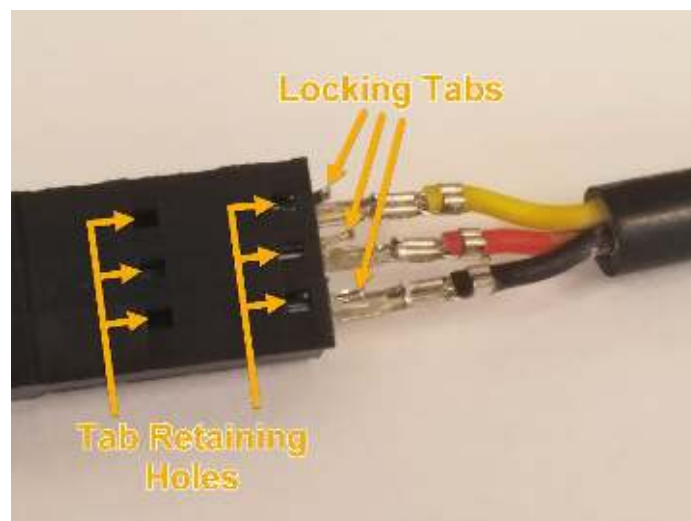


**Note:** The picture above shows one connector right-side-up and one connector upside-down for reference.

b.) Match the wire colors (yellow to yellow, red to red, and black to black) from the LED array harness as shown. The colors must match for correct functioning of the lights.

c.) Insert all 3 wires at the same time half-way into the empty connector housing as shown.

**IMPORTANT:** The locking tabs on the pins must be oriented up toward the side of the connector with the matching retaining holes as shown. If not, they won't stay in place when inserted.



d.) With the tabs on the pins properly aligned, insert the pins fully into the connector until the locking tabs seat in the second set of retaining holes.

e.) Insert the connector from the right-side LED array to the "R" connector on the top case harness and insert the connector from the left-side LED array to the "L" connector on the top

case harness as shown.



6. Secure the cables inside the top case as desired. Two good options are using cable clamps or duct tape or a combination of both.

The following example shows the cables secured with six cable clamps.



**Note:** If using cable clamps be sure to clean the surface with an alcohol wipe prior to affixing the cable clams to ensure maximum adhesion



## Installing the Power Harness

1. Connect the power harness to the matching connector on the case.

**Note:** The connector locks by inserting and turning the knurled cap ¼ turn.



Hand-tighten the knurled cap only. Do not over tighten!

2. Use the supplied wire-tap connectors to connect the power harness wires to the proper wires on your motorcycle as shown in the following table.

5-Wire (CG) Power Harness	Your Motorcycle/Scooter
RED <sup>1</sup>	12 Volt Switched Wire or Tail Light Wire
BLUE	Brake Light Wire
GREEN	Right Turn Signal Wire
YELLOW	Left Turn Signal Wire
BLACK	Ground Wire

<sup>1</sup> For newer and CanBus-equipped motorcycles, the RED wire must be connected to a 12 Volt switched source (live when ignition is on). For older motorcycles the tail light wire can be used.

**Hint:** If you need help, contact AdMore Lighting for the correct wire colors of the associated wires on your bike.

**Note:** Make the connections as close to the taillight assembly as possible.

3. Store the mini-controller of the power harness in a secure location inside the rear of your bike.



The mini-controller MUST NOT be in a location that might fill with water. If the mini-controller is immersed in water it will be damaged!

4. Test the functioning of the light kit with your motorcycle or scooter's tail light, brake light and turn signals.

IF...	THEN...
The lights all function correctly	your installation is complete. Congratulations on your new AdMore Lighting kit.
The lights do not function correctly	go to the TROUBLESHOOTING section.





## TROUBLESHOOTING

If your top case lights do not illuminate perform the following steps:

1. Ensure that all 6 DIP switches on the mini-controller are in the "Off" position (left position with cables pointing down).
2. Ensure that the red wire is connected to a switched +12 volt source.
3. Ensure that the black wire is connected to a solid ground.
4. If lights still do not illuminate, test the power harness by connecting its red wire directly to +12 volts of the battery and the black wire directly to solid ground.
5. If the lights still do not illuminate, please contact AdMore Lighting for assistance.





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