App-Controlled Top Gear Rally Car 42109 Lighting Kit

Package contents:

- 4 x 15cm White Dot Lights
- 4 x 15cm Red Dot Lights
- 2 x 15cm Blue Dot Lights
- 2 x 15cm head lights
- 1 x Warm White Strip Light
- 1 x Red Strip Lights
- 1 x 15cm Connecting Cable
- 2 x 30cm Connecting Cables
- 2 x 8-port Expansion Boards
- 1 x Round Coin Cell Battery Pack

Extra pieces

Important things to note:

When installing dot lights
Make sure they are correctly placed (Yellow LED package is exposed). You can put they either on the top of the studs or between studs.

Place wires on the surface or under the building blocks.
The wire can be place between the building blocks or under the block, but they should be placed between the studs correctly.
Be careful when inserting the micro connector to the micro expansion board. With connecting cable side facing down, connect the connector to the board as per below. In case of damaging the pieces, do not force to connect the pieces.

**Insert the connectors to the ports.**
Be careful when you are operating, there’s only one correct way to insert, make sure the expansion board is upward, find the soldered “=” sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the “=” sign and if you feel hard to insert, please stop, and don’t force it, for that may result in bent pins inside the port or overheating of the expansion board.

At this point, use the tweezers to straighten the bent pins.
Connecting cable connectors to Strip Lights

Take extra care when inserting connectors to ports on the Strip Lights. Connectors can be inserted only one way. With the Strip Light facing up, ensure the side of the connector with the wires exposed is facing down. If a plug won’t fit easily into a port connector, don’t force it. Doing so will damage the plug and the connector.

Finally, please pay attention to the positive and negative terminals of the battery when installing the battery case.
Note for connecting cable to the remote control board:

Connect the cables of the lights to the A, B, C, D ports which are corresponded to the buttons on the remote control board.
With connecting cable side facing down, connect the cable to the bigger port on the remote control board as per below.

Connect the other end of the connecting cable to the sensor.

Connect the USB cable to the port as per below.
Instructions for installing this kit:

OK, Let’s Begin!

Start from installing lights for the head of the car.

Remove the headlight from the left.

Take a 15cm head light, place the light at the center of the following piece.

Reconnect the headlight.
Thread the cable through the following space to the bottom of the car.

Pull the cable out from the bottom.

Take an 8-port expansion board, connect the cable to it.
Tuck excess cables, stick the expansion board to the following place.

Take a headlight, repeat the steps above to install the light to the other side.

Move onto installing the following lights, remove the 2 lights as per below.
Remove the stickers.

Take a 15cm white dot light, with lighting part facing up, connect the light to the blue piece (press the blue piece to help to secure the light) as per below.

Reconnect the stickers as per below.
Take another 15cm white dot light, repeat the previous steps to install the other light.

Pull the cables to the back and secure they underneath the red axle, reconnect the lights.

Thread the cables through the following space to the bottom.
Continue to thread the cables through the following space, tuck excess cables, connect them to the expansion board.

Take 2 white 15cm dot lights, repeat the steps above to install the other 2 lights.

Turn the power on to check if the lights work.
Take a 30cm connecting cable, connect it to the expansion board.

Wind the cable around the pieces underneath the car as per below.

Continue to thread the cable through the following piece to the cockpit.
Tread the cables through the following space, wind it around the following piece as per below.

Take a warm white strip light, a 30cm connecting cable.

Connect the connecting cable to the strip light as per below.
Connect the cable from the bottom to the other port of the strip light.

Stick the strip light to the top of the cockpit.

Thread the cable from the strip light through the following space, and wind it around the following piece as per below.
Thread the cable through the following space to the bottom.

Continue to thread it through the tire as per below.

Thread the cable through the following space and pull it to the back.
Remove the following piece, disconnect the arc piece.

Take an 8-port expansion board, connect the connecting cable to it.

Tuck excess cables, stick the expansion board to the following place.
Move onto installing lights for the pipes.

Take a 15cm blue dot light, a 1x1 light gray round piece with hole.

Thread the head of the light through the hole on the round piece, pull the cable out till the light is placed inside.
Thread the cable through the pipe, connect the light gray piece to the pipe.

Thread the cable through the following piece, pull it upward.

Thread the cable through the following space and pull it to the bottom, continue to pull it out from the following space (to tuck excess cable), wind it around the following piece before connect it to the expansion board.
Take a 15cm blue dot light, a 1x1 light gray round plate with hole, repeat the previous steps to install light for the other pipe.

Reconnect the arc piece.
Remove the empennage.

We will install the taillights now, remove one of the lights as per below.

Take a 15cm red dot light, a 1x1 trans red round plate.
Thread the cable through the blue hole, pull the cable out till the light is placed inside.

Secure the light with the trans red round plate.

Take a 15cm red dot light, a 1x1 trans red round plate, repeat the steps above to install the light.
Take 2 red 15cm dot lights, 2 trans red 1x1 round plates, repeat the steps above to install the other 2 taillights.

Connect the cables of the lights to the expansion board, reconnect other pieces.

Move onto install lights for the empennage.
Take a red strip light, a 15cm connecting cable, connect the connecting cable to the strip light.

Stick the strip light to the following place.

Thread the connecting cable through the following space.
Disconnect the taillights part, connect the connecting cables to the expansion board as per below.

Reconnect the pieces we removed before.

Take the Round Coin Cell Battery Pack, stick it to the bottom with adhesive squares.
Connect the cable of the Round Coin Cell Battery Pack to the expansion board underneath the car.

This completes installation of this LED Lighting Kit. ENJOY!