Thank you for purchasing the TURNIGY LED + CAR ENGINE SOUND SIMULATOR. This System has improved sound synthesis and a highly efficient amplifier. When used with the included loudspeaker unit the sound system is capable of producing an impressive range of realistic sounds.

Please read this manual carefully before use and keep for future reference.
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1. Parts list

1. Main unit × 1
2. Loudspeaker unit × 1
3. ESC connecting cable × 4
4. Micro USB data cable × 1
5. Power cable × 1
6. Φ 5mm white LED × 2  Φ 3mm white LED × 1
   Φ 5mm red LED × 1  Φ 3mm yellow LED × 2
7. Accessory pack × 1
8. Double sided tape × 2

2. Specifications

1. Speaker input voltage: 6V-26V
2. Max Power: 30W
3. Loudspeaker unit size: 100 × 45 × 20mm
   Cable: 20cm, 2.0 JST-XH connector
4. Control Board size: 66.3 × 44 × 14.8m

3. Connections

[Diagram of connections with labels for LED 1/2/3/4, USB wires, Mode, Light Wires, Direction, Accelerator, power supply, Enter(+), ESC(-), 1st horn, 2nd horn]


4. Attention

- Always assemble this system in accordance with this manual, ensuring that all components are mounted securely.

- Low voltage alarm: If the voltage to the speaker drops below 6V, the first (blue) and third (red) LEDs will flash.

- The loudspeaker unit should be installed in an area with a good cooling airflow. Under no circumstances should this unit be covered.

- Always turn the volume down to minimum when first using or re-installing the sound system to avoid damaging the units.

- Avoid placing components close to items with strong magnetic or electromagnetic effects such as power cables and ESC’s.

- The control unit must be calibrated before first use and whenever used with another radio transmitter.

5. USB Settings

When the device is connected to your computer it will show as a removable drive. The following parameters may be edited:

- Brake: Brake sounds switch setting 1 = ON, 0 = OFF (Default ON)
- Rev limiter: Overload sounds switch 1 = ON, 0 = OFF (Default OFF)
- Rev limiter delay: Overload sounds played delay time - 1~9 seconds (Default 5 seconds)
- Idle: Engine idle sounds will run for a pre-determined time when the throttle is returned to neutral (1~9 seconds) and then switch off. 1 = ON 0 = OFF (Default ON)
- Idle delay: Automatic delay time 1~9 seconds (Default 5 seconds)
- Battery type: 0 = LiPoly 1 = LiFe 2 = NiMH (Default LiPoly)
- Battery cell count: LiPoly/LiFe: 2~6 cells, NiMH: 4~15 cells (Default NiMH)
If the file “confug.ini” is damaged, it may be edited by using the above parameters.

Idle ON:
When the sound system is turned on with throttle at neutral and the car is static, the control unit will see the motor at idle status and will play the engine idle sound for the selected delay period (1~9 seconds) when the idle delay function is selected. After this time the sound will turn off automatically. The sound will start again once the throttle is activated.

Idle OFF:
With this setting selected, appropriate engine sounds will continue to play for as long as the unit is connected to the power supply. The system can also be set so that no sounds are played.

### 6. LED Status

<table>
<thead>
<tr>
<th>Car Status</th>
<th>LED Status</th>
<th>Reverse light</th>
<th>Front head light</th>
<th>Front small light</th>
<th>Brake Light</th>
<th>Turn right light</th>
<th>Turn left light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>100% Brightness</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Forward</td>
<td>100% Brightness</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Go forward and turn left</td>
<td>100% Brightness</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Go forward and turn right</td>
<td>50% Brightness</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Go backwards and turn left</td>
<td>50% Brightness</td>
<td>●</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>O</td>
<td>○</td>
</tr>
<tr>
<td>Go backwards and turn right</td>
<td>50% Brightness</td>
<td>●</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>O</td>
</tr>
<tr>
<td>Reverse</td>
<td>100% Brightness</td>
<td>●</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Brake</td>
<td>100% Brightness</td>
<td>O</td>
<td>O</td>
<td>●</td>
<td>●</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

### 7. Operation

1. Normal mode
Move the throttle stick to neutral and switch the unit on. At this time the first LED will flash to confirm that the sound module is working. Once the ESC has calibrated in the usual way the unit will start to operate when the throttle is advanced.
Engine sounds produced will match the speed of the motor as set by the throttle stick.

The LEDs will show the RPM status 2 x Blue and 2 x Red LEDs illuminated simultaneously indicate that maximum RPM has been reached.

A short press of the Enter button will increase the sound volume, and a short press of the Esc button will to decrease the volume.

The motor will switch off automatically when the throttle has returned to Neutral for 5 seconds.

2. Calibration Mode
1. To enter calibration mode press and hold the Enter button until a long beep is heard and LED 1 is illuminated constantly.
2. Moving the throttle to the neutral position and a short press of the Enter button will set the throttle neutral position. This will be confirmed by LED 2 being illuminated constantly.
3. Move the throttle stick to the maximum forward position followed by a short press on the Enter button again to calibrate the position. This will be confirmed by LED 3 being illuminated constantly.
4. Move the throttle stick to the maximum reverse position followed by another short press on the Enter button to calibrate the position. This will be confirmed by LED 4 being illuminated constantly.

Once the calibration is complete the unit will emit a long beep.

Should the calibration be unsuccessful for any reason a series of 3 beeps will be heard. It will then be necessary to repeat the steps above to re-calibrate the unit.

If you wish to exit the calibration process for any reason, simply give a long press on the Enter button. A series of 3 beeps will be heard, confirming that the process has been aborted.

3. USB Mode
USB mode can be used to update the sounds file and settings when the sound system is connected to a computer via the supplied USB lead.

To enter USB mode connect the lead from the computer to the USB port and hold the ESC button down (long press.) USB mode is confirmed by hearing 2 beeps and by LED 3 flashing.

To exit USB mode either press and hold the ESC button or disconnect the cable.
4. Sound Selection
A long press on the Mode button when in normal mode will produce 2 beeps and enable sound selection.
You will then hear all of the possible sounds played in sequence and select the required ones by a short press of both the Enter and ESC buttons as they are played.
To confirm selection and return to normal mode a short press of the Mode button is used.

8. Warranty and Service

Notwithstanding local regulations the warranty for this product is 1 year (from the date of invoice.)
During this warranty period, any breakdowns of the product due to faulty manufacture occurring due to normal use will be looked at on an individual basis by the company and the item repaired or replaced as required.

1. This warranty applies to the original purchaser only and does not cover faults resulting from wear and tear, overload or misuse.
2. Warranty returns will not be accepted where the product has been modified in any way.
3. Please keep your receipt as proof of purchase.