Tremendous transformation of your AEG is about to begin. You are entering the era of computerized control over your airsoft gun. This quickstart will guide you through the first stage of this journey – installation and configuration of your ASTER. So go get your new device mounted, your AEG set up and immerse yourself completely in a whole new airsoft experience.
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Firmware Editions

ASTER is available in 3 firmware editions: BASIC, ADVANCED and EXPERT.

BASIC
The best for those who prefer simplicity but require highest quality. Economic version with limited number of functions.

ADVANCED
The best for those who like complex solutions. Advanced version with wide variety of functions. It gives access to the Statistics and ASTER World Rankings.

EXPERT
The best for experienced airsofters. Vast diversity of settings and options combined with maximum configuration capabilities allow you to prepare for the most demanding mission.
Notice
In order to upgrade your ASTER firmware, you need to purchase an upgrade. To do so, follow the steps on our website: www.gatee.eu/editions

Notice
You need to purchase USB-Link or Blu-Link to connect ASTER with GATE Control Station.
<table>
<thead>
<tr>
<th>Function</th>
<th>Configurable via trigger</th>
<th>Configurable via GATE Control Station</th>
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</thead>
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<tr>
<td></td>
<td></td>
<td>BASIC edition</td>
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<tr>
<td>Trigger sensitivity adjustment</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Fire selector modes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safe - Semi - Auto</td>
<td>Safe - Semi - Auto</td>
<td>216 modes.</td>
</tr>
<tr>
<td>Safe - Semi - Semi</td>
<td>Safe - Semi - Semi</td>
<td></td>
</tr>
<tr>
<td>Safe - Binary - Auto</td>
<td>Safe - Binary - Auto</td>
<td></td>
</tr>
<tr>
<td>Safe - Semi - Burst GCS setting*</td>
<td>Safe - Semi - Burst</td>
<td></td>
</tr>
<tr>
<td>Burst</td>
<td>3 rd / 5 rd / GCS setting</td>
<td>3 rd / 5 rd</td>
</tr>
<tr>
<td>Burst mode</td>
<td>Full / Interruptible</td>
<td>Full / Interruptible</td>
</tr>
<tr>
<td>Pre-cocking mode</td>
<td>Off / On</td>
<td>Off / On</td>
</tr>
<tr>
<td>Magazine capacity</td>
<td>✗</td>
<td>Off / 30 BBs</td>
</tr>
<tr>
<td>Reload time</td>
<td>✗</td>
<td>3 s</td>
</tr>
<tr>
<td>Low ammo warning</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Function</td>
<td>Configurable via trigger</td>
<td>Configurable via GATE Control Station</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BASIC edition</td>
</tr>
<tr>
<td>Series safety limit</td>
<td></td>
<td>Off / 30 BBs</td>
</tr>
<tr>
<td>Sniper delay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROF control</td>
<td></td>
<td>• Off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Delay: 25 ms / 30 ms / 40 ms / 50 ms / 60 ms / 70 ms</td>
</tr>
<tr>
<td>Battery protection</td>
<td>Off / LiPo / LiFe</td>
<td>Off / LiPo / LiFe</td>
</tr>
<tr>
<td>Low battery warning</td>
<td>Off / 3.2 V / GCS setting</td>
<td>LiPo: Off / 3.2 V / 3.4 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LiFe: Off / 2.7 V / 2.9 V</td>
</tr>
<tr>
<td>Active brake</td>
<td>Adaptive / Off / GCS setting</td>
<td>Adaptive / 0% / 20% / 40% / 60% / 80% / 100%</td>
</tr>
<tr>
<td>Function</td>
<td>Configurable via trigger</td>
<td>Configurable via GATE Control Station</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BASIC edition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ADVANCED edition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EXPERT edition</td>
</tr>
<tr>
<td>Equalizer</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off / 2 LVL / 1 LVL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off / 2 LVL / 1 LVL / Manual 1–100%</td>
</tr>
<tr>
<td>2-stage trigger</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>BB counter</td>
<td>N/A</td>
<td>LAST / BB1 / BB2 / FACTORY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LAST / BB1 / BB2 / FACTORY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LAST / BB1 / BB2 / FACTORY</td>
</tr>
<tr>
<td>Measurements</td>
<td>N/A</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rate of fire, Trigger response, MOSFET temperature, Voltage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rate of fire, Trigger response, MOSFET temperature, Voltage, Voltage, ROF achieved on Semi</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>Visions</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Cycle detection</td>
<td>×</td>
<td>On / Off</td>
</tr>
<tr>
<td></td>
<td>(set to On by default)</td>
<td>On / Off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On / Off / Manual</td>
</tr>
<tr>
<td>Custom vibrations</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td></td>
<td>×</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Alerts</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Profiles of settings</td>
<td>N/A</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td></td>
<td>×</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Settings packages</td>
<td>N/A</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Firmware update</td>
<td>N/A</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Firmware upgrade</td>
<td>N/A</td>
<td>One-time payment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>One-time payment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>ASTER application</td>
<td>As firmware edition</td>
<td>Up to mid-tuned</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Up to mid-tuned</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Up to high-tuned</td>
</tr>
</tbody>
</table>

Information in the table may be subject to change.
GCS setting is a setting previously defined in GCS application, whose value is not available for selection in this programming mode. Once you change such setting to a different option during programming via trigger and then exit this programming mode, it is no longer possible to set that setting from this level (it can be still specified via GCS).
Safety Summary

For your safety, we recommend this product to be installed by an experienced airsoft service. Read the safety information below carefully before installing the device.

**Warning**
Situations that may cause injury to yourself and others.

**Caution**
Situations that may cause damage to your device or other equipment.

**Notice**
Notes, usage tips or additional information.
Warning
Before starting the installation process, make sure that your AEG is empty and there are no BBs inside.

Warning
Do not store or carry flammable liquids, gases or explosive materials in the same compartment as the device, its parts or accessories.

Warning
Stay careful to prevent short circuiting the battery as the consequences may be very dangerous.

Warning
Too high trigger sensitivity may cause accidental shooting.
Warning
When an airsoft gun is not in use, its magazine must be detached or kept empty with no BBs inside.

Caution
Do not remove the device protective foil.

Notice
You should use an additional fuse between the battery and the device.

Notice
Avoid using the device around strong electromagnetic fields or when electrostatic discharges, such as lightening, occur in the atmosphere.

Notice
The product Warranty Form is available on our website: www.gatee.eu/warranty
Installation

Notice
Regardless of your previous experience, check all the cautions to avoid ASTER damage.

Notice
ASTER installation requires deep technical knowledge of gearbox internals. To avoid ASTER damage, we recommend it to be installed by an experienced airsoft service.

Notice
Do not attempt to mount the device before watching the installation video and checking the full-length PDF manual: www.gatee.eu/manuals
**Caution**
Incorrect installation may result in sensors’ damage, which is not covered by the warranty.

**Caution**
Connectors should be bent according to the photo below. Bending connectors in the opposite direction may cause them to break.
Notice

Too high sector gear shimming may cause improper cycle detection. The gear cam must interrupt the sensor beam.
Caution
ASTER optoelectronic components marked in the photo below are very sensitive to harm. Stay careful to avoid their damage.
Caution
Placing washers in the wrong order will cause a short circuit and permanent damage to ASTER, which is not covered by the warranty.

1. SCREW
2. METAL WASHER*
3. INSULATION WASHER
4. ASTER BOARD
5. GEARBOX

* Metal washer is optional.
**Caution**
Improper placement of wiring under the motor gear may cause insulation damage and a short circuit, which is not covered by the warranty.

**Caution**
Do not pull the trigger when gearbox is open. This may result in trigger sensor damage.
Notice

Fire selector sensor does not detect black surface. If your fire selector does not have a metal connector, you must use appropriate sticker from the kit.
Notice

Location of the sticker is very important. Pay attention to place it very close to the left edge and the top red line.

The set contains 3 different types of stickers. At first, use a sticker with narrower black line. If you are not able to calibrate selector well, you should try other sticker types.
Notice

Gearbox sticker must be placed as in the photo below. It allows ASTER to detect trigger movement.

1 mm distance from pin hole
**Calibration**

**Notice**
During calibration, remember to pull the trigger down completely each time (until you feel resistance).

Once ASTER is installed in a given AEG, its trigger and selector sensors must be calibrated according to the steps below:

1. If your ASTER is brand new, go to step 2. If not, restore factory settings as described in the corresponding chapter (page 39) and then go to step 2.
2. To calibrate ASTER, plug the battery. You will hear 3 low vibrations notifying lack of calibration error.
3. Switch fire selector to AUTO. While on AUTO, pull the trigger twice and wait for a confirming vibration.
4. Then, switch fire selector to SEMI. While on SEMI, pull the trigger once and wait for the confirming vibration.
5. Next, switch fire selector to SAFE. While on SAFE, wait for the confirming vibration. Now ASTER is fully calibrated and ready to use.*

Notice
You do not have to calibrate your unit each time, only restoring the factory settings will require re-calibration.

* If there is a problem during calibration, a short high and mid vibration occurs. Then, calibrate the selector again.
Quick Access Menu

You can set Pre-cocking mode, Profile of settings or go to programming mode by using a shortcut. After firing a shot, burst or while in Safe mode* (if safety lever is removed), hold the trigger and switch fire selector in appropriate time (see table). To change options of given function, switch fire selector. Each switch means going to a next option. Options are indicated by relevant vibrations.

By releasing the trigger, you exit the function and now your device operates according to the selected Pre-cocking mode or profile.

<table>
<thead>
<tr>
<th>Function</th>
<th>Pre-cocking mode</th>
<th>Profiles of settings</th>
<th>Programming via trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>To enter the function, hold the trigger</td>
<td>and switch fire selector in &lt; 2 s</td>
<td>and switch fire selector within 2–7 s</td>
<td>for &gt; 7 s</td>
</tr>
<tr>
<td>Available options</td>
<td>Option</td>
<td>Low vibrations</td>
<td>Option</td>
</tr>
<tr>
<td></td>
<td>Option</td>
<td>Low vibrations</td>
<td>Option</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>1</td>
<td>P1</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>2</td>
<td>P2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>P3</td>
</tr>
</tbody>
</table>

* You can enter programming via trigger mode only when fire selector is on SEMI position and Auto mode is not assigned to that position.
Selecting Pre-cocking mode

Turn on ‘Switch mode via fire selector’ parameter for Pre-cocking in GCS to be able to use this function.

1. Fire a shot, burst or pull the trigger while in Safe mode*
2. Keep the trigger hold
3. Switch fire selector within 2 s. You should hear 1 low vibration.
4. Now each fire selector switch means a next option:
   a. 1 low vibration – Pre-cocking off
   b. 2 low vibrations – Pre-cocking on
5. Release the trigger to save selected mode

* If safety lever is removed
Selecting Profiles of settings

Profiles are sets of particular settings of configurable ASTER functions*. There are 3 profiles possible to select at a time and one of them is set as currently active. If you want to change the active Profile of settings:

1. Fire a shot, burst or pull the trigger while in Safe mode**
2. Keep the trigger hold
3. Switch fire selector within 2–7 s. You should hear 1 high vibration.
4. Now each fire selector switch means a next option:
   a. 1 high vibration – Profile 1
   b. 2 high vibrations – Profile 2
   c. 3 high vibrations – Profile 3
5. Release the trigger to save selected profile

* Profiles of settings are defined in GCS and are available only in EXPERT firmware edition.
** If safety lever is removed.
Programming via Trigger

This programming mode allows you to set options of ASTER basic functions. You can easily change menu level by switching fire selector. You navigate given menu very quickly by pulling the trigger. Each time you pull the trigger, LED color changes as well as number of accompanying vibrations. The table presents functions and their options programmable via trigger as well as how they are indicated by LED and vibrations.
<table>
<thead>
<tr>
<th>SEMI POSITION</th>
<th>FUNCTION WITH CORRESPONDING NUMBER OF VIBRATIONS AND LED COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Fire mode</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTO POSITION</th>
<th>OPTION WITH CORRESPONDING NUMBER OF VIBRATIONS AND LED COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFE-SEMI-AUTO</td>
<td>SAFE-BINARY-AUTO</td>
</tr>
<tr>
<td>SAFE-SEMI-AUTO</td>
<td>SAFE-BINARY-AUTO</td>
</tr>
</tbody>
</table>

* To evoke options of Advanced function, hold the trigger down for more than 3 seconds.

** GCS setting is a setting previously defined in GCS application, whose value is not available for selection in this programming mode. Once you change such setting to a different option during programming via trigger and then exit this programming mode, it is no longer possible to set that setting from this level (it can be still specified via GCS).
Notice
To run programming via trigger and fire selector, your AEG must have a physical 3-stage fire selector.

Turning on the programming mode*

1. Switch fire selector position to SEMI
2. Fire a shot or burst
3. Keep the trigger pulled for 7 seconds
   – until you hear a vibration and see dark blue light in the trigger hole

* Not possible if Auto mode is assigned to SEMI position.
Turning on the programming mode – the second ‘backup’ method

1. Disconnect the battery
2. Pull the trigger
3. While the trigger is pulled, connect the battery (ignore warning vibrations)
4. Hold the trigger for 3 seconds – until you hear a vibration and see dark blue light in the trigger hole

Notice
If you hold the trigger for 10 seconds, factory settings are restored, which is notified by 2 vibrations.

Selecting a function

1. Switch fire selector to SEMI
2. To get to a given option of a selected function, pull the trigger right number of times (according to the table on page 27)
Selecting option of a function

1. Switch fire selector to AUTO
2. To get to a given option of a selected function, pull the trigger right number of times (according to the table on page 27)

Saving an option

1. To save a given option, switch fire selector to SEMI
2. Then, the setting is saved and you are back in the functions menu
3. If you want to, set options for other basic functions in the same way
Evoking options of Advanced function

1. Select a given option of Advanced function
2. Pull and hold the trigger for more than 3 seconds

Exiting the programming mode

1. Switch fire selector to SAFE
2. Enjoy ASTER functions you’ve just set

Notice

Number of vibrations and LED color reflect position of given option or function in the menu, for example: if option **5x Full** is selected for function **Burst mode**, there will be 3 vibrations accompanied by LED glowing green.
Notice
ASTER remembers your settings, so you always know which option is presently set. Therefore, if you already defined ASTER functions, their programming starts from option currently specified for a given function.
Programming via USB-Link

Notice
You need to purchase USB-Link or Blu-Link to connect ASTER with GATE Control Station.

Caution
Prevent the USB-Link and the ends of USB cable from contact with conductive materials, such as dust, liquid or metal powder.

1. Download and install GATE Control Station:
   www.gatee.eu/gcs

Notice
Your Android device must support OTG technology to run GATE Control Station app.
2. Connect the USB-Link to PC, Mac or smartphone using one of the dedicated USB cables:

**PC/Mac**
- USB-A cable for USB-Link

**Smartphones**
- Micro-USB cable for USB-Link
- USB-C cable for USB-Link

**Notice**
Micro-USB cable has the same connectors on both sides. However, it is very important to connect the USB-Link and smartphone to appropriate ends of the cable. Otherwise, it will not work.
Notice
If your USB-Link cannot be detected, please follow the instructions displayed on GATE Control Station screen.

3. Connect ASTER to the USB-Link

Notice
If your USB-Link cannot detect ASTER, check if the same happens for another PC, Mac or smartphone. If the problem still occurs, please contact us at: aster@gatee.eu

4. Now you can control ASTER via GATE Control Station.
USB-Link Troubleshooting

USB-Link has a 4-color LED indicator.

**BLUE (glowing)**
The USB-Link is connected to PC or smartphone. ASTER is not connected or a PC driver is not installed. You can download the driver here: www.gatee.eu/drivers

**BLUE (blinking)**
The USB-Link does not have firmware installed. Please install the firmware.
GREEN (glowing)
The USB-Link is connected to ASTER and PC, Mac or smartphone.

GREEN (blinking)
The USB-Link is connected to ASTER and PC, Mac or smartphone, but ASTER does not have firmware installed. Please install the ASTER firmware.

YELLOW (glowing)
The USB-Link is transmitting data.
RED (glowing)
Communication with ASTER was interrupted while saving settings. ASTER settings may have been transmitted incorrectly. Please check the connection between the USB-Link and ASTER.
Restoring Factory Settings

**Notice**
Restoring the factory settings results in resetting the default settings, erasing adaptations and statistical data.

**Notice**
Restoring the factory settings requires ASTER re-calibration (page 21).

You can restore the factory settings in 3 ways:

1. While in programming mode
   a. Turn on the programming mode as described in chapter Programming via Trigger (page 26)
   b. Switch fire selector to SEMI
c. Pull the trigger 4 times to select function Advanced (5 vibrations, LED glowing orange)
d. Switch fire selector to AUTO
e. Pull the trigger to get to option ‘Restore factory settings’ (4 vibrations, LED glowing pink)
f. Evoke ‘Restore factory settings’ option by pulling the trigger for more than 3 seconds

2. Through Gate Control Station app
   a. Go to settings
   b. Open menu in the upper right corner and select option ‘Restore factory settings’
   c. Confirm your selection

3. While connecting the battery
   a. Disconnect the battery
b. Pull the trigger

c. While the trigger is pulled, connect the battery (ignore warning vibrations)

d. Hold the trigger for 10 seconds until you hear
   2 vibrations confirming the reset

e. Release the trigger

**Notice**

The trigger must be hold down throughout entire operation – from plugging the battery until you hear the vibrations.
ASTER Troubleshooting

Low battery warnings

When activated, you are warned 5 times before the battery is discharged. Each warning is communicated by 3 vibrations: High – Mid – High.

Vibrations after connecting the battery

ASTER can detect number of battery cells automatically. If you activate this function, vibrations start once the battery is connected. Remember to always check if ASTER detected correct number of battery cells.
<table>
<thead>
<tr>
<th>Vibrations after connecting the battery</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 short high frequency ▲▲</td>
<td>Cell detection error.</td>
</tr>
<tr>
<td>2 short high frequency ▲▲▲</td>
<td>Two cells detected.</td>
</tr>
<tr>
<td>3 short high frequency ▲▲▲▲</td>
<td>Three cells detected.</td>
</tr>
<tr>
<td>4 short high, 1 long low frequency ▲▲▲▲▲</td>
<td>Four cells detected. The voltage is too high.</td>
</tr>
<tr>
<td>3 short low frequency ▼▼▼▼</td>
<td>Lack of trigger or selector calibration (page 21).</td>
</tr>
<tr>
<td>4 short low frequency ▼▼▼▼▼</td>
<td>Trigger error. After connecting the battery, ASTER detected trigger position in which a shot may be fired.</td>
</tr>
</tbody>
</table>
Diagnostic Trouble Codes

Diagnostic Trouble Codes (DTC) enable detecting basic malfunctions and problems with your AEG or ASTER. You are notified of the main errors with LED glowing in the trigger hole and motor vibrations. These light-and-sound sequences are activated once given malfunction takes place. DTC can be later read and cleared in DTC menu in GCS app as well as in the programming mode from the level of Advanced function settings. In the latter case, LED blinks the same number of times as the motor vibrates, so you can check DTC even without the motor.

In the event of trouble:

1. LED in the trigger hole glows in the color reflecting problem type
   a. Yellow means warning
   b. Red means problem
   c. Red-Blue blinking alternately means that device failed on self-test
   d. Red-Yellow blinking alternately means other error
2. Vibration type indicates problem type

   a. High vibrations mean warning
   b. Low vibrations mean problem
   c. Low-High vibrations mean that the device failed on self-test
   d. High-Low vibrations mean other error

3. Number of vibrations determines what exactly the problem is (for reference, read DTC explanations presented later in this guide)

Notice
It is a good practice to clear the DTC in GCS before each skirmish.
How to read DTC explanations

Number of blinks and vibrations

LED indicator color

High frequency vibration

Low frequency vibration
No errors
No errors detected. Enjoy airsofting.

Under Voltage Protection 1 (UVP1)
Protection against over-discharge of the battery.
Battery protection was activated.

What happened:
The battery is discharged

What to do:
Charge the battery

Under Voltage Protection 2 (UVP2)
The voltage dropped below 1.9 V which is critical for ASTER to work properly.

What happened:
1. The battery is discharged
2. The battery is worn out and has too high internal resistance
3. Inadequate battery type for given AEG configuration
4. Too much electrical resistance between ASTER and the battery
5. Motor too strong for the connected battery
6. Motor connections short circuit
7. Motor is jammed
8. Motor is damaged

**What to do:**

1. Charge the battery
2. Replace the battery
3. Use a battery with more capacity or more voltage
4. Do not use any adapters
5. Use standard or high-torque motors instead of high-speed
6. Check and fix the motor wires insulation
7. Unjam the motor
8. Replace the motor
**Under Voltage Protection 3 (UVP3)**
Protection against over-discharge of the battery. Battery protection was activated immediately after connecting the battery.

**What happened:**
1. Number of cells is different than their number set in GCS
2. The battery is discharged

**What to do:**
1. Set the same number of cells in GCS as in the battery
2. Charge the battery

**Motor Disc (MOTOR DISC)**
ASTER did not detect the motor.

**What happened:**
1. Motor is not connected
2. Brushes are worn out
3. Motor is damaged

**What to do:**
1. Check wiring and motor connectors
2. Connect the motor
3. Replace brushes
4. Replace the motor

**Gear Not Detected (GND)**
ASTER did not detect the sector gear.

**What happened:**
1. Too high sector gear shimming
2. Sector gear sensor is dirty
3. Sector gear sensor is damaged
4. Sector gear is jammed
5. Motor is damaged
What to do:
1. Remove shims under the sector gear
2. Clean sector gear sensor
3. Contact aster@gatee.eu
4. Inspect the sensors using GCS
5. Replace the motor
6. In case of a dirty or damaged gear sensor you may set Cycle detection to Off

Overload (OVL)
Too high load. The load limit was exceeded.

What happened:
ASTER with BASIC and ADVANCED firmware edition is dedicated for up to mid-tuned guns

What to do:
1. Use high-torque motor and gears
2. Upgrade firmware to EXPERT
Over Current Protection (OCP)
ASTER detected too high current. Overcurrent protection was activated.

What happened:
1. Motor is damaged
2. Motor or gearbox is jammed
3. Motor connections short circuit

What to do:
1. Replace the motor
2. Unjam the motor or gearbox
3. Check and fix the motor wires insulation
**Short Circuit Protection (SCP)**
ASTER detected current over 220 A. Short circuit protection was activated.

**What happened:**
1. Motor is damaged
2. Motor or gearbox is jammed
3. Motor connections short circuit

**What to do:**
1. Replace the motor
2. Unjam the motor or gearbox
3. Check and fix the motor wires insulation

**Over Temperature Protection (OTP)**
ASTER temperature is too high. Over temperature protection was activated.

**What happened:**
1. Outside temperature is too high in correlation with the demanding AEG
2. Frequent short circuits and ASTER electrical overloads

What to do:
Wait until the temperature drops

Self-test Failure (STF)
The device failed on self-test.

What happened:
Internal error of the device

What to do:
Contact aster@gatee.eu

Other error

What to do:
Connect ASTER with GCS and check DTC
Legal Notice

Please read this Legal Notice before operating your device and keep it for future reference.

This document contains important terms and conditions with respect to your device. By using this device, you accept those terms and conditions.

EXCLUSION OF LIABILITY
GATE ENTERPRISE sp. z o.o. sp. k. is not liable for any damages, injuries or accidents of any kind resulting from the use of this product or airsoft gun with the product installed, including (but not limited to) incidental or intentional damages to airsoft gun, airsoft gun parts, batteries and gearbox internals.

DISCLAIMER
GATE ENTERPRISE sp. z o.o. sp. k. takes no responsibility regarding compliance of the product with the requirements of any law, rule or airsoft restrictions pertaining thereto.

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GATE LIMITED WARRANTY POLICY
GATE ENTERPRISE sp. z o.o. sp. k. warrants that its product is free from manufacturing and material defects at the date of purchase and for a nonextendable period of two (2) years from the date of purchase. This Limited Warranty is conditioned upon proper use of the product by Purchaser.

1. This Limited Warranty is valid provided that the owner provides a proof of purchase and a properly completed warranty form.

2. This Limited Warranty does not cover: (a) defects or damage (e.g., mechanical, thermal or chemical) resulting from accident, misuse (misinterpretation of the instructions), abuse, neglect, unusual physical, electrical or electromechanical stress, water immersion, repairs or structural modification of any part of the product, or (b) the product that has its serial number removed or made illegible; (c) defects or damage from improper operation, maintenance or installation, (d) installation of the products.

3. Requests for warranty are processed as soon as possible, not exceeding seven (7) working days. The company’s obligation under this Limited Warranty shall be limited to providing replacement of part(s) only.
CERTIFICATE OF CONFORMITY
GATE ENTERPRISE sp. z o.o. sp. k. hereby declares under our sole responsibility that the products GATE ASTER V2 and GATE USB-Link are in conformity with the essential requirements of the following Directives: EC DIRECTIVE 2011/65/EU. The products are certified as RoHS Compliant.

PRODUCT DISPOSAL INSTRUCTIONS
The symbol shown here means that the product is classified as Electrical or Electronic Equipment and should not be disposed with other household and commercial waste at the end of its working life. The Waste of Electrical and Electronic Equipment (WEEE Directive 2012/19/EU) has been put in place to recycle products using best available recovery and recycling techniques to minimize the impact on the environment. Purchasers shall take any old electrical equipment to waste recycling public centers or points of sale.
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