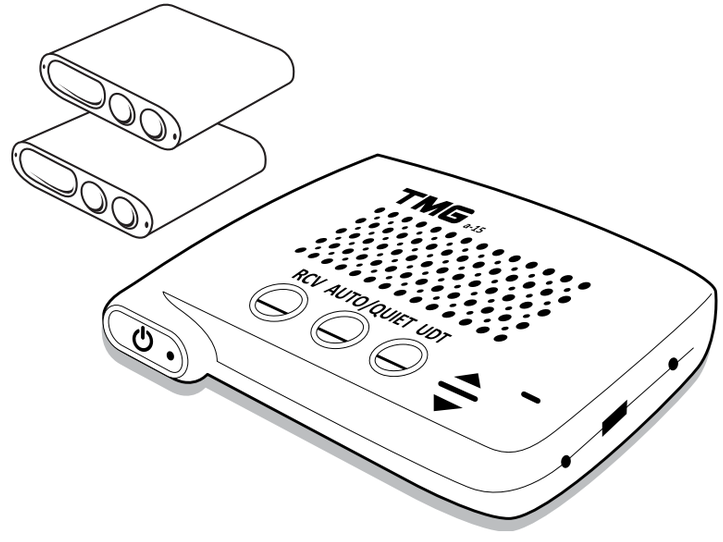
LASER DEFENDER
Alpha-15



Operation Manual

Facets Product Design & Development Ltd.
Taiwan Microwave Group
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Introduction

Thank you for purchasing the TMG A-15, one of the most innovative and sophisticated devices in its category today.

Please be sure to read this manual to familiarize yourself with the features and operation of this product. Enjoy the trip and drive safely.

TMG system is a class 1M laser product. Never look at the heads closely while powered on! We recommend wearing Laser protected eye wear, when testing the jamming function with Laser guns.

Motorists are expected to exercise all caution while using this product, and to obey all applicable traffic laws.

Check your State and local laws on usage. We encourage you to disable your jamming function as soon as possible once you slow down. This can be done by the RCV button, front power button, or the RCV tab on the app. Running in the “test mode” is meant for laser jamming testing only, and is in full time jamming mode, and could result in suspicion that a LIDAR operator has been jammed. Auto-sleep mode is default, and highly recommended with an Auto-kill feature to “Receive only mode” after 4 seconds.

CPU only takes 12V power sources; A 24V power source will damage the product permanently, and will void your 2 year warranty.

Specifications

Input ..... DC 12V

Laser Wavelength 905nm

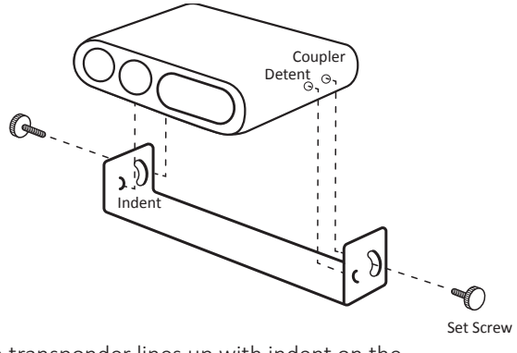
Optical Peak Power ..... Up to 75 W

Communication ..... BT3.0/4.0 Compatible

Operation Temperature ..... -10°F~150°F / -25°C~70°C

Tool Requirements

- T-10 torque bit or allen wrench
- Cordless screw driver- mount the brackets
- Small screws- to mount the brackets
- Velcro or 3m tape to mount the CPU
- Tape measure- measure out the head seperation
- Electrical tape - wrap up the head connectors and the wire to feed through the firewall.
- Metal wire to feed the wires through the firewall. (Optional)



Detent on transponder lines up with indent on the bracket. Position is locked into place with the set screw.

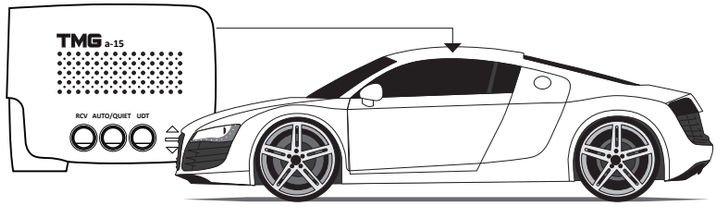
CHAPTER 1: Installation

1. Make sure the heads are positioned approximately the same height as the license plate and separated by at least 24 to 30 inches from each other. Being too close together can cause interference.

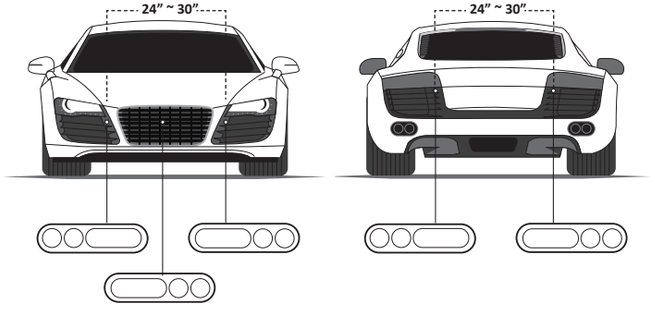
2. Use the included green bubble level tool to make sure the heads are horizontally positioned, and are facing straight forward, and ensure all torque screws are tight.

3. When using a third head, install the head in the center of both heads, below the car's emblem or directly above the license plate.

4. The CPU computer has a capability of having 8 heads total with an optional splitter.

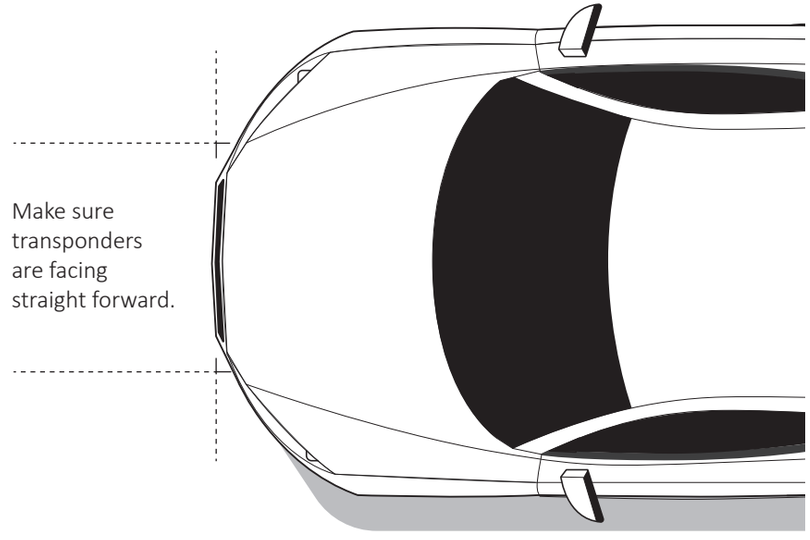


Controller is installed inside the cabin.



Optional third head for maximum protection.

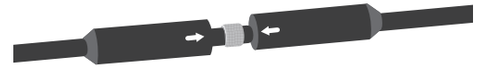
BMW owners have the option to install the heads vertically. However a third horizontal head is required so you have two vertical outside heads and one center horizontal head.



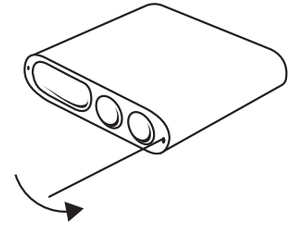
Make sure transponders are facing straight forward.

Make sure the heads are horizontally installed by using the bubble level included in the package.

Cables
Arrows on cable align for proper fit.



Changing the Lens cover
After a year of use on the road, replace the old lens cover with a new one. Use a pin to pry open the old lens cover to replace it.

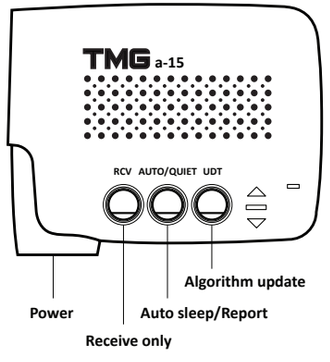


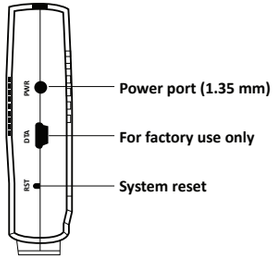
CHAPTER 2: Operation

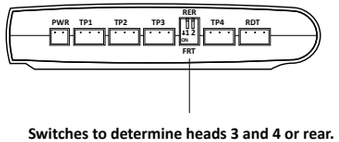
Adjusting Volume
Press the + and - side buttons to adjust the volume. Press for 1 second to reach the maximum or minimum volume level. (15 is the maximum).

Receive only Mode
Press the RCV button to switch to receive only mode. This mode only receives Laser, and does not jam. Pressing the RCV button again will enable Auto sleep mode.

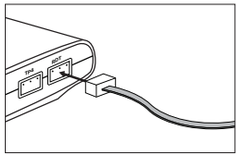
Auto/Quiet
Pressing one second enables Auto sleep mode, this stops jamming function after 4 seconds. Auto sleep mode will take 1 minute to relay back to 4 second jamming from RCV only mode. Use caution for 1 minute because laser alerts will be muted until the CPU announces “Auto sleep mode off”. Press the SLP/RPT button for 1 second to report police to the server. ”Test mode” is recommended only for testing the jamming capability.







Switches to determine heads 3 and 4 or rear.
TP (Terminal Ports 1-4 are connections for Transponders)
(Heads 1 and 2 are always front.)



Align pins on the transponder cable with the connection port

The RDT port is for radar detector integration, or other accessories. The side PWR port can be used to power the unit with a 12v barrel connector 1.3 mm.

App operation
1. Start the Laser defender App. Don’t set up BT connection through the phone or tablet operation system. Press Start/On the button on the app. (α-15 CPU needs to be powered on and nearby for connection).

2. Choose MAC address starting with “1E:03” for Android system, and “1E:04” for iOS. Password is “1234” or “0000” It should take 15 seconds for setting up.

3. Now you can hide the app, and only keep the pop-up. It automatically disconnects or re-connects to the α-15 CPU when you switch the α-15 CPU off or on. To bring the interface back, press the pop-up.

4. CPU automatically reports to the server when it receives laser signals. If you keep the interface on, you can manually report a few different types of spots. If you manually report from the CPU (by long pressing SLP/RPT button), it’s police spot. Any report will be kept on the server for 3 hours.

5. Map view and instructions are on the upper right corner.

Algorithm update (Must have Internet access)
1. Make sure your App is connected with the Bluetooth, otherwise go through step 1 and 2 in previous paragraph.

2. Press the UDT button on the CPU (An audio voice will say “Algorithm update/ Open app and choose new algorithm and enable Bluetooth”).

3. Press the UDT button tab on the App. (You may hear an audio voice, that says “Start Transferring”).

4. Follow the instruction on the screen.

5. Choose the newest algorithm version to download and choose to start transferring.

6. When the file is finished, an audio voice will say “Update finished or aborted/ returning to defender mode”.

CHAPTER 3: Two Year Limited Warranty

For a period of two years from the date of purchase by the consumer Facets will repair or replace, at Facets discretion, defective Facets products upon delivery to Facets or an authorized Service agent. Facets products must include a proof of purchase with the date it was first purchased from an authorized dealer, such as a copy of a sales receipt.

The customer must pay for shipping Facets products to an authorized Facets Service Agent. If the product is proven to be under warranty, the return charge, to the customer, will be at our expense.

This limited warranty does not apply:
To any product damaged by accident.
In the event of misuse or abuse of the product.
As a result of unauthorized alterations or repairs.
If the serial number has been altered, defaced, or removed.

All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty.

License Agreement

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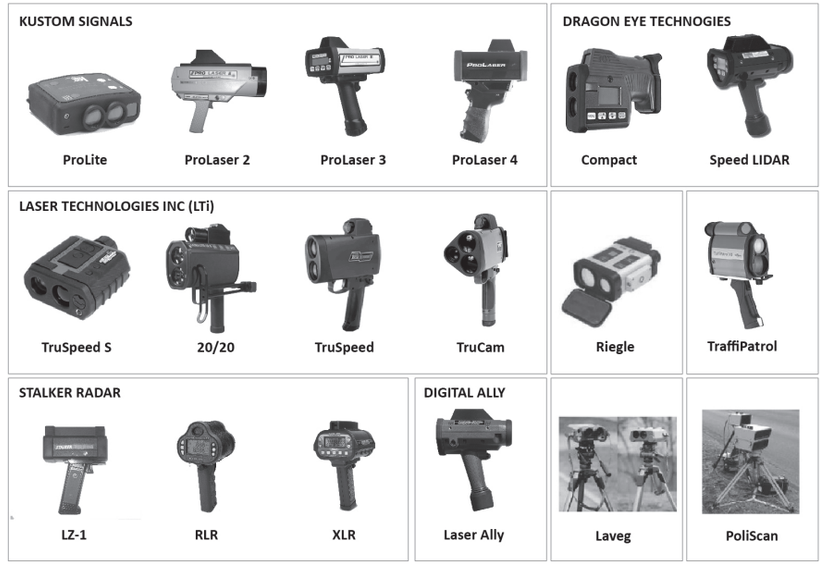
CHAPTER 4: Appendix

Protection
Here is a collection of laser/lidar guns we have tested. Our laser jammer works for other similar ones. The coverage is increasing and we always keep our products promptly updated.



Attention
When testing the system at any time, such as on a bench or a temporary install, unwrap all cables. Testing with the cables wrapped up can cause a magnetic field, and the heads performance may be compromised.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.