

THE FORCE 70000

Mini Advanced Combat Technologies A01 Operational User Manual

p/n 73004

ALC679

ASC579

Y888

For tanks, armored vehicles and land military applications

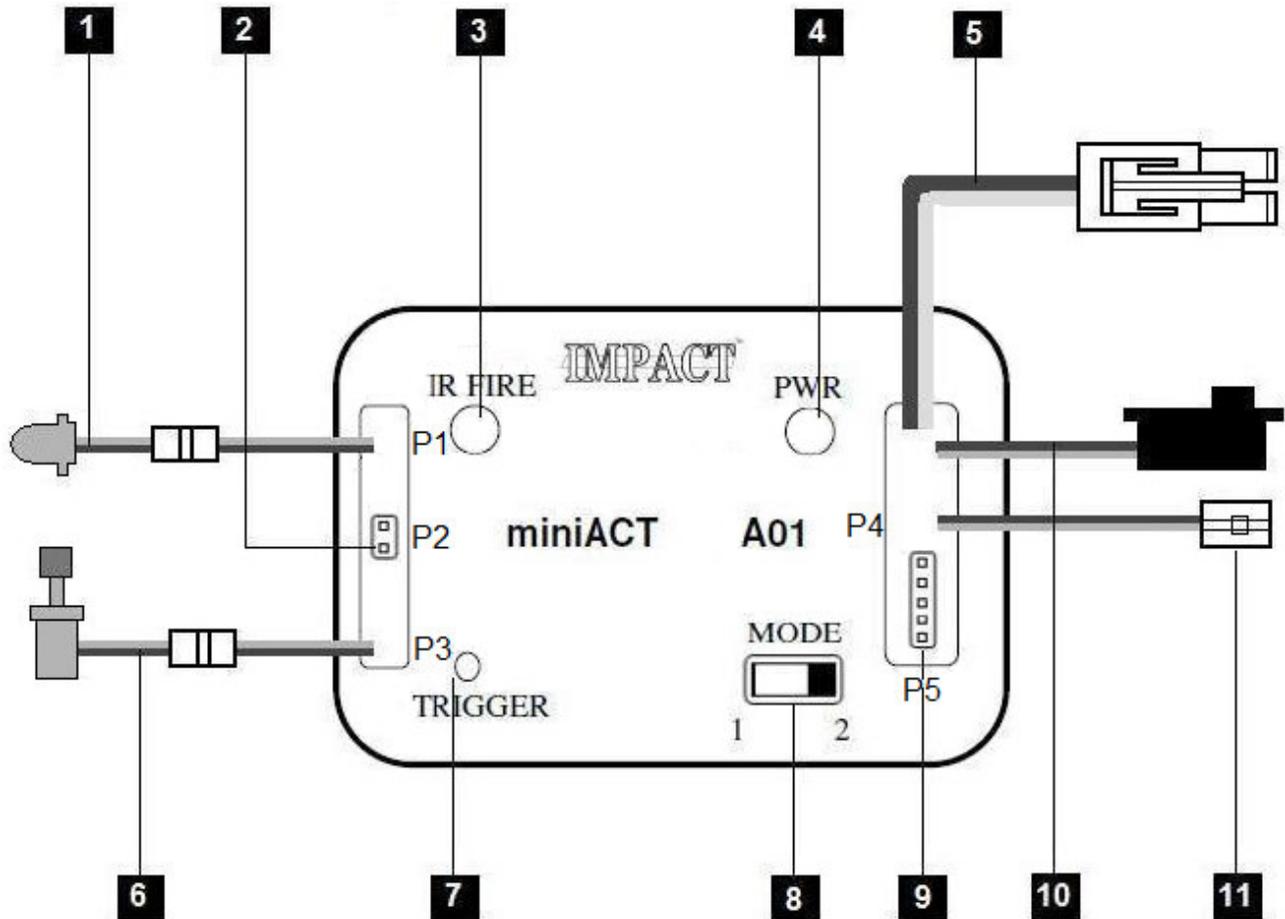
This manual will provide the best and simplest description of operating the unit.
Applications are only limited to your imaginations

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GETTING TO KNOW

• miniACT A01



1 P1 Hi-LUX LED

2 P2 Socket for IR emitter LED

3 Indicator (red) when setting different modes

4 Indicator (green) when switched ON

5 7.2V battery connector

6 P3 External push button switch with connector for firing IR emitter LED or programming

- 7** Internal micro push button switch for firing IR emitter LED or programming
- 8** Mode selector switch
- 9** P5 Socket for battle unit receiver
- 10** Power switch
- 11** P4 Connector, to Tamiya MFU CN2

This kit includes:

- miniACT A01 -- 1
- HI-LUX LED -- 1
- Push Button Switch -- 1

Optional parts required:

- IMPACT Battle Unit p/n 73003

miniACT A01 has 4 functions that can be selected:

1. Battle Mode
2. Destruction Mode
3. Test Mode
4. Range Extension Mode

- ★ miniACT will still be able to fire even when Battle Unit Receiver is not plug in.
- ★ miniACT will still be able to receive even when IR emitting LED is not plug in.
- ★ miniACT will only work when the optional parts are connected, it will not work by itself, except for Range Extension Mode

- Fire Power

Y888 IR Code

- When a Tank is hit by Y888 IR code, 1/2 of its set life is deducted.
- Tank will be destroyed if hit twice, regardless of tank's setting.
- For example, if a tank set to HEAVY/MEDIUM/LIGHT, it will be destroyed if hit 2 times
- IMPACT and Tamiya DMD+MFU systems will be able to receive and react to Y888.

ALC679

- This is the default code found in all Tamiya tanks.
- When a Tank is hit by ALC679 IR code, 1 count of the set life is deducted.
- IMPACT and Tamiya DMD+MFU systems will be able to receive and react to ALC679.

ASC579

- When a miniACT is hit by ASC579 IR code, 1/3 of its ONE life is deducted.
- For example, if a miniACT is set to 2 lives, it will be destroyed after receiving 6 hits.
If a miniACT is set to 1 life, it will be destroyed after receiving 3 hits.
- Only IMPACT systems will be able to receive and react to ASC579.
- Tamiya DMD+MFU will not be able to receive and react to ASC579, yet.

★ Life count of system is reference to total number of ALC679 hitting a target to destroy.

★ IMPACT and Tamiya systems will be able to do accurate accumulative count of hits received when different combinations of IR codes are emitted.

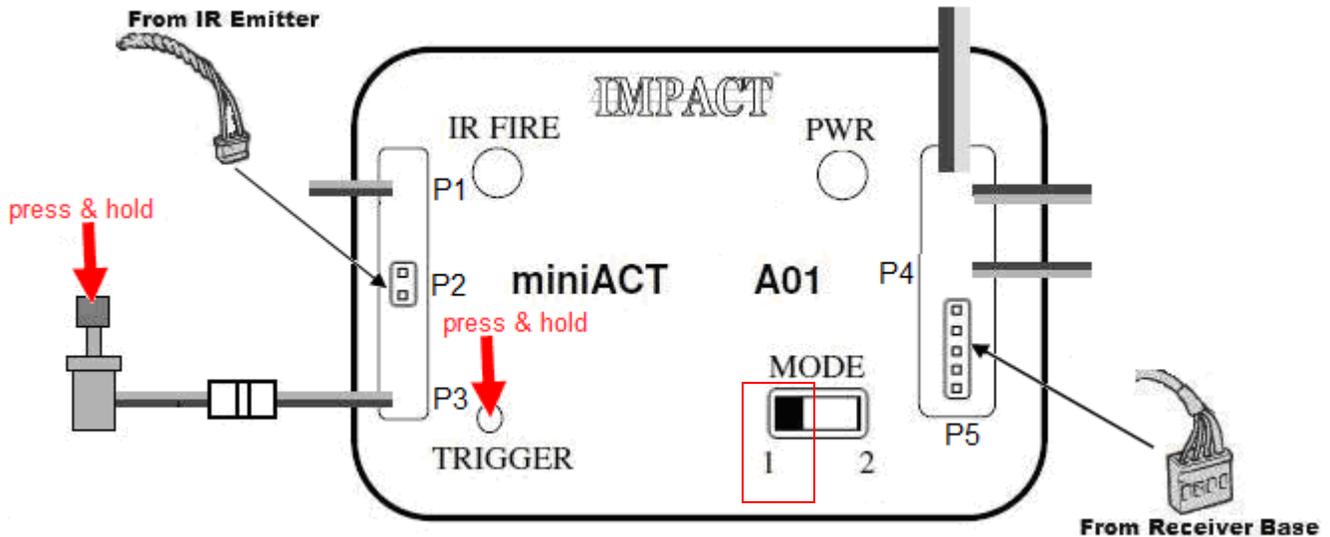
PRECAUTIONS

- ALWAYS take out the battery when the unit is not in use or when storing.
- ALWAYS turn OFF the power when the battery is connected and when unit is temporary not in used.
- ALWAYS turn OFF the power first when selecting to a new mode. Changing to a new mode with the power ON, might cause damage to the unit's electronics.
- Do not use used unqualified and/or poor quality battery.
- Do not force in the connectors into the sockets when it does not go in smoothly. All connectors have a key so that there is only one direction that it can go in.
- This is not a waterproof unit, do not use it in environment where there is water and or in ship/submarine model.

OPERATION

● BATTLE MODE (1 Life)

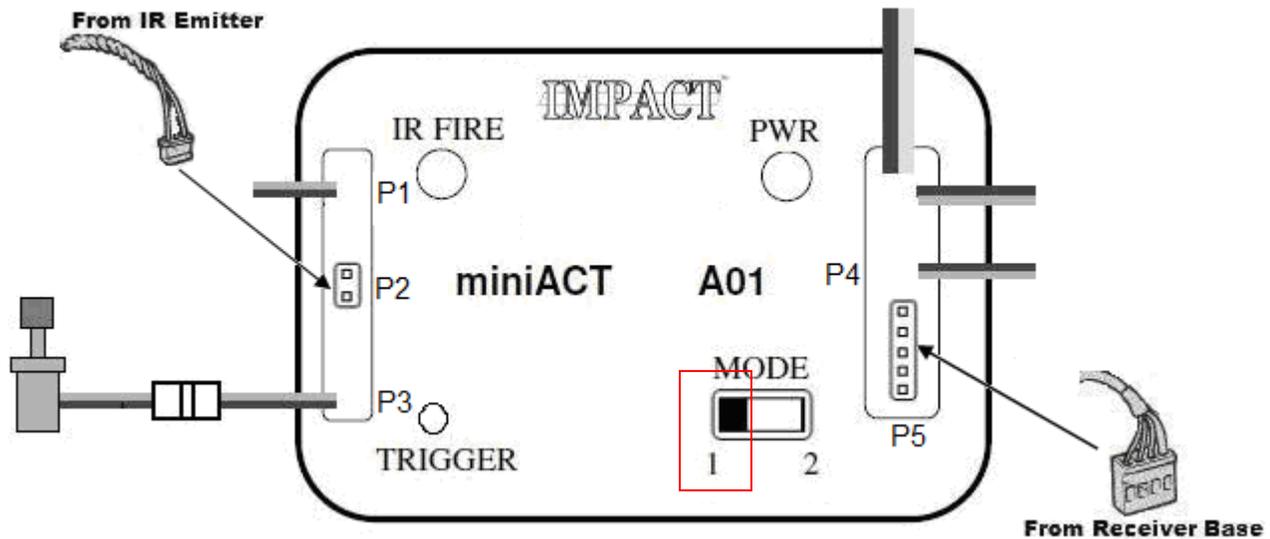
- Turn Power Switch to OFF.
- Plug in a 7.2V battery.
- Plug in the Battle Unit's Receiver 5pin connector into P5.
Plug in the Battle Unit's IR emitter LED 2pin connector into P2.
- Select MODE switch to 1.



- Press either the external **or** internal push button while turning ON the Power Switch.
- When LED at IR FIRE is flashing, push button can be released.
- IR FIRE will flash once, turns off for a while, flash once, the cycle goes on.
- miniACT is now in BATTLE MODE at 1 Life.
- The firing of IR emitter LED can be done by either pressing the external or internal push button switch.
- It needs 2 seconds to fire the next shot.
- When the infrared LED is fired, HI-LUX LED (P1) will flash, simulating a barrel fired. This LED can be installed in any of the model's weapon.
If you do not wish to use this function, the LED can be disconnected and the system will still work.
- The Battle Unit Receiver will not receive hit signal from its own infrared LED.
- miniACT will be destroyed when hit 1 time by Y888 and/or ALC679 IR Code.
- miniACT will be destroyed when hit 3 times by ASC579 IR Code.
- When miniACT is destroyed, IR FIRE will turn off and Receiver LEDs will flash continuous.
- To reset, turn OFF and program from start again.

● BATTLE MODE (2 Lives)

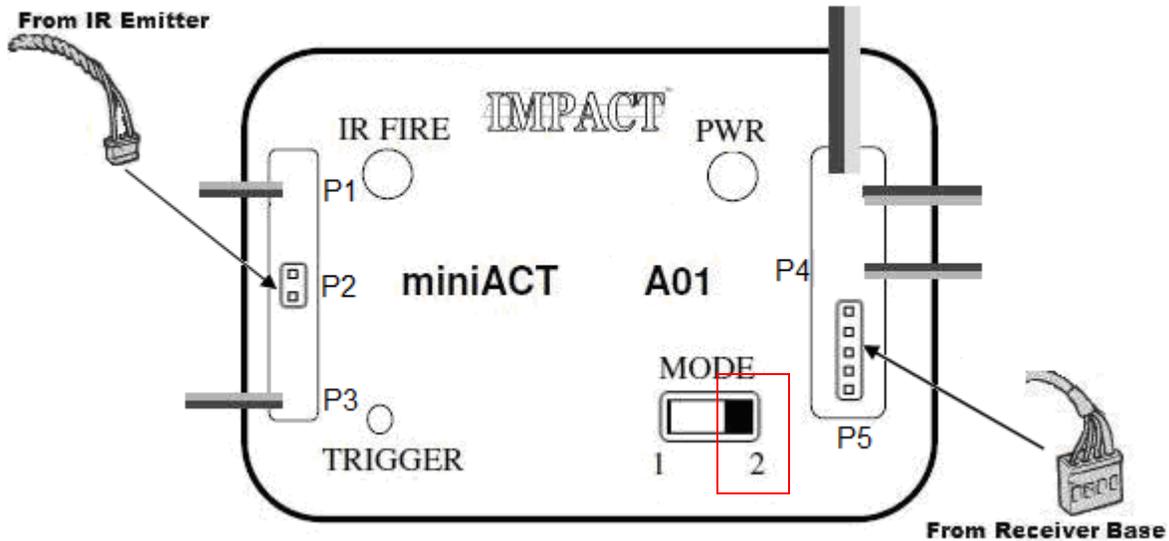
- Turn Power Switch to OFF.
- Plug in a 7.2V battery.
- Plug in the Battle Unit's Receiver 5pin connector into P5.
Plug in the Battle Unit's IR emitter LED 2pin connector into P2.
- Select MODE switch to 1.



- Turn the Power Switch ON. The PWR LED will light up.
- IR FIRE will flash 2 times, turns off for a while, flash 2 times, the cycle goes on.
- miniACT is now in BATTLE MODE at 2 Lives.
- The firing of IR emitter LED can be done by either pressing the external or internal push button switch.
- It needs 2 seconds to fire the next shot.
- When the infrared LED is fired, HI-LUX LED (P1) will flash, simulating a barrel fired. This LED can be installed in any of the model's weapon.
If you do not wish to use this function, the LED can be disconnected and the system will still work.
- The Battle Unit Receiver will not receive hit signal from its own infrared LED.
- miniACT will be destroyed when hit 1 time by Y888 IR Code.
- miniACT will be destroyed when hit 2 times by ALC679 IR Code.
- miniACT will be destroyed when hit 6 times by ASC579 IR Code.
- When miniACT is destroyed, IR FIRE will turn off and Receiver LEDs will flash continuous.
- To reset, turn OFF and program from start again.

● DESTRUCTION MODE

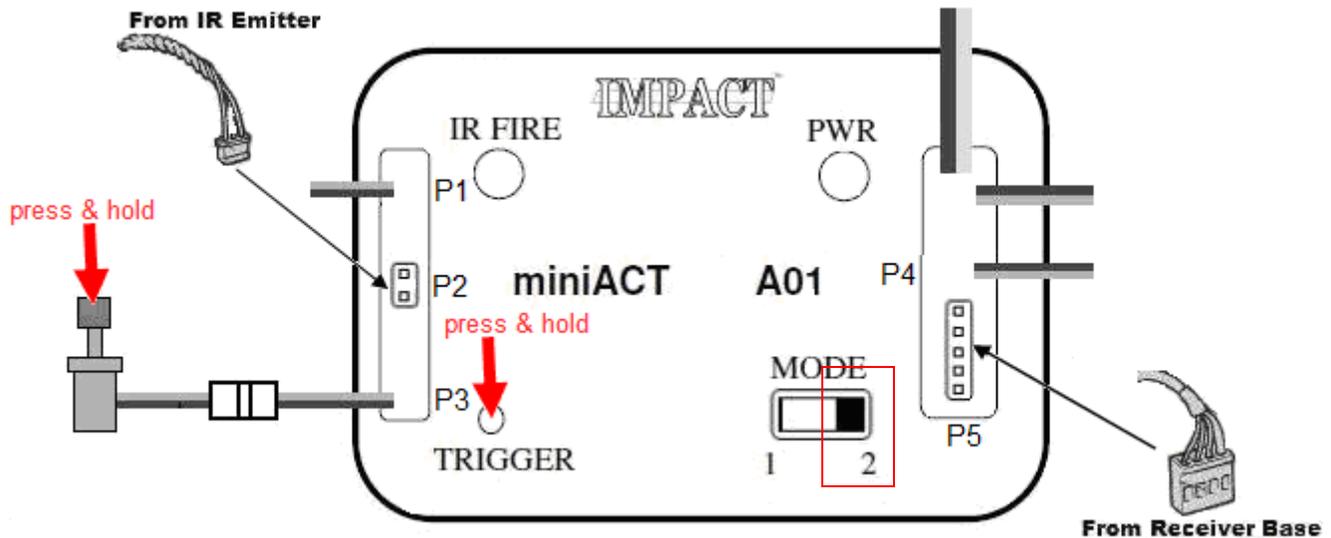
- Turn Power Switch to OFF.
- Plug in a 7.2V battery.
- Plug in the Battle Unit's Receiver 5pin connector into P5.
Plug in the Battle Unit's IR emitter LED 2pin connector into P2.
- Select MODE switch to 2.



- Turn the Power Switch ON. The PWR LED will light up.
- IR FIRE LED will light up continuously.
- miniACT is now in DESTRUCTION MODE.
- The firing of infrared LED can be done by either pressing the external or internal push button switch.
- In DESTRUCTION MODE, it can only fire **ONE** time. After firing ONE time, it will not be able to fire any shot again. The Receiver LEDs will not flash after firing ONE shot.
- When the infrared LED is fired, HI-LUX LED (P1) will flash, simulating a barrel fired. This LED can be installed in any of the model's weapon.
If you do not wish to use this function, the LED can be disconnected and the system will still work.
- The Battle Unit Receiver will not receive hit signal from its own infrared LED.
- miniACT will be destroyed when hit 1 time either from Y888 or ALC679 or ASC579 IR Code.
- When miniACT is destroyed, IR FIRE will turn off and Receiver LEDs will flash continuously.
- To reset, turn OFF and program from start again.

● TEST MODE

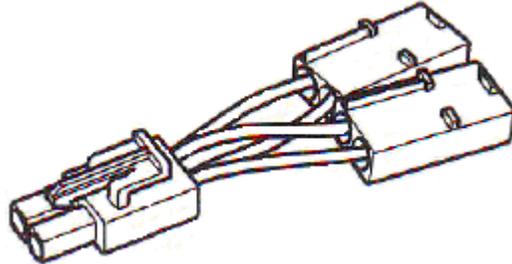
- Turn Power Switch to OFF.
- Plug in a 7.2V battery.
- Plug in the Battle Unit's Receiver 5pin connector into P5.
Plug in the Battle Unit's IR emitter LED 2pin connector into P2.
- Select MODE switch to 2.
- Press either the external **or** internal push button while turning ON the Power Switch.



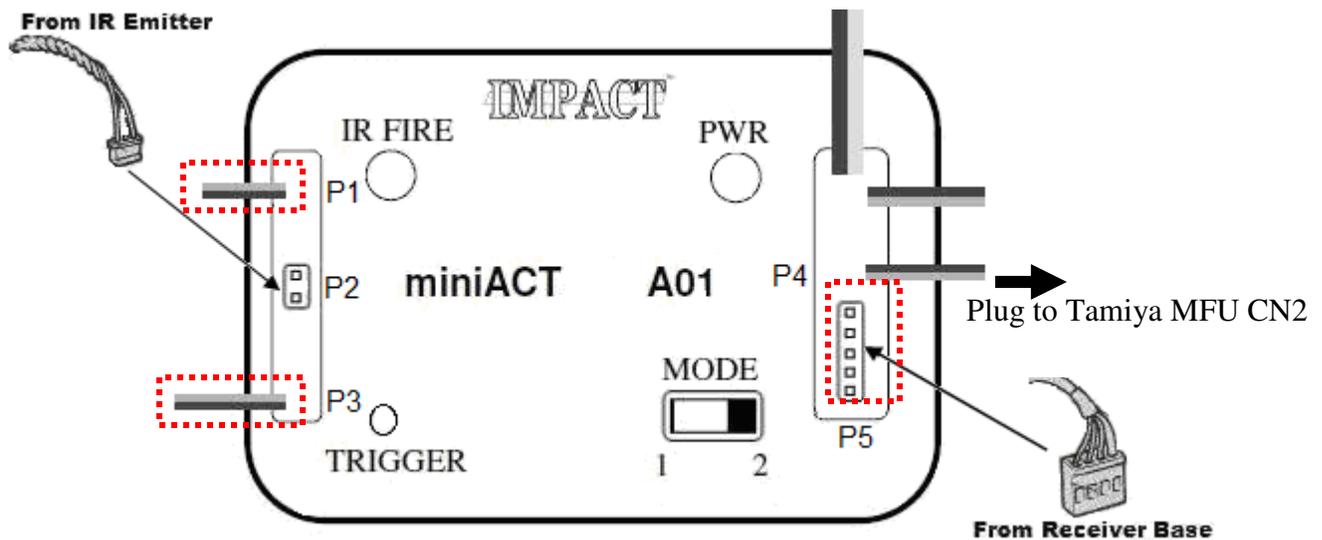
- PWR LED will light up.
- When LED at IR FIRE is flashing, push button can be released. IR FIRE is now flashing continuously.
- It is now in TEST MODE
- When the external or internal push button switch is pressed, its own Receiver LEDs will flash. This is a test that the infrared LED and the Battle Unit Receiver are both working.
- When the external or internal push button switch is pressed, if its own Battle Unit receiver LEDs do not flash, either the infrared LED or the Receiver is not working. Replace either the infrared LED or the Receiver and test again.
- When the external or internal push button switch is pressed, the IR emitter LED signal will have effective hit on others' working Battle Unit Receiver systems that are within range.
- When the Receiver receives infrared LED signal from other system, the Battle Unit Receiver LEDs will flash, showing that a signal is received.
- In TEST MODE, there is unlimited times that the infrared LED can fire and unlimited times the Battle Unit Receiver can receive signals.
- When the IR emitter LED is fired, HI-LUX LED (P1) will flash, simulating a barrel fired. This LED can be installed in any of the model's weapon.
HI-LUX LED (P1) can be disconnected and the system will still work.

● RANGE EXTENSION MODE

- In this mode, miniACT is an interface between Tamiya MFU and tank's infrared LED. Effectively it has about 10% more firing range.
- Turn Power Switch to OFF.
- ★ Use a 2way battery connector to power miniACT and DMD together. In order to work, miniACT and DMD must share the same GROUND.



- Plug in a 7.2V battery.
- Boxed in dashes are the 3 connections need not to be used: P1, P3, P5
- Plug in the Battle Unit's infrared LED 2pin connector (from the tank) into P2. Plug in P4 2pin connector to Tamiya MFU CN2 socket.



- Select MODE switch can be at 1 or 2, it has no effect in this mode.
- Place miniACT in a suitable location inside the tank.
- When DMD and miniACT are power ON, IR emitter range will have extra range when tank is fired in normal operation.
- When the tank is destroyed, miniACT does not need to be reset.

SPECIFICATIONS

Operational Voltage: 7.2V ~ 8.0V

Current rating: 180mA (using 7.2V battery @ no load)

Flash Unit: Hi-LUX LED, Life Hr >40,000 hours

Infrared Emitter LED code

Receiving: ALC679, ASC579, Y888

- When hit by ALC679 IR Code, Receiver LEDs will flash 6 times, 1 life will be deducted
- When hit by ASC579 IR Code, Receiver LEDs will flash 3 times, 1/3 life will be deducted
- When hit by Y888 IR Code, Receiver LEDs will flash 8 times, immediate 0 life, regardless

Emitting:

Operational temperature range: -20°C ~ 45°C

Storage temperature range: -35°C ~ 40°C

Weight: 52g

Functions & Settings at one glance

MODE	RELOADING TIME (sec)	LIFE	SETTING			AMMO QTY	MODE SW SELECT
			POWER	TRIGGER	IR FIRE		
BATTLE	2 seconds	1	ON	PRESS		unlimited	1
		2	ON	X			1
DESTRUCTION	----	1	ON	X		1	2
TEST	3 seconds	unlimited	ON	PRESS		unlimited	2
RANGE EXTENSION	Depends on MFU setting						

→ -- OFF --- -- OFF --- , flash once, turn off, flash once, cycle goes on

→ -- OFF --- , flash 2 times, turn off, flash 2 times, cycle goes on

● → Lights up continuous

→ Flash continuous

LIFE COUNT → counting confirmed hits from ALC679 IR Code