INSTABOOM GO
Hybrid Stop Go Units

ET MBISGO – V1 **ET MBIS2GO - V2**

PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE PROCEEDING WITH OPERATION

Version 3.2

16 April 2025

Contents

Technical Introduction:

A fully portable, solar hybrid automated traffic control unit for the purpose of directing traffic with traditional STOP/GO signs, within a temporary works area. A mobile, 'flight case' format under 25kg and therefore suitable for one person to carry and deploy. A detachable pole with reversible STOP and GO traffic sign of 600mm diameter to meet Traffic Control Devices requirements for temporary control of traffic up to 30km per hour.

The pole connected to rotary actuator allowing 180-degree rotation and either the STOP or the GO to face the line of traffic at any one time. The unit would be deployed in pairs such that one unit is positioned at each end of a temporary lane closure and effectively managing waiting traffic in both directions.

The low voltage device is battery powered with hybrid power top up from the surface mounted solar pv panel with additional top up charge supplied by a side mounted 'Anderson' style connector (V1) or internal charger connector (V2) for charge top-up.

Charging:

It's recommended to regularly charge the units to keep the batteries in good health and avoid downtime on site due to low voltage.
When charging the batteries, always have the case lid open and foam layer removed, (so the heat from the battery can safely dissipate). Charge no longer than 12 hours. Charge Indoors only. See Charging Section for more details.

Component List:

This component list is one for one Instaboom Barrier - one side of the road.

- 1x Instaboom GO Flight Case
- 1x Quick Release Stop Go with NZ RP41 GO and RP4 STOP
- 1x 4 button remote fob with AAA batteries
- 1x mains charger

Operating Manual:

Please note, printed copies of this manual are not version controlled.

Visit www.rtl.co.nz website for the latest version of this installation manual.

Search Instaboom GO or scan the QR Code.

Managing Risk

The device must be operated by a trained traffic worker. The worker must be signed off by competent operator as per end user company policy.

The device location must be shown in the TMP document and all other site TTM requirements.
If you are controlling more than 2 devices using one fob – additional training must be carried out by the competent operator as per end user company policy.

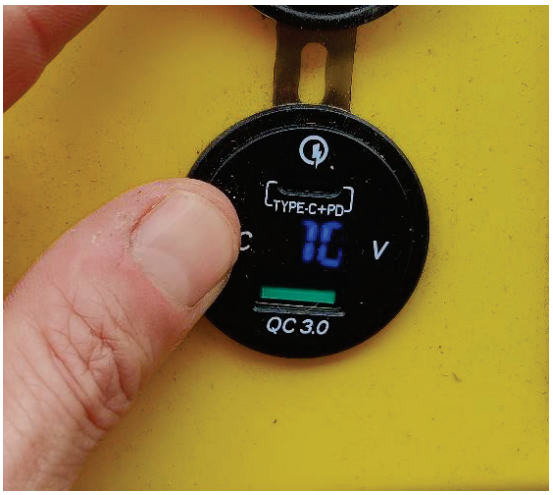
These units are IP rated and designed to be used outdoors, however with excessive rain or if you place the unit on the ground in standing water - water will make its way into the case over a period of time. Also, proactively carry out periodic checks to ensure rainwater is not getting into the flight case and damaging the electrical components. Drain if necessary.

For additional stability, Sandbags can be put on and around the base unit (including on-top of the extended handle). Important: Do not operate in extreme wind conditions.

Operation: Pre and Post Shift Checks

- **Erase/Unpair Remotes:**

  It is good practice to erase <u>all pairings</u> from the fob, to prevent unwanted operation. This needs to be done at each unit, one at a time. Re-pair before going onsite. See Appendix 1 for more details.
- Always check the unit is sufficiently charged before leaving for site.
- Post Shift: it is recommended putting the unit on charger to avoid any issues for the next shift.
- On days with bright sunlight, the solar panel will trickle charge the batteries while onsite.
- **Charging must be carried out indoors with the case left open and foam insert removed.**
- Check operation turn on and ensure sign rotates as expected.
- Check remote batteries (have you got spare 3x AAA remote batteries in the vehicle)
- Water integrity: Whilst the unit is IP67 rated, water may enter via the shaft during heavy rain conditions. As with all electronics products exposed to the elements, you must wipe this down to prevent corrosion and or damage due to the water.
    - If water enters the case tip out the water and wipe down the unit
    - Please leave case open indoors to air dry



Check the charge level

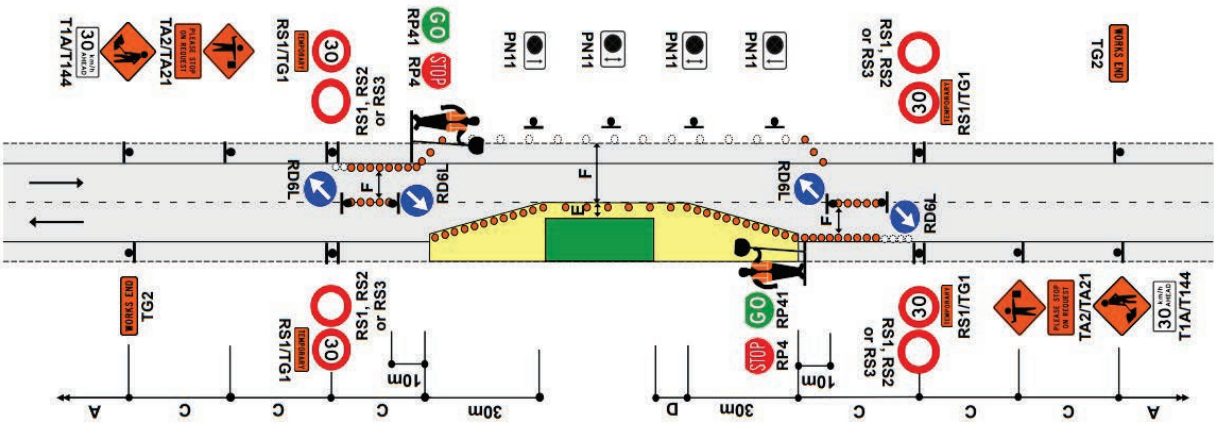
The USB charge port can be used to charge USB devices such as your mobile phone. You can press the button to view the current charge state of the INSTABOOM.

PRIOR TO USING THE CHARGER, USERS MUST READ CHAPTER ON CHARGING

You should regularly charge the units to keep the batteries in good health and avoid downtime on site due to low voltage.

Open Circuit Voltage vs State Of Charge Using a Digital Voltmeter	
Charge %	Sealed Lead Acid Battery
100	12.80-12.90V
75	12.60V
50	12.30V
25	12-00V
0	11.80V

Operation



The devices should be operated within a clear line of sight by the operator to verify the state of both devices.

This is a manually controlled, remote operated rotating sign; responsibility for safe operation lies entirely with the operator of the plant.

Setup Instructions:

Position

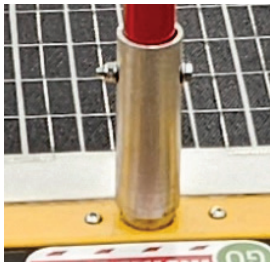
Position the INSTABOOM Go into the desired location using the integrated handle. Lay the case down in line with the direction of traffic flow, (red arrows pointing toward the oncoming traffic, this means STOP will face the Traffic at the start of the operation).

Use of Sandbags:
For additional stability, sandbags can be put on and around the base unit (including on-top of the extended handle).
Important: Do not operate GO unit in extreme windy conditions.

Remote fob

Open the case and take out the remote fob from inside. Close the case securely using the clips on the case.

INSTABOOM GO V1



INSTABOOM GO V2

Fit Sign to the Device

Locate the pole over the shaft as shown. It will only fit one way around.

Switch the INSTABOOM Go ON

Switch the INSTABOOM Go on using the two position switch

Operate the sign

Test the operation of the device by pressing the corresponding button on the remote fob a few times to verify the operation. Each press will result in a 180 degree rotation of the sign. When using a pair of INSTABOOM Go devices, they will be clearly labelled either 1 or 2. This will correspond to the required button to operate them on the fob. *For instructions on pairing the fob with the device, please see guide below.*

Set up the second device

Repeat the setup process with the second device.

Charging

It's recommended to regularly charge the units to keep the batteries in good health and avoid downtime on site due to low voltage. When charging – always the lid open, and take out the middle foam layer (so the heat from the battery can safely dissipate)

Important Notes:

- **Chargers are not waterproof – only charge indoors**
- **When charging – always the lid open, with the middle foam layer set aside (so the heat from the battery can safely dissipate)**
- **Limit charge to 12 hours.**

Instructions

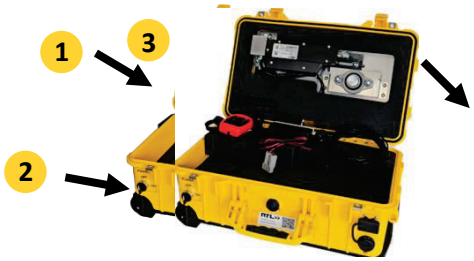
Operational voltage

Your INSTABOOM Go is a 12v system designed to be solar/hybrid. This means that, while it is equipped with 10w of solar, it will require periodic charging dependent on use.

Open Circuit Voltage vs State Of Charge Using a Digital Voltmeter	
Charge %	Sealed Lead Acid Battery
100	12.80-12.90V
75	12.60V
50	12.30V
25	12-00V
0	11.80V

The unit must be left open when charging.

1. Open lid and leave open to charge
2. Turn Power Switch to OFF
3. Remove any remote & foam inserts



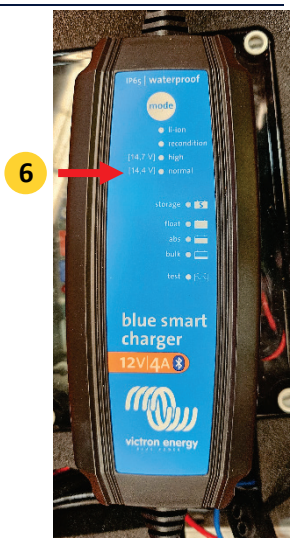
Your INSTABOOM Go is supplied with a mains charger.

Anderson Plug (Grey)

4. Connect the charger output cable to the Anderson socket on the side of the unit. Then connect the mains cable to your local mains outlet (110-240v AC).

Other Chargers

5. Connect the charger output cable to the Charger Port. Then connect the charger to your local mains outlet (110-240v AC).
6. **Blue Smart Chargers:** Must be set to NORMAL MODE. Do not use any other mode.



NOTE: **Chargers are not weatherproof, and this device must be charged indoors. Limit charge to 12 hours.**

Appendix 1 – Pairing remote fobs

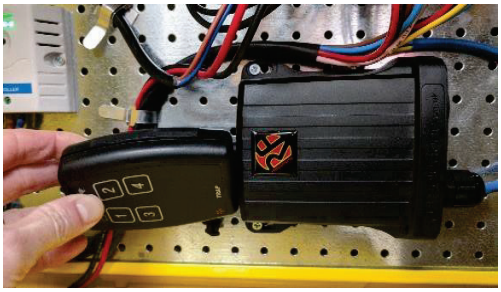
Erase/Unpair:

It is good practice to erase <u>all pairings</u> from the fob, to prevent unwanted operation.

This needs to be done at each unit, one at a time.

Unscrew the whip antenna and remove the device from the green boot

The arrows show the activation point of each device. This is required for the next step.



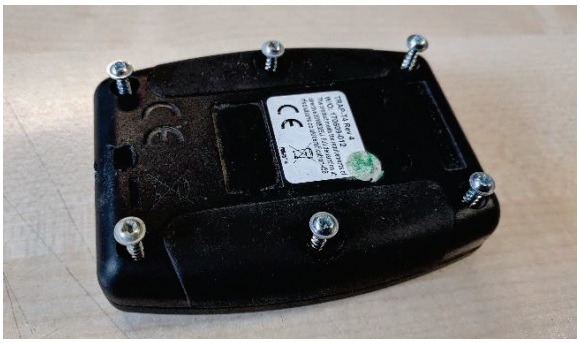
Touch the bottom left of the transmitter against the top left of the receiver for 1 second, as shown. The receiver will beep once. Press the chosen number switch on the transmitter you wish to pair. The receiver will beep twice to confirm pairing.

Additional:

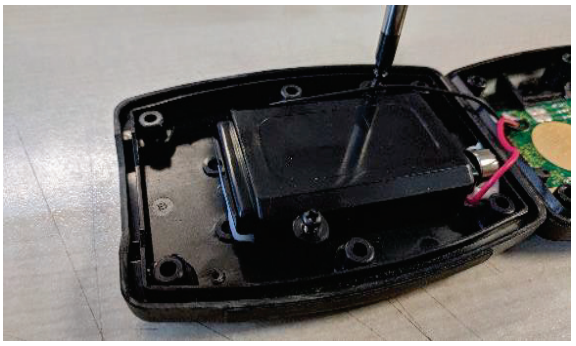
The receiver can store up to 30 transmitter pairings so when a barrier returns to base it is good practice to erase all fob pairings from its memory to prevent unwanted operation. To achieve this, touch the bottom left of the transmitter against the top left of the receiver, as described above, but **hold it in position for over 5 seconds**. The receiver will emit a long beep to confirm all pairings have been erased. You will then need to follow the steps above to pair a new remote fob.

Appendix 2 – Replacing remote fob batteries

Unscrew the whip antenna and remove the device from the green boot



Remove the six case screws with a small Philips screwdriver



Open the case and remove the two black Philips screws from the battery case

Exchange the three AAA batteries and reassemble the handset by reversing this process