XGlow Pro

Users Guide

XGlow Pro

LIABILITY DISCLAIMER

This device is for use exclusively on a radio controlled (RC) model. RC models are not toys. Moving parts can present a hazard to operators, bystanders and anyone or anything that could be reached by the RC model. Improper operation, maintenance or assembly can potentially cause an RC Model to pose a danger to persons or objects including but not limited to the possibility of causing serious physical injury and even death. After leaving its facilities the manufacturer has no way of maintaining control or supervision over the assembly and/or operation of the RC model or the addition of this device to the RC Model therefore the manufacturer and/or its agents assume no responsibility or liability whatsoever for any damages including but not limited to ones generated by incidental or consequential damages. The operator of the RC Model assumes all responsibility and liability that could result from the correct or incorrect operation of the RC Model.

This product is intended to be used by experienced adult radio control model operators under controlled safety conditions and on locations properly authorized and setup for safe flying and away from other people. This product must not be operated without reasonable personal or commercial Liability Insurance.

Under no circumstance should a minor be allowed to operate any radio controlled model without the approval, supervision and direction of his parent or legal guardian who takes full responsibility and assumes full liability of every kind for the minor's actions.
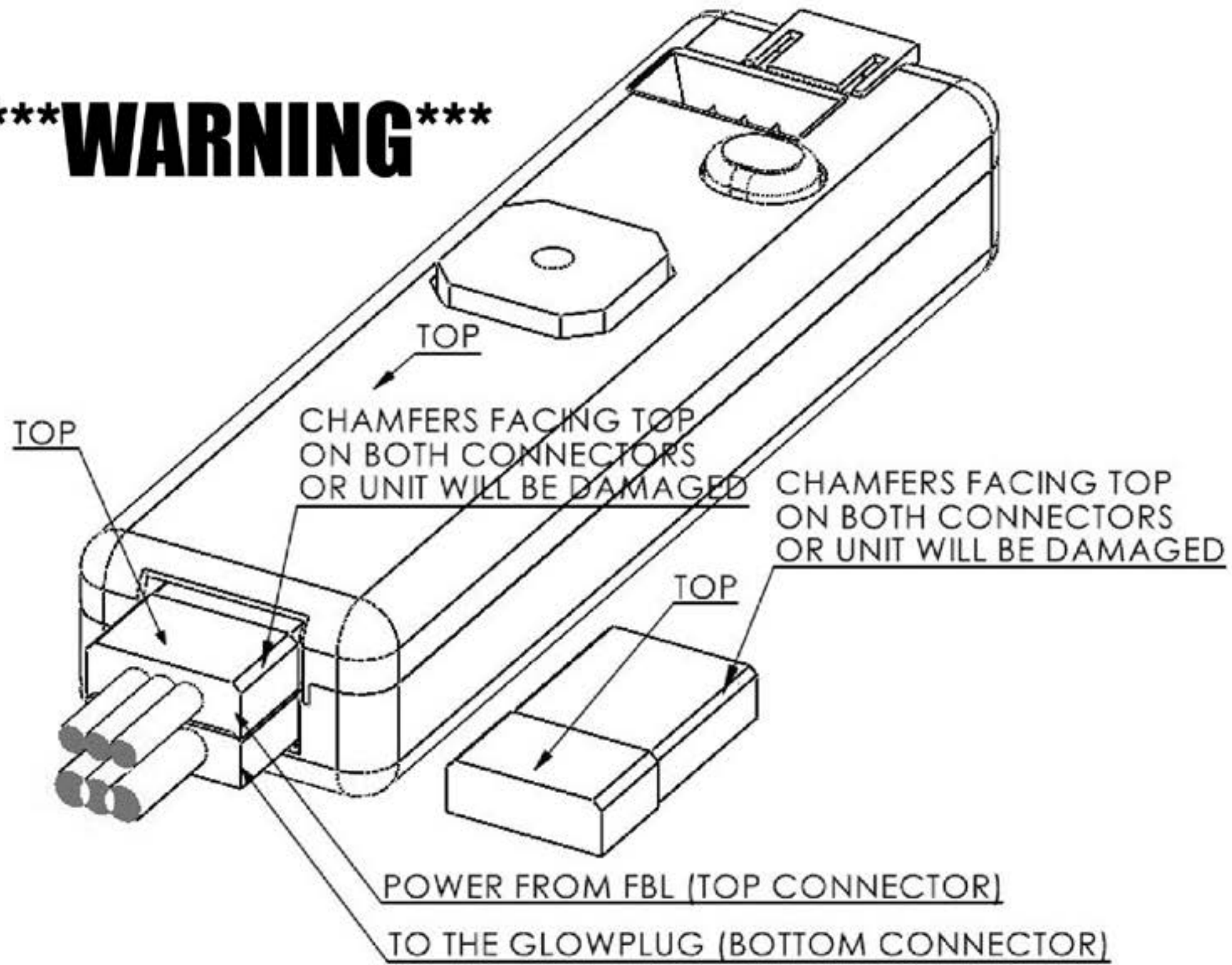
Do not operate an RC models within the vicinity of homes, trees, electrical lines during inclement weather or rain or near crowds of people.

www.XGuardRC.com

Contents

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WARNING

TOP

CHAMFERS FACING TOP
ON BOTH CONNECTORS
OR UNIT WILL BE DAMAGED

CHAMFERS FACING TOP
ON BOTH CONNECTORS
OR UNIT WILL BE DAMAGED

TOP

TOP

POWER FROM FBL (TOP CONNECTOR)

TO THE GLOWPLUG (BOTTOM CONNECTOR)

FAILURE TO CONNECT THEM CORRECTLY WILL DAMAGE THE UNIT IN A WAY THAT WON'T BE COVERED BY THE WARRANTY

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←RPM Sensor and Remote
Pushbutton cable connector
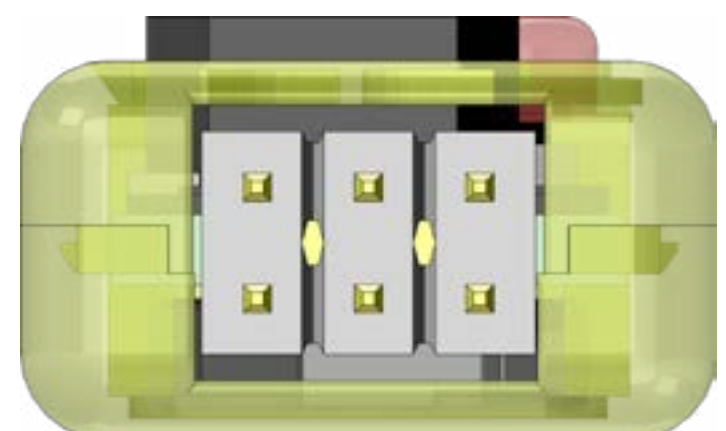
Remote
Pushbutton

RPM
-

Indicator lights →
(Blue always blinks)

←ON Pushbutton
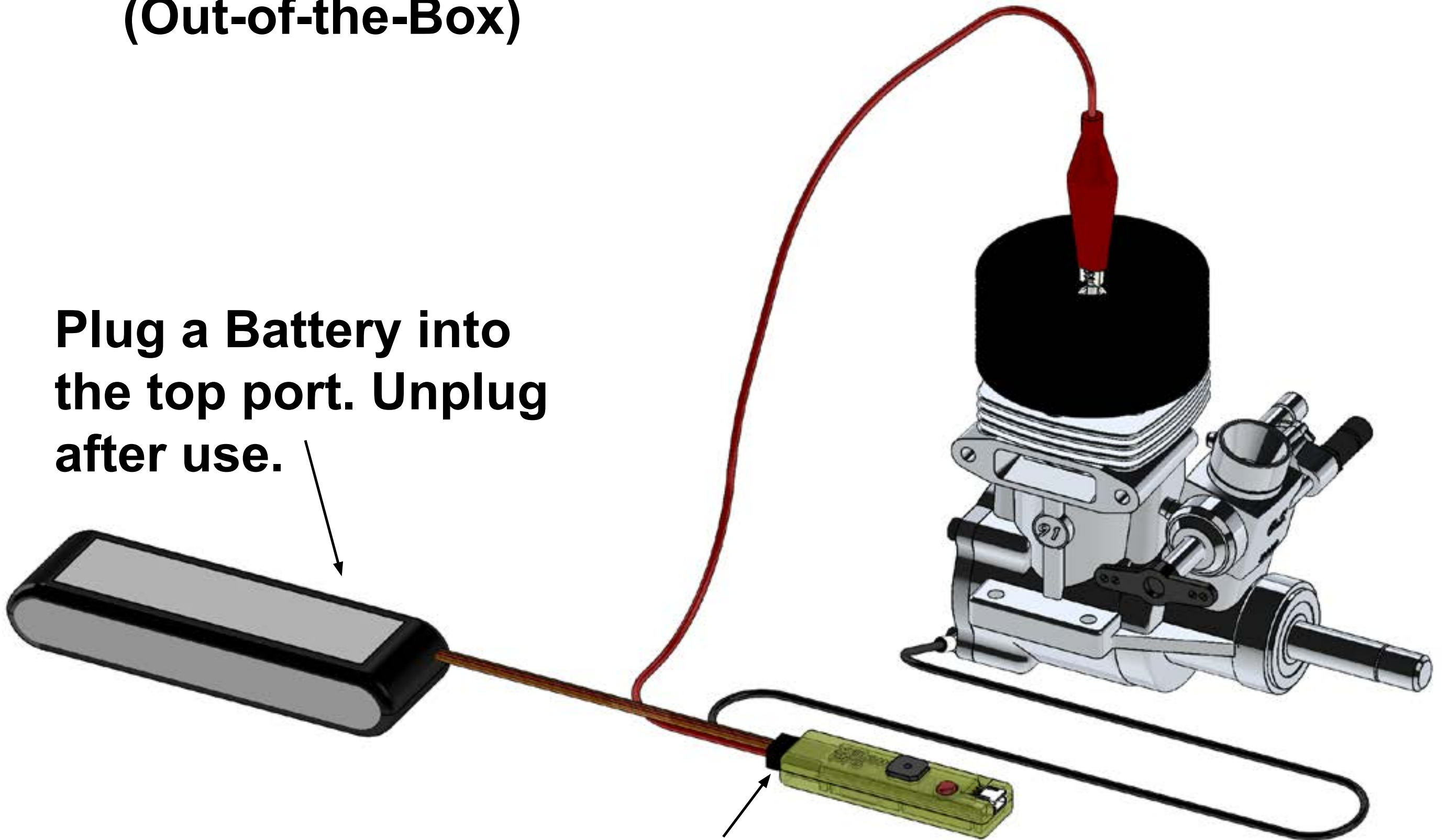
Multi-Tone Buzzer →

Signal
- +

Switch Channel (TOP) →
Glow Plug (BOTTOM) →
& Optional Throttle Channel

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INSTALLATION MODES

A) SIMPLEST INSTALLATION
   (Out-of-the-Box)

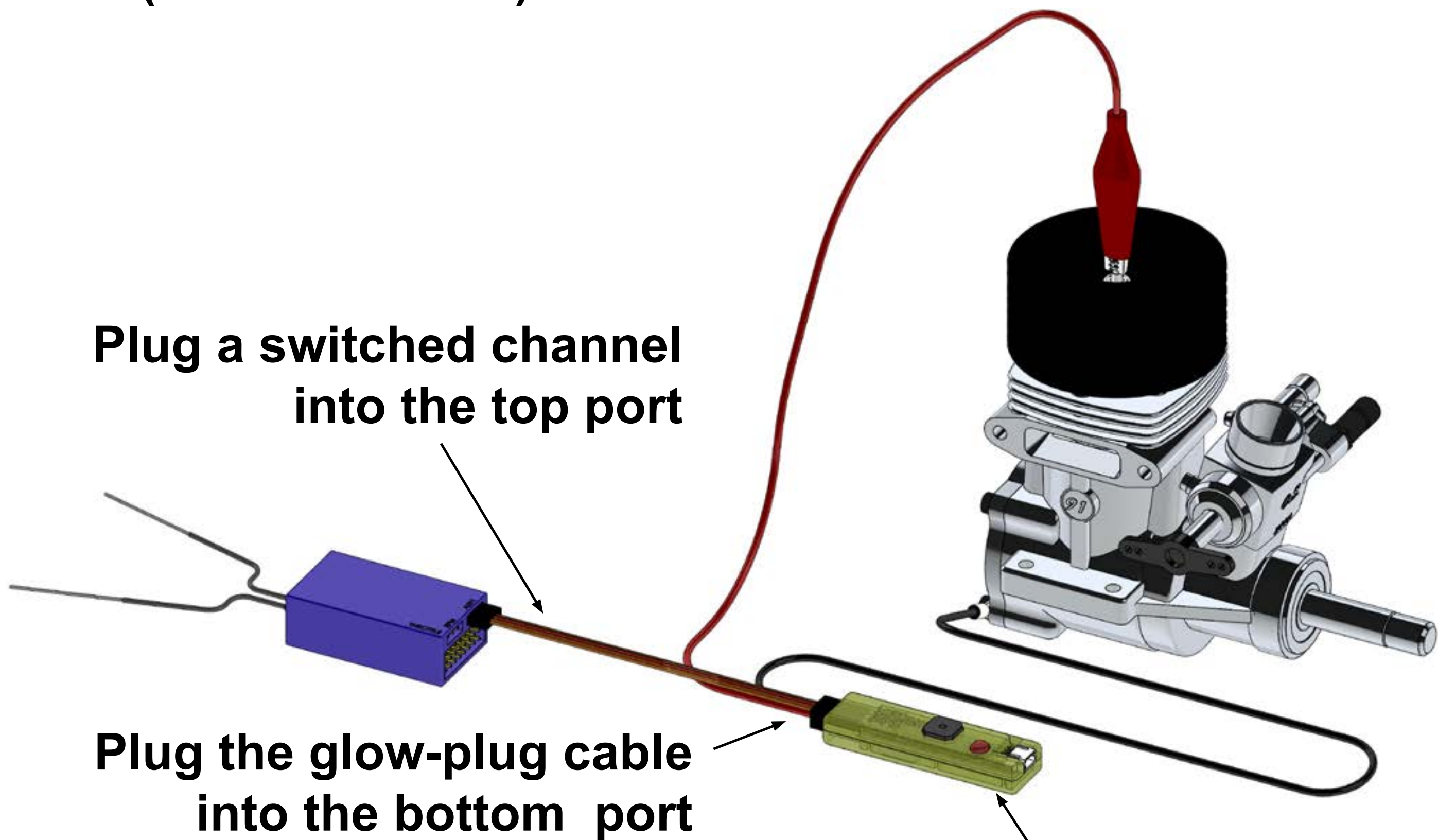**Plug a Battery into the top port. Unplug after use.**

Plug the glow-plug cable into the bottom port

Turn on by pushing the red button

Using this configuration out-of-the-box the unit will use the default Factory settings.

If interested, see programming section for an explanation of the available settings.

B) SWITCHED ON BY RADIO SWITCH (as above+Switch)
(Out-of-the-Box)

Plug a switched channel into the top port

Plug the glow-plug cable into the bottom port

Turn on by either using the radio switch or by pushing the red button

ON		ON	
LOCATOR BUZZER	Three Position Switch		Two Position Switch
OFF		OFF	

Using this configuration out-of-the-box the unit will use the default Factory settings.

If interested, see programming section for an explanation of the available settings.
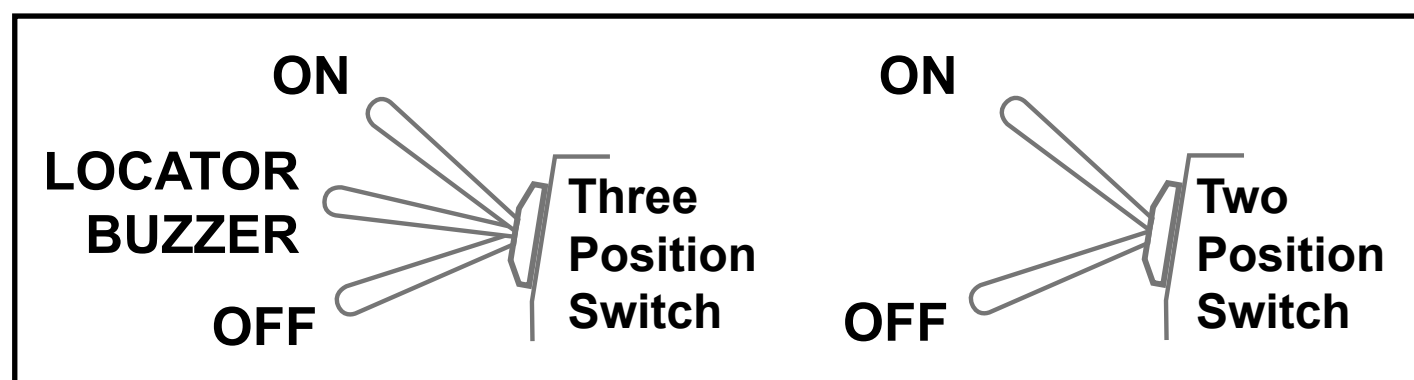
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C) WITH ANTI-HOT-START (as above +Throttle Stick supervised) (Out-of-the-Box)

Plug a switched channel into the top port

THROTTLE SERVO

Y-Cable

Plug the glow-plug cable into the bottom port and add the throttle pickup wire (SKU: AAVXG0204)
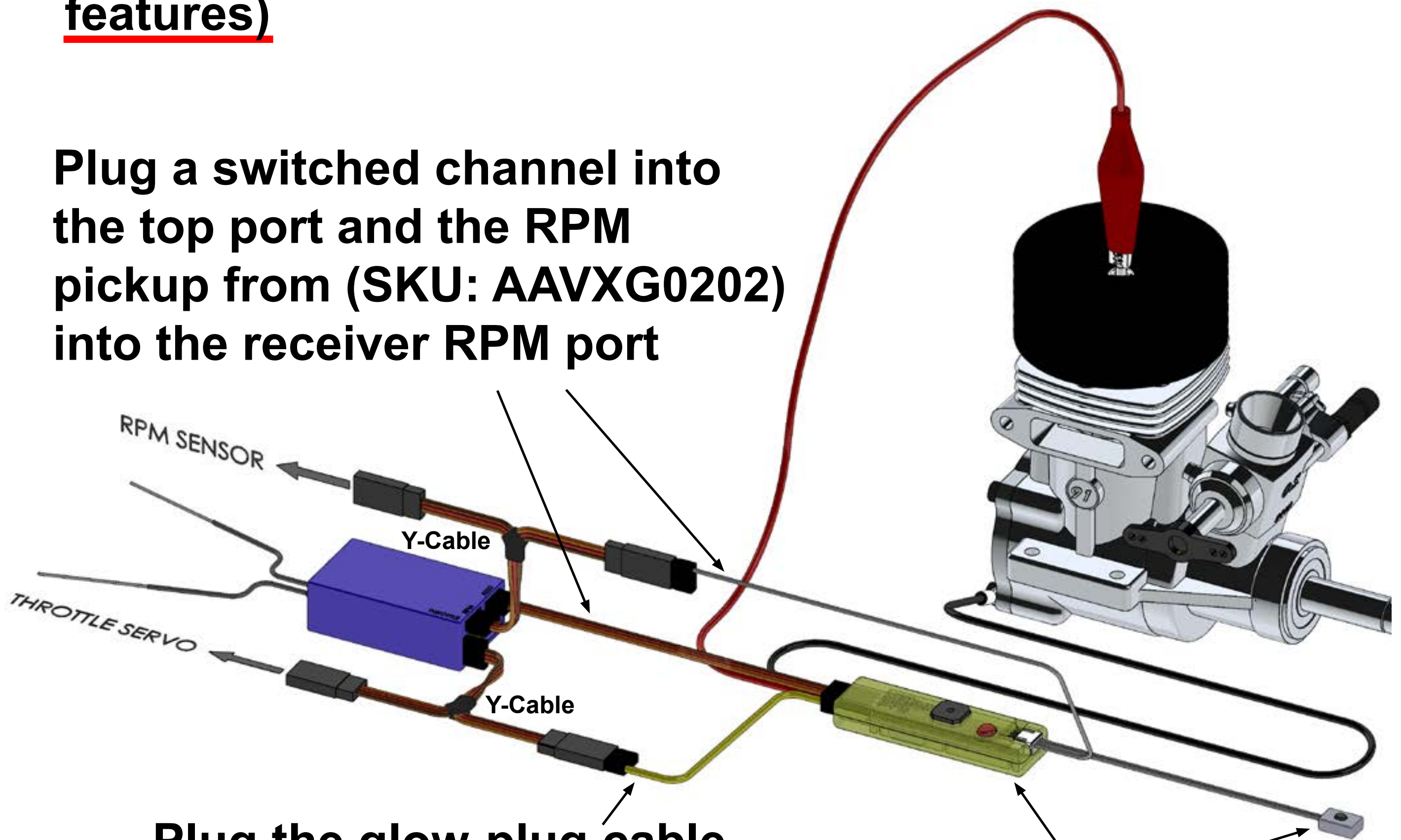
Turn on by either using the radio switch or by pushing the red button

Using this configuration out-of-the-box the unit will use the default Factory settings. It won't turn on unless the throttle is above standard (not reversed) throttle idle. For reversed throttle idle, see programming section for an explanation on how to change it.

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D) WITH ANTI-CHICKEN-DANCE (as above+RPM supervised) (Out-of-the-Box + Additional programmable features)

Plug a switched channel into the top port and the RPM pickup from (SKU: AAVXG0202) into the receiver RPM port

RPM SENSOR

Y-Cable

THROTTLE SERVO

Y-Cable

Plug the glow-plug cable into the bottom port and add the throttle pickup wire (SKU: AAVXG0204)

Turn on by either using the radio switch, pushing the red button or the remote button

Using this configuration out-of-the-box the unit will use the default Factory settings and won't activate the anti-chicken dance unless programmed to do so. Please check the programming section to learn how to do it
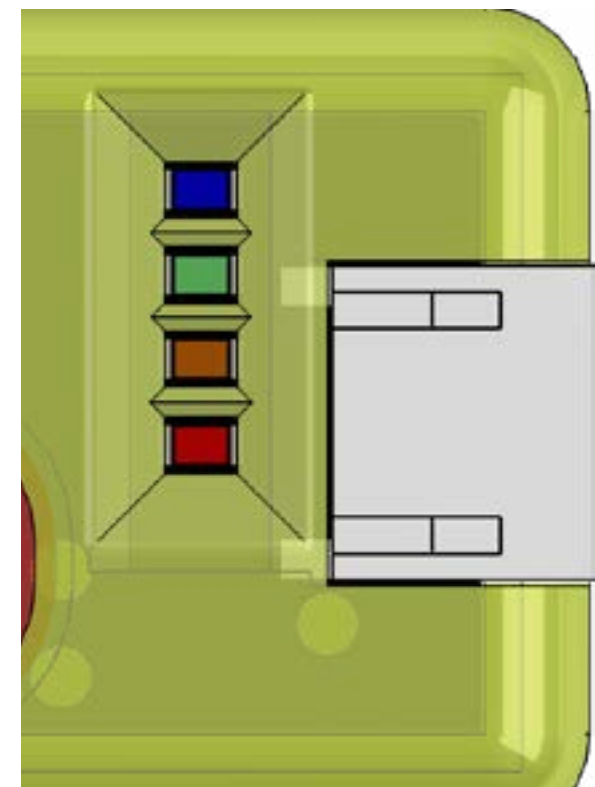
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MEANING OF THE LIGHTS

Meaning of lights **when driving the plug**

BLUE: Blinks indicating it's powered ON

GREEN: No meaning in this mode

YELLOW: Glow plug is pulling too much current. Element is bent and touching the plug's body. Replace the plug.

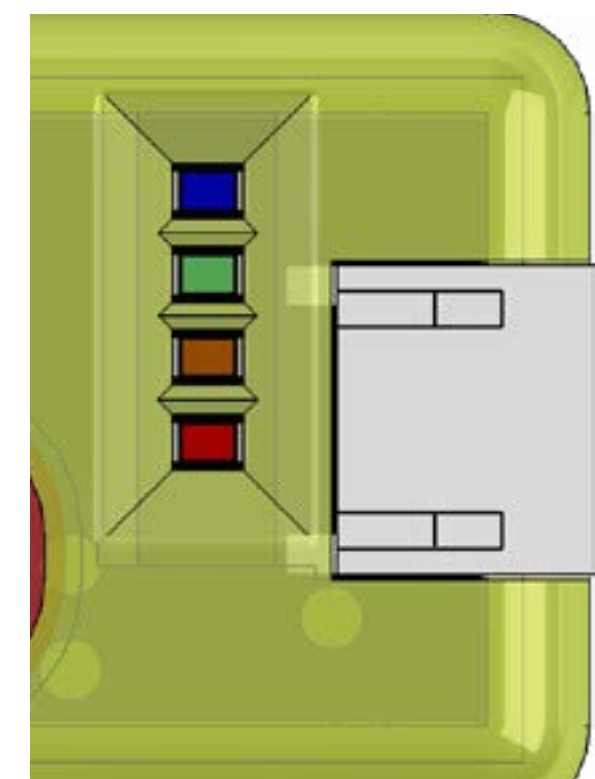**RED**: Glow plug is bad or alligator clip is disconnected.

Meaning of lights **when NOT driving the plug**

BLUE: Blinks indicating it's powered ON

GREEN: RPM sensor signal is present. (only when engine is running)

YELLOW: MODE Switch signal from the receiver is present (OFF/LOCATOR/ON)

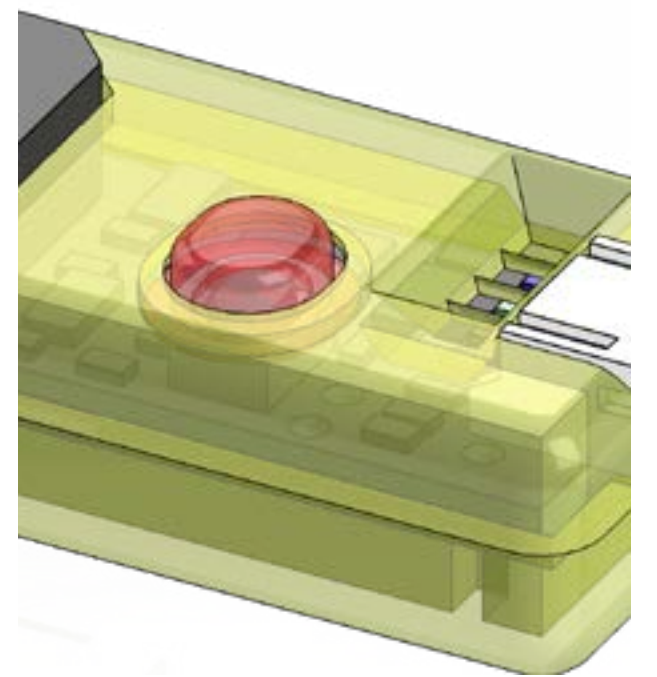**RED**: THROTTLE signal from the receiver is present.

PROGRAMMING THE UNIT
(Engine needs to be off do not attempt when engine running)

The unit has the following programmable settings:

• 1) THROTTLE IDLE POSITION (MOVE STICK TO BOTTOM)
• 2) GLOWING TIME (10, 20 secs or until switched OFF)
• 3) GLOW DRIVING POWER LEVEL (LOW,MID,HIGH)
• 4) ANTI CHICKEN DANCE LEVEL (1, 2 or 3)
• 5) NUMBER OF ACTIVE MAGNETS (1 or 2)
• 6) CURRENT FOR BAD PLUG DETECTTION (LOW,MID,HIGH)

Entering Programming mode

*** IMPORTANT *** Before you enter programming mode make sure your throttle is in normal mode **so that the throttle servo moves from idle to full as you move the throttle stick**. To enter programming mode PUSH AND HOLD the red button WHILE POWERING UP. As soon as you hear the first beep release the red button.
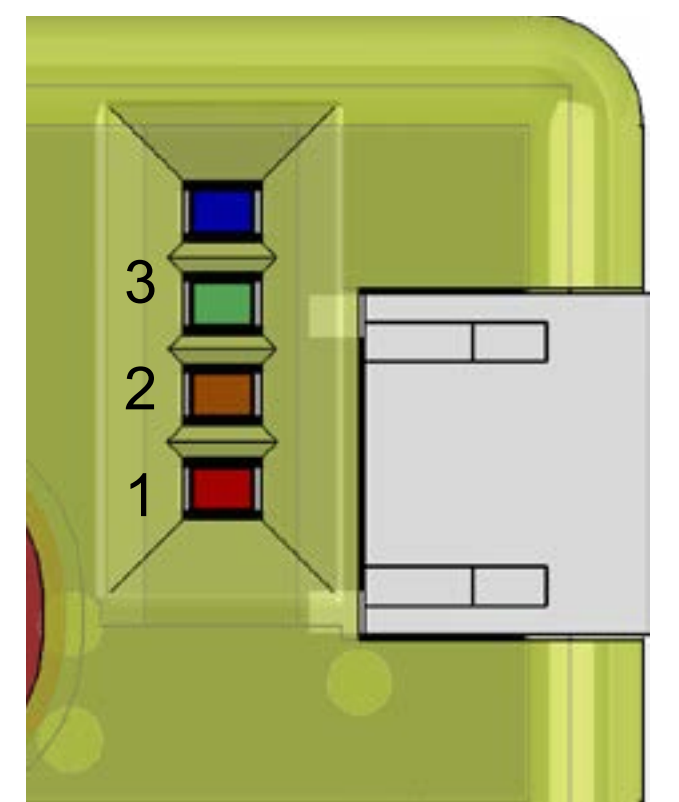

PROGRAMMING

Once in programming mode you can use the throttle or if no throttle connected the three-way channel switch for selecting the red, yellow or green light to select the option's value and then followed by one short push to the red button to memorize that setting value.

BLUE: Blinks to indicate program step #
GREEN: Top setting selection
YELLOW: Middle setting selection
RED: Bottom setting selection

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1 **THROTTLE IDLE POSITION**
If you're not using a throttle channel skip this step, if you are then after the unit enters programming mode it will beep once indicating step 1. The blue light will also blink once continuously to indicate you're programming the throttle idle stick position. Note: If your throttle stick is at the idle position and you srtill no get a cear RED or GREEN LED light on it means you need adjust you throttle linkages so that the the throttle pulse width gets into the red LED or GREEN LED are so it can be stored, otherwise the ORANGE LED will be ignored and not programmed. Set the throttle stick to idle and press the red button ●. The unit will memorize where your throttle minimum is. Push the red button ● to memorize and go to next step

2 **GLOWING TIME**
Set the throttle or three-position switch to:

GREEN   for unlimited until switched back OFF.
YELLOW   for 20 seconds glowing time.
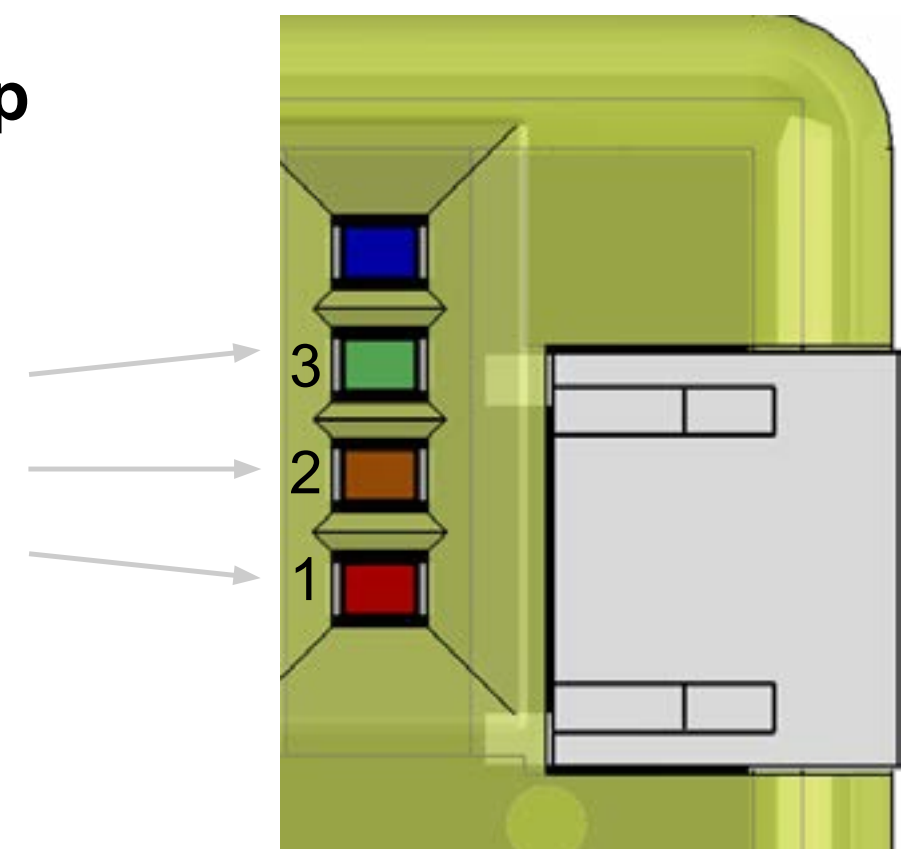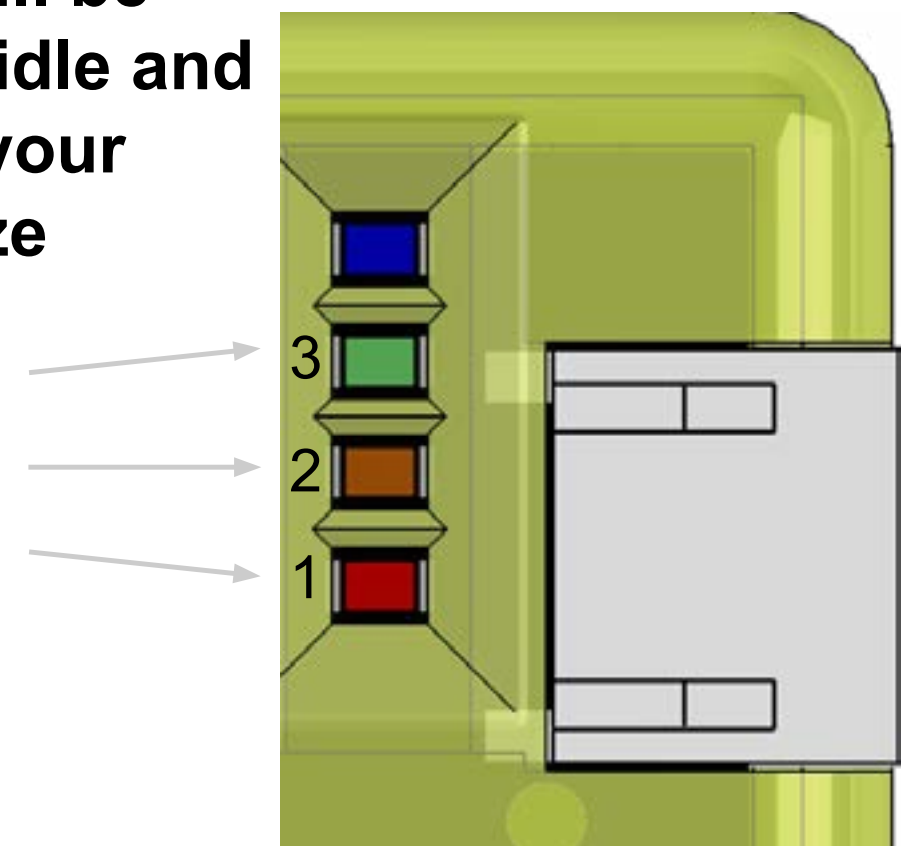RED   for 10 seconds glowing time (DEFAULT)

Push the red button ● to memorize and go to next step

3 **GLOW DRIVING POWER LEVEL**
Set the throttle or three-position switch to:

GREEN   for HIGH driving power level (ENYA 3)
YELLOW   for MID driving power level (DEFAULT)
RED   for LOW driving power level

Push the red button ● to memorize and go to next step

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4 ANTI CHICKEN DANCE MODE

If installed with RPM sensor cable (SKU: AAVXG0202). The

XGlow has the exclusive ability to attempt to stop a runaway engine when one of two engine runaway conditions are detected as follows:

The first set of conditions is:

1) The throttle signal disappears such as a disconnected throttle cable from the receiver while at the same time the RPM sensor indicates the engine is in high RPM with no throttle control.

In this case the XGlow Pro if programmed to attempt throttle control will first attempt to control the engine by generating the missing throttle stop signal to make the engine stop. It waits about a second and if there is no change in the RPM then, if programmed to do glow plug burn, will resort to burning the plug to force the engine to stop.

The second set of conditions is:

2) The throttle signal goes to idle such as when the pilot tries to stop or idle the engine while at the same time the RPM sensor indicates that the engine is still under high RPM indicating the servo might be disconnected.

In this case the XGlow Pro, if programmed to do glow plug burn, will resort to burning the plug to force the engine to stop.
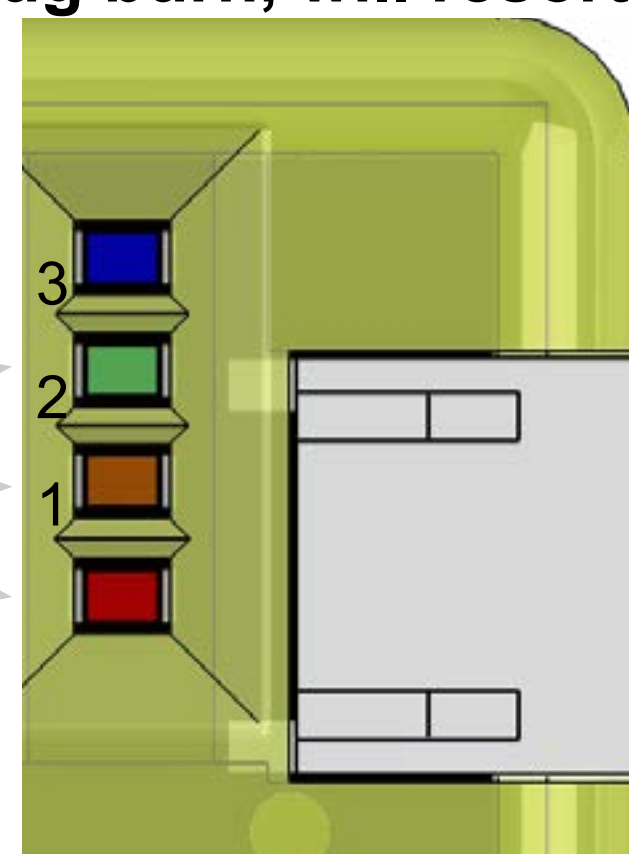
Set the throttle or three-position switch to:

GREEN for THROTTLE SERVO + BURN THE PLUG
YELLOW for THROTTLE SERVO ONLY (DEFAULT)
RED   for NO ANTI-CHICKEN-DANCE ATTEMPT

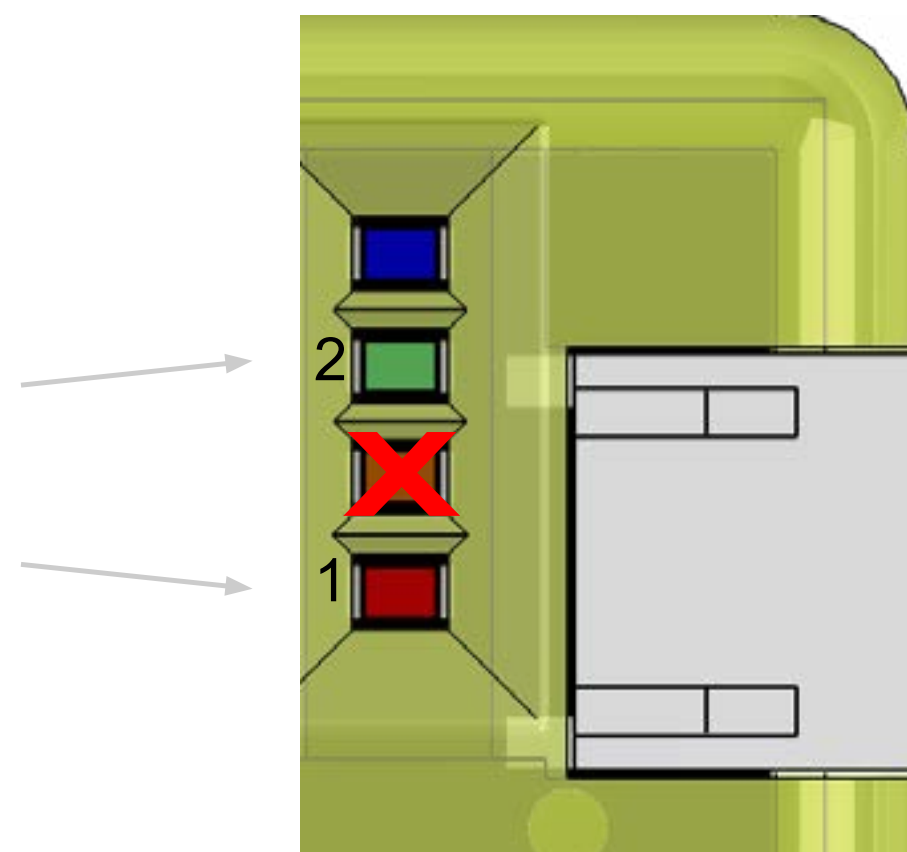**Push the red button 🔴 to memorize and go to next step**

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5 NUMBER OF ACTIVE RPM SENSOR MAGNETS

Set the throttle or three-position switch to:

GREEN for 2 active magnets

RED for 1 active magnets (DEFAULT)

Push the red button ● to memorize and finish.
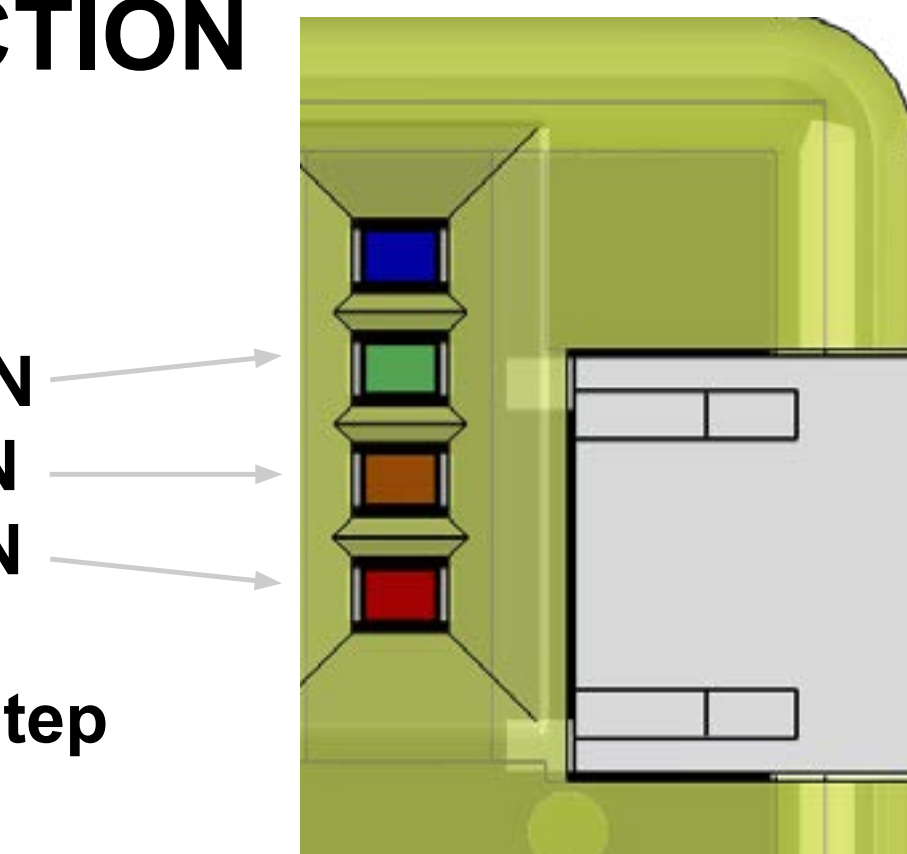
6 CURRENT FOR BAD PLUG DETECTION

Set the throttle or three-position switch to:

GREEN CURRENT MUST BE HIGH FOR DETECTION
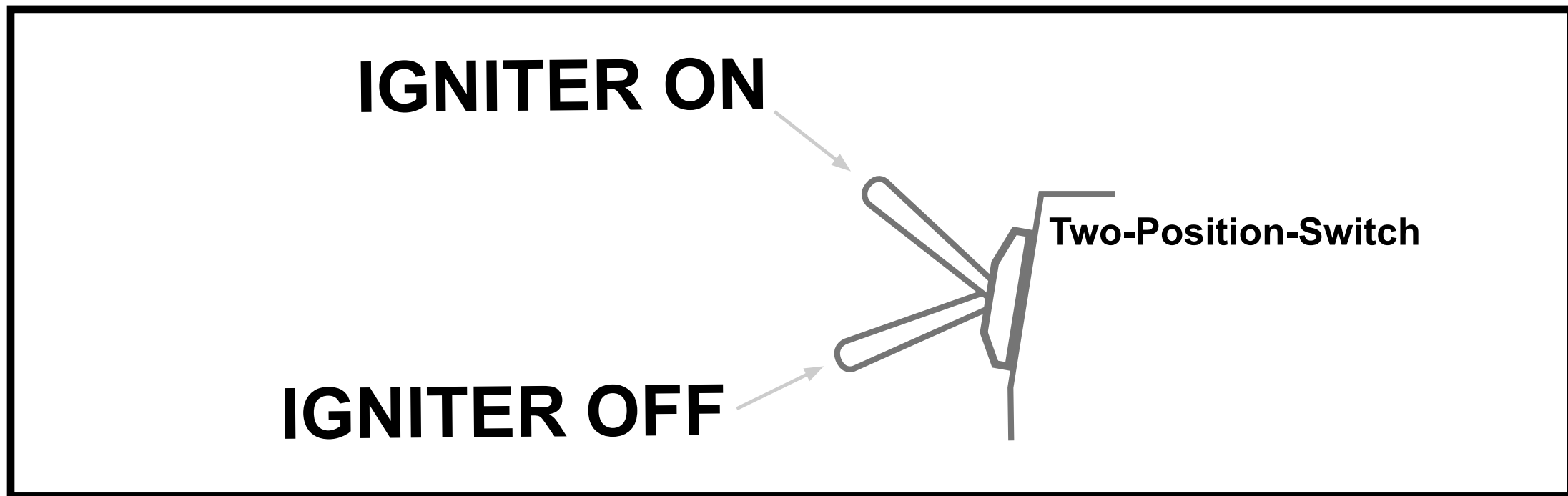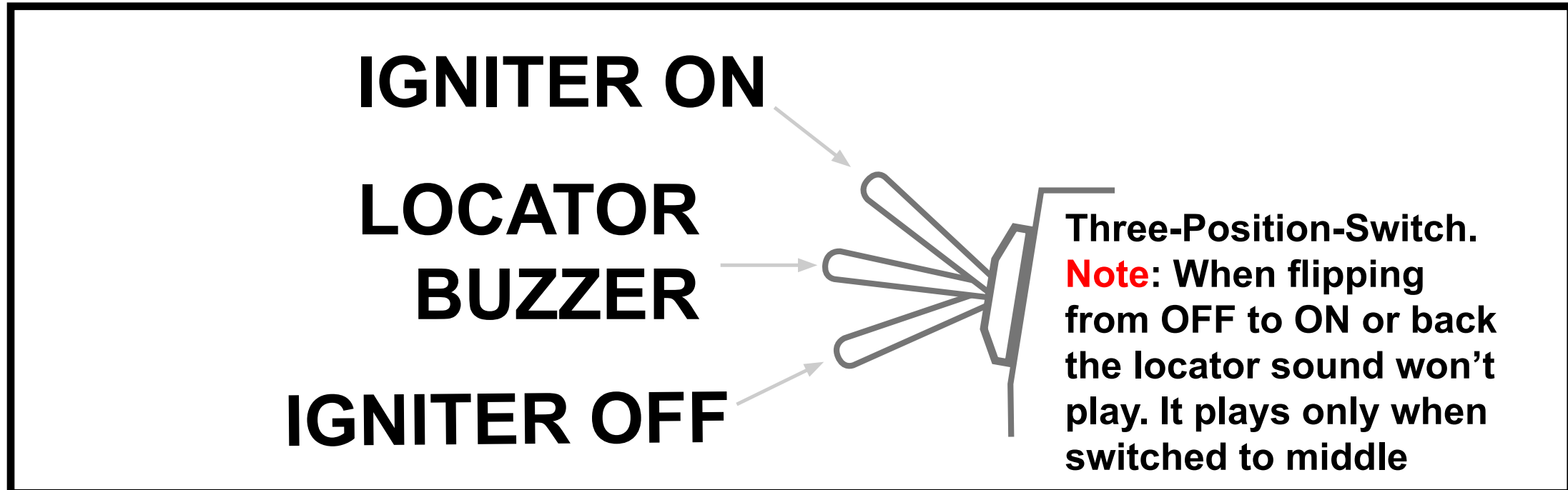**YELLOW** CURRENT MUST BE MID FOR DETECTION
RED CURRENT MUST BE LOW FOR DETECTION

Push the red button ● to memorize and go to next step

RADIO'S SWITCH POSITIONS

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RADIO'S SWITCH POSITIONS

IGNITER ON

LOCATOR BUZZER

IGNITER OFF

Three-Position-Switch.
Note: **When flipping from OFF to ON or back the locator sound won't play. It plays only when switched to middle**

IGNITER ON

Two-Position-Switch

IGNITER OFF

Note: If the positions are reversed go to the radio's setting screen and reverse the switch channel.

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MUSICAL TONES MEANING

NORMAL OPERATION:

• 1) Power UP tone | PLAY SOUND |

• 2) Plug being drive by the XGlow Pro | PLAY SOUND |

• 3) Locator Alarm tone | PLAY SOUND |

ERROR TONES:

• 1) Throttle not in idle tone | PLAY SOUND |

• 2) Bad Plug or Plug Disconnected | PLAY SOUND |

• 3) Deffective Plug or Alligator clip
    shorting with engine | PLAY SOUND |

DURING PROGRAMMING:

• 1) Enter Programming Section | PLAY SOUND |

• 2) Programing steps:

Enter 1 [1]   Enter 2 [2]   Enter 3 [3]   Enter 4 [4]   Enter 5 [5]

Exit 1 [1]   Exit 2 [2]   Exit 3 [3]   Exit 4 [4]   Exit 4 [4]

• 3) Exit Programming Section | PLAY SOUND |