

GRANITE

OWNERS MANUAL



ENGLISH

'ASRMA'



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Thank you

Thank you for choosing this ARRMA product. At ARRMA we develop all our products using world-class technologies, techniques and materials. We operate an extensive test programme on all new products to ensure the durability and quality matches our very high standards.

At ARRMA we want you to enjoy using our products. If you need help or advice in running or setting-up your kit visit ARRMA-RC.com and the forums at GOFORIT-RC.com for help online. Remember - WE ARE RADIO CONTROL



Warnings - PLEASE READ BEFORE USE

This is not a toy. This is a high performance RC model and must be treated with care and respect. It is the user's (your) responsibility to operate this product safely. It is necessary to be above 14 years of age to operate this model. It is the parents or guardians responsibility to ensure minors receive appropriate guidance. For further safety information and guidance please refer to your welcome pack online at ARRMA-RC.com/GO

- This is a high performance RC kit. It requires regular maintenance, visit ARRMA-RC.com for advice and accessories.
- Please read this manual and familiarise yourself with the kit and its electronics before operating.
- Do not run this kit on public streets, near people or animals or in small areas, otherwise serious accidents, personal injuries and/or property damage could occur.
- Ensure that all nuts and screws are securely fastened, especially wheels, before and after each use.
- Always use fresh, charged and undamaged batteries. Faulty batteries can cause loss of control, short circuits and fire.



Warranty

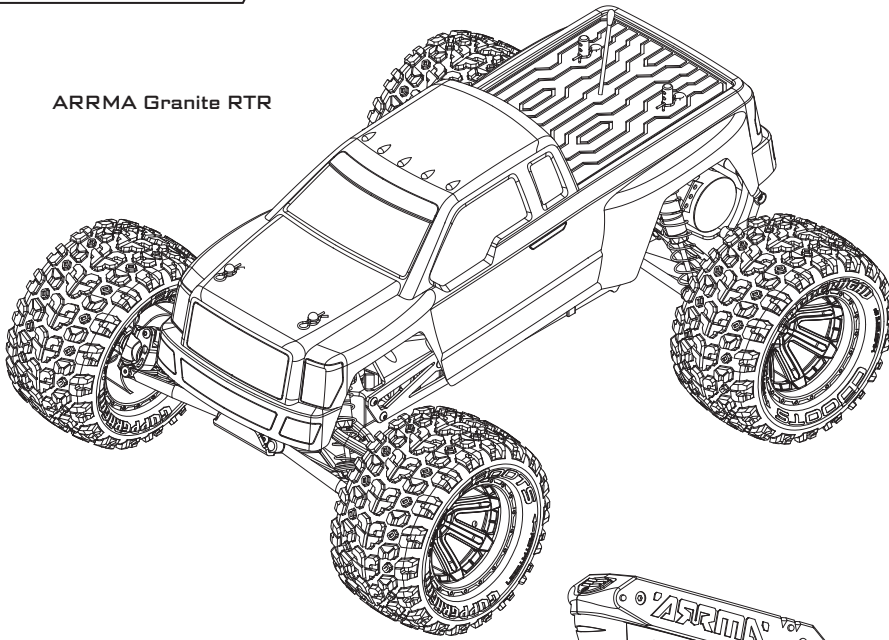
To guarantee you have the best experience ARRMA offer a 2 year warranty covering defects in materials, workmanship and assembly on all our products. To ensure you understand the full terms of the warranty and its limitations please refer to your welcome pack online at ARRMA-RC.com/GO.



Kit Overview

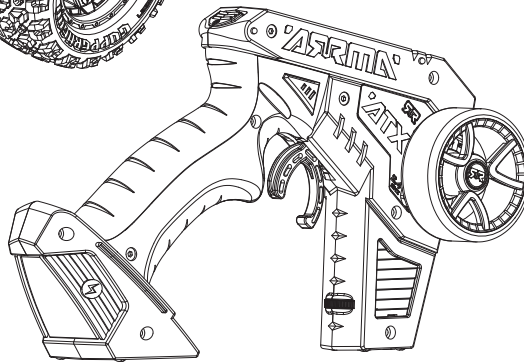
Components

ARRMA Granite RTR

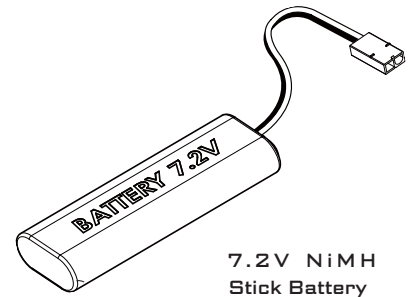


ARRMA ATX 2.4Ghz Transmitter

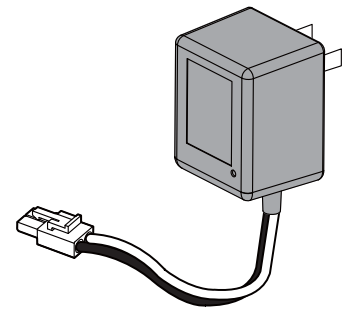
US Design Patent application no. 29/384 679
Community Design No: 001258180-0001-0002



Kit #102302
Kit #102312
Kit #102322



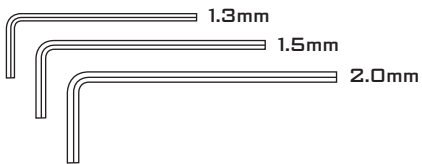
7.2V NiMH Stick Battery



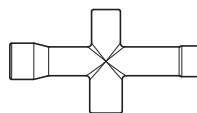
Plug type charger

What's included

Hex wrench



Cross wrench



Shock pre-load spacers



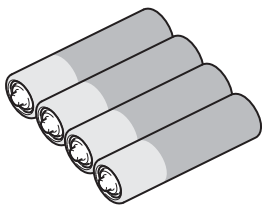
3mm x 4



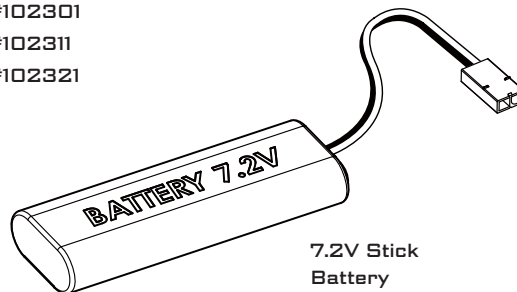
7mm x 2

What's required

AA Battery x4

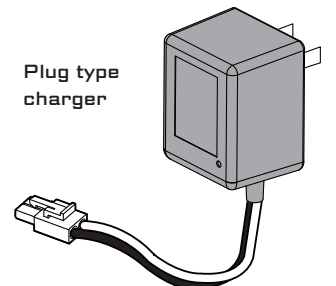


Kit #102301
Kit #102311
Kit #102321

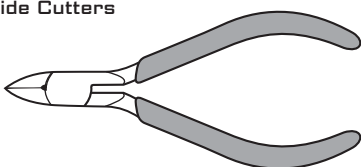


7.2V Stick Battery

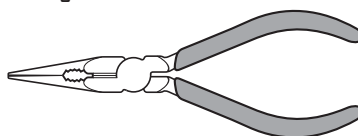
Plug type charger



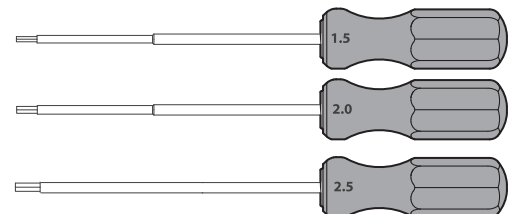
Side Cutters



Long Nose Pliers

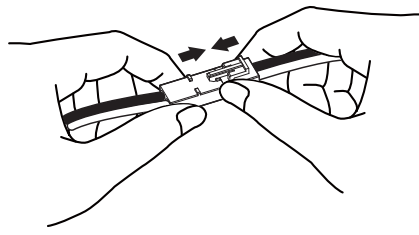
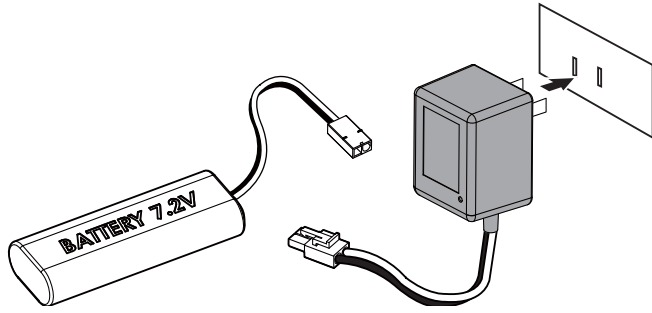


Hex Wrenches





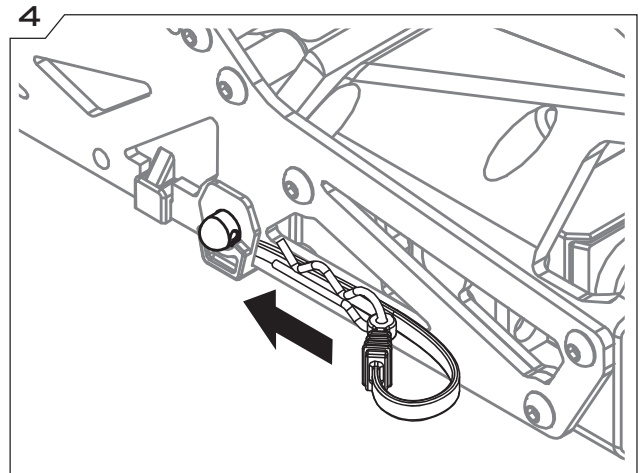
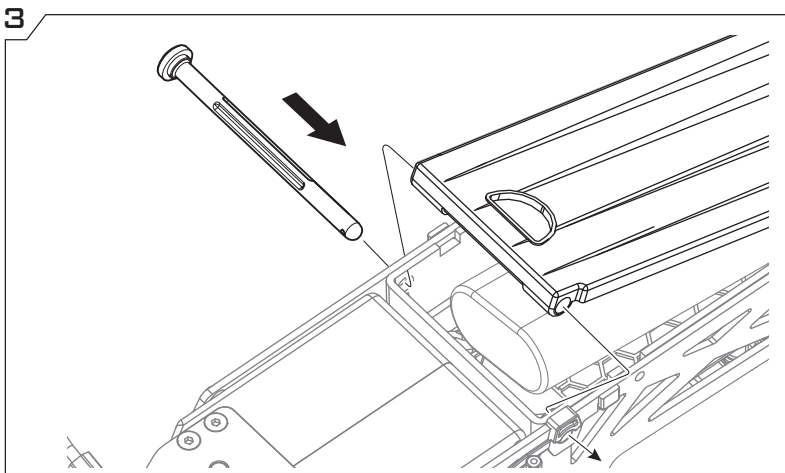
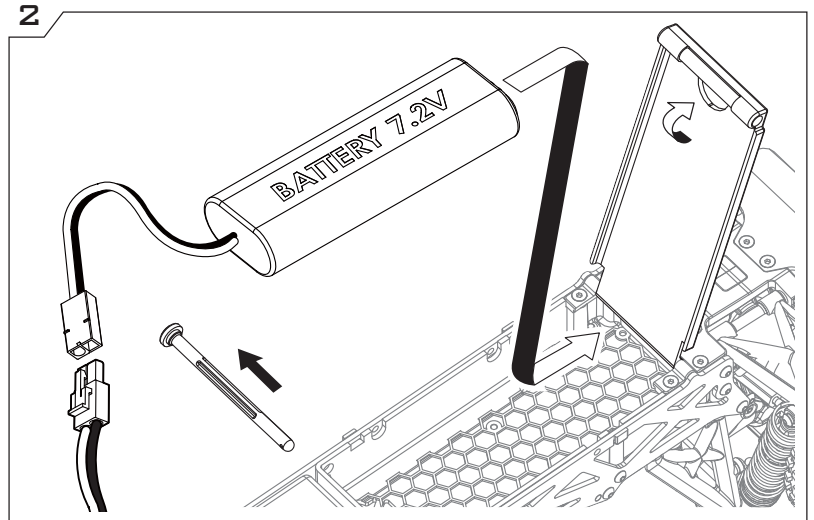
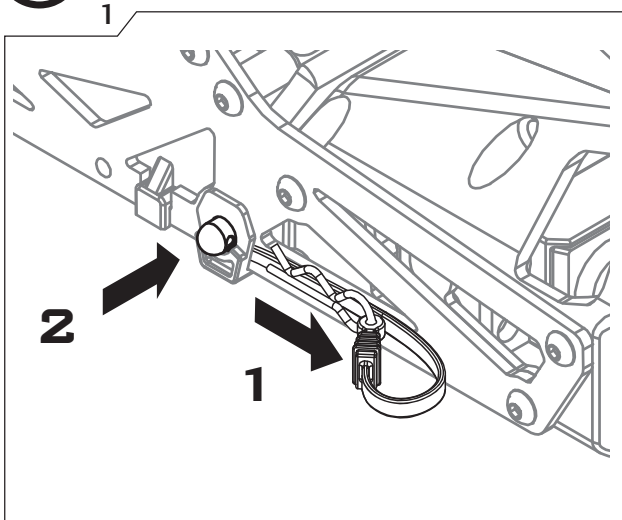
Battery Charging



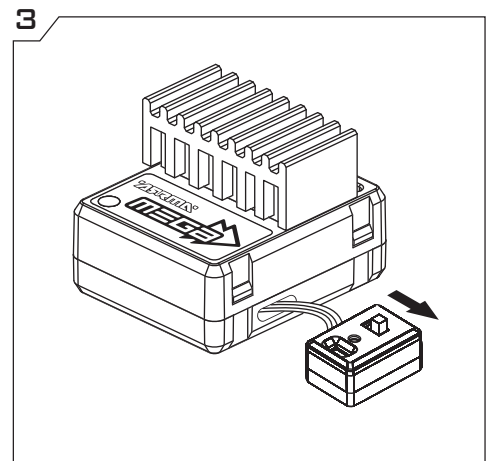
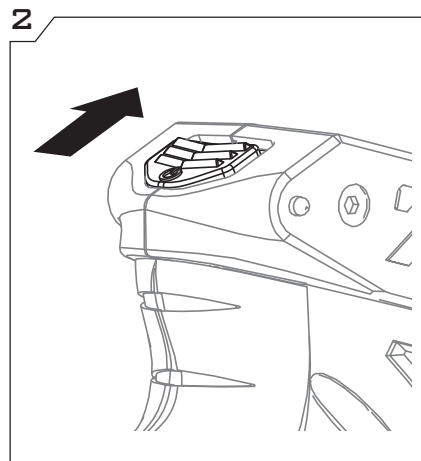
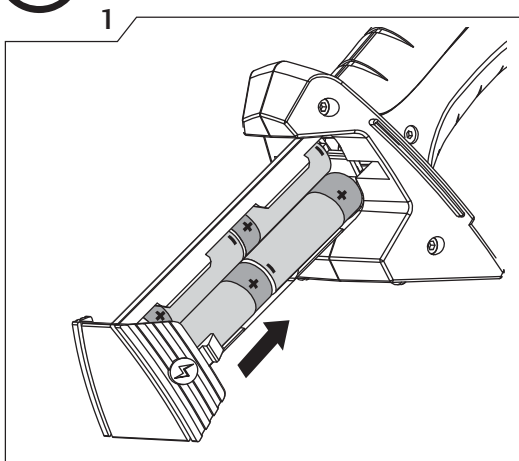
E.G 7.2V 1500MAH @150MAH = 10 HOURS.



Battery Fitting

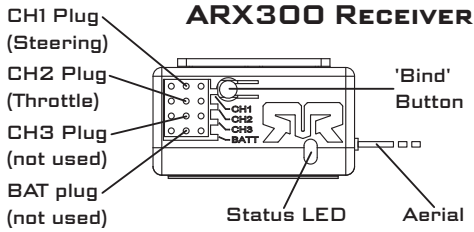


Pre-Drive Checks

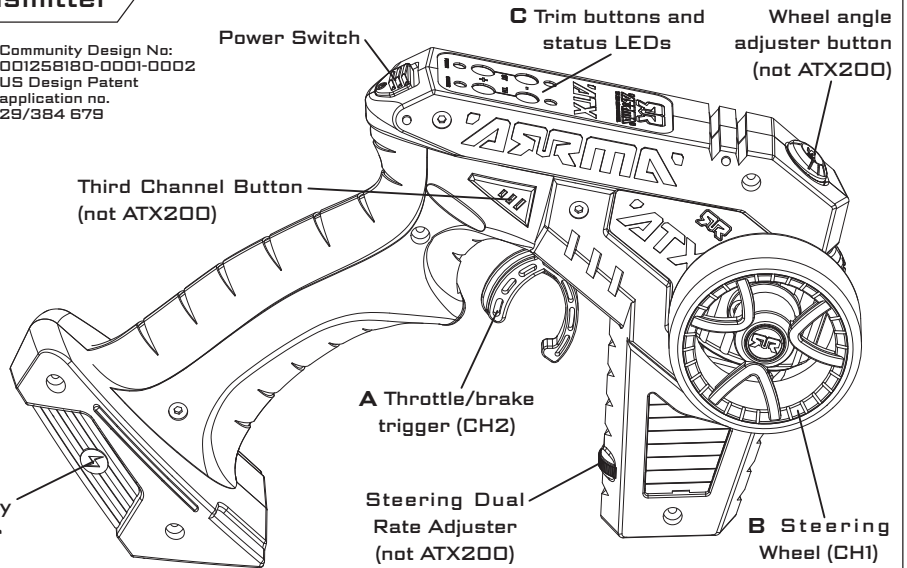




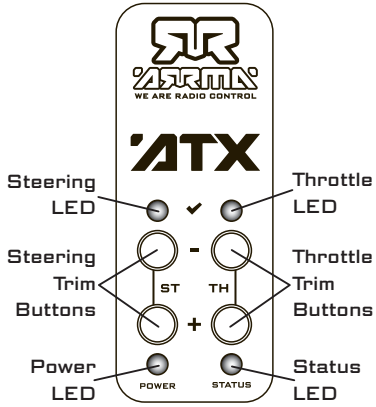
ARRMA ATX300 2.4Ghz Transmitter



Community Design No: 001258180-0001-0002
 US Design Patent application no. 29/384 679



ATX300 CONTROL PANEL



- **A** controls the throttle, to accelerate pull back. To brake push forward.
- **B** operates like a normal steering wheel, left for left and right for right.
- **C** allow you to fine tune the neutral point of both the steering and throttle.



CONTAINS FCC ID: ZWWFH24GTX1

This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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.



Idle and Low-Voltage Alarms

If the transmitter is left on, and both the steering and throttle haven't been used for ten minutes, a slow beeping alarm will sound. To stop the alarm simply move the power switch to the off position. If the combined voltage of the batteries in the transmitter drops below 4.8v a quick beeping alarm will sound and the power LED will blink. To stop this alarm replace the batteries with four fully charged units - **DO NOT MIX BATTERIES OF DIFFERENT TYPES OR AGES** - this will result in reduced range and possible loss of control.

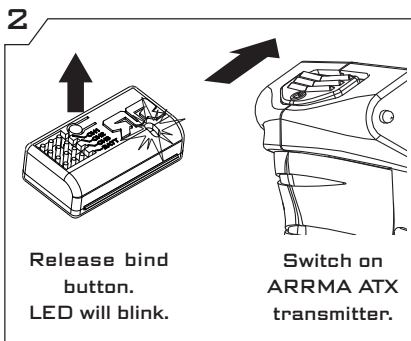
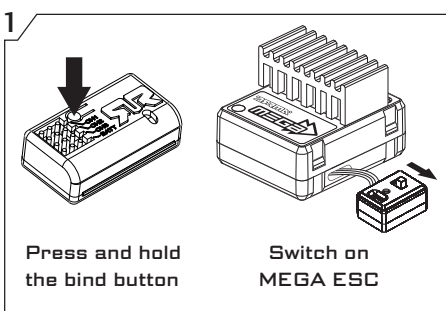
Safety Instructions for Batteries



CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

1. Use only four(4) AA alkaline batteries in your ATX200/ATX300 transmitter.
2. Do not dispose of the battery in a fire as it may explode. Check with local codes for possible special disposal instructions.
3. Do not open or mutilate the battery. Released electrolyte is corrosive and may cause damage to the eyes and skin. It may be toxic if swallowed.
4. Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery or conduction material may over-heat and cause burns.

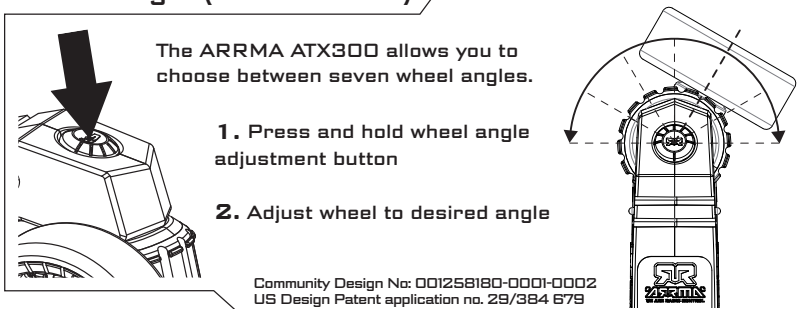
Transmitter-Receiver Binding



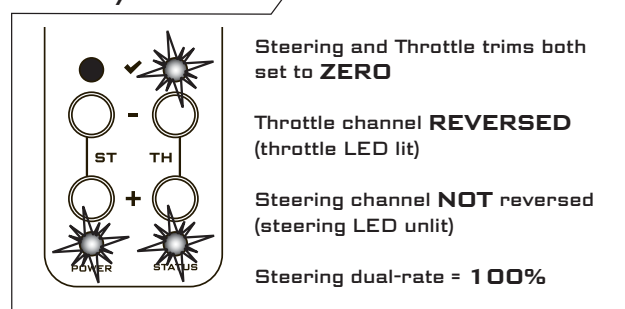
To start binding the ARRMA transmitter and receiver, ensure that both units are switched off, within 30cm/12" of each other and clear of possible sources of interference.

Ensure that the drive wheels are off the ground. Hold down the bind button on the receiver and switch on the ESC, the receiver will enter 'binding' mode and the green status LED will blink. Switch the transmitter on and within 30 seconds it will find the binding receiver and the LED on the receiver will turn to solid green.

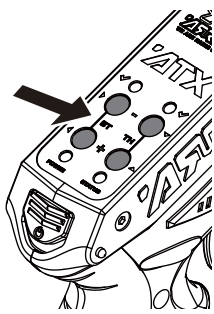
Wheel Angle (not ATX200)



Factory Defaults

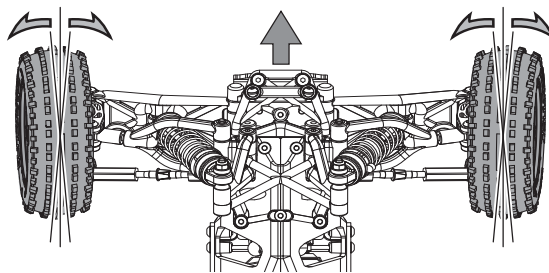


Steering/Throttle Trim

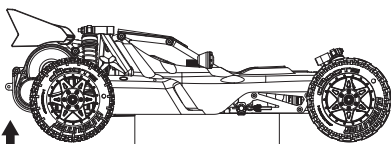


Check that the transmitter and receiver are switched on then position the car so that the front wheels are off the ground. Look down on the tops of the wheels and adjust the steering using the steering trim buttons on the top of the ARRMA transmitter. A short beep will be heard; A quick double beep means you are at zero adjustment and a long beep signifies that you have reached the end of the trim adjustment.

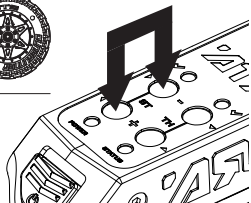
To adjust throttle trim, switch off your ESC and use the throttle trim buttons on top of the ARRMA ATX transmitter until you hear a quick double beep. This means you are at zero/neutral. A long beep means you have reached the end of trim adjustment.



Reversing Steering/Throttle Channel



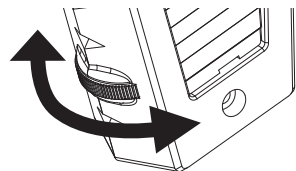
Wheels must be off the ground before reversing the throttle channel.



If the steering direction is reversed - i.e left goes right, check that the transmitter and receiver are switched on then simply hold both the steering trim buttons on the top panel; a long beep will sound and the steering LED will light (or go out if already lit) which signifies that the channel has been reversed.

If you need to reverse the throttle direction, make sure that the ESC is switched on and the cars wheels are off the ground. Then reverse the throttle channel by holding the two throttle trim buttons until a long beep is heard and the throttle LED is lit (or goes out if already lit). The models wheels will rotate on their own as the ESC neutral throttle position needs to be reset. To do this, switch the model off and on again and the ESC will chime to signal it has set the new throttle neutral position.

Dual-Rate Adjustment



The dual-rate adjuster at the front of the ARRMA ATX transmitter allows you to adjust the sensitivity of the steering. Adjusting the dual rate can be useful when running at high speed or on very loose surfaces where large steering inputs could cause you to lose control of your car.

To reduce the steering dual-rate first check that the transmitter and receiver are switched on then turn the adjuster, at the front of the ARRMA ATX transmitter, to the left. It has 10 levels of adjustment and will beep each time an adjustment is made; a long beep signifies you have reached the end of the adjustment. To increase the steering dual rate, turn the adjuster to the right; again a long beep means you have reached the end of the adjustment.

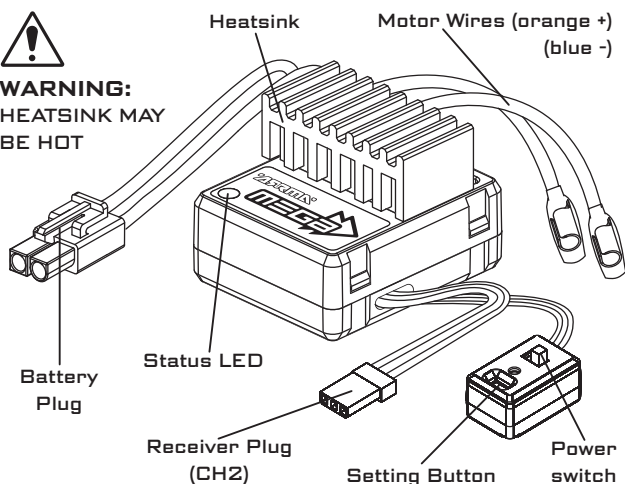


ESC (Electronic Speed Controller)

Overview and Setup



WARNING:
HEATSINK MAY
BE HOT



The MEGA waterproof brushed ESC (electronic speed controller) is designed for use with ARRMA brushed motors and is automatically setup for use with 7.2v Nickel Metal Hydride (NiMH) batteries and requires no maintenance. The MEGA brushed waterproof ESC has a status LED, which tells you if the ESC and/or radio-gear are performing correctly. Use the chart below to understand the LED's meaning:

LIGHTS	MEANING
Continuous Green	Transmitter signal found, neutral.
Flashing Green	No transmitter signal, check radio-gear.
Quick flashing Red	Forward signal detected.
Slow blinking Red	Reverse/braking signal detected.
Continuous Red	Full forward/reverse signal detected.

OVER TEMPERATURE PROTECTION: The MEGA brushed electronic speed controller will turn off intermittently and not allow full drive when the temperature of either the motor or the ESC becomes too high. If activated please allow to cool before continuing use.



BATTERY MODE: Lithium polymer (Lipo) or Litium Iron (LiFe) batteries require special care. The voltage of these batteries must not drop below a certain level. If these types of battery are 'over-discharged' they are no longer usable. If using these types of batteries it is vital that you set the MEGA ESC to the correct battery mode to stop the batteries overdischarging.

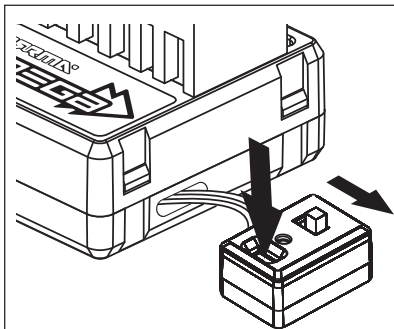
BATTERY TYPE	VOLTAGE CUT OFF
AUTO	70%
NiMh (7.2v)	5.4v
LiPo (7.4V)	6.0v
LiFe (6.6v)	4.8v

The correct battery mode will stop the car operating if the battery voltage drops below a certain point. The Settings available on the MEGA brushed waterproof ESC are shown in the chart above. Setting the correct battery mode rather than using the auto mode is safer and will provide greater performance.

To adjust the battery mode you will have to enter the adjustment mode of the MEGA waterproof ESC. This will also allow you to change some of the performance parameters of your ESC to tune it for your preferred driving style.

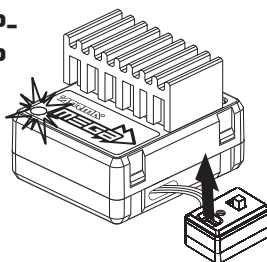
MEGA ESC ADJUSTMENT MODE

Need help adjusting your MEGA waterproof ESC? Visit the forums at GOFORIT-RC.com for advice.

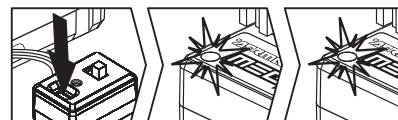
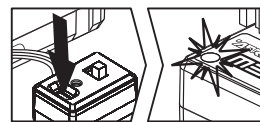


1 Turn off your ARRMA ATX transmitter. Switch on the MEGA waterproof ESC with the setting button held down.

2 **BEEP-BEEP-BEEP**

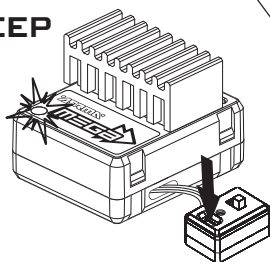


The ESC will beep three times. Release the setting button and the ESC status LED will slowly flash red. You are now in mode selection.

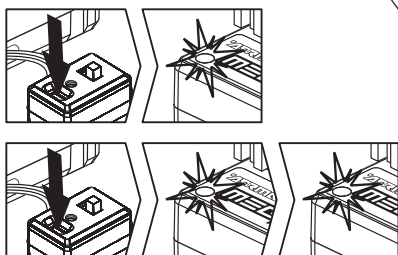


3 The number of red flashes shows which mode you have selected (see chart below) press the setting button to change the mode selection.

4 **BEEEEEP**

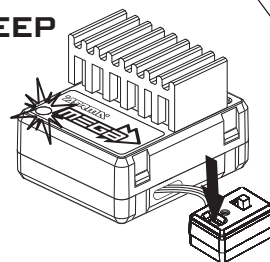


4 Once you have the mode you want to change selected, press and hold the setting button again. The status LED of the ESC will start flashing green. You are now in adjustment selection.



5 The number of green flashes shows the current setting of the selected mode. Pressing the setting button will cycle through the different adjustments (See chart below).

6 **BEEEEEP**



6 Once you are happy with your choice, press and hold the setting button. The ESC will beep and the status LED will slowly flash green. Switch your transmitter back on and Go For It!

MODE SELECTION

RED LED FLASHES	MEANING
*	Electric motor reverse speed
* *	Motor initial acceleration
* * *	Motor drag brake effect
* * * *	Battery mode

ADJUSTMENT SELECTION

GREEN LED FLASHES	*	**	***	****
Reverse Speed	Off	Low	Med.	High (std)
Initial Acceleration	Std	Low	Med.	High
Drag Brake Effect	Off (std)	Low	Med.	High
Battery Mode*	Auto	7.2v Ni-Mh (std)	7.4v Li-Po	6.6V Li-Fe

*Setting the correct battery mode rather than using the auto mode is safer and will provide greater performance.

ARRMA ESC Factory Settings

ADJUSTMENT	SETTING	GREEN LED FLASHES
Reverse Speed	High	****
Initial Acceleration	Std	*
Drag Brake Effect	Off	*
Battery Mode	Auto/NiMh	*/**

The original settings of the ARRMA MEGA waterproof ESC are shown in the chart on the left.

As standard the ESC will be set in either Auto or NiMh battery mode. Please ensure that you select the correct battery mode for the battery type you are using.



Driving Fundamentals

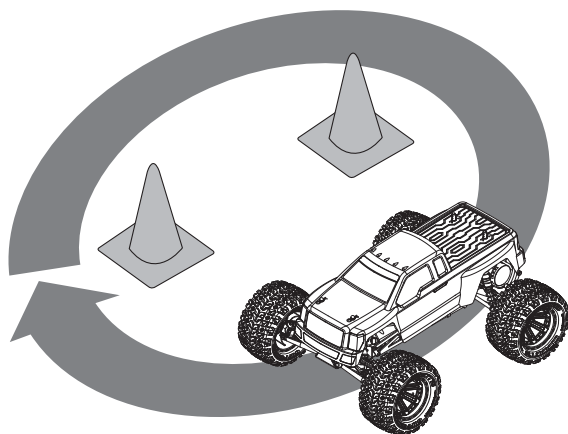
We design all ARRMA cars to be fun and quick to get used to. However, it is important to be comfortable with the handling before exploring the upper reaches of your car's performance.

For the first run we recommend taking your kit to an open, flat area (such as a park) ensuring you are away from potential hazards, people or animals.

Start by simply driving round in a large loop, slowly building up speed to get used to the handling. Alter the size of the loop and your speed. Notice how the car behaves with different inputs. Experiment with different inputs and varying the throttle. Watch out for the rear-end of the car breaking loose. If the car does slide try to counter-steer into the skid and accelerate out or let-off the throttle and let it come to a stop.

The method of taking a corner quickly without losing the car is simple in theory but harder in practice when it has to be performed quickly. To take a corner you need to slow down before the corner, hold your speed through the curve and, once you see an exit line, accelerate out of the corner.

Once you have practiced the basic driving techniques and you are comfortable with the performance of the car you can start to open-up the full performance potential of your car. Why not make a video of you driving your car and submit it to the GO FOR IT! forums on GOFORIT-RC.com so the whole world can see!

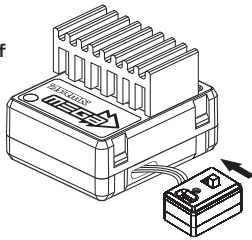




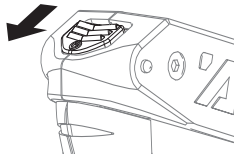
Post-Drive Checks

1

A. Switch off MEGA ESC



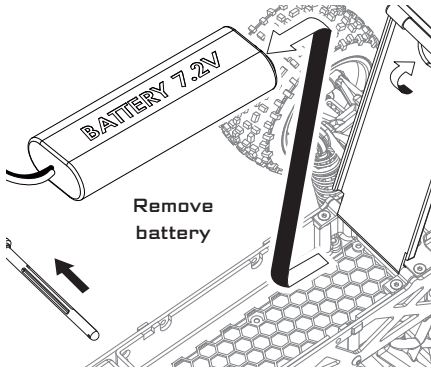
B. Switch off ARRMA ATX transmitter



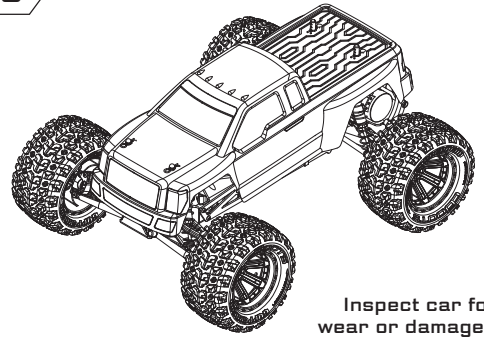
2



WARNING: BATTERY MAY BE HOT!



3



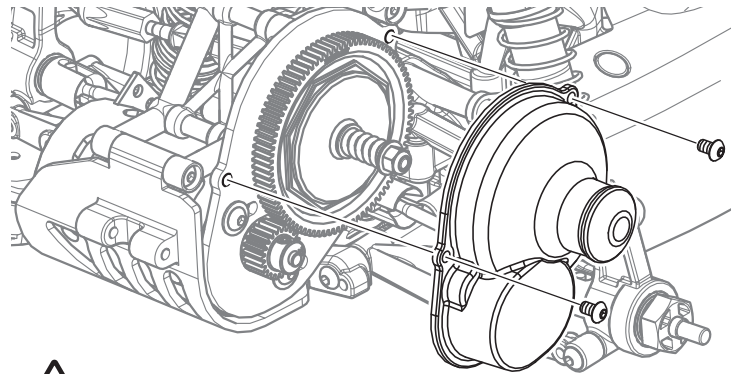
Inspect car for wear or damage - adjust or replace as necessary. Visit ARRMA-RC.com for guides and parts information.



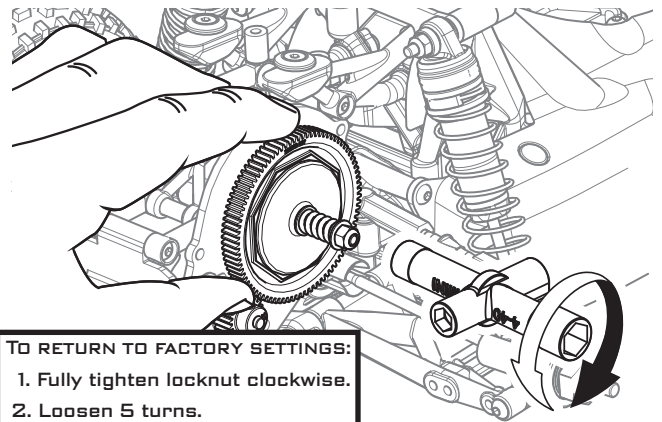
Basic Maintenance - For other maintenance guides please visit ARRMA-RC.com

Slipper Clutch Setup

The function of the slipper clutch is to protect the gearbox, differential and motor from shocks and also to allow you to tune how the torque from the motor 'comes-in' when you accelerate. After running, if slipper clutch is too loose, tighten 1/4 turn.



WARNING: A loose slipper will damage the friction pads. If the slipper is too tight it may damage the transmission.



TO RETURN TO FACTORY SETTINGS:
1. Fully tighten locknut clockwise.
2. Loosen 5 turns.

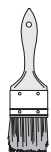
Surface Type	Slipper Clutch	Characteristics
Slippery	Loosen	Smoother power delivery, easier to control.
High Grip	Tighten	Quicker throttle response. If the car wheelies too much, loosen the Slipper Clutch.

Chassis Maintenance

- Clean the car, paying special attention to the areas on the right
- Ensure that drivetrain, suspension and steering are clean, free and lubricated
- Check that all the screws are tight
- Check tyre/wheel condition



Rag



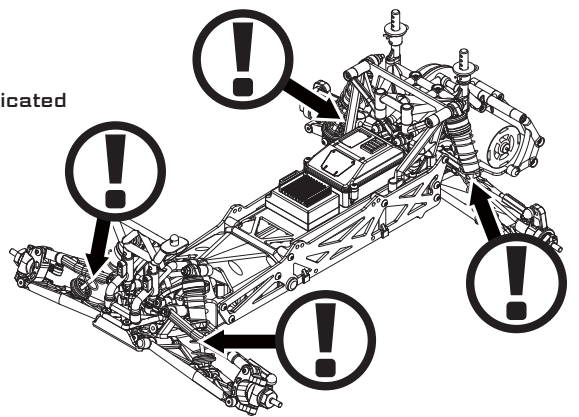
Brush



Oil Spray



Automotive Brake Cleaner or Nitro Car Cleaner



Support Info

At ARRMA we want you to love running your kit and make owning a high performance RC as simple as possible. If you have any questions about running, maintaining, tuning or repairing your ARRMA product there are three options for you to use to get help and advice.

Visit ARRMA-RC.com for support, parts and upgrades for your kit 'GO FOR IT' is the worldwide owner's forum for ARRMA. Here you will find other ARRMA owners, get help and advice on how to get the best from your ARRMA product. If you can't find what you're looking for then you can always email us at support@ARRMA-RC.com 24hrs a day and we will do our best to help you with your query.



ARRMA-RC.COM



GOFORIT-RC.COM

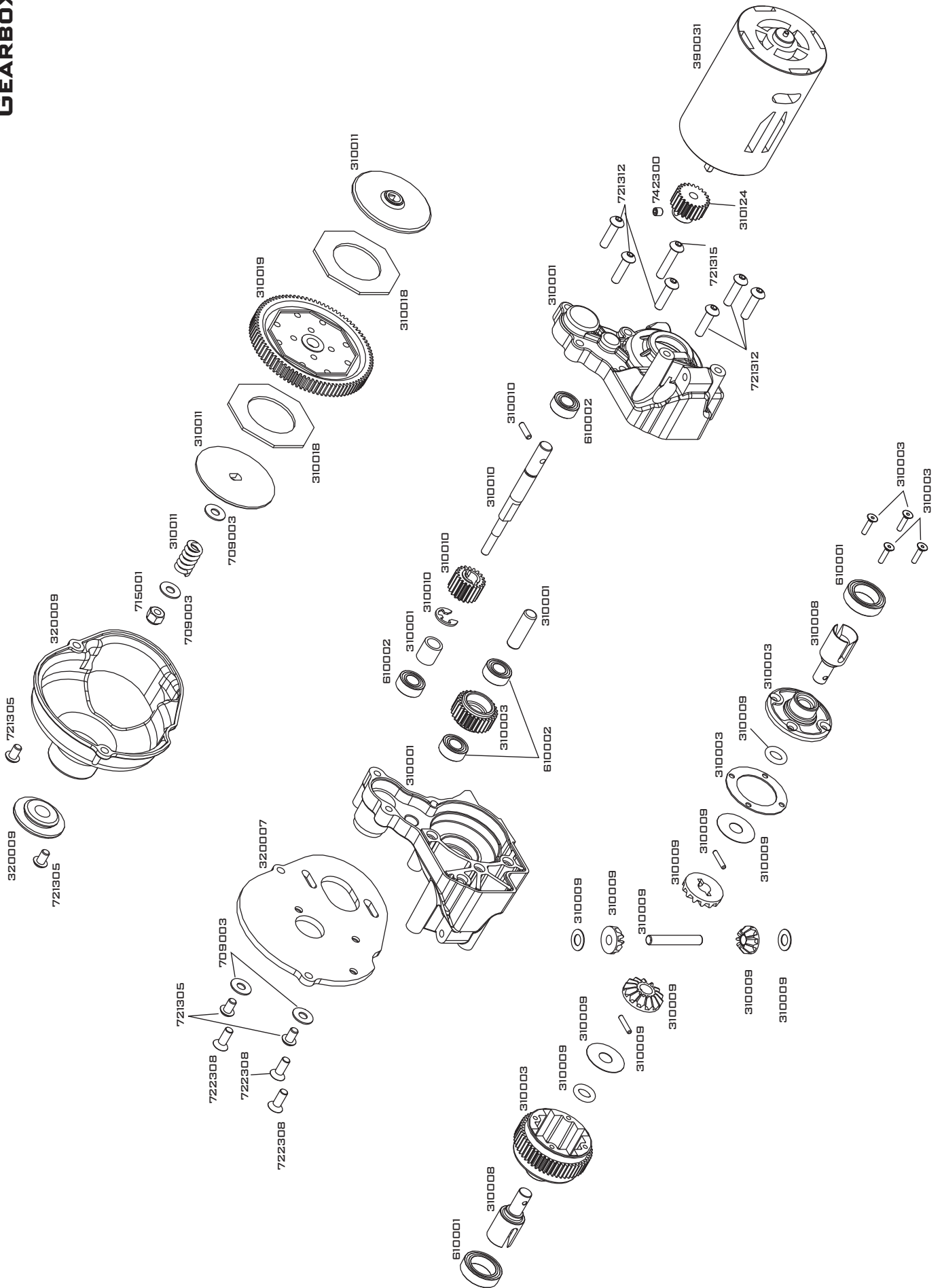


SUPPORT@ARRMA-RC.COM

**Trouble Shooting Matrix**

Problem	Possible Cause	Solution
VEHICLE DOES NOT MOVE	Batteries are incorrectly installed in ARRMA ATX transmitter	Check transmitter batteries and refit - see model/transmitter manual
	Weak, damaged or no drive battery in model	Install fresh, charged battery
	Frayed or broken motor or ESC wires	Check condition, reconnect and insulate. Visit the GO FOR IT! forum for advice
	ESC has shut down due to overheating	Stop driving and allow ESC or motor to cool down
	MEGA electric motor is damaged	Replace with new unit - visit ARRMA-RC.com for advice and upgrades!
	MEGA waterproof ESC is damaged	Replace with new unit - visit ARRMA-RC.com for advice and upgrades!
	Possible damage to transmission/drive-line	Check components and replace - visit ARRMA-RC.com for advice
VEHICLE DOES NOT REVERSE	ESC low voltage cutoff has activated to protect batteries	Remove drive battery, leave to cool down if necessary, and re-charge
	ESC reverse mode switched off	Adjust reverse on MEGA waterproof ESC
VEHICLE DRIVES WITHOUT INPUT	MEGA Waterproof ESC is damaged	Replace with new unit - visit ARRMA-RC.com for advice and upgrades!
	ARRMA ATX transmitter throttle trim incorrectly set	Throttle trim needs to be set to zero/neutral - see model/transmitter manual
SHORT RUNTIME	Neutral throttle position of MEGA ESC incorrect.	Set throttle trim to zero and switch MEGA ESC off and then on again, a chime to indicate the new neutral position has been set
	Battery damaged or not fully charged	Check condition, replace or recharge
	MEGA Electric motor dirty or damaged	Clean, check condition and/or replace - visit ARRMA-RC.com for more information
SLUGGISH PERFORMANCE	Incorrect ESC battery mode - voltage cutoff too high for the battery you are using	Adjust the battery mode of the MEGA waterproof ESC
	Battery damaged or not fully charged	Check condition, replace or recharge
	ARRMA ATX transmitter throttle trim incorrectly set	Throttle trim needs to be set to zero/neutral - see model/transmitter manual
	Neutral throttle position of MEGA ESC incorrect.	Set throttle trim to zero and switch MEGA ESC off and then on again, a chime to indicate the new neutral position has been set
	Slipper clutch adjustment too loose	Check slipper is set to factory setting or your preferred setting - see page 8
	Initial acceleration mode or reverse speed on MEGA waterproof ESC set too low	Modify MEGA waterproof ESC settings
	MEGA electric motor dirty or damaged	Clean, check condition and/or replace - visit ARRMA-RC.com for more information
FRONT WHEELS LIFT WHEN ACCELERATING	Drivetrain dirty or damaged	Clean, check condition and/or replace - visit ARRMA-RC.com for more information
	Slipper clutch adjustment too tight	Check slipper is set to factory setting - see page 8
NO CONTROL OF VEHICLE OR SHORT RANGE	ARRMA ATX transmitter batteries are weak or fitted incorrectly	Check transmitter batteries and refit - see model/transmitter manual
	Servo and ESC signal wires to ARX receiver loose or connected incorrectly	Reinstall signal wires to receiver
STEERING/THROTTLE OPERATION INTERMITTENT	ARRMA transmitter and receiver are not 'bound' correctly	Transmitter and receiver need to be bound - see model/transmitter manual
	ESC has shut down due to overheating	Stop driving and allow ESC or motor to cool down
VEHICLE WANDERS LEFT/RIGHT WITHOUT STEERING INPUT	ARRMA transmitter and receiver are not bound fully or are suffering interference	Check for sources of interference and re-bind transmitter/receiver - see transmitter manual
	ARRMA ATX Steering trim setting out	Adjust steering trim - see model/transmitter manual
	Damaged steering components	Check components and replace - visit ARRMA-RC.com for advice
STEERING OR THROTTLE FUNCTION REVERSED	Drivetrain dirty or damaged	Clean, check condition and/or replace - visit ARRMA-RC.com for more information
	Relevant channel of ARRMA ATX transmitter is reversed	Reverse relevant channel on ARRMA ATX transmitter - see model/transmitter manual
LIMITED STEERING ANGLE	Check that the wires from the ESC to the motor are connected correctly	Reconnect in the correct orientation (orange to red and blue to black) ensuring fit is tight; if not pinch female connector with pliers
	ARRMA ATX transmitter steering dual-rate set incorrectly	Adjust ARRMA ATX transmitter dual-rate - see transmitter manual
	Damaged steering components	Check components and replace - visit ARRMA-RC.com for advice
	MEGA waterproof ESC is damaged	Replace with new unit - visit ARRMA-RC.com for advice and upgrades!

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