

1:8 R/C MOTORCYCLE



BUILD MANUAL

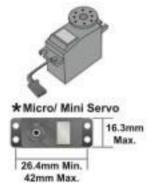


Thank you for purchasing the Venom GPV-1 GP Motorcycle. This revolutionary R/C Motorcycle was designed with die hard racers, motorcycle enthusiasts and beginning R/C Hobbyists in mind. Racers will love the unlimited adjustability and tuneability of the chassis. Enthusiasts will enjoy it's scale realism, and beginning and novice hobbyists will enjoy how easy the GPV-1 is to drive. We hope you have as much fun with your GPV-1 as we did creating it. Not only did you purchase the best R/C motorcycle but you have also joined the Venom Team and it's world class product line and customer service. Some information contained herein may not be relevant to consumers who purchased the GPV-1 in Ready-To-Run (RTR) Pre-Built Form.

EQUIPMENT NEEDED

AFTERMARKET SERVO CHART





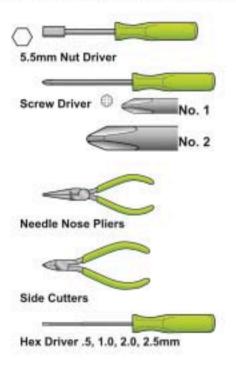
Futaba	JR	Airtronics
9602	DS34215A	94145z
9650	DS3301	94141z
83110	DS3517	
Hitec	23550	KO Propo
HS-56HB	3121	PDS 949ICS
HS-81	321	
HS-85		
HS-225		

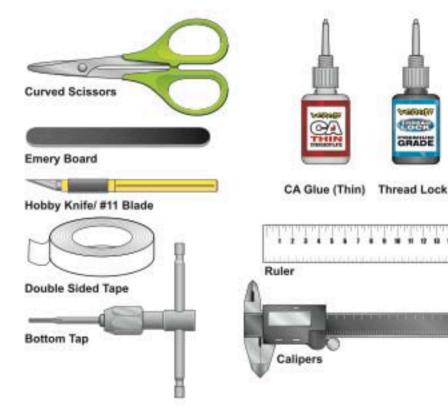
35wt

Shock Oil 35 Wt.

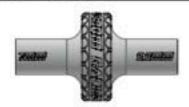
GRADE

SUGGESTED TOOL KIT



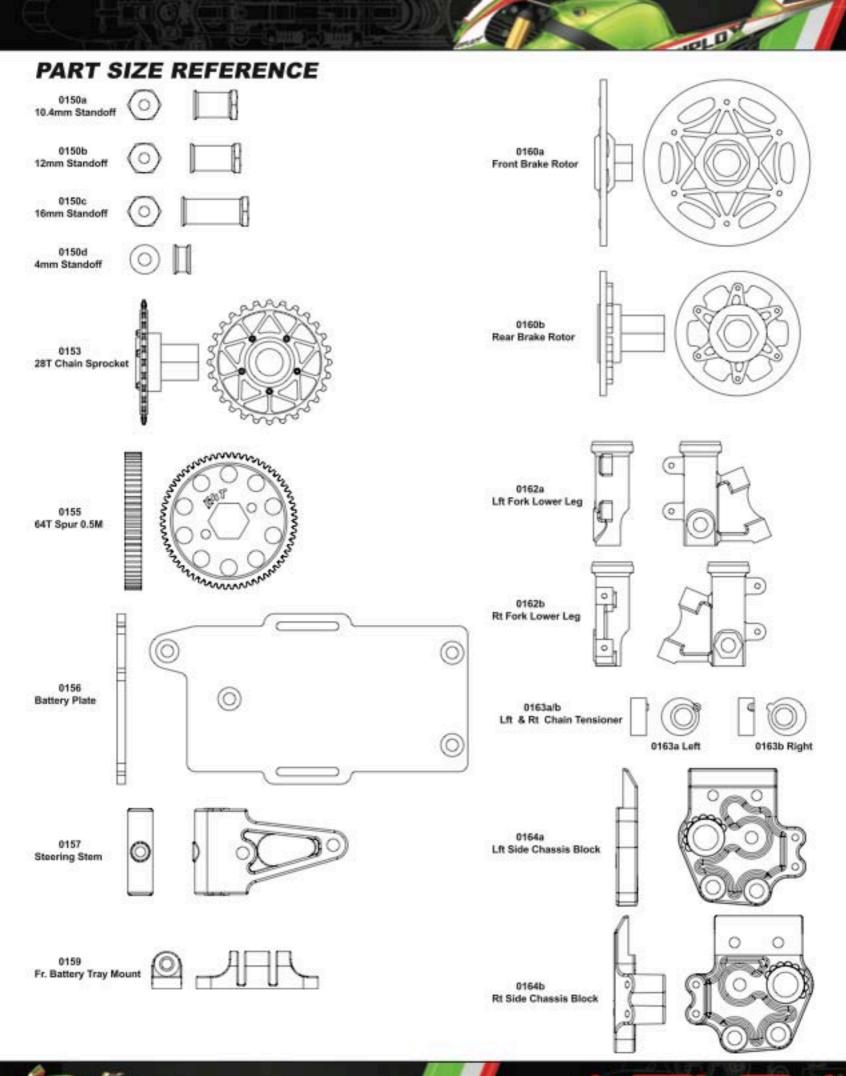


TOOLS INCLUDED

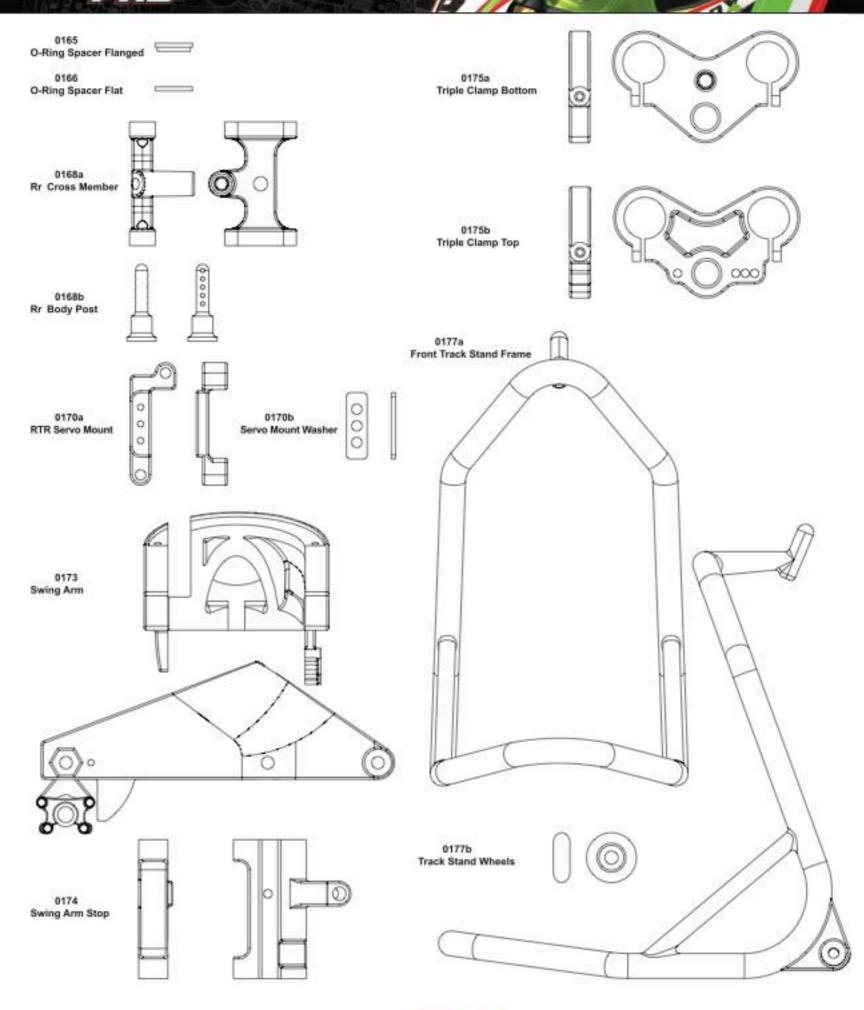


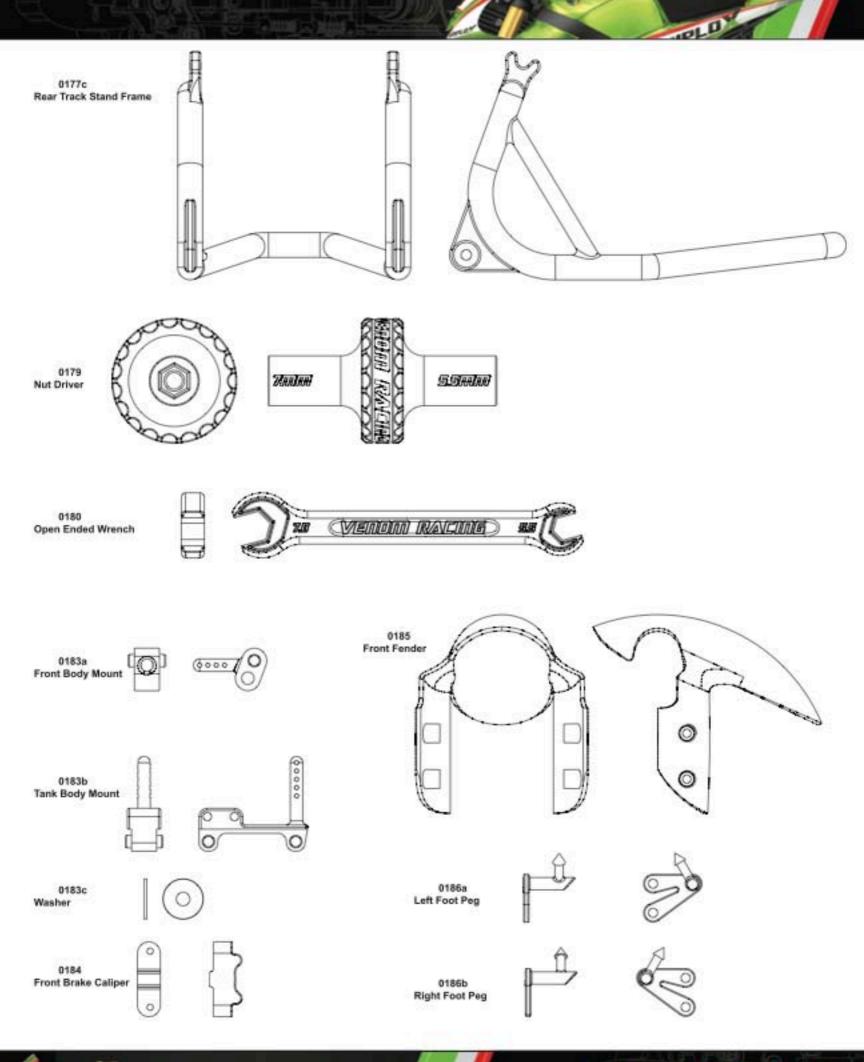


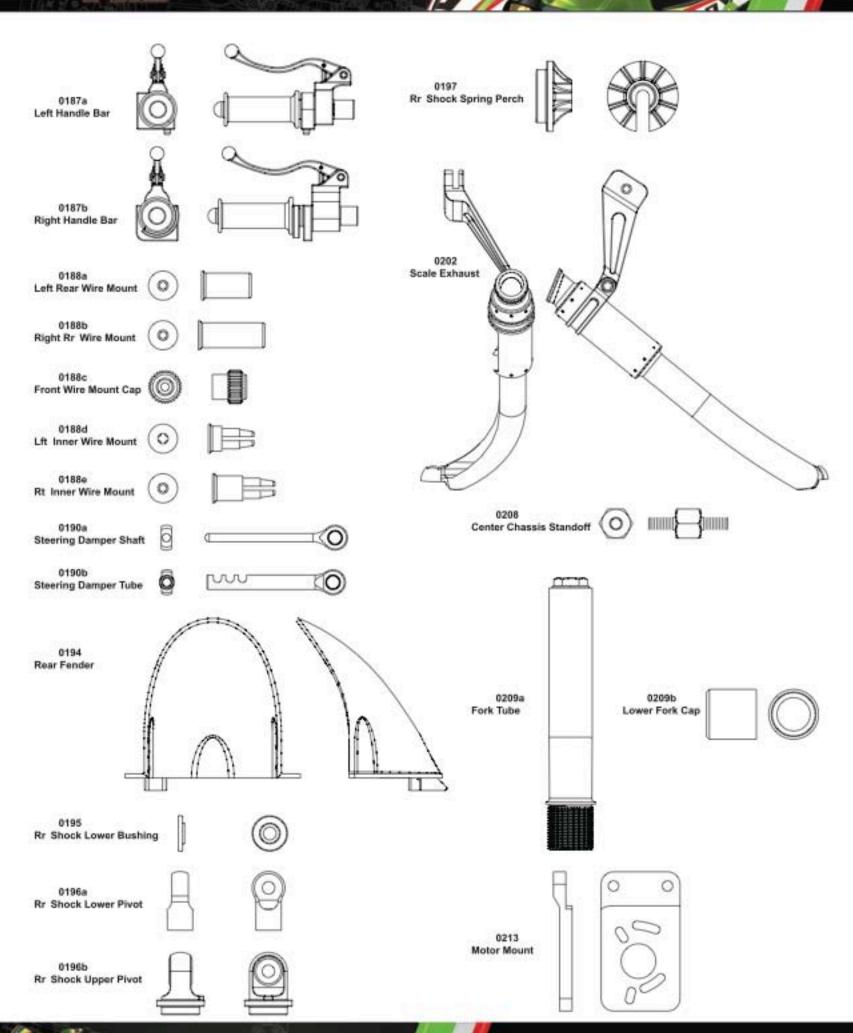
^{*} The GPV-1 chassis can accept multiple servo sizes. If you plan to change servos or use the Optional Brake Kit (0355) please refer to the Suggested Servo List for a complete list of compatible servos.

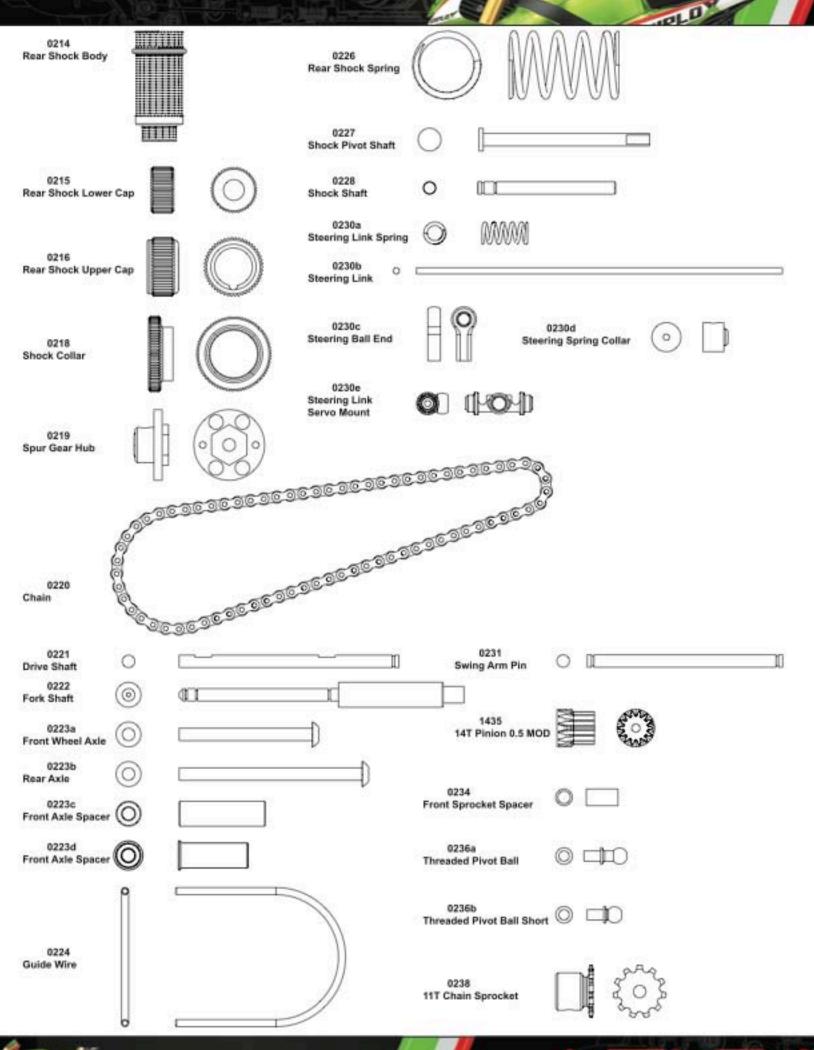


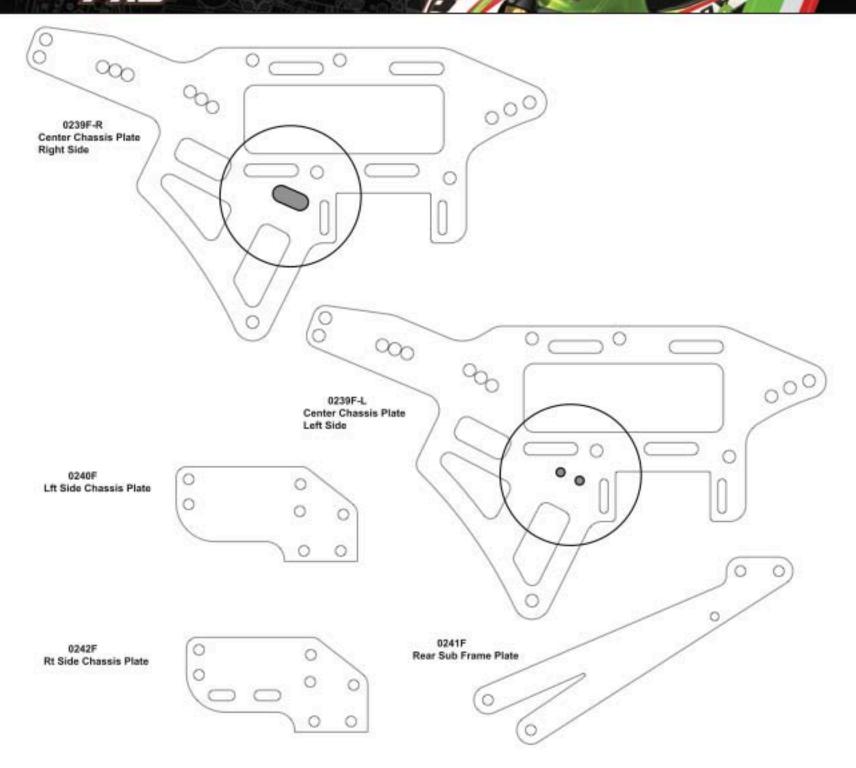
GPV-1

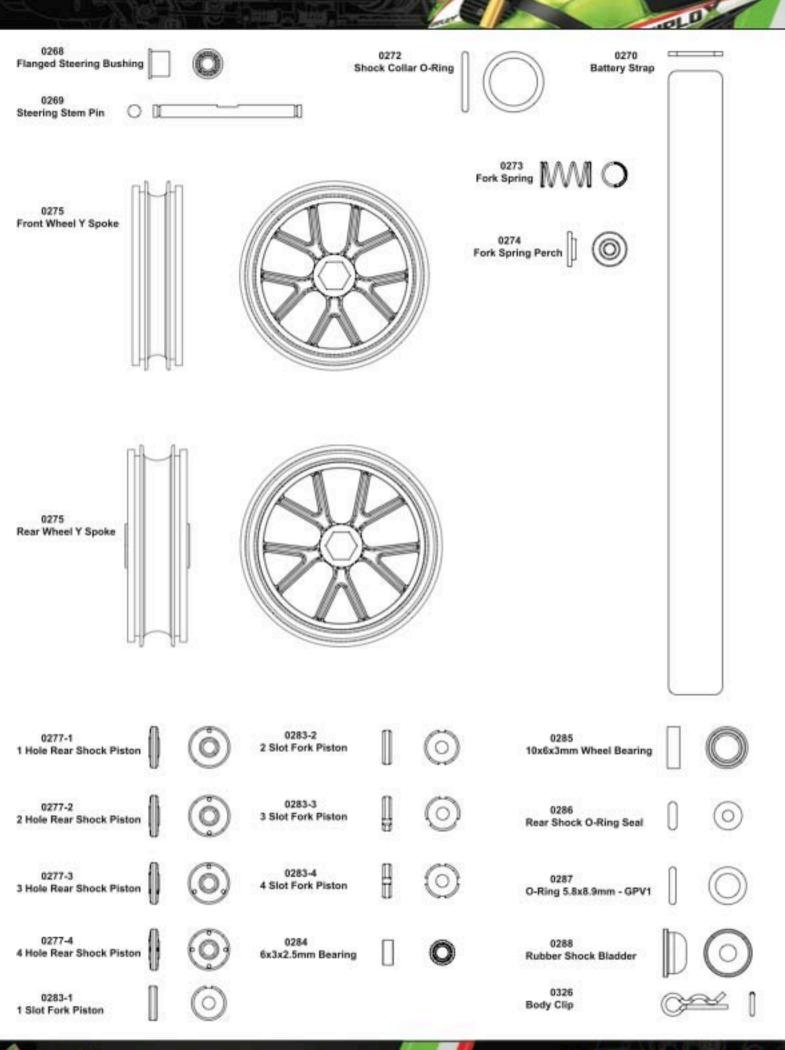














1167V5 Front Tire V5 Hard - GPV1 17x10.5x57.5mm



1168V5 Rear Tire V5 Hard - GPV1 23x12.5x61.5mm



1176M Front Tire Insert Medium - GPV1



1177M Rear Tire Insert Medium - GPV1

BUILD STEPS

STEP 1

OPTION PART

Replace 0170a with: 0327

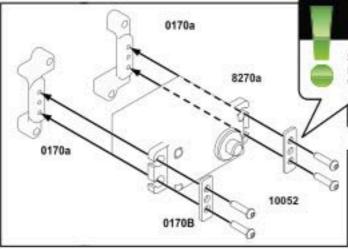
Alloy Servo Mount Set





10067 M3x8mm

0 x4 10095 M2 Washer

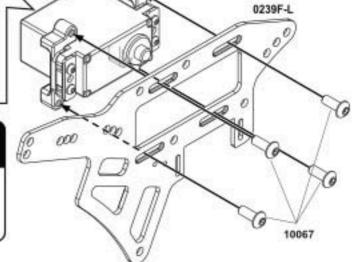


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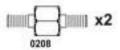
Some Servos may require the use of the 0267 kit supplied washers.



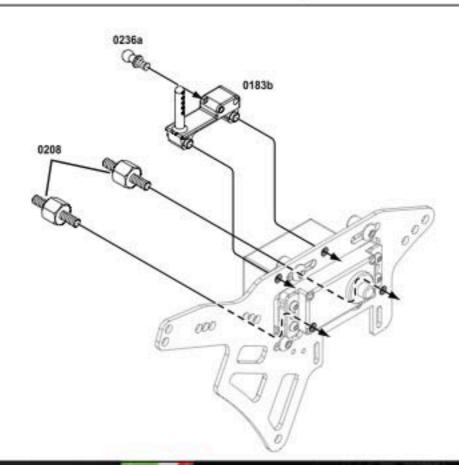
For the best fit and finish, use the proper size bottom tap to prethread the screw holes on hard plastic parts. Pre threading the holes will help prevent cross threading and striping the parts.

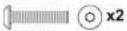


STEP 2



0236 x1







10087

10070 M3x14mm

M3 Nylon Locknut

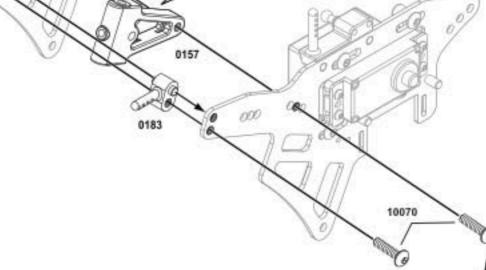
Replace 0157 with: 0329

Alloy Steering Stem Set or 0323 Option Steering Stem (Plastic) GPV1.

If you are using the optional Brake Kit (0355) start installation now.

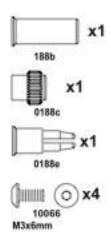
Alloy Stand Off Set

The lower edge of 0157 must be parallel to the lower edge of the chassis 0239F-R plates. 000



Do not fully tighten this screw as you will need to rotate the part in a future build step.

STEP 4 Use the kit supplied tools to install internally located chassis parts. x2 0150a 0150b 10.4mm Standoff 10 0150b 12mm Standoff 0150a 0179 0150c 0150c Replace 0150a,b,c,d 16mm Standoff 0180 with: 0336









10067 M3x8mm



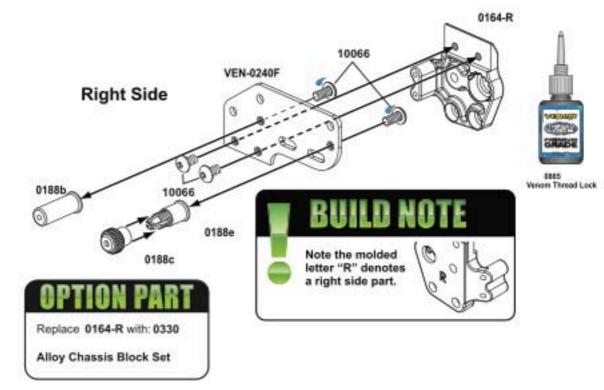
10045 M3x10mm

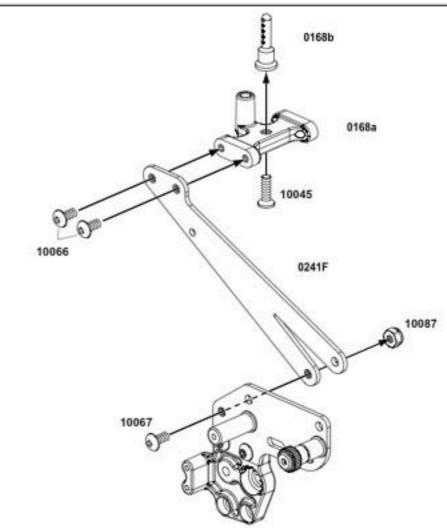


10087 M3 Nylon Locknut

Replace 0168 with: 0329

Alloy Steering Stem Set







GPV-1

STEP 7

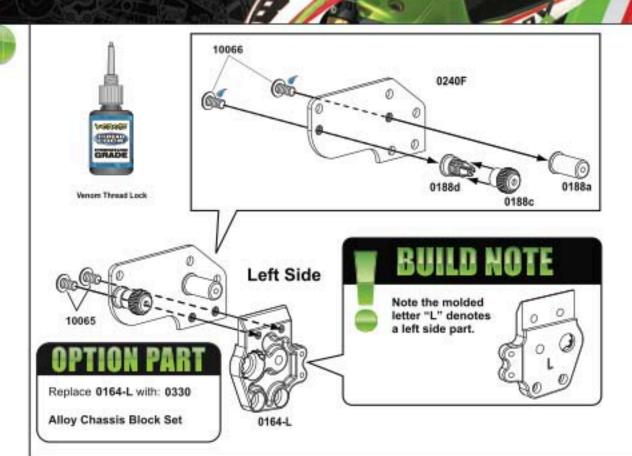




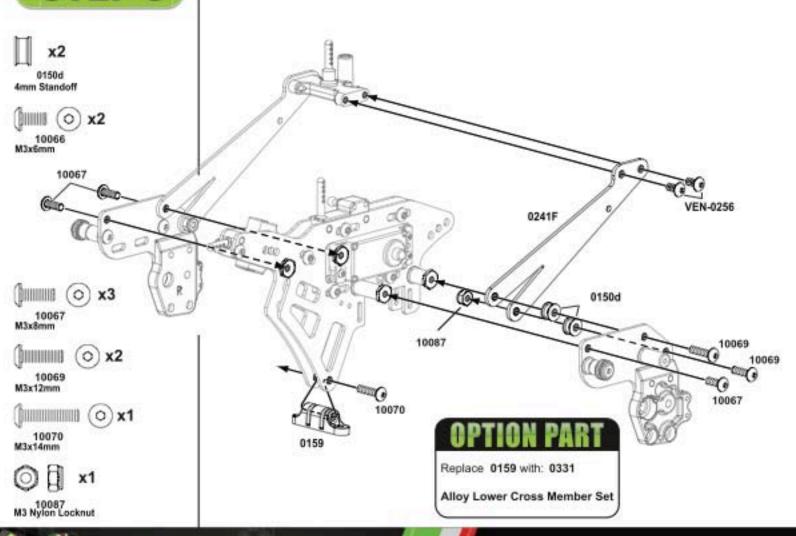


10065 M3x5mm





STEP 8





x1

10037 M2.5x6mm



10045 M3x10mm

10087 M3 Nylon Locknut

10076 M4x8mm



Replace 0174 with: 0331

Alloy Lower Cross Member Set

STEP 10

()IIIII ⊚ x1 10052 M2x6mm

)IIII (o) x2

10037 M2.5x6mm

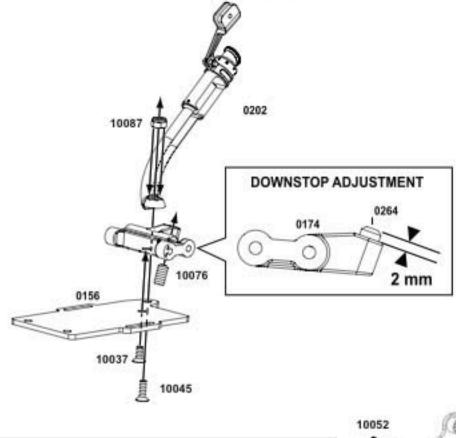
(I) (O) x1

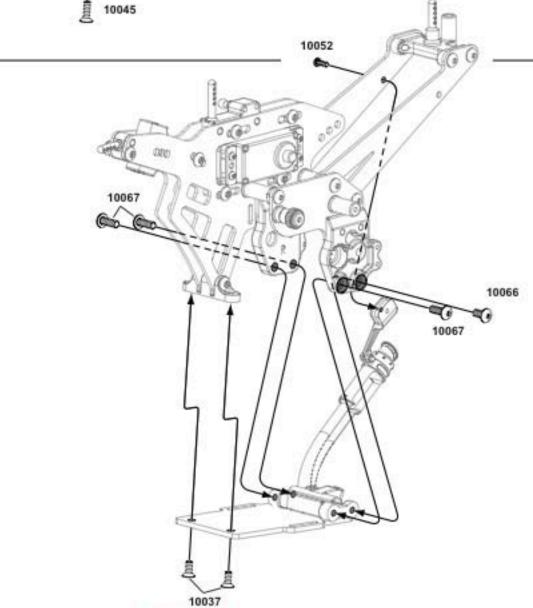
10066 M3x6mm

(Junuary)

M3x8mm

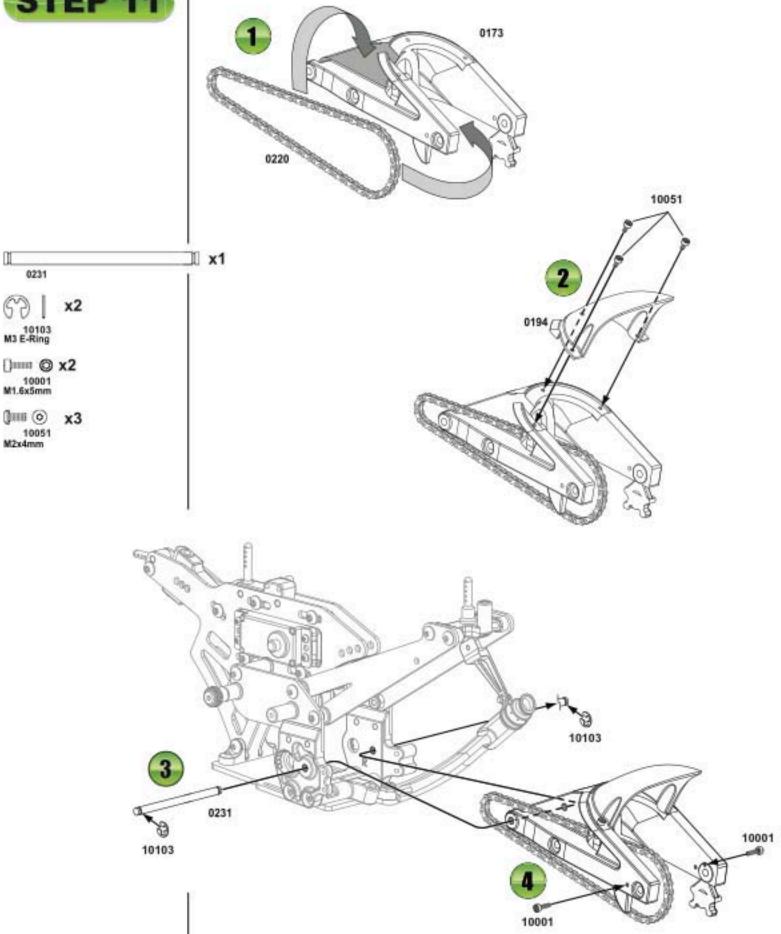
(o) x3 10067

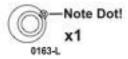














0221 x1





0238 11T Chain Sprocket



10103 M3 E-Ring

(JIII ⊚ x2

10051 M2x4mm

10013 M3x3mm

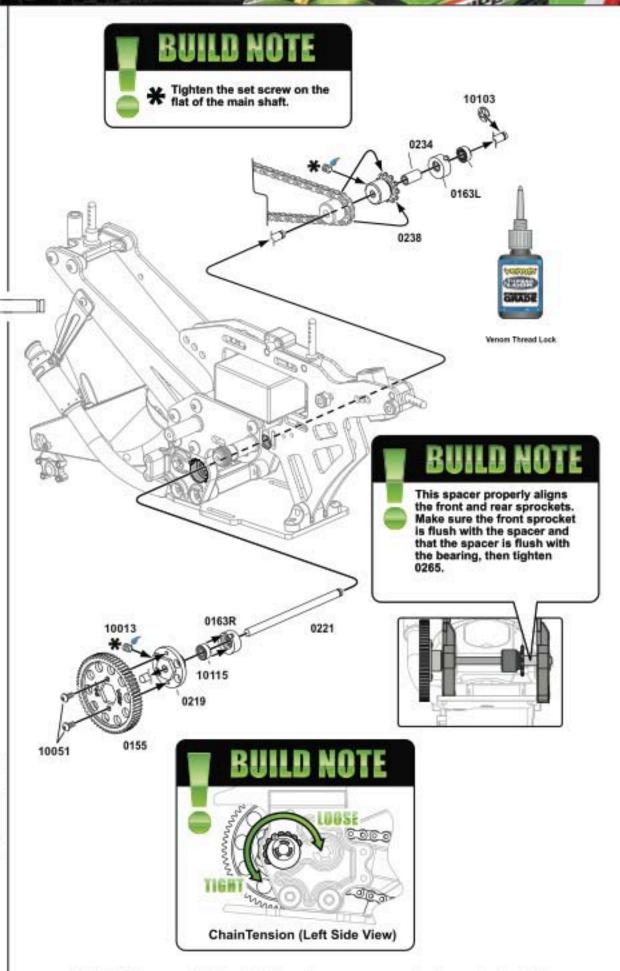


10115 6x3x2.5mm

OPTION PART

Replace 0155 with:0313

60T Spur Gear .5 Mod 0314 62T Spur Gear .5 Mod



NOTE: Make sure the left and right tensioners are set evenly. Start with the middle setting and adjust the tension as needed.



GPV-1

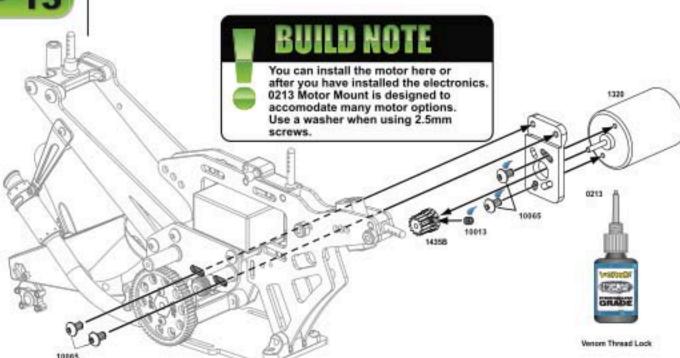
STEP 13



10065 M3x5mm

III ◎ x2

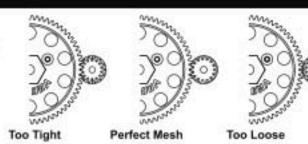
10013 M3x3mm



BUILD

Proper Gear Mesh

When the gear mesh is set properly, there should be a small amount of free movement. If the mesh is too tight the gears will wear rapidly and the increased drag will cause a decrease in performance. If it is too loose, the gears will strip easily.



STEP 14

OPTION PART

Replace 0214 with: 0353

Alloy Rear Shock-GPV-1

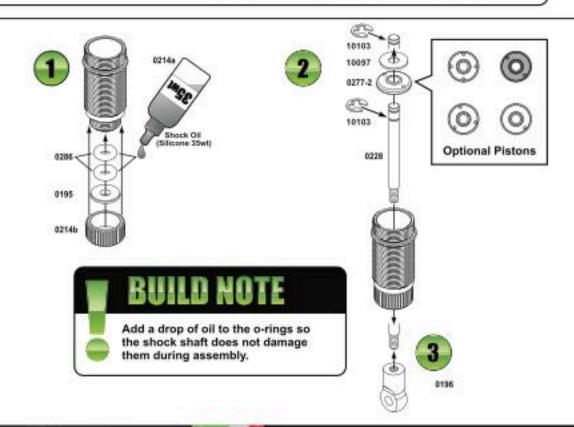
0195 X1

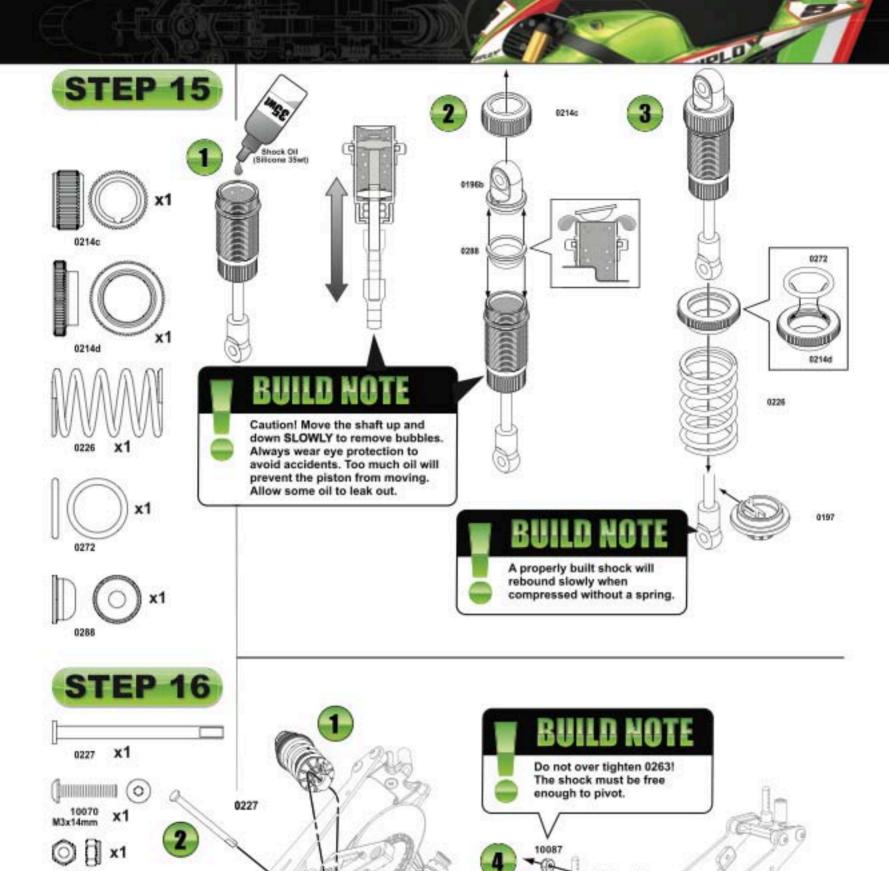
7 | x2 (x2

0286 O-Ring

10103 M3 E-Ring

10097 M3 Washer





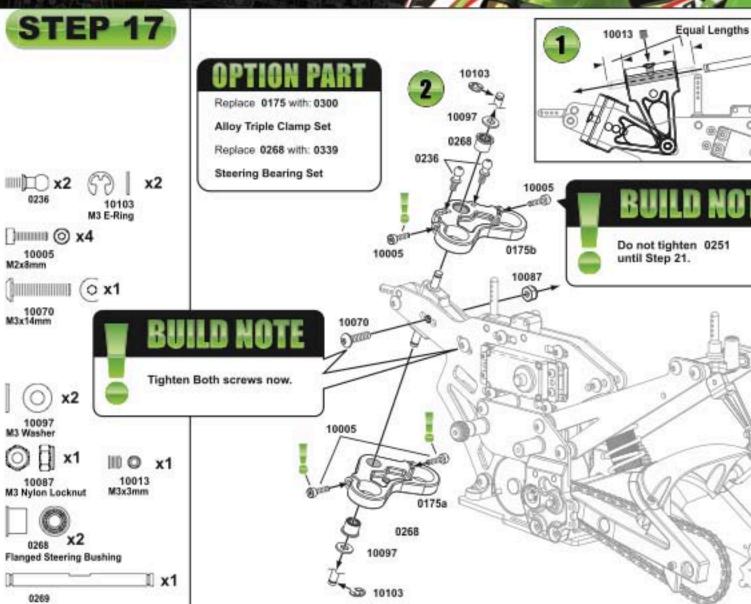


M3 Nylon Locknut

III ◎ x1

M3x3mm

GP V-1 PRD STEP 17



0269



x2

x4

x2

x6

0165

0166

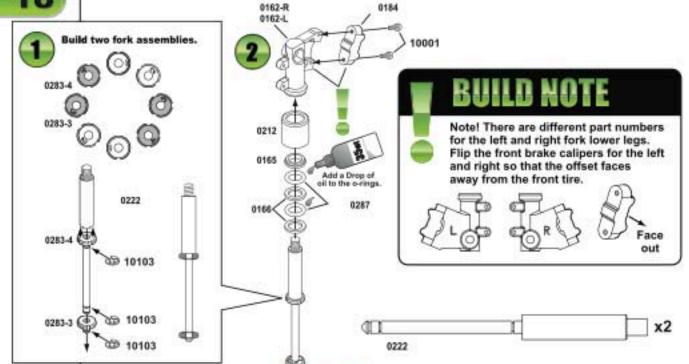
0212

10103 M3 E-Ring

10001 M1.6x5mm

D x4

0287 5.8x8.9mm



 $\mathbb{M}_{_{0273}}$ O

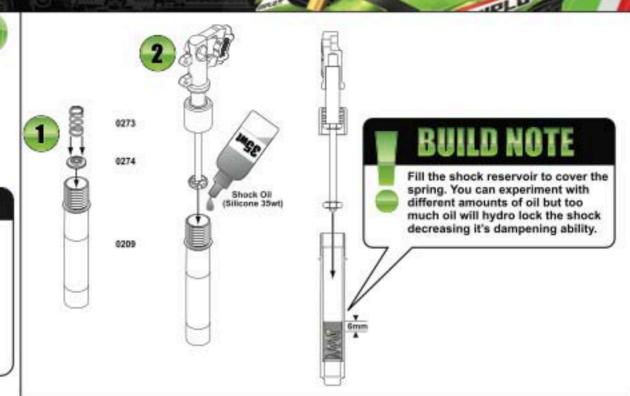


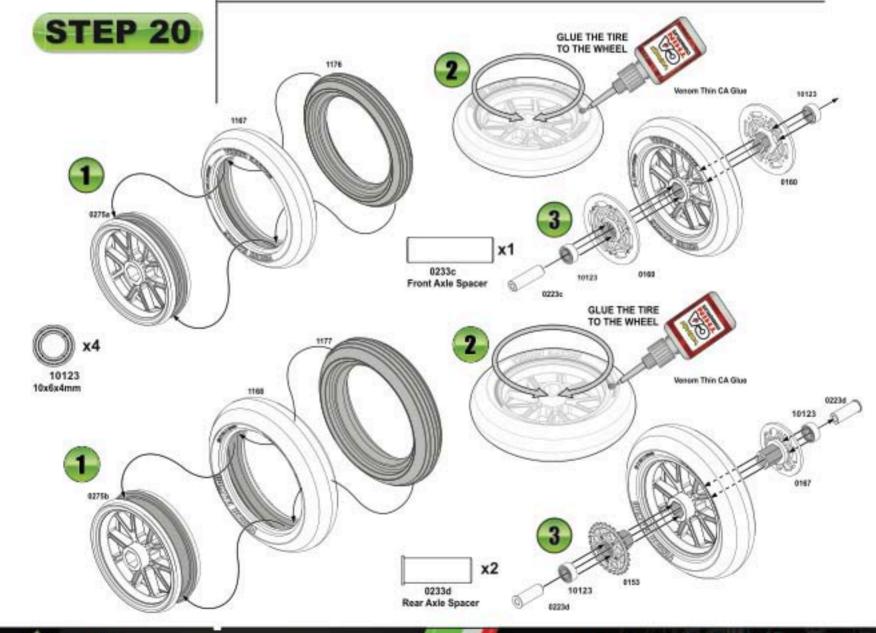
OPTION PART

0352 Alloy Forks & Preload Adjustment - GPV1

OPTION TIRES: Front Tire 1167 V3 Medium 1167 V1 Soft

Rear Tire 1168 V3 Medium 1168 V1 Soft





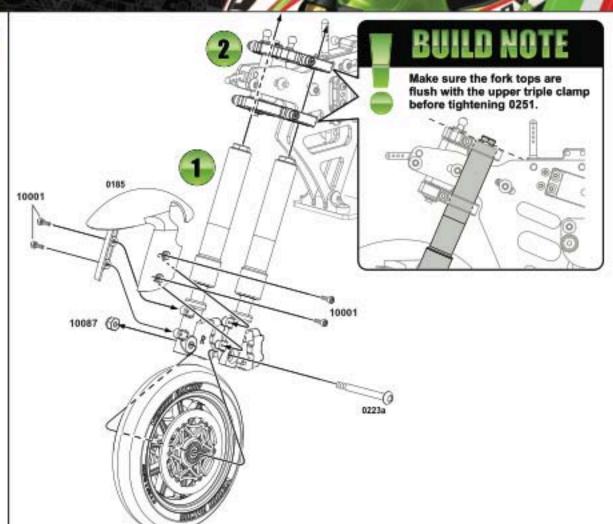


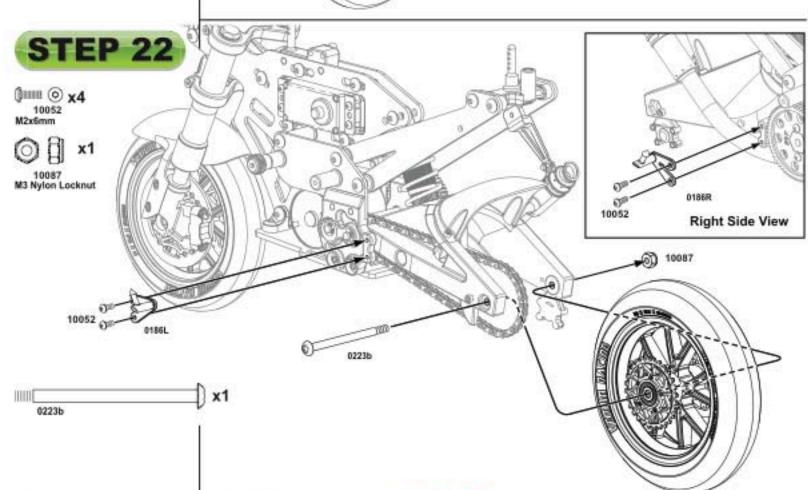


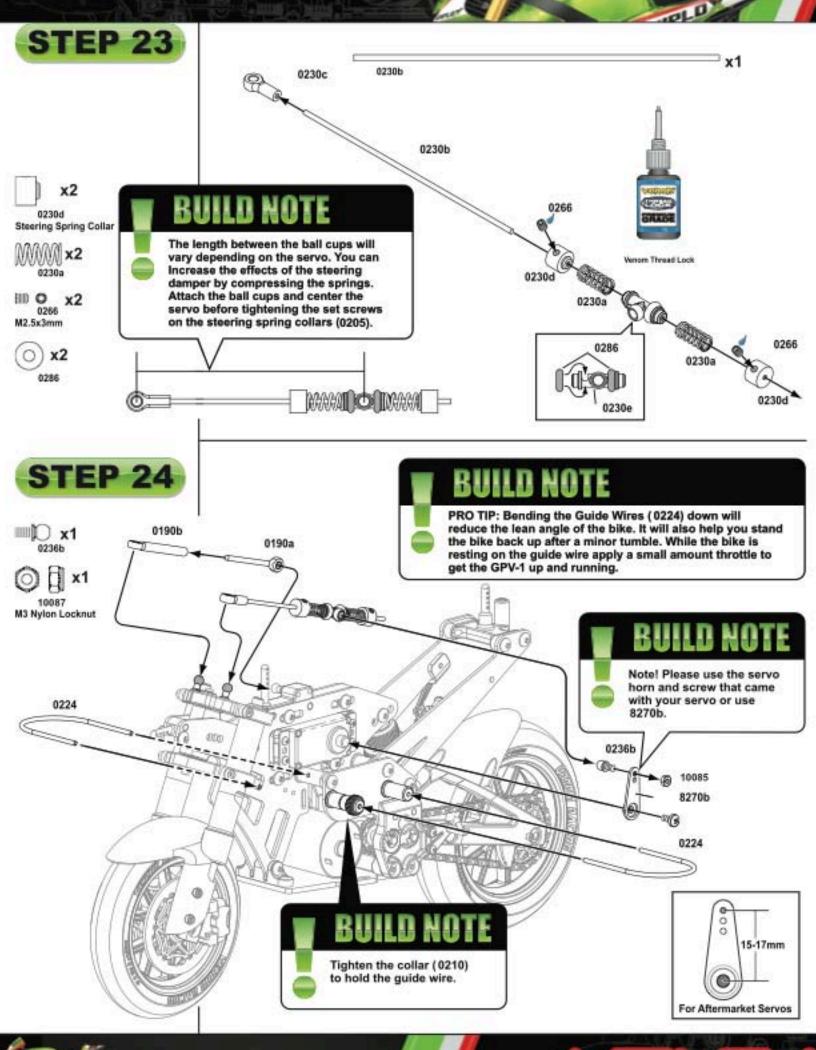
10001 M1.6x5mm

் இ 81 x1

10087 M3 Nylon Locknut









Electronics

Recommended Installation Locations Caution! Rotating Parts

Possible Receiver Location. Note: Route the wires through holes in the chassis.

Possible ESC Location.

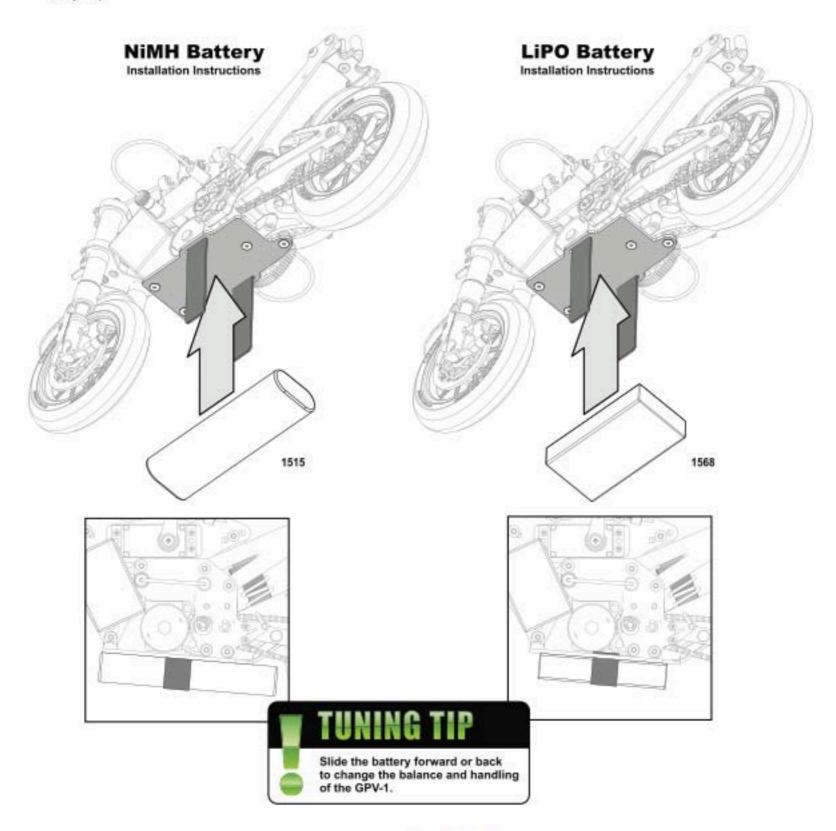


Possible Reciever Location. Note: Route the wires through holes in the chassis.

The GPV-1 can accept most standard size electronics but if you choose to install the Optional Front Brake Kit (0355) it will require the use of micro electronics.

Possible ESC Location.

0270 Battery Strap







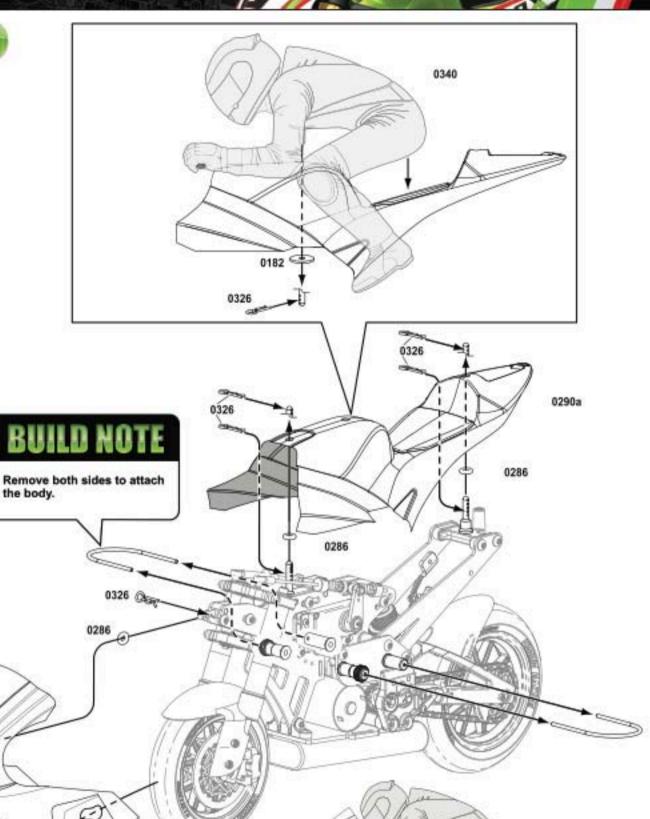
0182

(O) x3

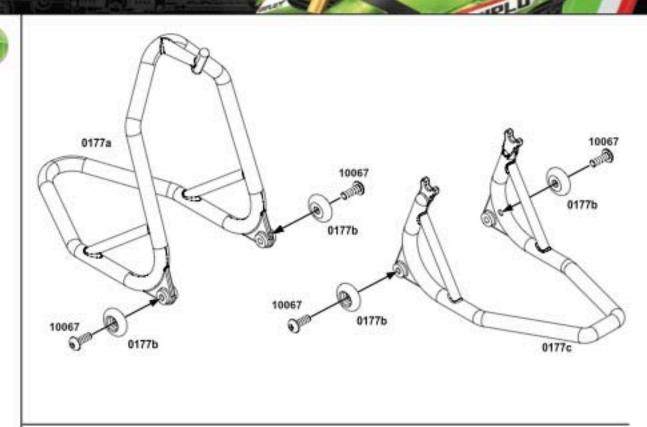
0286

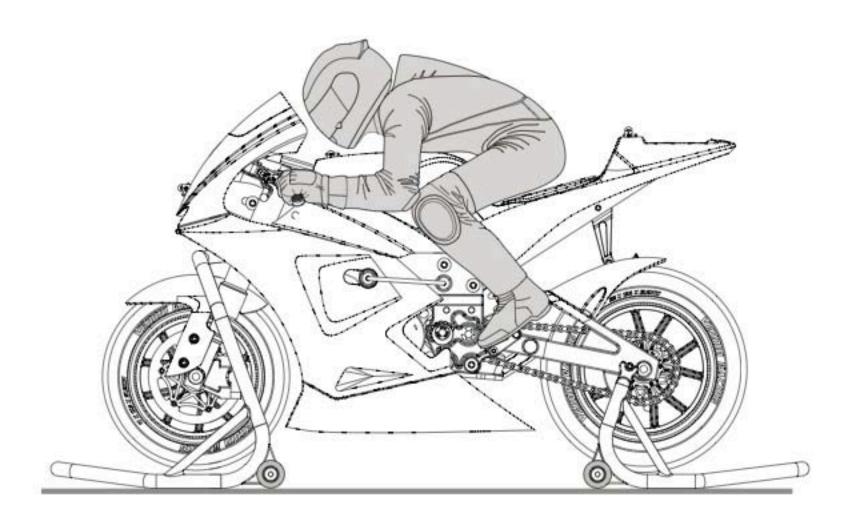
⊘∞∠ x7

0326 Body Clip



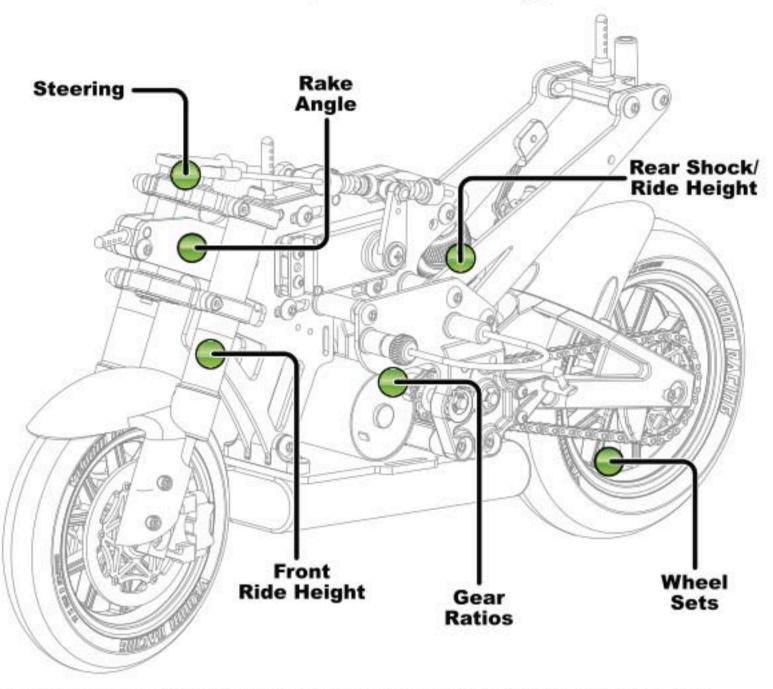






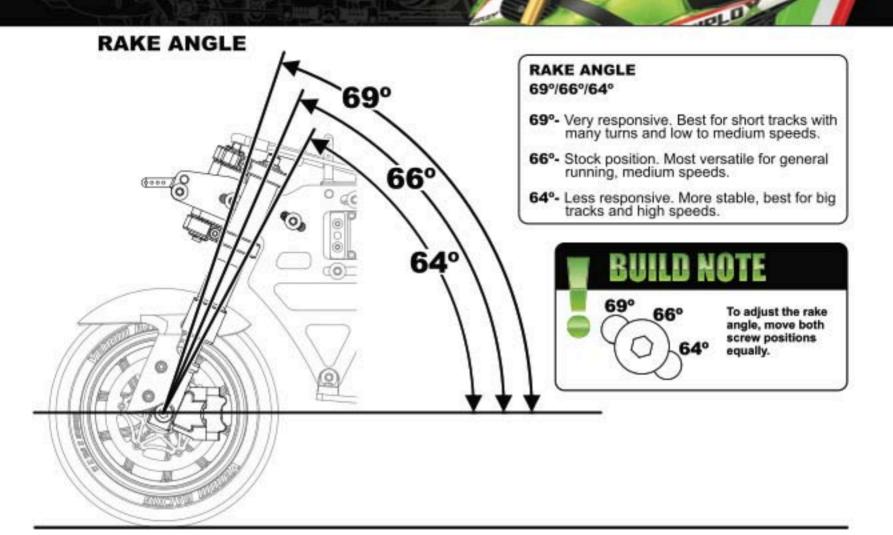


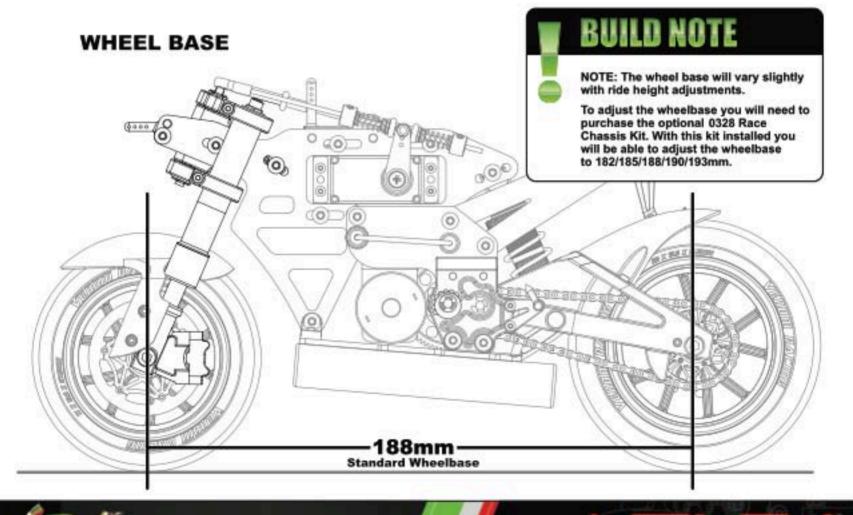
GPV-1 Setup & Tuning Guide



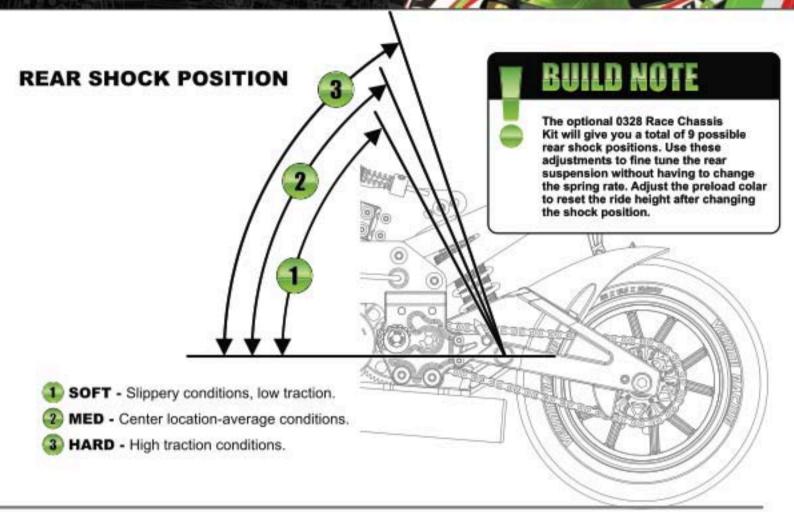
The Venom GPV-1 is the most advanced and most adjustable 1/8th Scale R/C Motorcycle on the market. As with any purpose built race machine, proper setup and tuning is one of the most important steps in extracting every possible ounce of performance. A proper setup can be the difference between a podium finish and an "also ran" finish. While the GPV-1 seems like a simple machine, there are a lot of little elements that can effect the overall performance. The following pages do not provide absolute settings but rather provide you with the tools necessary to fully understand what is happening with each adjustment. Using these setup guides in different combinations and amounts will help you tune and get the most out of your Venom GPV-1.

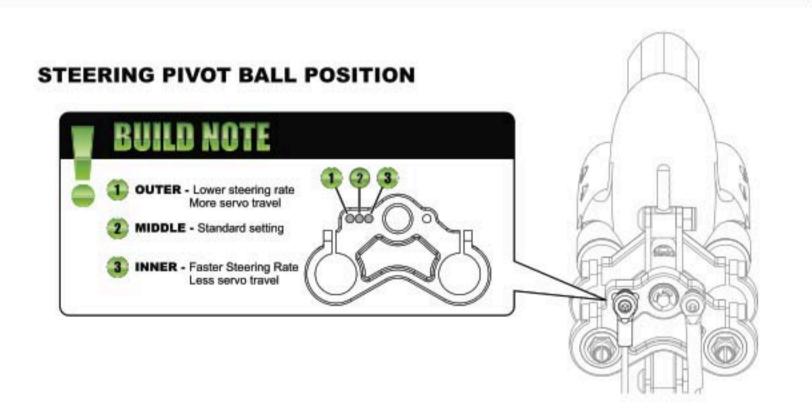
Team Venom











GEAR RATIO

1	C	SPUR GEAR		
37/2	Carren V	60	62	64
P	12	5:1	5.16:1	5.33:1
200	13	4.6:1	4.76:1	4.92:1
000	14	4.2:1	4.42:1	4.57:1
	15	4:1	4.13:1	4.26:1

GEAR RATIO \times 2.6 = FDR

Final Drive Ratio (Pinion/Wheel)

EXAMPLE:

4.57 x 2.6 = 11.88:1 FDR

SPEED CHART

MOTOR	BATTERY	NO LOAD RPM	PINION/ SPUR	ESTIMATED SPEED
FireBall 370	6 Cell	30,000	15/64	44.3k/h / 27.5mph
4000kv Brushless	2S LiPO	33,600	13/60	46.0k/h / 28.57mph
6000kv Brushless	2S LiPO	50,400	14/60	75.6k/h / 46.9mph
8000kv Brushless	2S LiPO	67,200	15/60	105.8k/h / 65.7mph

Note: All speeds are based on calculations. Actual speeds may vary depending on conditions. Using the formula below you can estimate your setup speed.

Formulas to Calculate Estimated Speed (use in sequence):

Find these values first:

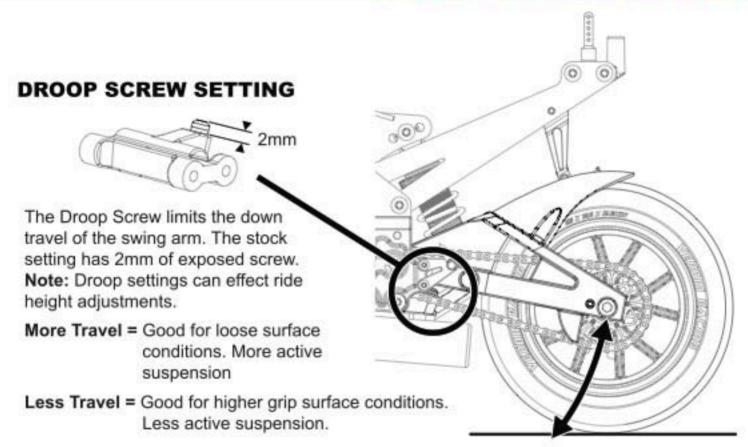
Rear Tire Roll Out = 273mm KV x Voltage = RPM (No Load RPM) Pin/Spur Ratio x 2.6 = FDR Follow this sequence:

RPM ÷ FDR = Wheel RPM (WRPM)
WRPM x Rear Tire Roll Out = mm/min
mm/min ÷ 1000 = Meters per min (m/min)
m/min x 60 minutes = Meters/hour (m/hr)
m/hr ÷ 1000 = Kilometers per hour (k/h)
k/h x 0.621 = Miles Per Hour (mph)

Subtract 20% from the estimated speed for a more realistic speed prediction.



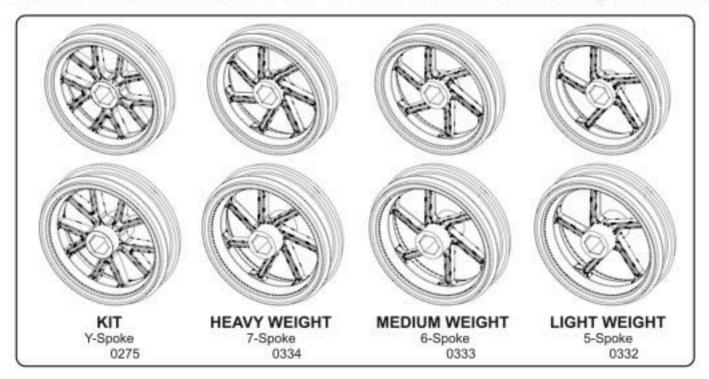




NOTE: The stock setting provides approximately 6mm of down travel.

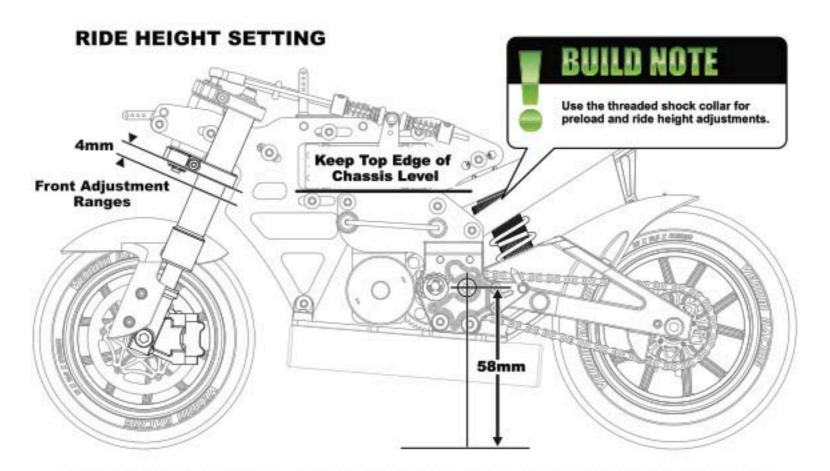
WHEEL SETS

Fine tune the responsiveness of the GPV-1 with different combinations of weighted wheel sets.



NOTE:

The kit wheels are the heaviest and most stable wheel set available for the GPV-1. A lighter wheel set will be more agile and accelerate faster.



Rear shock angle, rake angle, and wheelbase adjustments can all effect the ride height of the GPV-1. The chassis should stay about 58mm from the swing arm pivot point to the ground for the most consistent handling characteristics. If the ride height is too low, the bodywork may drag on the ground during extreme lean angles making the bike unstable. When adjusting the ride height, make sure the top edges of the chassis remain parallel to the ground. Adjust the rear ride height using the threaded shock collar. The front ride height can be adjusted a total of 4mm by loosening the 0251 Cap Head Screws and sliding the front forks up or down. Remember to re-tighten the front fork cap head screws before running the GPV-1.

BUILD NOTE

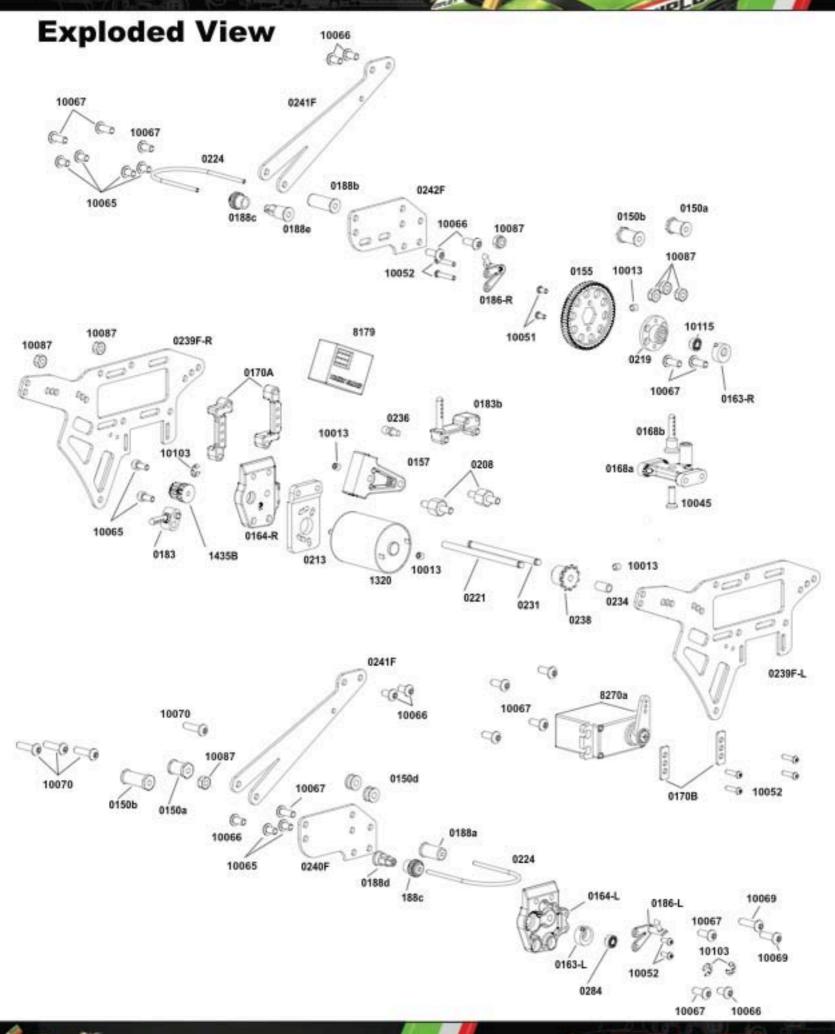
Raising the rear ride height alone will also change the rake angle. Lowering the front ride height in addition will change the rake angle even more. Consider this adjustment combination carefully to fine tune the steering response and performance of the GPV-1.



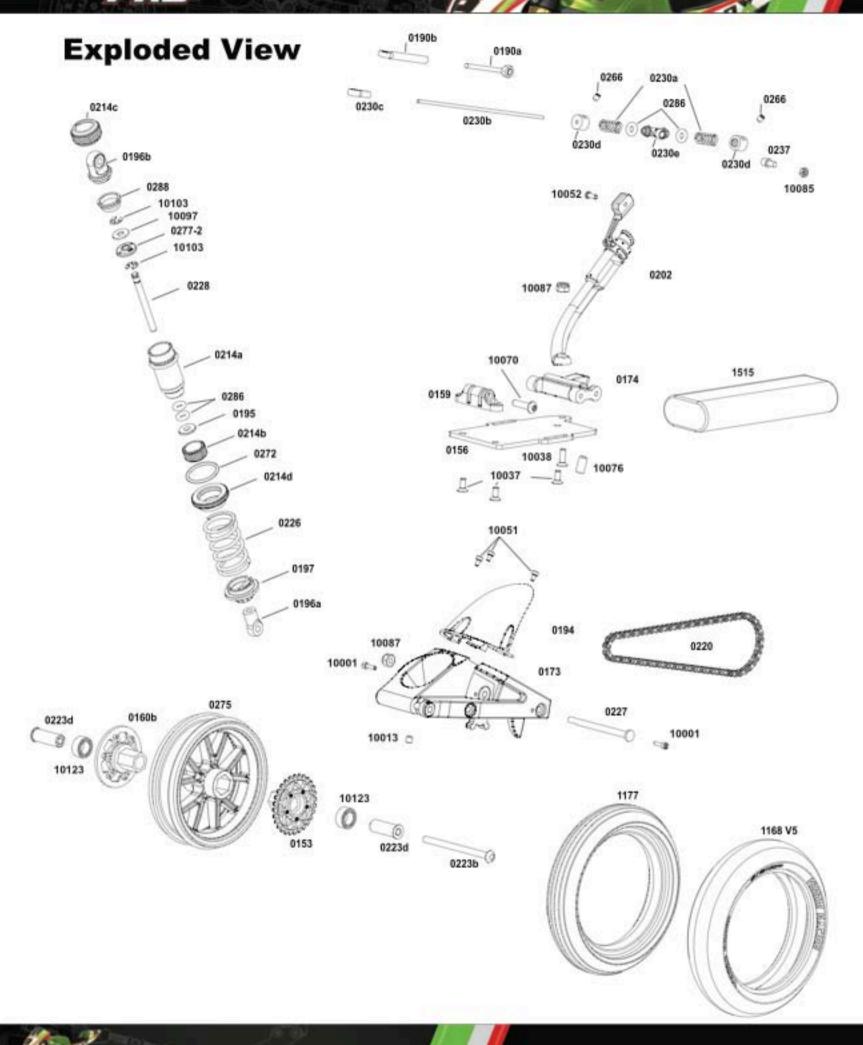




Exploded View 0177a 0177b 0177b 10097 -0209a 10103 ~ 0177c 0177b 0283-4 0177ь 0187-R 0187-L 0209ь 0223c 0275a 1167 V5



GPV-1



PARTS LIST

KIT PARTS

	PAK	AND A STANDARD ROOM OF THE PROPERTY OF THE PRO	DADT#
PART	#	DESCRIPTION	PART#
0	150	Chassis Standoff Set - GPV1	0290-
	153	28T Chain Sprocket - GPV1	0326
	155	64T Spur 0.5M - GPV1	0340-
	156	Battery Plate RTR - GPV1	0340-
	157 159	Steering Stem RTR - GPV1 Front Battery Tray Mount - GPV1	0340-0 0654
	160	Brake Rotors - GPV1	1167V
	162	Lower Fork Legs - GPV1	1168V
0	163	L/R Chain Tensioners - GPV1	1176N
	164	Chassis Blocks - GPV1	1177N
	165	O-Ring Spacer Flanged - GPV1	1320
	166	O-Ring Spacer Flat - GPV1	1381
	168 170	Rear Cross Member/Body Post - GPV1 Servo Mounts - GPV1	1515 8178
	173	Swing Arm - GPV1	8269-
	174	Swing Arm Stop - GPV1	8269-
0	175	Triple Clamp Set - GPV1	8269-
	177	Track Stand Set - GPV1	8269-
	183	Body Mounts - GPV1	8269-
	184	Front Brake Caliper - GPV1	8269-
	185 186	Front Fender - GPV1 Foot Pegs - GPV1	8270 8271
	187	Handlebars - GPV1	02/1
	188	Wire Mount Set - GPV1	
	190	Steering Damper - GPV1	OPTIO
	194	Rear Fender - GPV1	
	195	Rear Shock Lower Cap Bushing - GPV1	PART #DE
	196	Rear Shock Pivots - GPV1	0290-
	197 202	Rear Shock Spring Perch - GPV1 Scale Exhaust - GPV1	0300
	208	Center Chassis Standoff - GPV1	0313
	209	Fork Tubes - GPV1	0314
	213	Motor Mount - GPV1	0323
	214	Rear Shock Body and Caps - GPV1	0327
	219	Spur Gear Hub - GPV1	0328 0329
	220 221	Chain - GPV1 Drive Shaft - GPV1	0330
	222	Fork Shaft - GPV1	0331
	223	Axles and Spacers - GPV1	0332
	224	Guide Wire - GPV1	0333
	226	Rear Shock Spring - GPV1	0334
	227	Shock Pivot Shaft - GPV1	0336
	228	Shock Shaft - GPV1	0338 0339
	230 231	Steering Link Assembly - GPV1 Swing Arm Pin - GPV1	0340-
	232	Hardware Kit - GPV1	0352
	234	Front Sprocket Spacer - GPV1	0353
0	236	Threaded Pivot Ball - GPV1	0355
	238	11T Chain Sprocket - GPV1	0356
	239F	Center Chassis Plate - GPV1	0357
	240F	Chassis Side Plates RTR - GPV1	0358 0359
	241F 268	Rear Sub Frame Plate RTR - GPV1 Flanged Steering Bushing - GPV1	0360
	269	Steering Stem Pin - GPV1	0361
	270	Battery Strap - GPV1	0362
	273	Fork Spring - GPV1	1167V
	275	Wheel Set Y Spoke - GPV1	1167V
	277	Shock Pistons - GPV1	1168V
	283 284	Fork Pistons - GPV1 6X3X2.5MM Bearing - GPV1	1168V 1364
	285	10X6X3MM Wheel Bearing - GPV1	1550
	286	Rear Shock O-Ring (3pcs) - GPV1	1551
0:	287	O-Ring 5.8ID X 8.9OD - GPV1	10 75 C.
	288	Rubber Shock Bladder - GPV1	
	290-02	Body Set Blue - GPV1	
	290-03	Body Set Green - GPV1	
	290-04 290-05	Body Set Orange - GPV1 Body Set Red - GPV1	
	290-06	Body Set White - GPV1	
		0.107 001 111110 01 1 1	

ART#	DESCRIPTION
0290-07 0326 0340-02 0340-03 0340-04 0654 1167V5 1168V5 1176M 1177M 1320	Body Set Yellow - GPV1 Body Clip (5pcs) - GPV1 Rider Figure Green - GPV1 Rider Figure Black - GPV1 Rider Figure Red - GPV1 6-Cell NiMH Wall Charger Front Tire V5 Hard - GPV1 Rear Tire V5 Hard - GPV1 Front Tire Insert (Med) - GPV1 Rear Tire Insert (Med) - GPV1 Fireball Micro 370 Motor
1381 1515 8178 8269-01 8269-02 8269-03 8269-04 8269-05 8269-06 8270	V-Series 18R 160amp Brushed ESC 1200mah 6Cell 2/3A 7.2V NiMH Battery Venom 3-Ch FM Transmitter & RX Venom Crystal Set Ch 1 - 26.995MHz Venom Crystal Set Ch 2 - 27.045MHz Venom Crystal Set Ch 3 - 27.095MHz Venom Crystal Set Ch 4 - 27.145MHz Venom Crystal Set Ch 5 - 27.195MHz Venom Crystal Set Ch 6 - 27.255MHz Venom Mini Servo 308

Venom Micro Brake Servo 140

ON PARTS ESCRIPTION

0290-01	Body Set Clear - GPV1
0300	Alloy Triple Clamp Set - GPV1
0313	60T Spur Gear .5M - GPV1
0314	62T Spur Gear .5M - GPV1
0323	Option Steering Stem (Plastic) - GPV1
0327	Alloy Servo Mount Set - GPV1
0328	Race Chassis Kit - GPV1
0329	Alloy Steering Stem Set - GPV1
0330	Alloy Chassis Block Set - GPV1
0331	Alloy Lower Cross Member Set - GPV1
0332	Wheel Set A (5 spoke) - GPV1
0333	Wheel Set B (6 spoke) - GPV1
0334	Wheel Set C (7 spoke) - GPV1
0336	Alloy Standoff Set - GPV1
0338	Titanium Screw Set - GPV1
0339	Steering Bearing Set - GPV1
0340-01	Rider Figure White - GPV1
0352	Alloy Forks & Preload Adjustment - GPV1
0353	Allov Rear Shock - GPV1
0355	Brake Kit - GPV1
0356	Brake Cable Bracket - GPV1
0357	Brake Cables - GPV1
0358	Lower Fork Legs-BK - GPV1
0359	
0360	Calipers-Brake Kit - GPV1 Brake Cable Clevis - GPV1
0361	Rotor Hub - GPV1
0362	Brake Pads - GPV1
	Front Tire V1 Soft - GPV1
1167V1	Front Tire V3 Med - GPV1
1167V3	Rear Tire V1Soft - GPV1
1168V1	
1168V3	Rear Tire V3 Med - GPV1
1364	V-Series V20L Brushless Motor
1550	10C 7.4v 1250Mah 2-Cell LiPO Battery
1551	10C 11.4v 1250Mah 2-Cell LiPO Battery





* Denotes Factory Setting

Setup Sheet

Name:		_ Date:
Track:	Track Condition:	Air/ Track Temp:/
Rake Angle ∗ 66	Shock Angle	1 Soft 2 Chassis 3 RTR 4 Race
Front Ride Height -4mm -3mm -2mm -1mm *0mm		5 Medium * 6 7 8 9 Hard Rear Rid
	180mm	Height *127mm
Steering Rate	Suspension	Steering Damper
S = Slow S M F M = Medium F = Fast Bushin	Pieton Ion. Pieton Ion.	Grease: Y N O-ring: 1 2 3
Control Bearing	Piston Btm: Spring: Preload: Preload:	Battery
Tires Fr: Rr:	S AN CRUP CEAR	Electronics
Insert Fr: Rr: Wheel Set	60 62	Servo:Rec:

Tires F	r:	Rr:
Insert F	r:	Rr:
	Whe	el Set
Front:	Kit	Rear: Kit
	Heavy	Heavy
	Medium	Medium
	Light	Light

SA.			SPUR GEAR	
M O	X	60	62	64
P	12	5:1	5,16:1	5,33:1
1	13	4.6:1	4.76:1	4.92:1
6	14	4.2:1	4.42:1	4.57:1
K)	15	4:1	4.13:1	4.26:1

Electronics	
Servo:	
Rec:	
ESC:	
Motor:	
Option Parts	
1) 3)



WARRANTY, SERVICE AND SUPPORT

Thank you for purchasing the GPV-1™. We want to assure you that your model is backed by first-class customer service and support.

If you have questions or concerns about your GPV-1 [™], simply call us at 800.705.0620, Monday – Friday, 9:00am to 4:00pm Pacific Standard Time. You can also e-mail us at customerservice@venom-group.com. For hands on service and faster access to replacement parts, please visit your local hobby shop.

Venom Group™ Limited Warranty

Venom™ products are warranted to be free of material and workmanship defects for a period of 30 days* from date of purchase for all electronic components and 90 days* for all non-electronic components. If a component is defective or was not correctly made, Venom™ will, at its sole discretion, repair or replace the item free of charge. This warranty does not cover normal wear and tear, crash damage, modifications, failure to perform routine maintenance, or any damages arising as a result of improper use.

The GPV-1 ™ is a hobby-class model ™ and not a "toy". Because this product is intended to be used over a wide range of operating conditions and situations, Venom Group™ does not offer any warranty, express or implied, that covers damage caused by normal use or wear, or cover or imply how long any component of the GPV-1™ will last before requiring replacement due to wear or breakage.

Any and all warranty coverage does not cover replacement of parts and components damaged by water, neglect, improper use, chemical damage, crash damage, unauthorized modification or the use of any non Venom™ product in association with the GPV-1™.

A dated & itemized sales receipt must accompany any product returned for warranty work.

WARNING

Venom Group™ and its affiliates, partners and subsidiaries cannot control the use, application or installation of this product and shall not be held liable for any property damage or personal injury resulting from the improper use of this product or failure to follow the supplied instructions.

By the act of using this product, the user accepts all resulting liability. In no case will Venom Group™ liability be greater than the actual purchase price of the product.

Repair

For all non-warranty repairs, Venom Group™ charges \$20/hr plus the cost of the replacement parts and \$10 for return shipping to US/Canada or \$30 International.

When sending in a product for warranty and/or repair, please follow these steps:

- Call Venom Group[™] Customer Service at 800-705-0620 to receive a Return Merchandise Authorization Number (RMA#).
- Include a short summary of the problem.
- Include your return address, ***We can NOT return ship to PO Boxes***.
- Include a daytime telephone number and/or e-mail address.
- 5) When preparing the GPV-1 ™ for shipment, please use the following guidelines to assist us in expediting your repair and keeping any repair costs for you to a minimum:
 - Remove all batteries from the GPV-1™.
 - Remove any non Venom[™] after-market parts.
 - Package all items in original box as arranged upon purchase.
 - If you are sending loose items, please seal them in a bag to avoid loss. Make sure to secure all parts to prevent further damage.
 - Ship your package "Insured" and ask for "Delivery Confirmation" with a tracking number. Venom Group™ will not be responsible for lost or damaged packages in transit to us.

CONTACT

Venom Group International

14028 N. Ohio Street Rathdrum Idaho 83858 Customer Service 800.705.0620

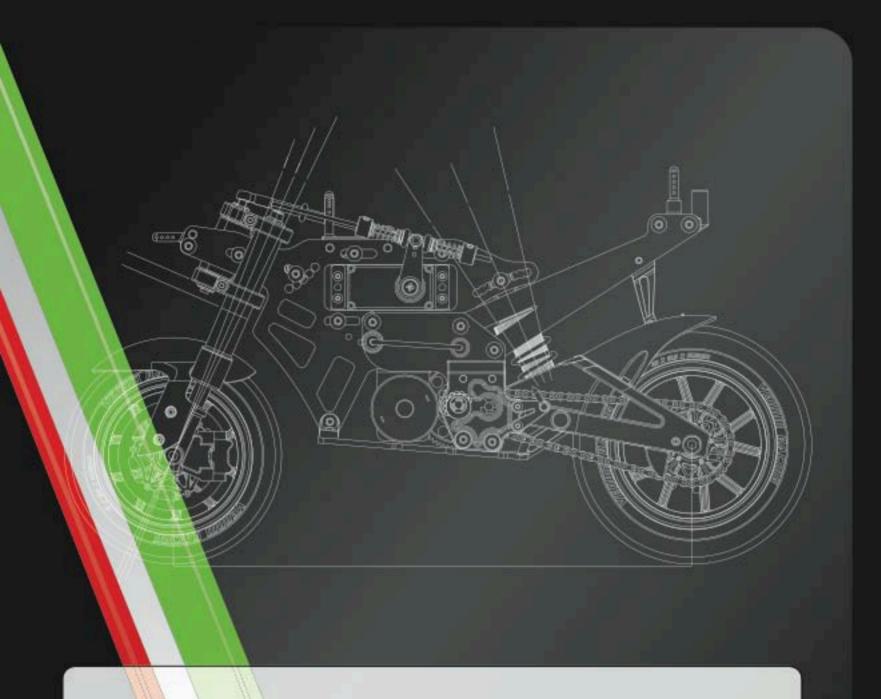
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