

VersaPlanetary v2 User Guide



VersaPlanetary v2 User Guide



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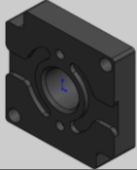
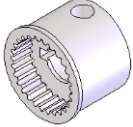







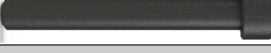


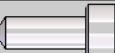

Kit Contents Tables

Base VersaPlanetary 1:1

Picture	Name	QTY	Kit
	CIM Motor Output Shaft in VersaPlanetary v2 Output Housing	1	217-4976
	3/8" Hex Output Shaft in VersaPlanetary v2 Output Housing	1	217-4974
	1/2" Round Output Shaft in VersaPlanetary v2 Output Housing	1	217-4975
	1/2" Hex Output Shaft in VersaPlanetary v2 Output Housing	1	217-4973
	VersaPlanetary v2 Input Housing	1	
	VP RS-550 Motor Mounting Plate	1	
	VP RS-775 Motor Mounting Plate	1	
	VP BAG Motor Mounting Plate	1	

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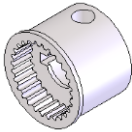




	VP AM9015 Motor Mounting Plate	1	
	VP Input Coupler	1	
	#10-32 Set Screw	2	
	BAG Motor Shaft Coupling	1	
	RS-550 Motor Coupling	1	
	RS-775 Motor Coupling	1	
	AM-9015 Motor Coupling	1	
	#8-32 x 1/2" Screw	4	
	#8-32 x 7/8" Screw	4	
	#8-32 x 1-1/4" Screw	2	
	#8-32 x 2-1/4" Screw	2	
	M3 x 8mm Screw	2	
	M4 x 10mm Screw	2	
	2mm Short CIM Key	2	

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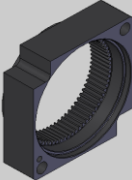

VersaPlanetary Motor Mounting Hardware Kit

217-4649

Picture	Name	QTY
	BAG Motor Shaft Coupling	1
	RS-550 Motor Coupling	1
	RS-775 Motor Coupling	1
	AM-9015 Motor Coupling	1
	#8-32 x 1/2" Screw	2
	#8-32 x 7/8" Screw	2
	#8-32 x 1-1/4" Screw	2
	M3 x 8mm Screw	2
	M4 x 10mm Screw	2
	VP Input Coupler	1
	2mm Short CIM Key	2
	#10-32 Set Screw	2

Ring Gear Add-On Kit

217-2816

Picture	Name	QTY
	Ring Gear	1
	#8-32 x 1-3/4" Screw	2

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3:1 Gear Kit

217-2817

Picture	Name	QTY
	VP 3:1 Carrier Plate	1
	18 Tooth Planet Gear	4
	36 Tooth Sun Gear	1

4:1 Gear Kit

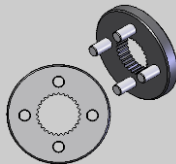
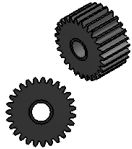

217-2818

Picture	Name	QTY
	VP 4:1 Carrier Plate	1
	24 Tooth Planet Gear	4
	24 Tooth Sun Gear	1

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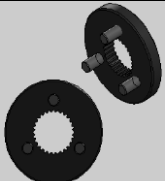
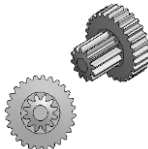
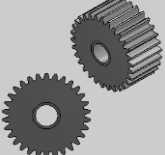
5:1 Gear Kit

217-2819

Picture	Name	QTY
	VP 5:1 Carrier Plate	1
	27 Tooth Planet Gear	4
	18 Tooth Sun Gear	1

7:1 Gear Kit

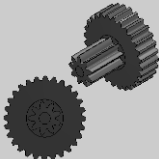
217-3102

Picture	Name	QTY
	VP 7:1 Carrier Plate	1
	12 Tooth Sun Gear	1
	30 Tooth Planet Gear	3

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9:1 Gear Kit

217-3106

Picture	Name	QTY
	VP 9:1 Carrier Plate	1
	31 Tooth Planet Gear	3
	9 Tooth Sun Gear	1

10:1 Gear Kit

217-2820

Picture	Name	QTY
	VP 10:1 Carrier Plate	1
	32 Tooth Planet Gear	3
	8 Tooth Sun Gear	1

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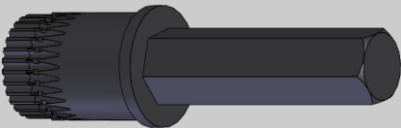
CIM Motor Output Shaft Kit

217-2893

Picture	Name	QTY
	CIM Motor Output Shaft	1

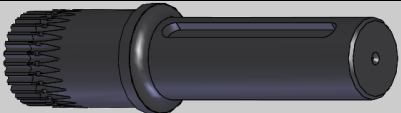
3/8" Hex Output Shaft Kit

217-2894

Picture	Name	QTY
	3/8" Hex Output Shaft	1

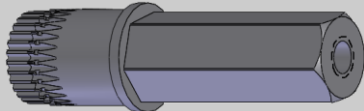
1/2" Round Output Shaft Kit

217-2895

Picture	Name	QTY
	1/2" Round Output Shaft	1

1/2" Hex Output Shaft Kit

217-2897

Picture	Name	QTY
	1/2" Hex Output Shaft	1

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VersaPlanetary v2 Single Stage Exploded View



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VersaPlanetary v2 Assembly

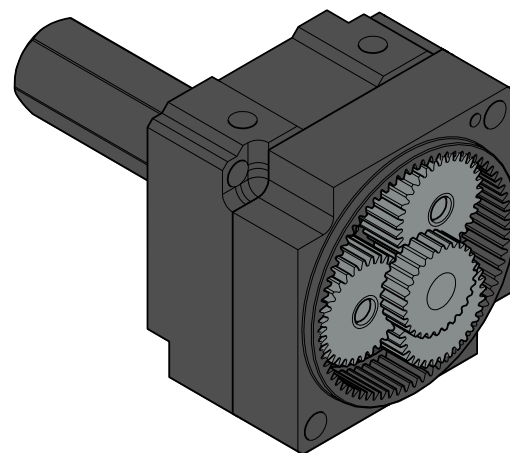
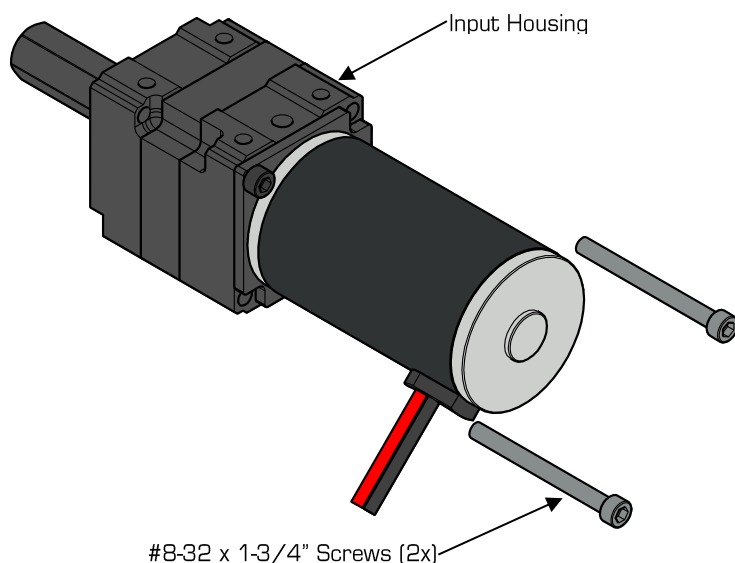
You will need:

- 9/64" Hex Key
- Base VersaPlanetary 1:1 (P/N 217-4973, 217-4974, 217-4975, 217-4976)
- VersaPlanetary Ring Gear Add-on Kit (P/N 217-2816)
- VersaPlanetary Gear Kit (P/N 217-2817, 217-2818, 217-2819, 217-3102, 217-3106, 217-2820)

VersaPlanetary v2 Multiple Stage Conversion

You will need:

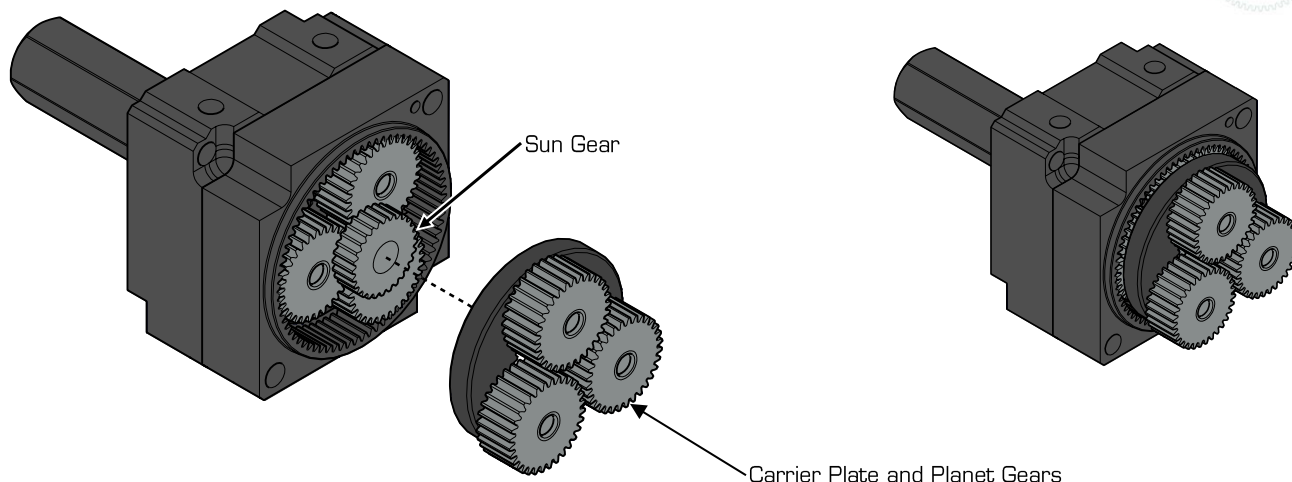
- 9/64" Hex Key
- VersaPlanetary Ring Gear Add-on Kit (P/N 217-2816)
- VersaPlanetary Gear Kit (P/N 217-2817, 217-2818, 217-2819, 217-3102, 217-3106, 217-2820)



Step 1:

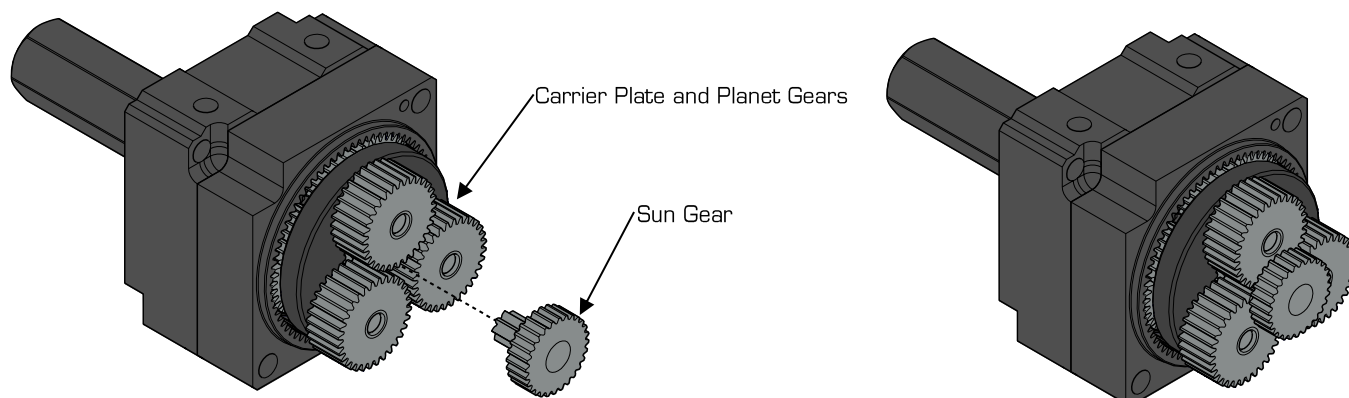
Remove (2X) #8-32 Screws from the VersaPlanetary Input Housing. Set aside the Input Housing.

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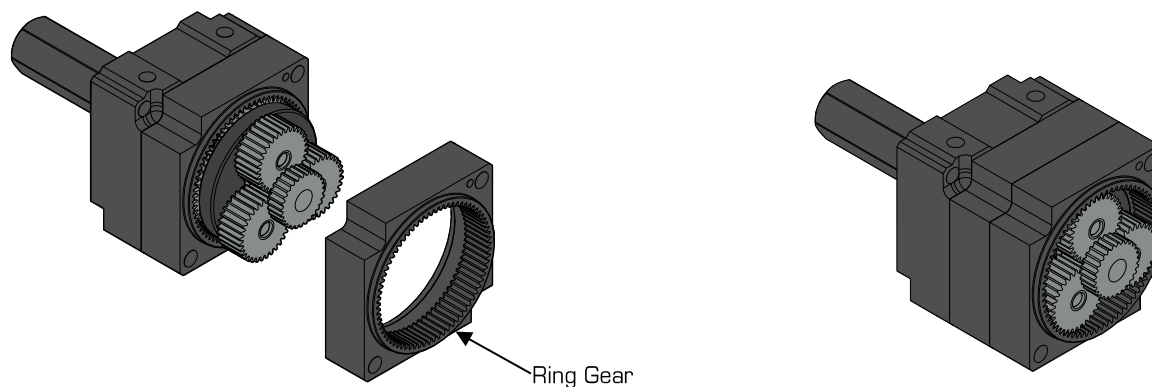
Step 2:

Insert the Carrier Plate and Planet gears onto the Sun Gear (included with the user selected Gear Kit) of the first stage.



Step 3:

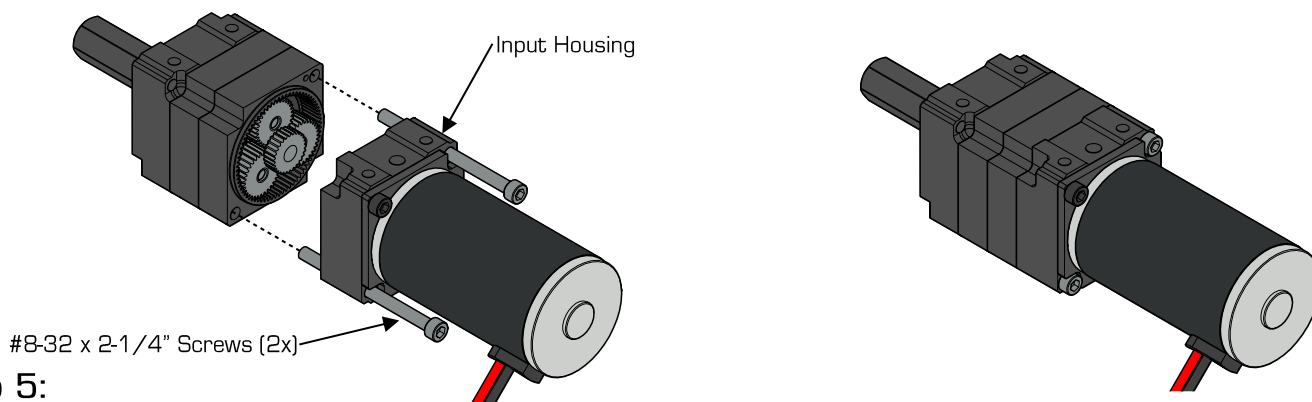
Insert the Sun Gear into the Carrier Plate and Planet Gear Assembly as shown.



Step 4:

Slide the Ring Gear (included with the VersaPlanetary Ring Gear Add-on Kit) onto the assembly.

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Step 5:

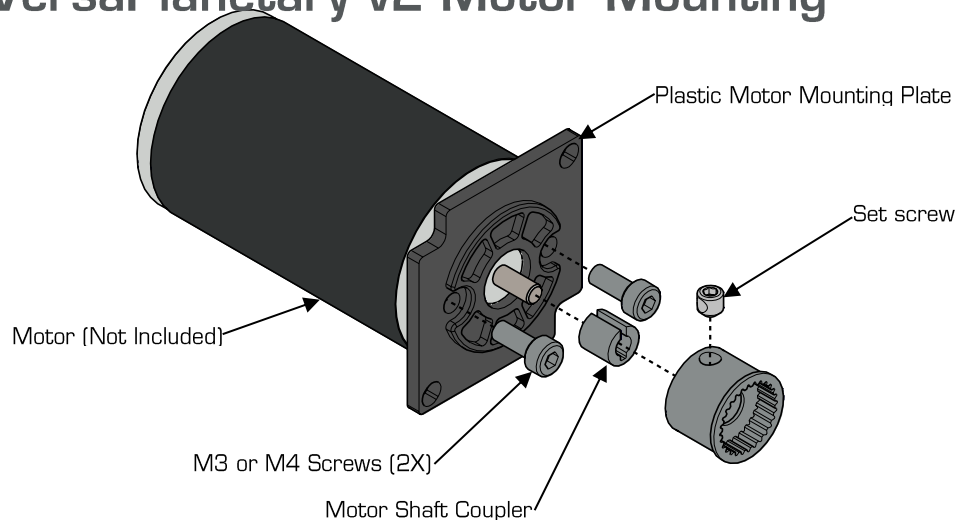
For a 3 Stage VersaPlanetary, repeat Steps 4 & 5. Otherwise, use (2X) #8-32 Screws to mount the Input Housing as shown.

Note: A liberal application of white lithium grease is required on all gears.

#8-32 Screw length can be determined from the following chart for VersaPlanetary v2:

# of Stages	Screw Length
1	#8-32 x 1-3/4"
2	#8-32 x 2-1/4"
3	#8-32 x 2-3/4" (Not Included)

VersaPlanetary v2 Motor Mounting



Motor	Screw Type
BAG	M4
775pro	M4
RS-550	M3
AM 9015	M3
CIM	#10-32
Mini CIM	#10-32

(#10-32 Screws Not Included)

Step 1:

Attach motor (BAG, RS-550, RS-775, or AM-9015) to its appropriate mounting plate using the provided M3 or M4 screws.

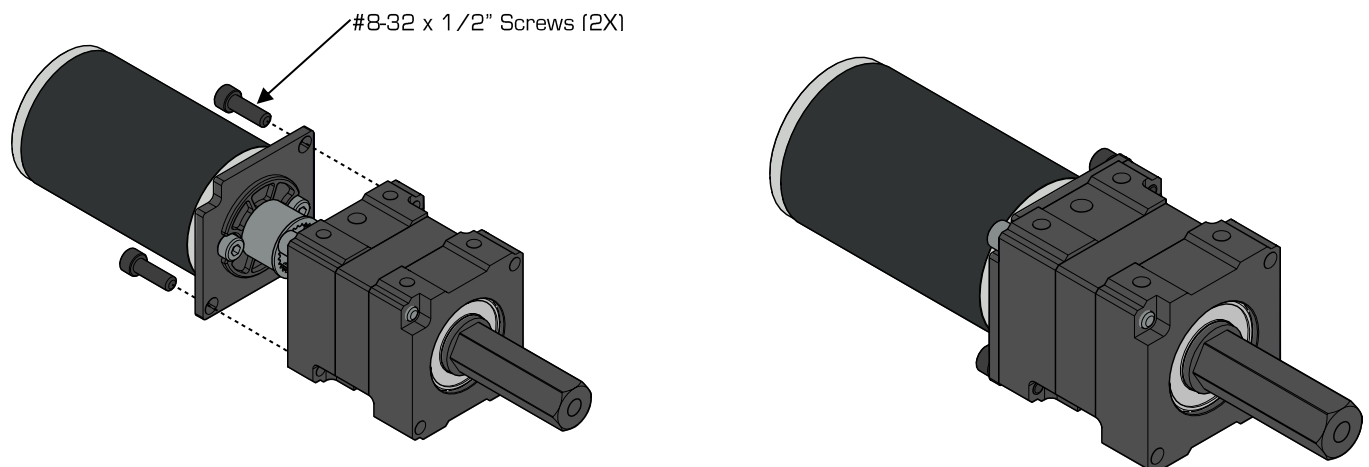
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Step 2:

Slide coupler onto motor shaft using the appropriate motor coupler type. Use the tightest coupler that fits on the motor shaft. Align the coupler groove with the input coupler groove. Apply thread locker (Loctite 222 or equivalent is recommended. Do **not** use 'Red' Loctite) and tighten the set screw.

Be sure to leave a small gap between the input coupler and the plastic mounting plate.



Step 3:

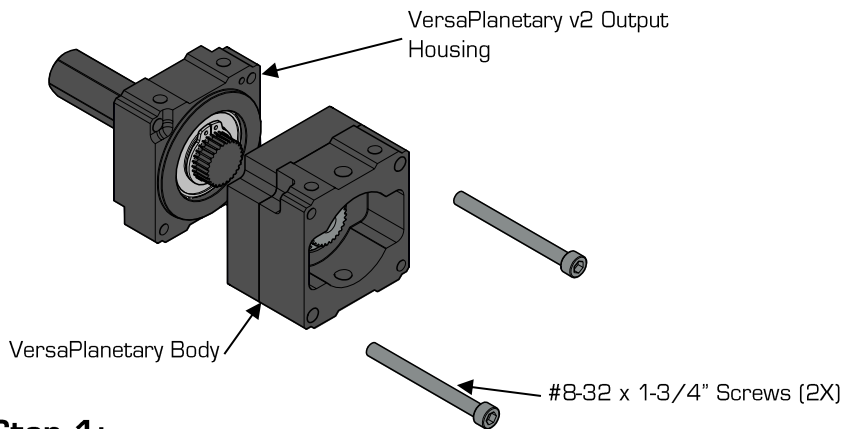
Attach the motor assembly to the VersaPlanetary using the provided #8-32 screws.

VersaPlanetary v2 Shaft Change

You will need:

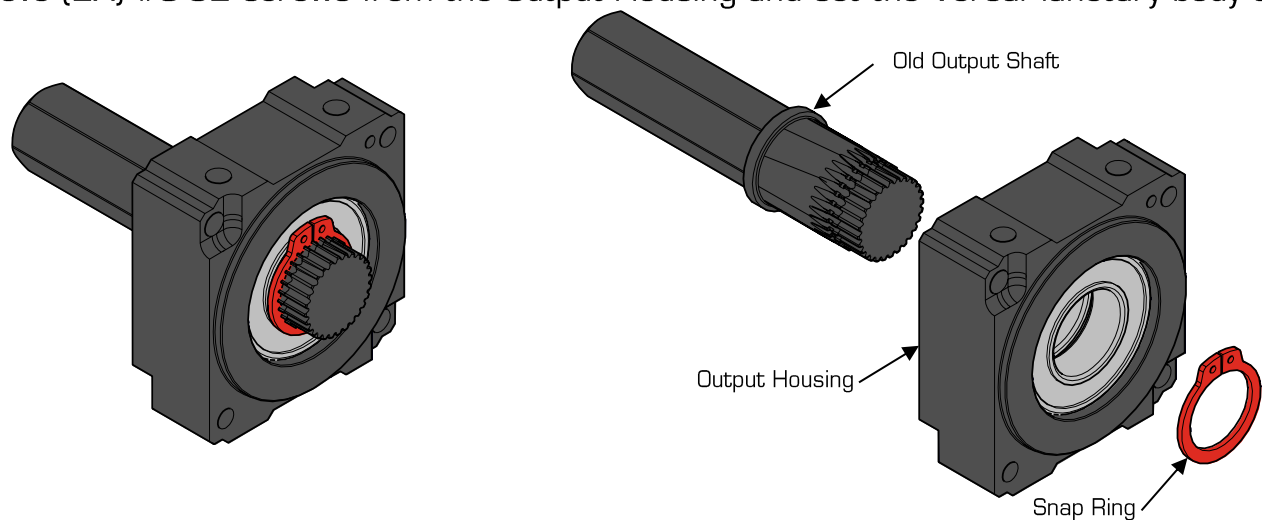
- Snap Ring Pliers with tips smaller than .055"
- 9/64" Hex Key
- VersaPlanetary Output Shaft (P/N 217-2893, 217-2894, 217-2895, 217-2897)

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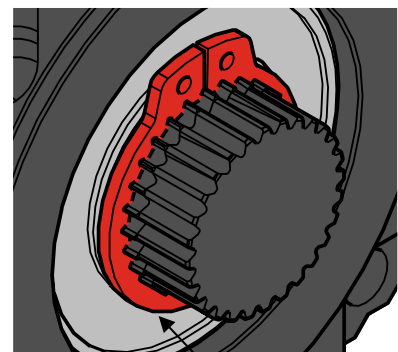
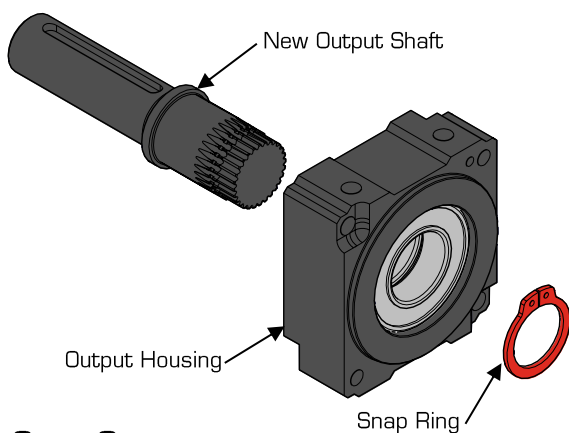
Step 1:

Remove (2X) #8-32 screws from the Output Housing and set the VersaPlanetary body aside



Step 2:

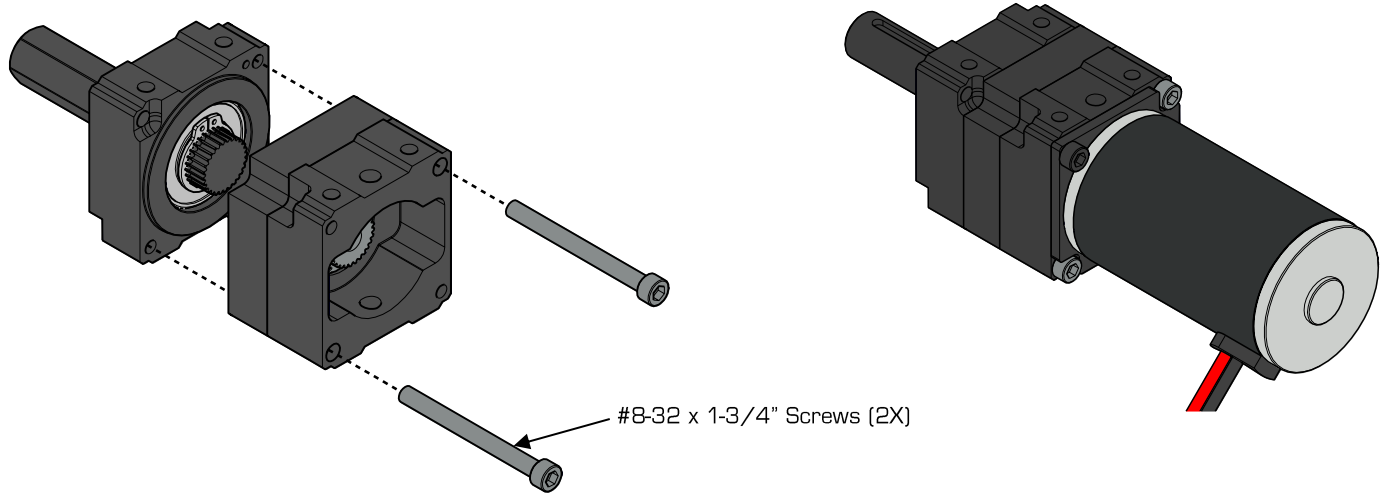
Use Snap Ring Pliers to remove the Snap Ring. Set aside the Old Output Shaft. Take care not to let the bearings slide out of the Front Housing.



Step 3:

Insert new Output Shaft and install the Snap Ring (standard 15mm snap ring) using Snap Ring Pliers. Ensure that the Snap Ring (highlighted red) is fully seated in the Snap Ring Groove.

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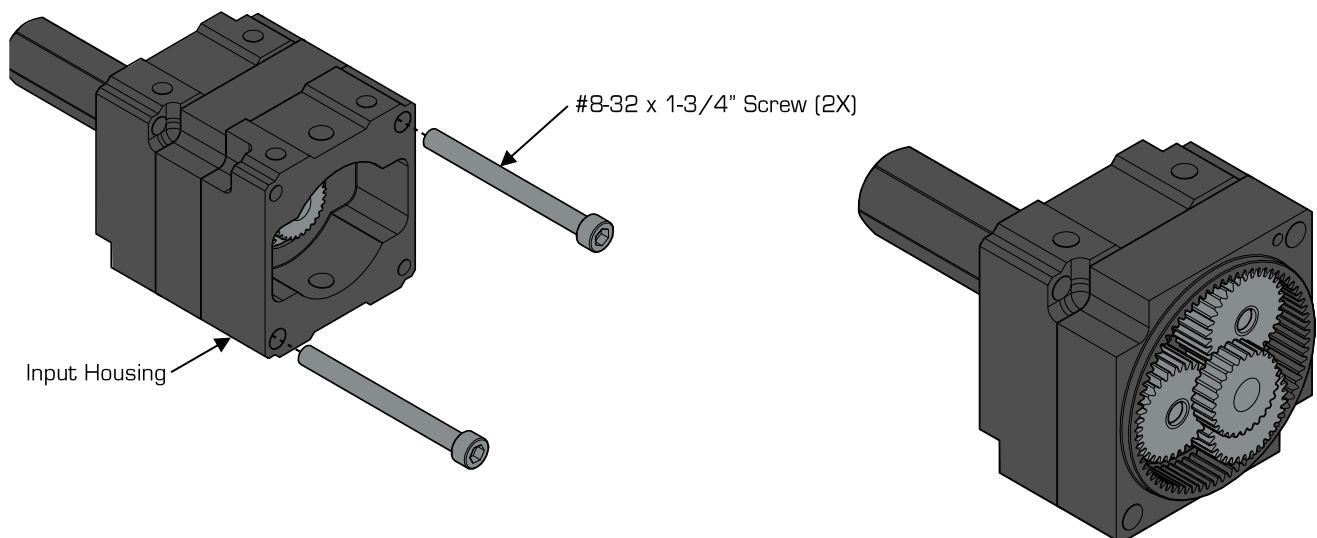
Step 4:

Mount the Output Housing to the VersaPlanetary Body using the (2X) 8-32 Screws removed in Step 1.

VersaPlanetary v2 Gear Change

You will need:

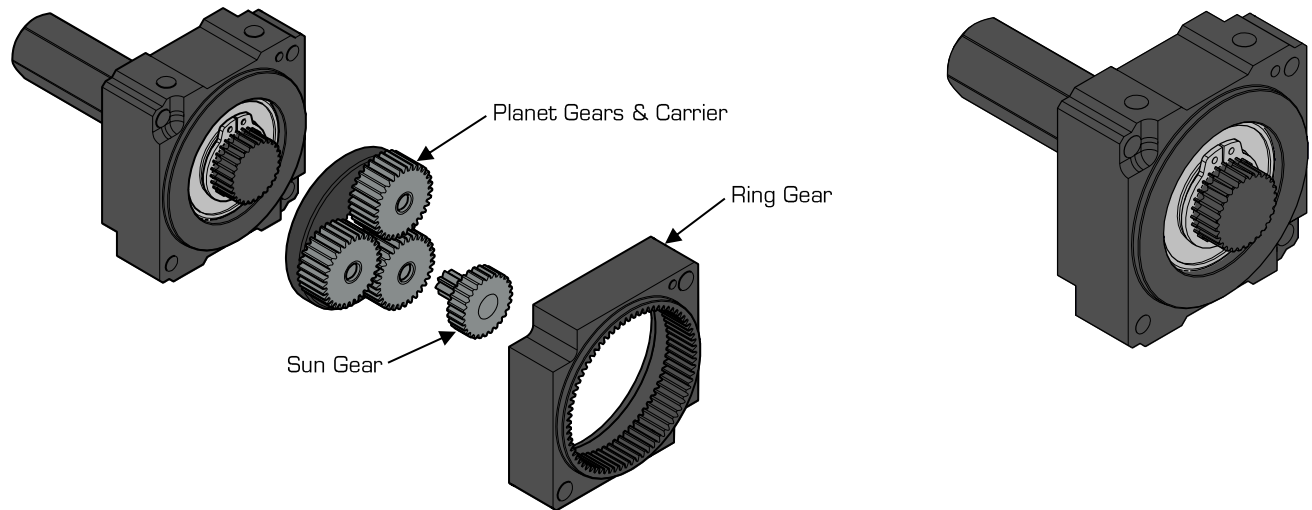
- 9/64" Hex Key
- VersaPlanetary Gear Kit (P/N 217-2817, 217-2818, 217-2819, 217-3102, 217-3106, 217-2820)



Step 1:

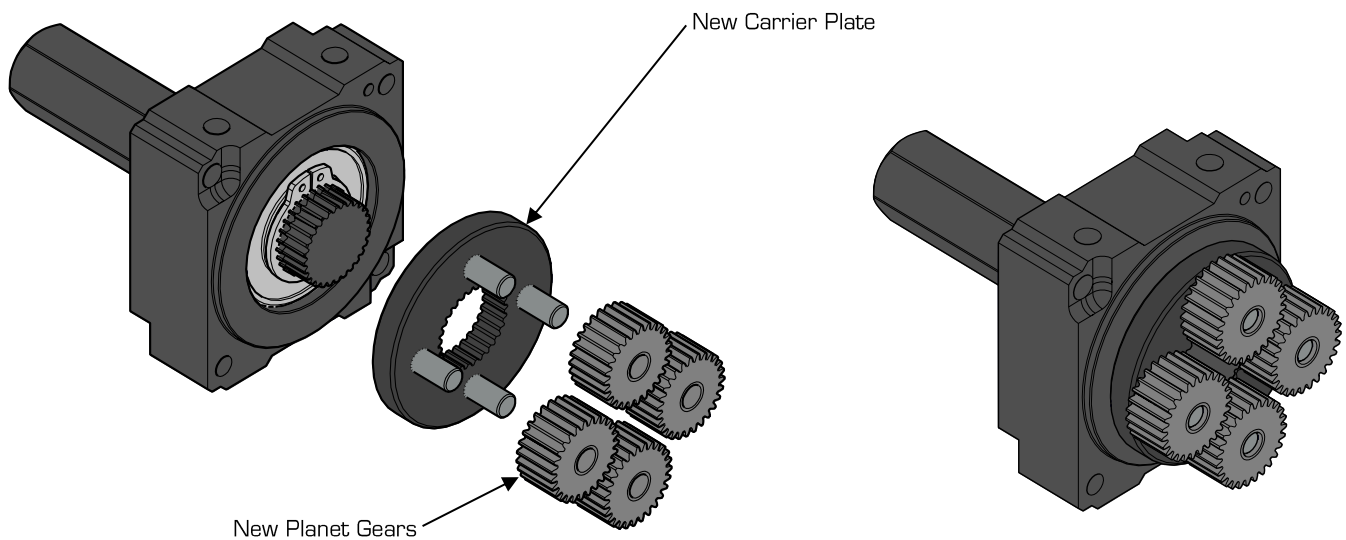
Remove (2X) 8-32 Screws and the Input Housing.

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Step 2:

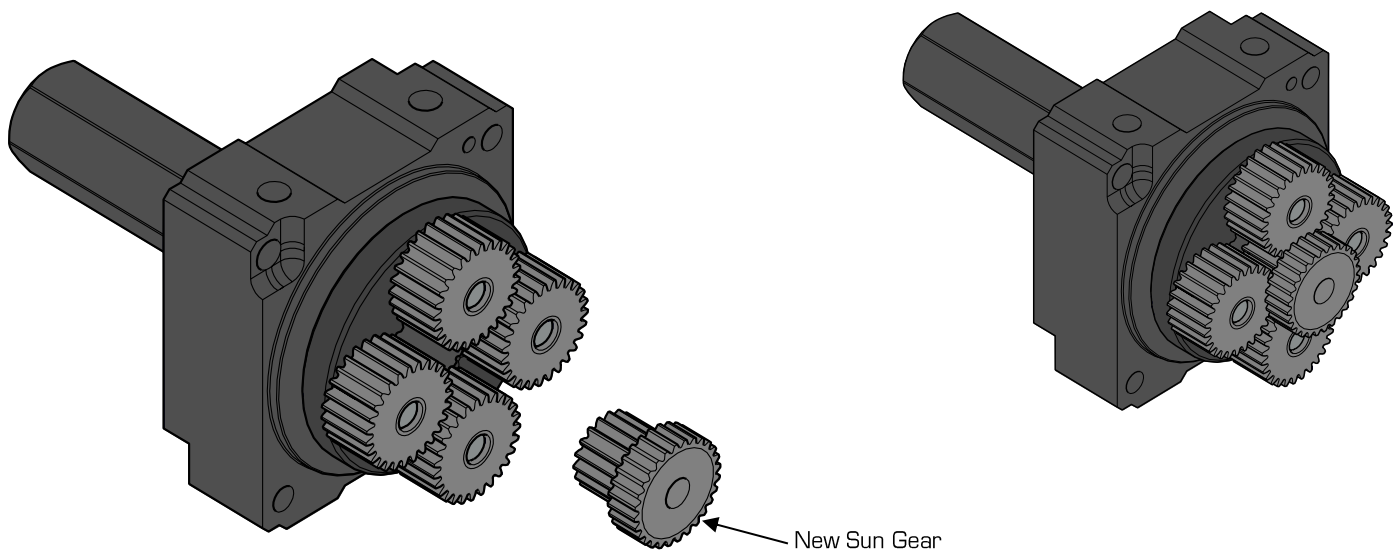
Remove the old Ring Gear, Carrier Plate, Planet Gears and the Sun Gear.



Step 3:

Insert the new Carrier Plate and Planet Gears into the output spline as shown.

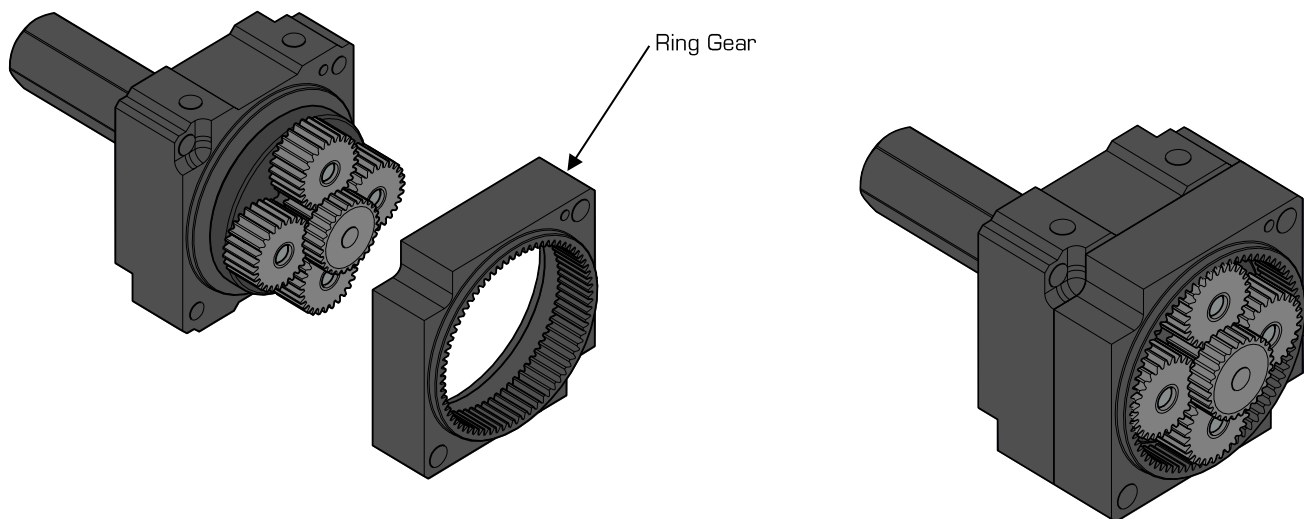
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Step 4:

Insert the new Sun Gear into the Planet Gears as shown.

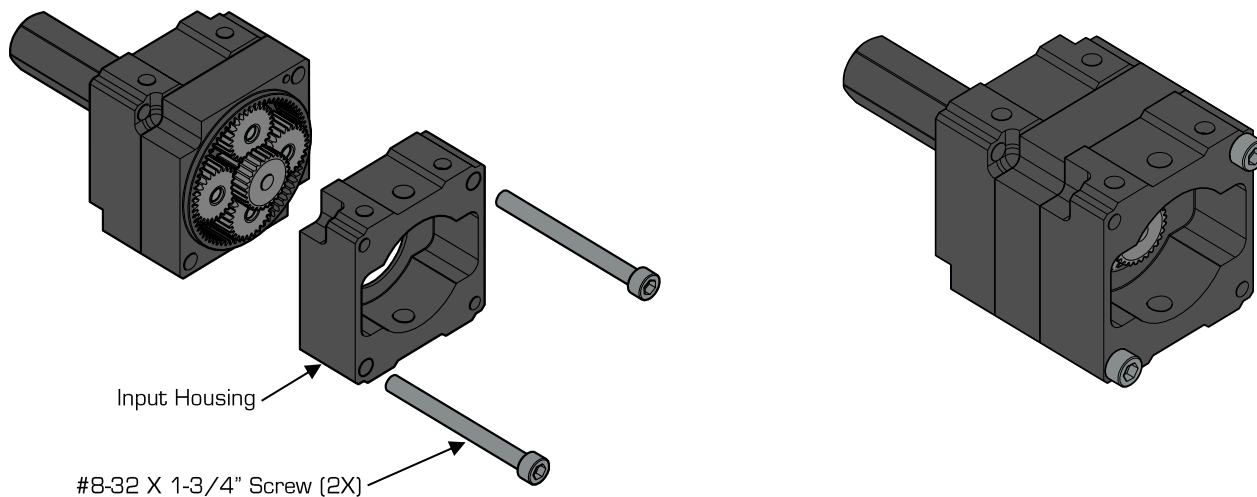
Note: A liberal application of white lithium grease is required on all gears.



Step 5:

Slide the Ring Gear onto the Assembly as shown.

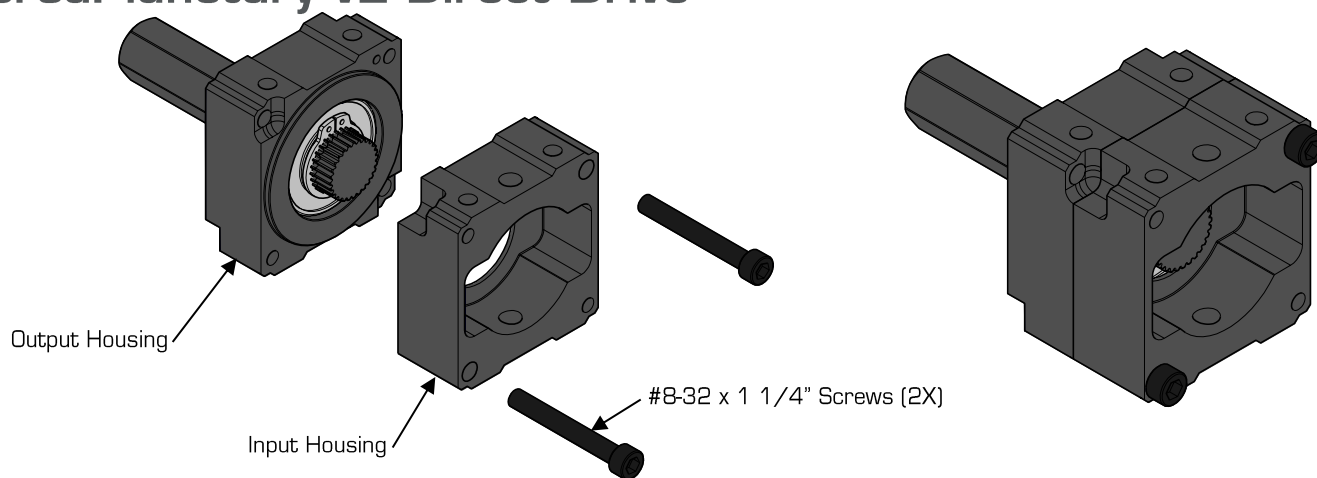
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Step 6:

Use (2X) #8-32 Screws to mount the Input Housing as shown.

VersaPlanetary v2 Direct Drive

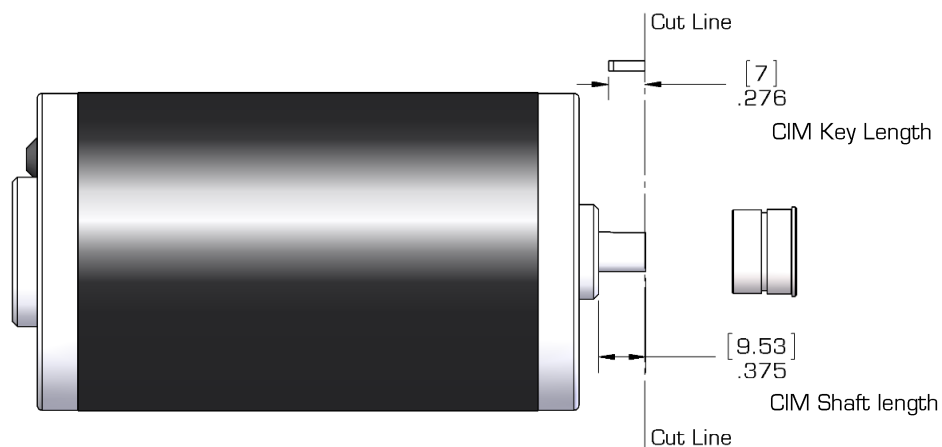


Step 1:

Use (2X) #8-32 Screws to mount the Output Housing to the Input Housing as shown.

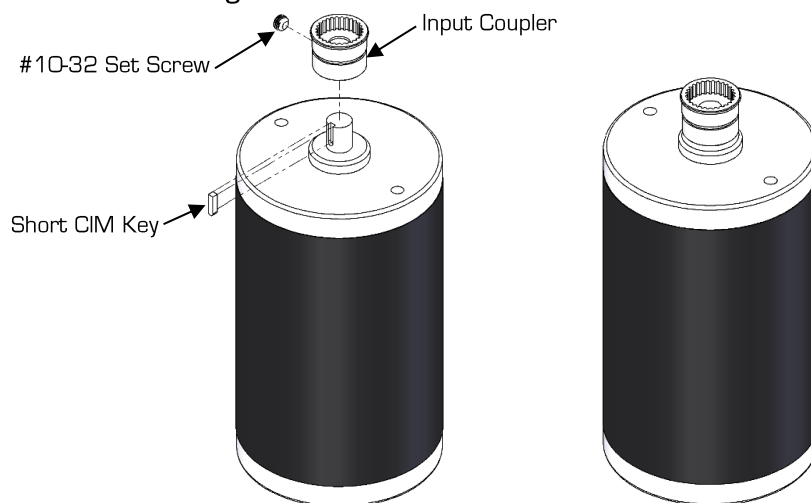
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VersaPlanetary v2 CIM Adaptor Instructions



Step 1:

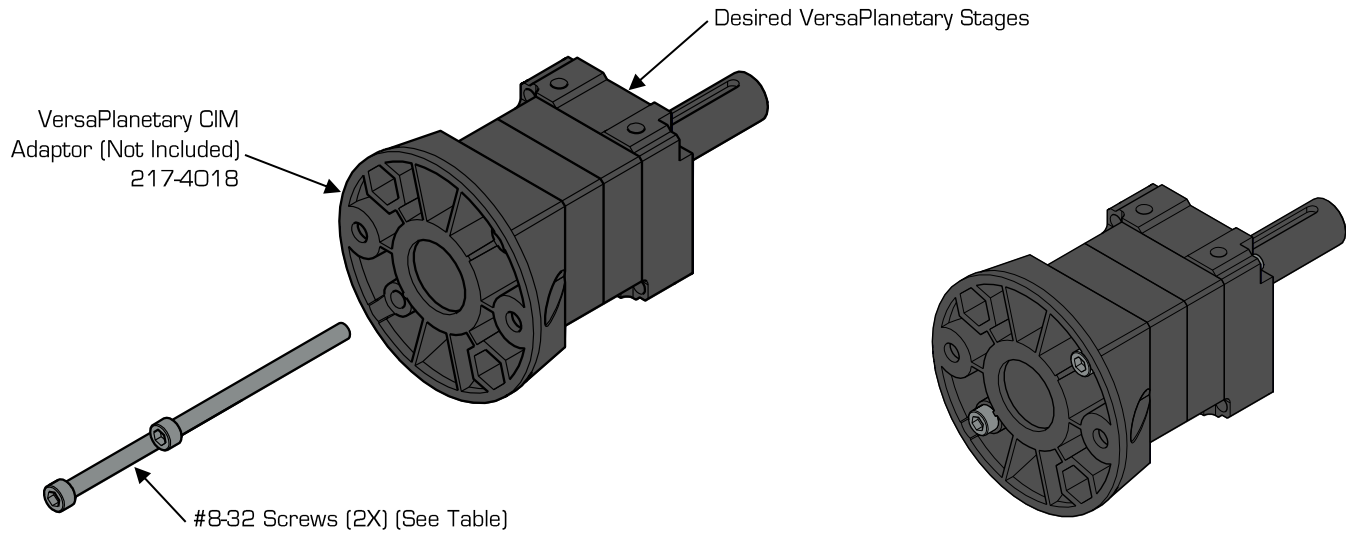
Cut the CIM Shaft to the length shown.



Step 2:

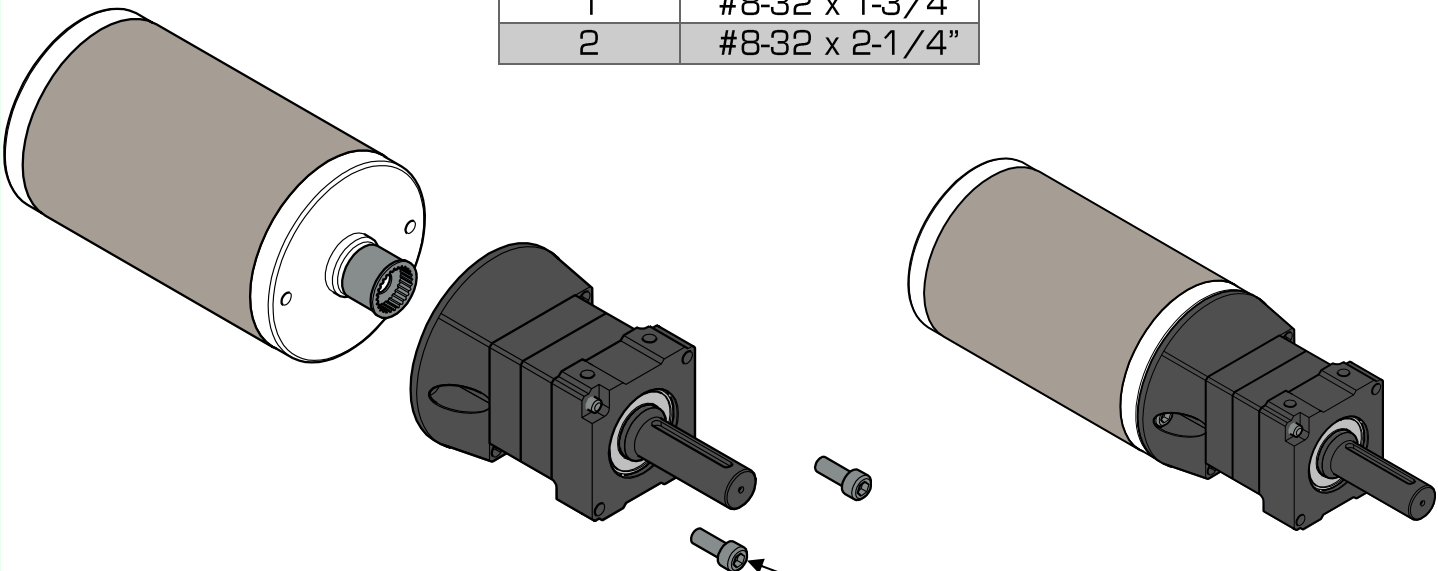
Insert short CIM Key into keyway. Slide on Input Coupler and tighten the Set Screw

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Step 3:
Attach the VersaPlanetary CIM Adaptor to the desired VersaPlanetary Gearbox Stages.

# of Stages	Screw Length
0	#8-32 x 1-1/4"
1	#8-32 x 1-3/4"
2	#8-32 x 2-1/4"



Step 4:
Attach VersaPlanetary Assembly to the Modified CIM.