

IRON BALTIC

VAUHTI VARIKKO

CLUTCH KIT STAGE 1

CFMOTO CFORCE 450/500/520
Code 80.1600

Version 04122023



Distributor **IronBaltic, Estonia**

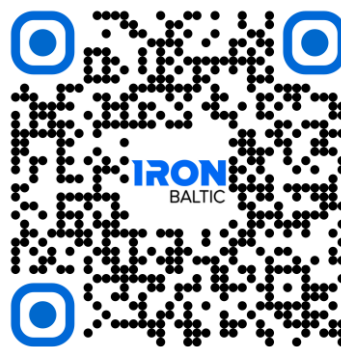
Producer **Vauhti Varikko, Finland**

Keep this manual for future reference!

If you need any spare parts, please send this packaging data to your local dealer or to Iron Baltic
sales@ironbaltic.com

Iron Baltic Ltd | +372 653 3711 | sales@ironbaltic.com | www.ironbaltic.com

INSTALLATION VIDEO



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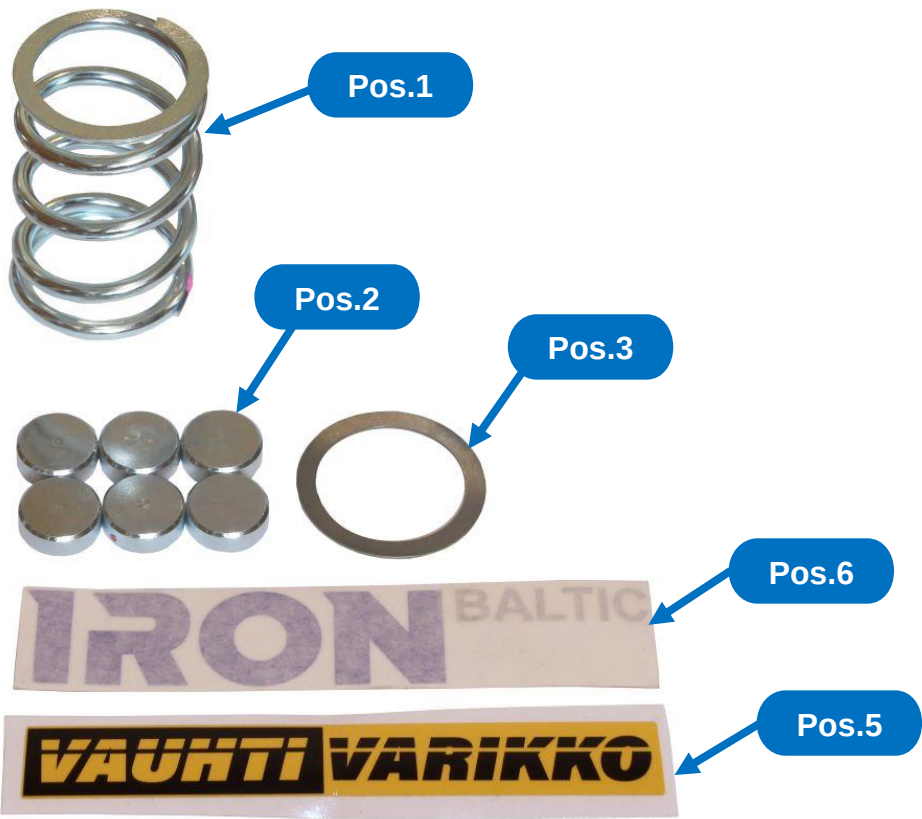
MULTILINGUAL MANUAL



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SPECIFICATION

Pos.	Description	Code	Amount
1	Spring (ORANGE-BLACK marked)	80.1601	1
2	Weight (RED marked)	80.104	6
3	Washer 1 mm	80.102	1
4	Bolt M6x60 DIN933	OT.02.02.140	1
5	Sticker (VauhtiVarikko)	PM.13.05.024	1
6	Sticker (IronBaltic)	PM.13.05.007	1



INSTRUCTIONS

Thank You that you have chosen our clutch kit. Our clutch kit helps to transfer the engine power better to the wheels so you can use the engine potential more effectively and vehicle is smoother to use. We have gone through long testing period – including real life driving tests as well as the dynamometer tests - before we have chosen this specific setup combination.

Clutch upgrade kits are fully tested and accepted by most CFMOTO distributors. Correctly installed upgrade kit will not cause any damages to your vehicle. The manufacturer of the clutch kit is not responsible for any damage or failure of your vehicle or in case the warranty of your machine will be voided. To ensure correct installation and to avoid possible inconveniences we recommend ordering the installation from an authorized CFMOTO dealer.

Stage 1 Clutch kit (Tires 25"-28")

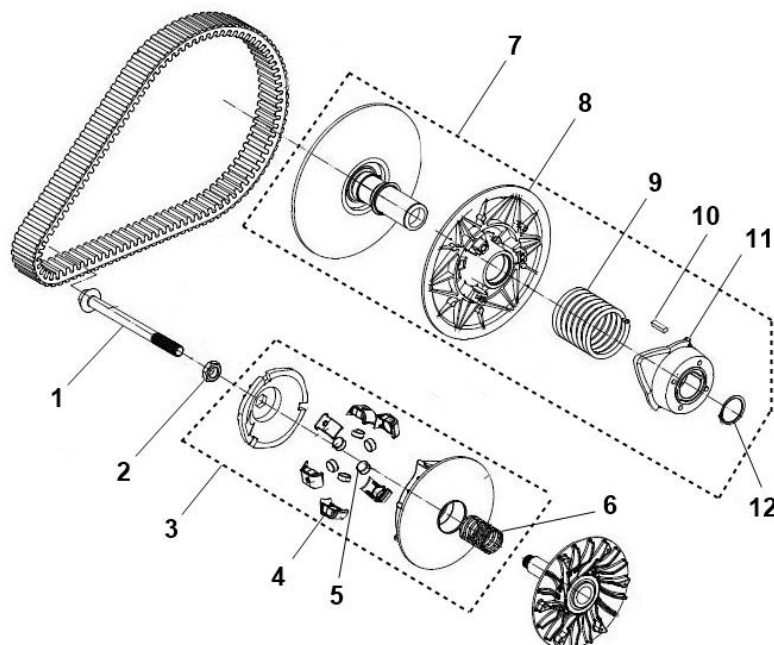
- Entry level and excellent choice for basic use!
- Great for trail riding, occasional mud and sand riding, ploughing and hauling.
- Smoother engagement!
- Better low end and midrange response
- Quicker backshift which results in crisp throttle response!
- Reduces belt slip and heat!
- Can be upgraded to Stage 2 or 3 by adding secondary spring or Helix.

We recommend using official dealership installation services; they have the correct tools and knowledge for such installation.

All parts in this kit are designed just for this setup combination and we do not offer parts separately.

Clutch kit is designed for CFMOTO original belts, when using aftermarket belts make sure that its same width than original. Wider belts may need one extra washer to have right engage rpm. Washer is sold separately (P/N 80.102)

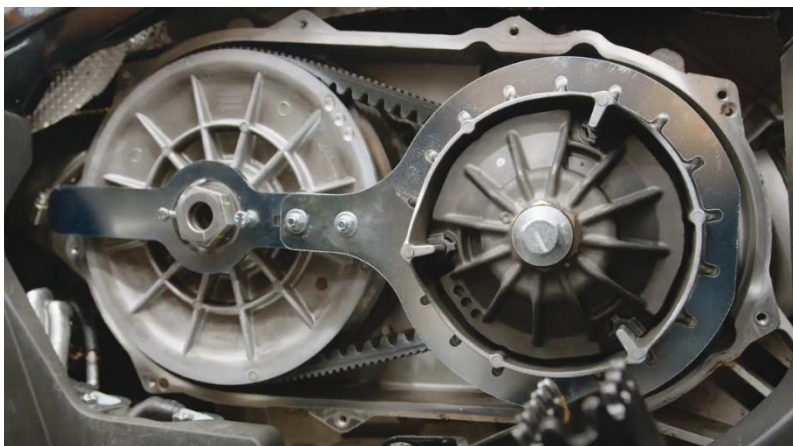
- 1 – Clutch bolt
- 2 – Cover plate nut
- 3 – Primary clutch
- 4 – Weight slider
- 5 – Weight
- 6 – Clutch spring
- 7 – Secondary clutch
- 8 – Sliding flange
- 9 – Secondary clutch spring
- 10 – Key
- 11 – Helix
- 12 – Retaining ring



1. Open CVT cover.



2. Install the clutch holding tool (80.1700).



3. Remove the secondary clutch nut. Use a 36 mm wrench.
***Skip this step if you do not plan to adjust the secondary clutch.
It is necessary when using bigger tires.***



4. Remove the clutch bolt. Use 18mm wrench. **NB! Bolt has left hand thread!**



5. Remove the cover plate nut. Use 30 mm / 32 mm wrench. **NB! Nut has left hand thread!**



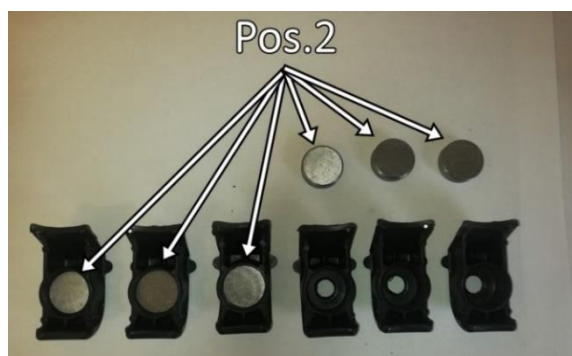
6. Remove primary clutch and original clutch spring.



7. Remove the weight sliders from the primary clutch.



8. Remove original weights and replace them with new weights (Pos.2).



9. Reassemble the primary clutch.

***Skip to Step 16 if you do not plan to adjust the secondary clutch.
It is necessary when using bigger tires.***

10. Loosen CVT belt by screwing M6 bolt into the secondary clutch at the locations shown in the picture. Remove the secondary clutch. Make sure you don't lose the original washer!



11. Open secondary clutch.
A special tool (Clutch spring compression tool: 80.400) is required.
a. Place the secondary clutch to tool



- b. Lower the helix with the compression tool until the retaining ring appears.



- c. Remove the retaining ring. Use an appropriate pair of pliers.

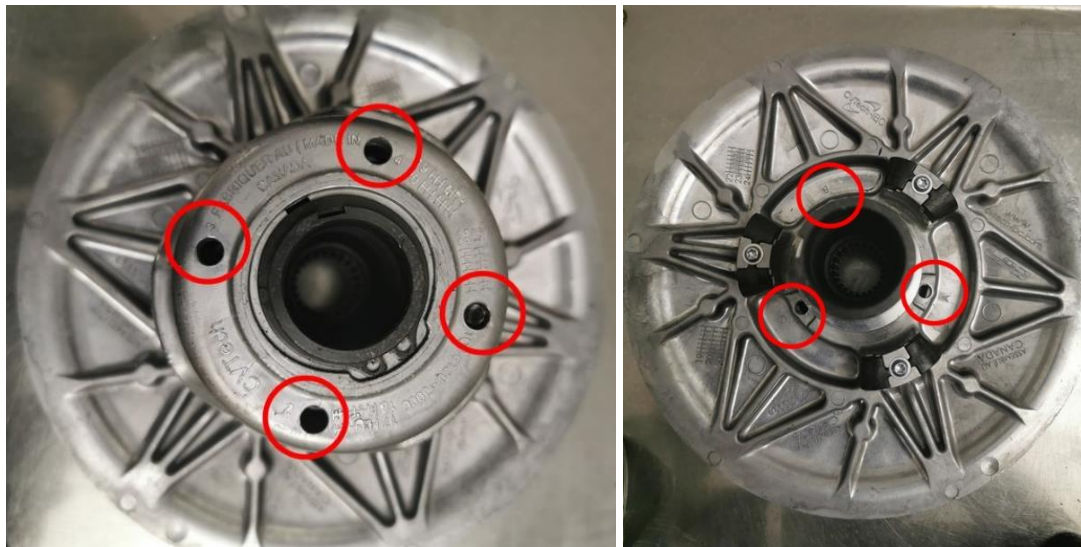


- d. Raise the compression tool slowly until the spring pressure is completely loosen and you can remove the helix. Be careful of the loaded spring!

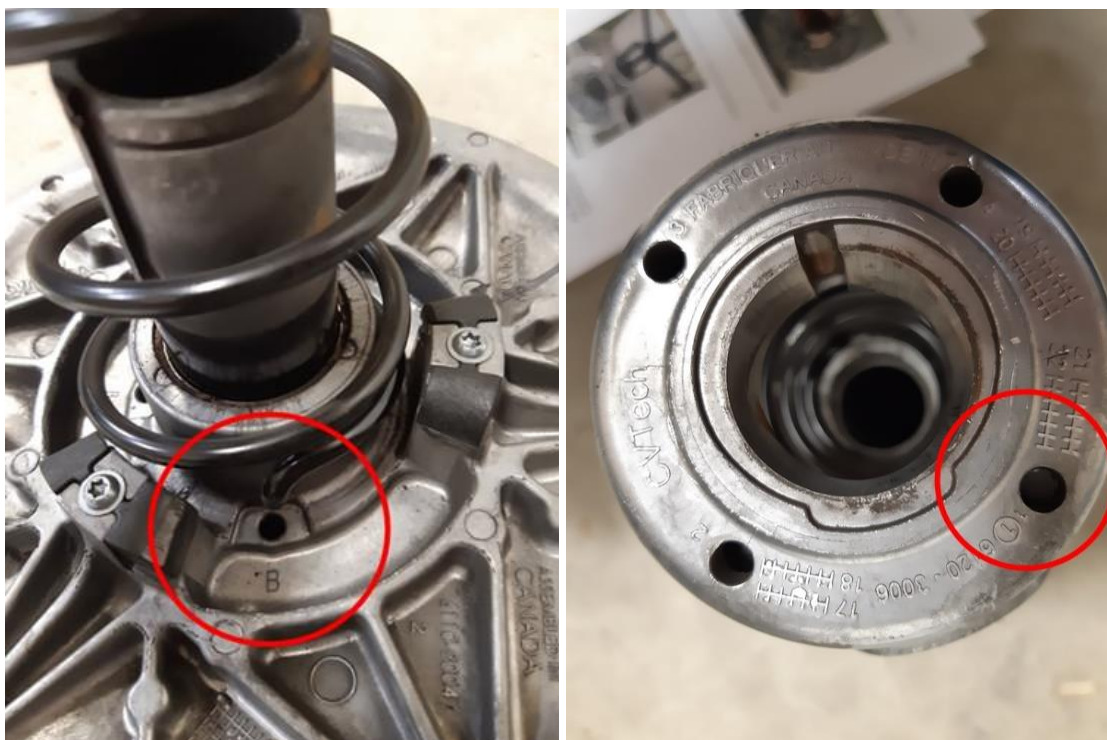


12. There are holes in the helix and sliding flange for position the spring.

In the helix, the holes are marked with numbers (1,2,3,4) and in the sliding flange, the holes are marked with letters (A, B, C).



13. Set the spring to **B-1** position!



14. Reassemble the secondary clutch.

- a. Press the helix with compression tool.



- b. Align the keyways and insert the key.



- c. Turn the helix counterclockwise to pre-stress the spring according to the selected position.
Example: position C-1=36 degrees from the spring zero position so it means you must turn the helix until the next cam shoe. Make sure that the helix goes to the right side of the cam shoes.



Spring zero position
by example of position
C-1



Spring pre-stressed
position
by example of position C-1

d. Press the helix with compression tool until you can install the retaining ring back.



e. Remove the compression tool.

15. Re-install the secondary clutch and CVT belt.



16. Install washer (Pos.3) under clutch spring (engine side).



17. Install new spring (Pos.1).



18. Re-install the primary clutch in place.



19. Reinstall the back plate nut. Do not tighten it. Use thread-lock glue. **NB! Nut has left hand thread!**



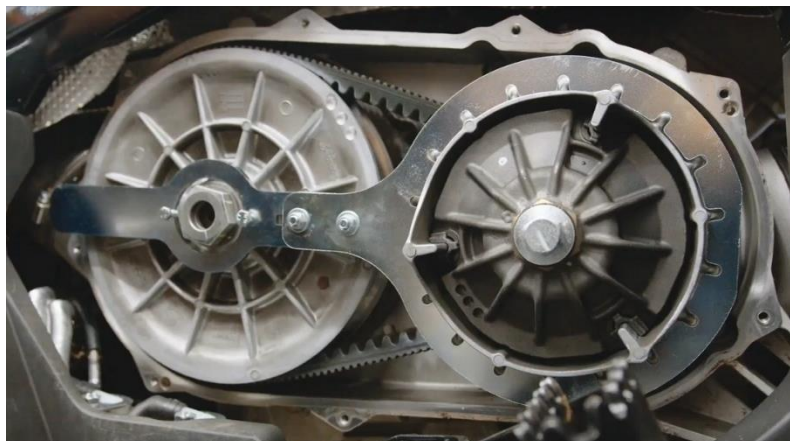
20. Reinstall the Clutch Bolt. Do not tighten it. Use thread-lock glue. **NB! Bolt has left hand thread!**



21. If removed, reinstall secondary clutch nut. Do not tighten it. Use thread-lock glue.



22. Install the clutch holding tool (80.1700)



23. Tighten the bolts / nuts.

a. Use 30 mm / 32 mm wrench and tighten back plate nut to 105 Nm.

NB! Nut has left hand thread!

b. Use 18 mm wrench and tighten the clutch bolt to 60 Nm.

NB! Nut has left hand thread!

c. Use 36 mm wrench and tighten the secondary clutch nut to 150 Nm

24. Remove clutch holding tool. Check that everything is secured and install CVT cover back.

You are ready to test drive!

Stage 1 clutch kit can be upgraded to Stage 2 and Stage 3.
Look at the table below to see what parts you need to order in addition to Stage 1 parts!

MODEL	STAGE 1	STAGE 2	STAGE 3			STAGE 4
	25" - 27"	28"- 34"	TRAIL	MUD	SKEG MÖNSTER	ROAD
			25" - 28"	28" - 34"	30" - 34"	25" - 30"
CFORCE 450/500/520	80.1600	80.1000	80.1150		80.1000 + 80.1160	
CFORCE 625/625 Touring	80.500	80.1000	80.1150	80.1000 + 80.1150		
CFORCE 850	80.100	80.1000	80.1140	80.1000 + 80.1140	80.1000 + 80.1160	
CFORCE 1000	80.200	80.1000	80.1140	80.1000 + 80.1140	80.1000 + 80.1160	80.1170
CFORCE 1000 Overland	80.200	80.1000	80.1140	80.1000 + 80.1140	80.1000 + 80.1160	80.1170
UFORCE 600	80.4200		80.4200	80.1000 + 80.1150		
UFORCE 1000	80.600	80.1000	80.1140	80.1000 + 80.1140	80.1000 + 80.1160	80.1170
UFORCE 1000 XL	80.600	80.1000	80.1140	80.1000 + 80.1140	80.1000 + 80.1160	
ZFORCE 950	80.2100	80.1000		80.1000 + 80.1140	80.1000 + 80.1160	80.1170
ZFORCE G2 950 SPORT	80.2100		80.1140	80.1000 + 80.1140	80.1000 + 80.1160	80.1170
ZFORCE G2 950 SPORT XL	80.2100		80.1140	80.1000 + 80.1140	80.1000 + 80.1160	
ZFORCE 1000	80.2100	80.1000		80.1000 + 80.1140	80.1000 + 80.1160	80.1170

Stage 2 Secondary spring (80.1000)

- For models equipped with 28"-34" wheels.
- You can add this to your Stage 1 or Stage 3 Trail kit to make it work with big tires!

Stage 3 TRAIL (Tires 25"-28")

- Our most popular, best all-around use kit helps to transfer the engine power better to the wheels!
- BEST for trail riding, occasional mud and sand riding, ploughing and hauling.
- If you are not sure what kit to choose, then TRAIL kit is what you want.

Stage 3 MUD (Tires 28"-34")

- Big tire kit for Mud / Skeg use! Helps to transfer the engine power better to the wheels!
- This is the kit for you if you love riding in thick mud or have big tires!

Stage 3 SKEG MÖNSTER (Tires 30"-34")

- For EXTREME users, when monster is not enough, MÖNSTER is even more!
- Big tire kit for Mud / Skeg Mösters! Helps to transfer the engine power best to the wheels!
- Unintended wheelies can occur!
- Will reduce your top speed.
- This Möster kit is for you if you live and breathe for Mud/Skeg riding.

Stage 3 ROAD (Tires 25"-30")

- For On-Road use!
- If you want to use the engine torque and get more range, this is what you want!
- For light weight Road tires.
- This will let you use the engine torque at cruise speeds.
- After tire speed is over 30km/h (20mph) the helix upshift is fast and gives faster acceleration, if the engine has horsepower for that
- Recommended for only units with ECU tune.

All Stage 3 kits:

- Smoother engagement!
- The lower part of Helix will let you drive at low speed with higher rpm and therefore gives you more HP and Torque to the wheels.
- The higher part of the helix is designed to give more, more and more upshifting with the same rate as your engine is making more power!
- Better acceleration and overall feeling.
- Quicker backshift which results in crisp throttle response!
- Reduces belt slip and heat.

For Advanced users:

Helix	Code
35° for Mud (all engines)	80.1120
40° for Mud (all engines)	80.1110
50° for small tires and fast acceleration (recommended for upgraded two-cylinder engines)	80.1130

Straight Helixes for getting linear upshifting behaviour.



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