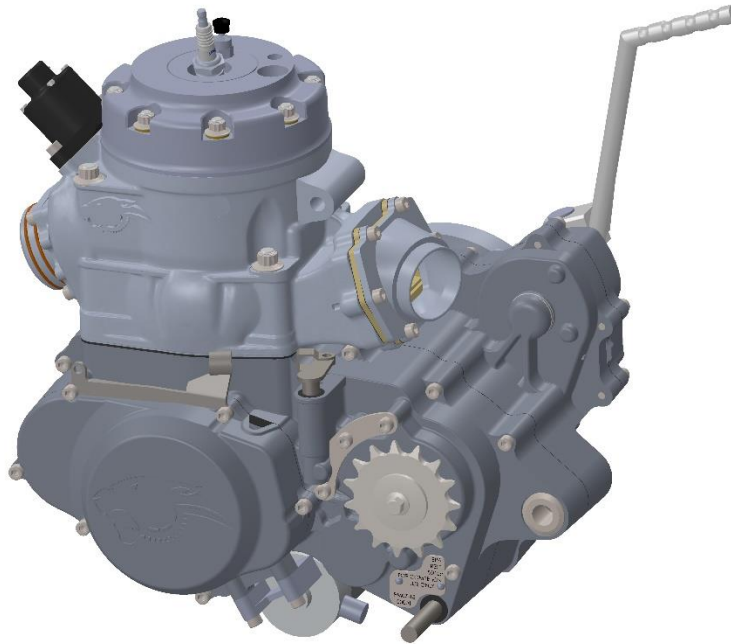




PANTHERA MOTORSPORTS

PM07-18 Installation guide

Panthera engine installation manual



PM07-18

Read this manual carefully it contains important information.



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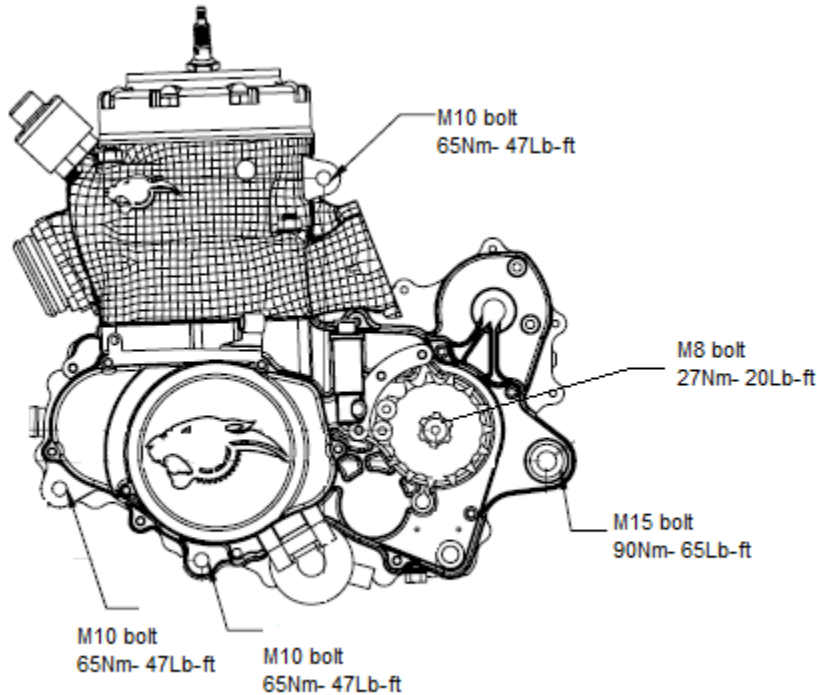
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Fastening the engine

Engine mounts

Install the engine with the original ATV bolts this engine was designed for or some equivalent bolts 10.9 grade or higher.



If your vehicle specific application does not require all cases mounts, put a bolt and nut on the empty mount as the mount's bolts help the engine case strength.

Chain

This engine runs 520 type chain. Once the chain in place, hold the rear brakes and re-torque the sprocket bolt to spec.



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Carburation

The carburetor sold by Panthera are pre-set to suit your engine. Some idle fine tuning might be necessary as well as re-jetting to your elevation and temperature utilization.

Refer to the Owner manual jetting table.

Exhaust

Fasten the exhaust with the supplied mounts and spring. For exhaust with a middle joint, use high temperature silicone in the joint to prevent possible leaking.

Powervalue

The powervalue vent can be run anywhere to flush it down. We suggest running it next to the radiator overflow line.

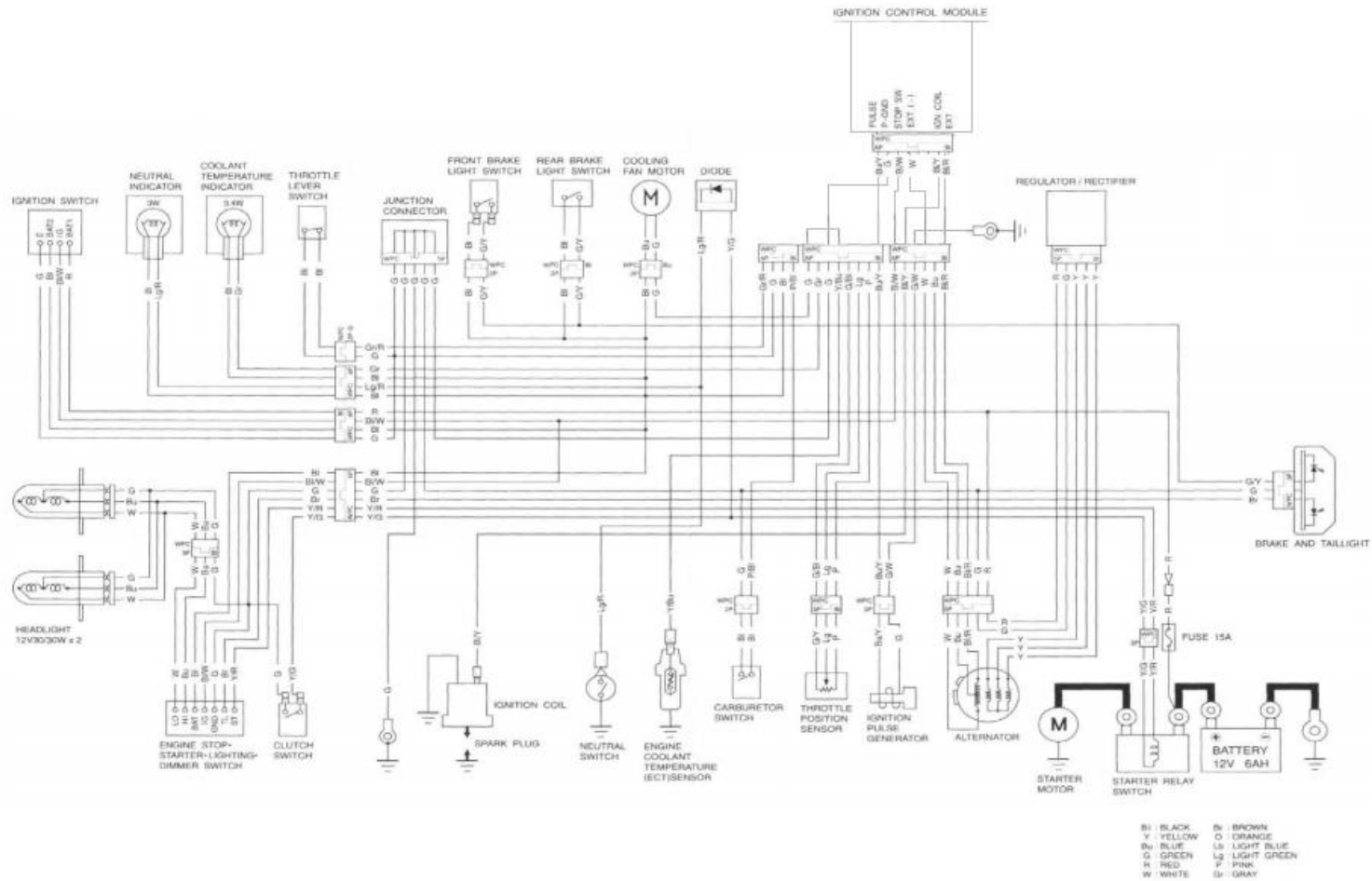


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Electricals

ATV wiring harness





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The Panthera CDI does not activate the ATV fan. The fan wire as been bypassed in a way that you can either have the fan always running by putting the original fan sensor wire (yellow/blue) to ground or you can replace the head 1/8NPT plug by a equivalent 1/8NPT fan actuator.

Example: Summit racing DER-16730



CDI box pin layout



1. Blue - yellow Pickup signal
2. Green GND / mass / frame
3. Black - White KILL
4. White Stator coil
5. Blue - Black not connected
6. Yellow not connected
7. Black - Yellow HT-coil
8. Blue stator coil

4. and 8. might be opposite on some stator windings



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Oil

The engine has been shipped empty of oil. Fill the transmission with 1.8L of recommended transmission oil. As recommended in the break in procedure, transmission should be flushed after first ride to eliminate all the break in deposit. After the flush, refill with 1.5L of oil.

Cooling

Radiator location

Always have the radiator installed higher than the engine. Fluid level inside the radiator must always be higher than the engine head.

Liquid filling

Fill radiator and engine with high quality ethylene glycol antifreeze containing corrosion protection inhibitors specifically recommended for use in aluminium engines.

Cylinder might have some remaining of plating treatment residue. As recommended in the break in procedure, flush the coolant after the heat cycles to eliminate possible coolant contaminant.

After flush, refill the radiator with recommended coolant.



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First start up

Electric start engine

The electric starter has a stronger and faster capability to start the engine than the kick start. We recommend using a booster battery in parallel of the vehicle battery for the first start to ensure optimal cranking speed.

Never use the decompressor when using the electric starter. The air going in and out of the decompressor will only slow down the cranking.

Remember, carburetor might need idle speed fine tuning to keep the engine alive.

Kick start engine

The engine is equipped with a decompressor on the head to make the kick starting easier. It is recommended to always use the decompressor while kick starting.

Use proper protective footwear to kick start the engine as an engine kick back can be dangerous. First starts are more likely to kick back as engine assembly oil will affect the combustion and will slow down the rotation speed.

Break in procedure

- 1- Once the engine is running, raise the idle screw to get a fast (approx. 2000rpm) idle.
- 2- Let the engine run until engine temperature reaches 85°C.
- 3- Turn off the engine and let it cool down to 30°C.
- 4- Flush radiator fluid and fill with new one.
- 5- Take the engine for its first ride and gently start loading the engine with short pulls.
- 6- Bring the engine to operating temperature.
- 7- Let the engine cool down.
- 8- Flush the transmission oil and fill with new one.
- 9- Be progressive for the first hour of operation before using the engine to its full potential.