

CRRCPRO ENGINE MANUAL

Thank you for choosing our product, hoping that it can keep company with your degree over a pleased time . In order to make it performance comfortable and safety to use it , please read this manual carefully.

Parameter:

Type : 2 cycle piston valve type gasoline engine for airplane only
Displacement (cc) : 40cc
Bore x Stroke (mm): 41mm*30mm
Dry Weight (kg) : 1410g (Without ignition battery)
Carburetor : Walbro(Diaphragm butterfly valve type)
Maximum Output : 3.95ps / 7200rpm
speed rang : 1600-9500rpm
Ignition : DC-CDI
Iis - Ignition : 6 V
Gasoline-Version : Pre-mixed Fuel, 30-40 (Gasoline): 1
Lubrication Oil : 2 cycle engine oil
Propeller : 18x8 18x10 20x8 20x10 (Two leafs prop)
Cooling System : Air Cooled

Waring!

1. This gasoline engine is just designed for the model airplane , please don`t use in on the other occasion.
2. We are obligated to having products which make the defect to offer the service.
3. Warning!This engine is not a toy! Serious injury and/or death can occur

from its misuse! Read and become familiar with this entire instruction manual. Learn the engine's applications, limitations, and possible hazards.

For safe operation and to maintain your warranty you must:

1. Have a special designed engine test bench for your engine, if don't, please mount it on your model aircraft for breaking-in
2. Mount the engine correctly
3. Provide adequate air flow and cooling for the engine
4. Provide adequate air flow and cooling for the exhaust
5. Use an approved propeller and spinner
6. Drill the propeller correctly
7. Balance the propeller correctly
8. Tighten the propeller bolts correctly and check them regularly
9. Properly mount your ignition to avoid overheating
10. Use the correct battery and regulator (if applicable) for your ignition
11. Use the correct switch for your ignition
12. Use an appropriate fuel tank, plumbing lines, and installation
13. Use the appropriate fuel for break in and after break in (gas and oil)
14. Insure adequate filtering of your fuel
15. Maintain your engine properly, keeping it clean, etc.
16. Use a pre-flight check list before flying your model
17. Secure your model properly when starting
18. Not use your fingers or hand to start your model
19. Adjust your carburetor correctly
20. Not adjust your carburetor while the engine is running
21. Insure that your spark plug is in good condition and is secured correctly

22. Insure that your ignition wires are not frayed and are protected
23. Insure that your ignition cap is securely mounted
24. Keep all people behind the line of the prop
25. Do not put anything (i.e., fingers, body parts, objects, et al) into the rotating propeller
26. Keep children away. All spectators should be kept a safe distance away from the running engine.
27. Wear proper apparel. Do not wear loose clothing, gloves, neckties, jewelry, or neck straps for your radio which may get caught in the moving propeller.
28. Always wear eye protection when starting the engine.
29. Do not operate this engine if you are under the influence of any drugs, alcohol or medication that could affect your ability to use the engine properly.

Disclaimer:

We cannot control how safely our products will be used. And, therefore we do not accept any responsibility for damage, or injury from their usage.

Carburetor settings:

Before each engine is shipped it has to pass QC and is then test run. We do a basic adjustment of the carburetor needles at that point.

Highspeed needle H: 1 1/2

Low speed needle L: 1 1/3

(If don't has grasped, please do not adjust)

Important: Do not remove the carburetor spring as the spring helps keep the carburetor butterfly aligned properly. Merely release the ends of the spring so that it no longer holds the butterfly closed.

Engine runs fine on the ground but get very rich on takeoff and in flight

This is typically caused by a positive pressure building-up inside the cowl, or the carb diaphragm vent hole being exposed to direct prop blast or ram air.

Engine Break In

1. Use a 2 cycle engine oil
2. Use a mixture of 20-1 or even 25-1
3. Use this fuel mixture for approximately 2-3 hours of run time
4. Use a high Octane unleaded fuel (98 Octane is ideal) We suggest starting the break in process of the engine on a test stand; for approximately one hour. This time should be used to get familiar with the engine. Do not run the engine at full throttle for more than ten seconds during this test stand break in. The reason for this is that you are not getting the normal cooling effect that you would if the engine was in a model that was flying.

Note:

For break-in a smaller propeller is recommended.

Important:

1. Remember that when the engine running ever person must stay behind the line of the rotating propeller; never to the side or the front!
2. The engine needs 12-20 hours running time for the break in process to be 100% complete.

Engine Cooling

A proper cooling system is vital for any engine. An air cooled engine requires an appropriately sized air intake. Also to keep this air cooling process working the incoming air must be exhausted. Further, the exhaust air outlet should be four times (4X) the size of the cool air intake.

Example:

. 10 square inches of air intake area would require

. 40 square inches of exhaust air outlet area

It is up to you to insure that the air flows freely to, over, and away from, the hot cylinder(s) and muffler(s). Please refer to Engine Installation for motor box considerations, and to the following tips on baffling.

Note:

- 1.The DC-CDI is a very accurate electronic equipment,Offers enough fire energy and normal rotational speed of maintaining of engine from it to spark plug
- 2.We offer the guarantee of one year to this department product (Base on the premise that the appearance has not been damaged)
- 3.Please don't try to resolve and repair it,We will not bear any responsibility to dismantle and resolve the consequence that DC-CDI cause without permission.

Pilots check list

We strongly recommend checking the following agenda for your own safety before starting!

1. Check the propeller bolts for tightness
2. Check that the spinner is firmly attached
3. Check the propeller for possible damage
4. Check to be sure you have the throttle position at idle
5. Check all batteries
6. Check servo functions
7. Check to see that the ignition switch is OFF
8. Check pressure (6-8 bar) system of retract (if applicable)
9. Check all linkages for play
10. Check your wheels for possible damage and easy running

11. Check the wing mounting for tight fit and proper attachment
12. Check the canopy for tight fit and proper attachment
13. When starting the engine one person (minimum) has to hold the model

Trouble Shooting Problem

The engine is flooded (the crankshaft housing is filled with fuel).

Solution

Remove the spark plug; turn the engine to a position where the fuel runs out.

The engine starts after being choked but then stops soon after.

The low needle on the carburetor is probably too lean. Go back to the recommended settings and adjust your carburetor from there. This problem may also indicate a dirty carburetor or faulty ignition.

The engine runs rough and is vibrating strongly.

Balance the propeller. Check the ignition timing. Check your plumbing for air/fuel leaks. Check your spark plug for carbon and check the spark plug gap. Check the motor mount to be sure it is rigid. Check to make sure the engine is mounted on a level surface so that the crankcase is free of tension. Check the engine and propeller bolts.

The engine doesn't reach a normal RPM at full throttle.

Check the carburetor settings. Check to see if the propeller is too large. Verify that you have the correct muffler system. Check to see if the engine is overheating. Check the ignition timing. Check the spark plug for defect. Verify you have the correct gasoline, oil, and have mixed them with the correct ratio.

Ignition Manual:



Notice

- 1.High voltage inside ! Please don` t dismantle by yourself !
- 2.The position of the sensor has been set at our factory(Please don` t change it ,unless you have another real and better choice)
- 3.Please use sponge or some soft things parcels the DC-CDI Ignition and put it near from the engine firmly.
- 4.Please put the DC-CDI far from receiver and servos
- 5.The DC-CDI uses the tributary battery group of 6v to supply power(5 cell Ni-cd or Ni-ch Batterys)
- 6.It is forbidden to use metal materials to be the connect line of engine throttle,so as to avoid affecting the receiver.
- 7.Do not connect the power supply before the ignition plug is plugged into the shielding cap, so as to avoid high tension ignition inside the electronic igniter.
- 8.Please use a separate power supply, and do not share a common poer with the receiver, so as to avoid affecting the receiver.

CRRCpro Group China

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