

HOW TO USE by **wwag**.com



Product **Cannonball StealthStarter SSK-R Kick Drive Rigid Frame**

Articles 01-881

Date 2021-01-19

Editorial ID 229228

Introductory remarks

The StealthStarter Kick Drive starts the motor via the main gear shaft, clutch and primary drive.

The starter motor requires 12 V voltage.

If the bike still has the original 6V charging system, it must be converted. For this the appropriate parts like alternator, regulator and ignition coil are necessary, as well as suitable bulbs.

The minimum battery requirements are 300 CCA (SAE) / 290 CCA (EN). This should be taken into account when choosing the battery.

You will have to buy:

- 16 mm² (AWG 6) battery cable
- normal automotive cable 1.5 mm² in various colours
- a starter button or ignition lock with start function
- a 30 A fuse for the charging cable of the controller
- various crimp or solder contacts

Should you have a 1965 and up gear box instead of the OEM case, i.e. with supports for the aluminum primary, these latter should be ground to provide clearance for the starter motor.

Scope of delivery

- Starter motor
- Starter motor housing with integrated kick starter mechanism
- Starter relay
- Gaskets (2)
- Stud bolts, extended (9)
- Panhead screws (2)
- Cable eyelets for starter cable (5)
- Lock washer, Main shaft nut
- Keys, main shaft (2)
- Kicker shaft, extended with spacer
- Locking plate, starter wheel

Additionally - according to your build and year - will be required:

- a longer than stock clutch release lever WW 80-769
- a longer than stock brake cross shaft WW 27-670
- a fender adapter WW 30-520
- a longer than stock clutch release bearing WW 80-766 or 80-767

Please note the following as serious injuries can result in case of disregard:

The Stealth Starter Kick Drive is designed for stock or nearly stock engines. High compression, big inches and kickback due to wrong ignition timing can destroy the gears.

The StealthStarter Kick Drive works directly on the transmission mainshaft.

Start the bike only in neutral! If any gear is engaged while applying the starter button, the bike will jump forward. Pulling the clutch will NOT help.

For the same reason, with engaged gear, you will no longer be able to push the bike backwards, even while pulling the clutch. The freewheel will lock instantly.

HOW TO USE by **wwag**.com



Preparations - Disassemblies

- Place the motorcycle on a platform or other suitable lift.
- Remove battery cable, if necessary remove battery and battery cables.
- Remove rear wheel and mudguard.

The next eight steps apply only to models with mechanical brakes:

- Remove primary cover.
- Dismantle primary drive and clutch and remove inner primary housing.
- Remove brake light switch.
- Dismantle exhaust system.
- Disconnect the brake rods from the levers.
- Remove right brake lever.
- Pull the brake shaft out of the frame.
- Remove the brake lever on the left side of the shaft.
- Drain transmission oil.
- Remove the kicker cover.
- Remove starter wheel from kicker shaft.
- Remove the clutch throw-out bearing and the pushrod.
- Remove the starter coupling with puller from the main gear shaft.
- Remove oil baffle plate.
- Remove the stud bolts from the transmission housing.



HOW TO USE by w/wag .com



Final assembly

For mechanical brakes:

- Screw the brake lever to the left onto the extended brake shaft of the kit.
- Insert the brake shaft into the frame cross tube.
- Fix the left brake linkage and secure with cotter pin.
- Reinstall the inner primary box, clutch and primary drive.

Insert the extended studs of the kit with medium bolt adhesive into the gear housing.

Note:

The studs of the 3 and 5 o'clock position can be replaced by the supplied panhead screws. This creates more space for the rear cylinder exhaust tube.



Position the first kicker cover gasket.

Insert one or two keys with some grease into the grooves of the main shaft.

Place the starter housing with the pre-assembled starter on the stud bolts of the gear unit and the main shaft.

Make sure that the keys in the main shaft remain in position.



Place the lock washer on the main shaft and tighten the main shaft nut (50 ft-lbs), press the lock washer with a screwdriver against a hex surface of the nut.

Note:

Some models may require modification of the oil lines.

Lubricate the clutch release rod and insert it into the main shaft. Place the extended throwout bearing that you have selected according to your release rod.

Note:

Using a 1975 and up sandwich bearing and a 1975-1984 release rod is possible on mainsafts up to 1964, and may be preferred by some.

Position the second kicker cover gasket.



Fit the starter pinion on the extended kicker shaft so that the pin of the pinion shows to the left, when the set screw bore in the shaft is facing to you, place the locking plate and tighten the nut (50 ft-lbs).

Place the kicker shaft spacer without set screw on the shaft and then the assembled kicker shaft in the transmission case, the stop on the kicker pinion placed against the stop in the case.

Mount the kicker cover and tighten nuts/screws.

Place first the thrust washer (use existing one) and then the kicker shaft spacer with set screw and slot on the kicker shaft. Tighten the set screw to 9 ft-lbs.

Place the kicker spring on the extended kicker shaft and hook it to the spring stud.

Mount the kicker arm.

HOW TO USE by **wwag**.com



Replace the clutch release arm (if needed the extended version WW 80-769).

Fill in transmission oil (1.5 pts).

Note:

Original one-piece kicker arms do not work with the StealthStarter Kick Drive.



Position the supplied template on the mudguard, mark the outline of the required cutout and cut it out with a metal saw.

Install the rear wheel.

Mount the exhaust system.

Note:

Original 2in1 exhaust systems do not fit without modification.

Mount the supplied starter relay in a suitable place.

Install a suitable starter button or ignition lock with start function.

Wire and connect all components as shown in the diagram. To avoid starting while a gear is engaged ground connection of the relay or rather the starter button must be via the neutral switch.

Install a suitable battery.

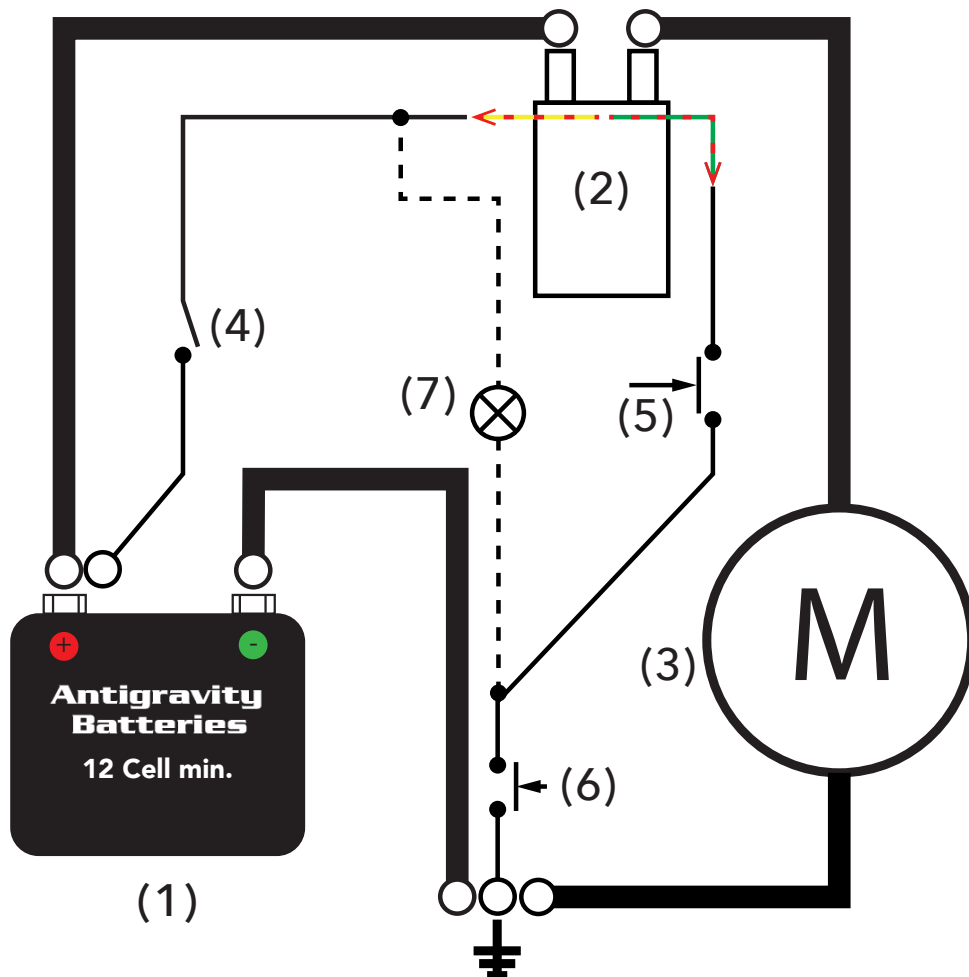
Start motorcycle as a test.

Check clutch function.

When everything is working properly and as planned, fit the outer primary cover and the right brake lever and linkage.

Reinstall the brake light switch.

HOW TO USE by **wwag**.com



- (1) Starter battery
- (2) Starter relay (high current)
- (3) Starter motor
- (4) Ignition switch
- (5) Starter button switch (4 A min.) *
- (6) Neutral gear switch
- (7) Neutral light (optional)

**) We recommend good OEM reproductions like WW 14-070 and 14-073.
If you're using weaker button switches we strongly recommend to wire a second relay.*