Samwel SUPPLIES

MOTORCYCLEPARTS SADDLES & SADDLEBAGS

Installation instruction for Electric Start

This kit is designed for use with 41-up WL model gearboxes only. It will require modification of primary cover. We recommend to purchase aftermarket parts to preserve the originals. Installation should be done by an experienced mechanic only! Kit works with beltdrive only

Phase 1: Preparation - Removal of parts

1: **Detach and remove battery**
2: Remove your batterybox, primary cover, and clutch (including clutchhub) completely.
3: Toolbox and bracket can be detached for better access
4: Remove top cover from gearbox. Make sure no dirt can fall into the gearbox during the conversion process.

Phase 2: Installation

1: Screw the supplied aluminum topcover onto your gearbox.

-**Do not use fillister head screws**. The bore in the supplied plate is countersunk. Use supplied countersunk screws only!

2: Attach the supplied Batterybox:

- Use supplied batterybox. It is made to create room for your starterunit, and to house a powerful battery.
- Use your old hardware to mount box. It fits just like OEM. It fits between frame, leaning towards the left side of motorcycle.
- We recommend using battery type 14-LBS (available at any auto/ motorshop).

3: Bolt on starter engine. Two supplied inbus bolts are to be used.

- The supplied aluminum cover has two threaded holes which line up with two unthreaded holes on your starter.
- Make sure the connection is tight, it will endure high stress during starter operation

4: Attach supplied clutch hub and inner primary.

- Hub can be attached as original, use old nut and lock (replace if damaged)
-Fitting the inner primary requires tweaking. You will find that the sprocket may interfere with the inner and outer primary cases. The inner primary has a few ridges to provide strength, they need to be flattened, just hammer down. Grind away the edges so that clutchhub turns freely.
- When using a longer belt it might be nessecary to grind away the rivets on inner primary to make space for the starter sprocket.
- When used with chaindrive, the chain may interfere with the starterring. We hope to fix this issue in later iterations of our starter solution. For now this kit is recommended to be used with BELT DRIVE only

5: Check fitting and alignment

- In this phase its critical to check that the startersprocket lines up with the startergear when in extended position. Turn the startergear (it should pull itself outward), and it should line up with, and catch the sprocket gears perfectly. If there is a misalignment, it is most likely that either the clutchhub is not on tight enough. Each starterunit is individually tested for fitment and alignment at factory.

5: Rearbrake rod

- Use supplied rear brake rod. To get it fitting, it can be fiddled in between starter/gearbox/chainguard. To get the hooked end into the brake crossover shaft, it helps to detach the footboard supports, and slide the crossover outward
- The rest of rearbrake rod should fit as original. If brakerod appears to be too long, cut off excess, when to short, call your dealer for help.

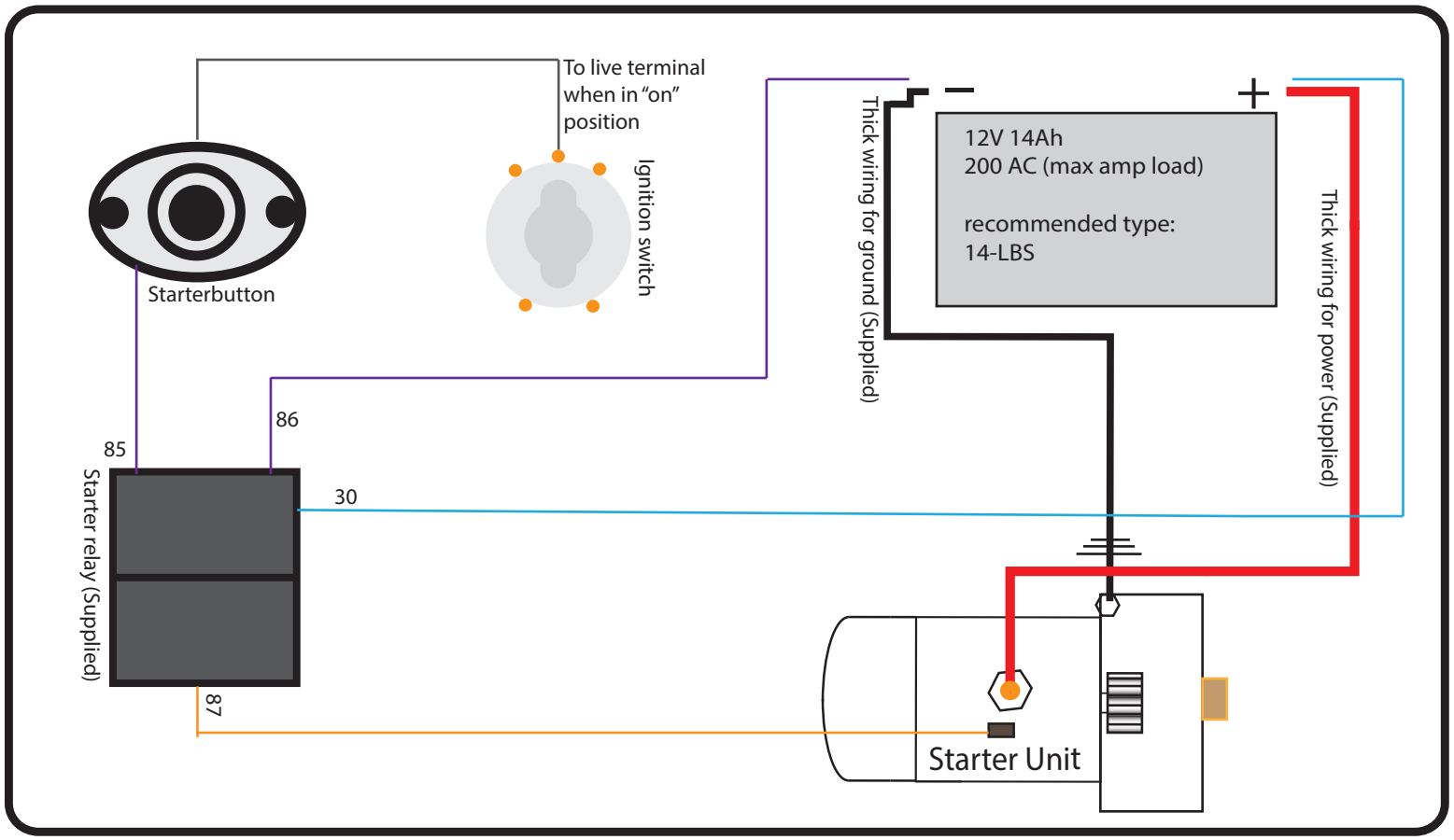
5: Starter button:

- Use supplied 2-wire horn button. Mount at your desired location (handlebar or frametube recommended)
  It does require drilling and routing of cabling, but it looks most authentic

6: Wiring - Schedule on back of this manual

- 2 special starterwires are supplied for ground and power of the startermotor.
  The positive wire should go on the central nut (has a clear copper core)
  The ground wire can be attached to an allen (inbus) type bolt on the mountingflange

The starter can draw up to 200 Amps,, do NOT attempt to use thinner wires than supplied.
-Supplied starter-Relay has numbered terminals, with wires pre installed. attachment point for each respective terminal can be found at the schematic on the back of this page
- Pro-Tip: Put starter-realy inside the Toolbox. You just need to drill 1 hole. Gives easy access, and wiring can be hidden behind the toolbox



GENERAL INFORMATION

Features:

- High Power (1.6 kW) starter
- Easy installation
- Low profile, no external solenoids
- Reliable start, regardless of ignition type
- No need for automatic or manual advance/retard of engine
- Works with Beltdrives
- Kickstarting remains possible

CAUTION:

- Make sure that startergears engage properly!
- Units do NOT have a neutral switch!
- Use supplied hardware. Make sure its fastened well.

- Do not use starter for more than a few seconds at a time. It may overheat if continuously (without interval) trying to start a dead engine.

TROUBLESHOOTING

Common Issues

Starter does not "push through" compression or gives "electric rattle"

We rely on customer feedback to find more common issues!

Solutions:

If battery is not empty (more than 12.5V), check if the 2 halves of the starter relay are still attached properly to eachother. With engine vibration sometimes the halves detach. A ziptie to keep the halves together helps. Else check for faulty wiring, ground and positive.

More information:

- Contact your closest dealer for purchase and installation.

- More information on: **www.samwelsupplies.com**
  - Information on many reproduction parts for WL,WLA, BT and other.
  - Dealer information for our reproduction parts