

BIGSTOPPERS.COM Big brake kit for CLUB CAR



**Congratulations, you have purchased the BIGSTOPPERS.com Club Car Big Brake System. Recommended for all club cars with an equalizer bracket with 2.75" cable spacing. 2, 4, 6, 8 passenger carts and aftermarket stretch apply.**

**\$299**



**Easy to install with perfect usability! Parking brakes are retained with ideal brake bias and incredible stopping power!**

Tools recommended:

1/2" round file

100A MIG flux WELDER and corresponding welding tools and safety equipment.

VICE

HAMMER

Metric wrenches

Metric allen wrenches

optional 2" hole saw

Common sense!

**DISCLAIMER:**

**We accept no liability for your brake kit installation or use. These instructions are a general guide and installation is recommended to be performed by a trained professional familiar with both welding and brake part maintenance.**

**This kit includes our Pat pending mounting brackets. Customer supplies the calipers, pads, rotors, master cylinders, brake lines and hardware. Approx \$300 - \$400 in additional parts.**

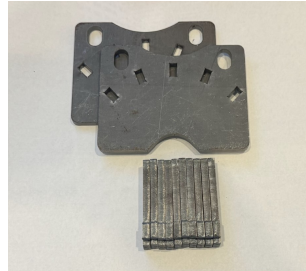
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MACSBOST.COM

## BIGSTOPPERS.COM Big brake kit for CLUB CAR

What is included: with the BIGSTOPPERS KIT

- 1 BIGSTOPPERS.com club car 4 way no drill master cylinder mount.
- 1 BIGSTOPPERS.com Master cylinder Balance bar.
- 2 BIGSTOPPERS.com Self Jigging Brake caliper mounting bracket
- 10 BIGSTOPPERS.com Brake caliper mount Gusset/Tabs



What NOT included but required

Order 2x of this.

2 Motorcycle style rear brake master cylinders with hoses – <https://amzn.to/40ua1eF>

Order 1 each of each link below.

2 Brake hoses (included with masters above) 1.8M long

1 Calipers set – <https://amzn.to/3NOXuKU>

1 Brake pad set – <https://amzn.to/4ftnKqj>

1 set of brake rotors – <https://amzn.to/48thzk1>

1 4pcs M6x25mm button head bolts <https://amzn.to/3Uxl5Uy>

1 4pcs M10–25mm flanged bolt <https://amzn.to/4huq7Lk>

1 4pcs M10 Flanged nut – <https://amzn.to/3NNHCZl>

1 m10x1 Fine thread Banjo Bolt set – <https://amzn.to/3C77MDT>

1 10ft 1/4" fuel line – <https://amzn.to/3Yzjm2e>

Current pricing as of 11/1/2024 is \$340

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### INSTALLATION INSTRUCTIONS:

#### CALIPER BRACKETS:

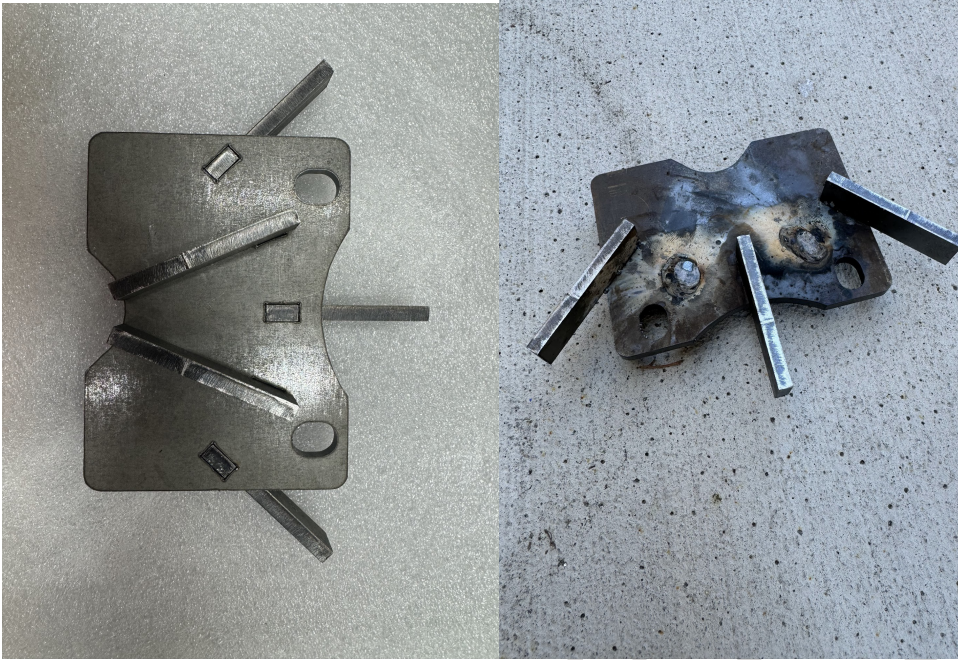
Lift the front of the cart and remove the wheels. Install the brake rotors over the front studs. You will need to file the holes outward approximately .25mm on each hole to adapt the rotor to the lug spacing of the cart. This does not need to be perfect. WE recommend 25 passes at a time with a 1/2" file and test fit after each round of filing. This should not take more than 5 minutes per rotor. **Temporarily Install the lug nuts to hold the rotor firmly to your hub.** The rotor must be secured as we use its location to properly attach the caliper brackets.



Assemble the weld on brackets as shown using a vice or hammer. Tac the #2 and #4 gusset as shown. **DO NOT WELD THE CENTER OR OUTER PIECES.** These pieces are designed to be press-fit and are temporarily installed for the installation process. These three tabs are spacers that offset the caliper bracket properly. **This spacing is critical for proper installation.** The bracket must be parallel to the brake rotor as well. There is only 1mm clearance from the brake rotor to the caliper.



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Clamp the bracket against the rotor as shown. Fully seat the narrow concave side against the axle. Make sure the caliper bracket is parallel to the rotor and spaced properly using the press in gussets.



Remove any burrs. Gussets should be fully seated and fully flat against the rotor. The caliper requires the bracket be mounted with 1mm or less tolerance. Tack weld. Test fit, attach a caliper with M10x25mm flange bolts without pads. Make certain the caliper clears the rotor evenly on all sides. Adjust the bracket as necessary before fully welding. The caliper should not touch the rotor at all when it is correctly positioned.

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Note the bracket is slotted radially so the caliper can be adjusted for clearance to the rotor. This is to accommodate spindles of different diameters.

Before fully welding make sure it is adequately tack welded.

Remove the entire hub/rotor off the axle to prevent bearing damage before welding..

Take care when fully welding that warping does not cause issues.

A large adjustable wrench and a hammer can work wonders even if you do have some warping. No worries.

This self aligning bracket makes it easy to get it right the first time.

Once you are an expert on one side, you are ready for the other.

**MASTER INSTALLATION:**

Remove the stock drum brake balance tee. If there is an imbalance you will need to re-adjust the rear drum brakes so the cables are as even a length as is possible. Pick the longer side. Remove the rear wheel on that side and remove the brake drum. Find the adjuster inside the drum brake and adjust the wheel so the lengths are as close to the same as is practical. While the bigstoppers kit does allow for some drum imbalance it does not allow as much imbalance as the stock setup. Once the cable lengths are balanced as much as is possible, proceed.



Assemble the master cylinder mount as shown. Note, the master mount balance tee bar is not symmetrical. Be sure to have the outer holes with the small side facing the cylinders. The center hole the small side should face away from the cylinders.

Install two nuts on the master cylinder rods and adjust them so the sliding inner balance tee is fully extended. Install the M5x25 bolts to attach the masters as shown. The balance tee should just rest against the back of the mount hole. The nuts should just take up the slack. Once all the slack is taken up tighten the nuts each  $\frac{1}{4}$  turn so there is slight  $\frac{1}{4}$  turn pre-load on the system. Do NOT pre-load more than this as it will prevent the system from bleeding or compensating properly.

The master mount will fit in the channel under the floor. Shown is a stretched cart so things are easier to see. Brake lines should be routed rearward out the hole then forward to the front calipers.

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We recommend lengthening the typical master cylinder reservoir hoses up to 36" before install. The hoses can be shortened later but this will let you install and have plenty of length to work with.

Now attach the calipers, lines masters and reservoirs to each other. Snug the lines to prevent leaks. You will need to re-clock the lines as necessary according to your cart.

We recommend pre-bleeding the masters and brakes before bolting on the system. To bleed, keep the calipers low with a gradual slope of the hoses up to masters and then with the reservoirs at the highest point. Wobble the calipers and allow the system to bleed. The goal is to get all the of air out of the system. Once as much of the air is out of the system you can lift the calipers, open the bleeders and bleed as normal.

Note the pistons on the calipers can tend to have a lot of stiction when new. Before mounting we recommend applying pressure with the master such that the pistons move out about 3mm without the brake pads. Then when installing the caliper on the cart with rotor you will force the piston back in the caliper to make room for the pad.

Getting all the air out at this step is critical. Having the pistons extended as much as is possible will also help with proper operation. Note that if you don't get all the air out you will have to remove the brakes and bench bleed again. It may take several times if you have never done this before.

Install the calipers as shown with brake pads. Install the master mount as shown. The pedal bolt should be tightened until all springs are taught but not compressing the master cylinders. **The master cylinders MUST fully extend when the pedal is released so they can draw in fluid for compensation.** This means no pre-load on the drum or hydraulic brakes when the parking brake is off.



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A 2" access hole may be drilled to cleanly pass the brake reservoirs up through the seat area. (most electric carts) You should be able to completely remove the masters, reservoirs, calipers and lines without disassembling any of the plumbing.

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Run the flexible brake lines along the frame. Make sure the lines do not hit with travel or at steering angle extremes.



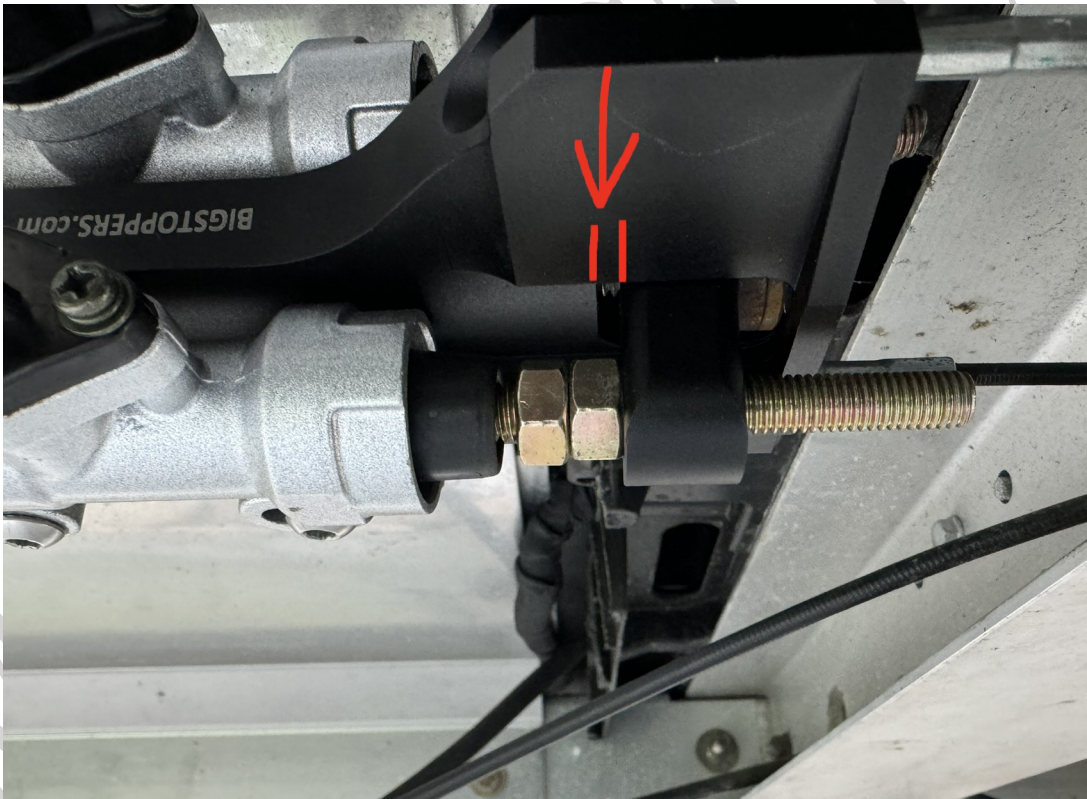
Rapid hard pumps on the brakes will be best when initially getting the calipers to initially grab. Do this when sitting still. Apply/release the parking brake 10 times before proceeding. The brake master mount has a built in feature to apply parking brake force on the drums even if there is a total failure of both hydraulic systems. Before bleeding it will be normal for the masters to totally collapse. Take care at this step. While initially getting the system to work properly, rear braking force may be greatly reduced and there may be no braking on the front until properly bled.

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**IMPORTANT:** Fully Apply the parking brake. Check the gap on the rear of the master mount between the hydraulic balance tee and the rear of the mount. (Show in RED below) Once fully bled there should be some gap as shown. .5mm or greater is considered good for a new install. This gap means there is hydraulic pressure on the front calipers. If there is no gap, (the masters completely collapse) then the system is not making sufficient hydraulic pressure. You might need to bleed the system again.

This gap will get larger as the brake lines and calipers break in. A fully broken in system should see a gap of 2-4mm with the parking brake applied. Pads will take time to fully seat. Caliper piston seals will tend to stick and also get better as they are broken in. As long as there is some gap in this window you know the hydraulic cart brakes are working. Be sure to check for leaks. Nothing should be dripping and pressure should hold when parked overnight.

EXAMPLE MASTER Mount with the parking brake applied, indicating a "broken in" gap distance..



For installs that are being difficult to bleed, An aftermarket quick bleed check valve brake bleeder installed in the caliper can help.

**CONTACT 1.704.FAST.MAC for sales.**