

Throttle And Brake Cable Measurement

Two numbers, not one. The community disagrees about correct lengths, so this sheet teaches the measurement instead of quoting a figure.

A CABLE IS A SAFETY PART

A throttle that does not snap closed on its own, or a brake cable that binds, is dangerous in a way that a wrong belt is not. After fitting anything from this sheet, check the throttle returns fully closed with the handlebars turned to both extremes, and check the brake releases fully before riding.

PRINT CALIBRATION — CHECK BEFORE MEASURING



Lay a steel rule along this scale. The 150mm mark must fall at exactly 150mm. If it does not, reprint at 100% / "Actual size" with page scaling off — every measurement you take from a scaled sheet will be wrong.

WHY THERE ARE TWO LENGTHS

A cable is two parts and they are not the same length

PART	WHAT IT IS	HOW TO MEASURE IT
Outer housing	The sheath the wire runs inside	End cap to end cap, along the route it takes on the machine
Inner wire	The wire itself, with a nipple at each end	Nipple face to nipple face, with the wire pulled straight
Free length	How much wire stands proud of the housing	The difference between the two, and what sets the adjustment range

WHICH NUMBER DOES A SELLER MEAN?

Usually the outer housing, but not always, and listings frequently do not say. Record both and quote both when you ask. A seller who cannot tell you which they are quoting is a seller to be careful with.

MEASURING

- With the cable still on the machine, note where it is clipped, where it passes through the frame, and how it loops at the bars. Photograph it.
- Remove the cable and lay it out in the same shape it held on the machine — do not straighten out the bends it lived with.
- Measure the outer housing end cap to end cap along that shape.
- Pull the inner wire straight and measure nipple to nipple.
- If the old cable is missing entirely, run a length of string along the exact route the cable would take, with the bars turned fully to the lock that stretches it furthest, and measure the string. Add nothing for slack — the fully-turned position already accounts for it.

OUTER HOUSING LENGTH

mm

SAME IN INCHES

in

INNER WIRE LENGTH

mm

SAME IN INCHES

in

END FITTINGS — THE HALF NOBODY QUOTES

END	NIPPLE SHAPE	NIPPLE DIA × LENGTH MM	ADJUSTER PRESENT?	THREAD IF ADJUSTER

Write *LEVER / TWISTGRIP END* in the first row and *CARBURETTOR / BRAKE END* in the second.

SKETCH THE UPPER END FITTING

Next to the printed scale above

SKETCH THE LOWER END FITTING

Note which way the nipple sits

AFTER FITTING — CHECK BEFORE YOU RIDE

- ☐ Throttle snaps fully closed on its own, bars straight ahead
- ☐ Throttle snaps fully closed with the bars turned fully left
- ☐ Throttle snaps fully closed with the bars turned fully right
- ☐ No dead travel before the throttle starts to open
- ☐ Cable is clipped along its original route and not rubbing anything
- ☐ Brake releases fully and the wheel spins free
- ☐ Adjuster locknuts tightened

THIS SHEET RECORDS, IT DOES NOT RECOMMEND

Nothing here tells you which part to buy. It tells you what you currently have, in the units a seller works in. Machines built to the same nominal specification were fitted with different components by different suppliers, sometimes inside one model year, so the only reliable reference is the item in your hand.

Need to work out what you actually own?

The Scooter Parts Registry is a free public record of the Chinese factories behind US-market scooters, ATVs and go-karts — brand, engine family, VIN prefix, factory and related machines. No account, no email.

thescooterparts.com/identify