

# CDI Connector Pinout Worksheet

Map your own connector with a meter, because there is no universal pinout and every chart you will find contradicts another.

### IGNITION CIRCUITS CARRY THOUSANDS OF VOLTS

Disconnect the battery before unplugging or probing connectors. When a test needs the engine cranking, hold leads with insulated pliers and keep clear of the plug body. If you are not comfortable with this, hand it to somebody who is.

### THERE IS NO WIRING COLOUR STANDARD ON THESE MACHINES

This is not a gap in our research — it is the finding. Experienced owners describe factory loom colours as varying between machines of the same brand and the same model, and every widely circulated colour chart we examined disagrees with at least one other. So no branch on this sheet will ever tell you to find the yellow wire. Every step ends at something you measured: voltage present or absent, continuity or open circuit, changes when the key turns or does not.

## MAP IT BY FUNCTION, NOT BY COLOUR

Each function has a test that identifies it without reference to any chart

| FUNCTION                     | HOW TO IDENTIFY THAT PIN                                                            |
|------------------------------|-------------------------------------------------------------------------------------|
| Earth / ground               | Continuity to the engine case or frame with the battery disconnected                |
| Switched power               | Battery voltage present with the key on, absent with the key off                    |
| Kill switch line             | Continuity to earth changes when the kill switch is operated                        |
| To the ignition coil primary | Continuity to one of the coil's small terminals                                     |
| From the pickup              | Continuity to the pickup's winding; often a small AC voltage appears while cranking |
| From the charge coil         | Continuity into the stator; on an AC system a voltage appears while cranking        |

### AC OR DC MATTERS BEFORE YOU START

Some of these ignition systems are fed from the battery and some from a dedicated winding in the stator. Which one you have changes what you expect to see on the switched-power pin. If the machine has no battery or runs with the battery disconnected, it is the second kind. Note which before you interpret any reading.

DRAW YOUR CONNECTOR

Draw it as you look into the face, and write clearly which half you have drawn. The loom side and the component side are mirror images of one another, and that is the single easiest way to wire something backwards.

LOOM SIDE — LOOKING INTO THE FACE

Number every pin

CDI SIDE — LOOKING INTO THE FACE

Same numbering, mirrored

PIN BY PIN

| PIN | WIRE COLOUR ON YOUR MACHINE | FUNCTION ESTABLISHED | TEST THAT PROVED IT |
|-----|-----------------------------|----------------------|---------------------|
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THIS RECORD IS ABOUT YOUR MACHINE AND NO OTHER

The colours you write above are correct for the loom in front of you. They may well be wrong for the identical model parked next to it — that is the whole finding of this sheet. If you share this record, share the engine family number and say plainly that the colours were measured rather than looked up.

NOTES — WHAT DID NOT BEHAVE AS EXPECTED

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**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](https://thescooterparts.com/identify)