

PROBLEM: Brake light permanently on When Key Switch On:

1. I have verified the entire Brake Light circuit, switches, cables, continuity, voltage, bulb, bulb holder etc, and it all is OK and works (see below) and now I am really stumped!
2. I DISCONNECTED the 2 brake circuit wires (yellow/green and brown/blue) from the key switch (they were both connected through the switch to the brown wire in the key switch). When the key switch is turned on, bingo, the brake light works just fine as it should and only when actuating the front lever or the foot pedal. BUT, and it's a big BUT, the engine start will not engage.
3. So I then connected just the brown/blue wire from the brake circuit to the ignition switch, same thing everything works fine, except the ignition.
4. So finally I connected just the yellow/green wire to the switch and the brake light came on (as the original problem) BUT the ignition would engage and the engine starts!!

Can you help me with what's going on?

BTW the ignition switch has 3 wires. Red is the switched hot, Brown and Green.

I THINK IT MAY HAVE SOMETHING TO DO WITH THE WIRING OF THE CHANGE GEAR CONTROL - see below:

I had noticed that there is an unconnected Yellow/Green wire that comes out of the harness at the Change Gear Control unit and which is not connected to anything.

This unit has 2 sides to it. One for 5 wires and one for 2 wires. The harness had only 2 visible wires connected to the small side (Yellow/Brown and Green). The 3rd wire (yellow/green [same colors as in the brake light circuit]) is not connected to anything!

The wiring diagram shows the pinouts for the 5 wire side of the unit and one of them is for a yellow/green wire - however I do not know which pin is which and which pin this might (?) attach to.

ALSO I have discovered that there were indeed 4 other wires in this harness to the Change Gear Control but these had been twisted together (Lt Green/Red with Green/Purple and Black/White with Black) and taped over so they were not visible. I have no idea why this had been done and wonder if it was to bypass the unit in some way because it was defective. How can I reconnect these wires, to which pins, and how can I test the unit?

Because the Yellow/Green wire is common to all these components (Brake Light Circuit, Key Switch and Change Gear Control, I suspect this is where the problem lies.

From the wiring diagram of the Change Gear Control

Black: ?? Neutral?

Green/Yellow: to the Brake Light Circuit

Lt Green/Red: appears to go to the Gear Change Switch

Green/Purple: goes to the Neutral Pilot light (which works normally as currently wired and twisted together with the Black/White wire)

Black/White: goes to the Ignition Unit

How should the Key Switch and Change Gear Control be wired? (or perhaps bypassed so that everything works normally)