

14. The internal resistance of the battery is $r = (12\text{ V} - 11.4\text{ V})/50\text{ A} = 0.012\text{ }\Omega < 0.020\text{ }\Omega$, so the battery is OK. The resistance of the cable is $R = 3.0\text{ V}/50\text{ A} = 0.060\text{ }\Omega > 0.040\text{ }\Omega$, so the cable is defective.