Black Wire Corrosion

From an article: **https://www.batterybusiness.com.au/blog/black-wire-corrosion**

The important things are:

- Keep an eye out for the signs - check the "earth" wire from the battery to see if it feels hard and rigid (bad) or soft and flexible (good)
- Voltage without a load doesn't tell you everything about a battery. Voltage under load is more telling.
- This corrosion usually happens on the negative wire, and will affect the whole wire, not just the exposed strands (there is some thought that the cable coating has an involvement in creating the problem)
- It can also affect the connectors and battery switches in the circuit
- You can replace the wires - it's seldom worth it on nickel cadmium and nickel metal hydride batteries, and also worth using nice thick cables.
- You can't clean the affected wires or do anything to put it right or reverse the problem, once it is there, other than replacement of wires
- It tends to occur more where a battery is kept below peak voltage, and no current has been flowing for a while
- It is very hard to see without stripping some wire, but you can check it by setting a multimeter to the resistance setting and comparing the resistance down the length of the red wire and black wire. You'll see no, or almost no, resistance down the red, and if the black shows a different result then the time has come to solve the problem
- and, if it is of any comfort, it is happening just about all the time. Old cabling is generally not going to perform as well as new cabling, once it has been connected ot a battery for a while

Bottom line - if your battery is doing something strange, if your remote control plane or car doesn't seem to be working quite right, if your classic car isn't starting as well as it should, or if your negative wires are feeling a bit stiff - there's work to be done, preferably before the black wire causes a bigger problem!