


CABLE MANUFACTURE



The Universal cable kit requires a degree of mechanical competence and the ability to solder. We would only recommend a suitably qualified person to undertake this work. If in doubt, please refer to your local specialist, who can arrange assembly to your requirements. The kit enables a cable to be made up to your particular needs. The assembly should be prepared to your requirement of length and fittings.

Venhill cable kits are supplied with Galvanised wire. This is easy to solder using readily available flux and solder as used by plumbers and electricians. It is not recommended to use stainless steel wire when making up your own cables. It can be done but you will require a specialist flux suitable for stainless steel. Without this you will not get the solder to stick to the stainless steel wire.

1. Make sure the end of the wire is completely free of dirt and grease. Use wet and dry paper to remove any oxidation on the metal surface then use a dry cloth to wipe away metal fragments and any grease.
2. Make your bond with your nipple much stronger by 'bird caging' to open up the strands of wire. We recommend using 'VT13' bird caging tool if you are going to make lots of cables on a regular basis.  If not use small pliers to open out each strand of wire and then bend them back in on themselves to form a bird cage shape.
3. Thread your nipple onto your cable so it now rests on the birdcage and doesn't fall off the end of the wire.
4. If you are using a solder pot you should now dip the wire and nipple in flux (we use 'Blackband' soldering flux). If you are using electrical solder, the flux is already included within the solder wire.
5. Heat the nipple and wire to a temperature that will melt the solder you are using.
6. Solder the nipple and birdcage together making sure the solder penetrates the wire strands and completely covers the nipple. This step will vary in method depending on what soldering equipment you have. Please follow manufactures instructions supplied with your soldering kit. If using a soldering pot, slowly dip the nipple and wire into the molten solder and allow it to fully cover the top of the nipple.
7. Try not to get any excess solder covering the wire above the nipple. This is especially important on clutch cables with ferrule bends as the soldered end of the wire will no longer be flexible around the bend and will be under more strain.
8. Dip your newly soldered end into water to cool and dilute any remaining flux off the surface.
9. Dry the soldered nipple with dry cloth or tissue paper.
10. Use a small file to remove any excess solder on the end of the nipple if needed.
11. Grease in a light 3 in 1 oil for extra protection.

CABLE INSTALLATION AND MAINTENANCE RECOMMENDATIONS



When fitting the cable ensure that the system operates properly prior to use. A suitably qualified person should fully test the vehicle in a safe environment.

The following recommendations are given as guide to you help install and setup your cables and make sure you get the best from Venhill products.

INSTALLING A NEW CABLE

- ▶ Note the routing of the original cable.
- ▶ Check that the overall dimensions are the same as the old one. Inner cable lengths may be slightly different, as the old cables will have stretched slightly over time.
- ▶ Before installing the new cable, hold the cable upright and use a few drops of a light 3 in 1 oil to lubricate the inner cable. Move the inner up and down to ease the oil down the cable.
- ▶ When the new cable is ready to be fitted, route the cable carefully and in most cases, as per the old cable, Make sure the cable will comfortably reach its intended connection.
- ▶ If the original cable routing is via a heat source, make sure that there is a suitable gap between the cable and the heat source.
- ▶ If cables ties are required to route the cable, leave them loose allowing the cable to move. Too tight and they will restrict the operation of the cable and its ability to move with the handlebars.
- ▶ For **Push-Pull / Open-Close** throttle cables, always connect and adjust the **pull/ open** cable first where possible.
- ▶ Where nipples require lubrication in levers or linkages, use a small amount of copper grease. Avoid using heavy greases as these will attract dirt, restrict the movement of the nipple and cause excessive wear and stress on the nipple and cable.
- ▶ When the cable has been installed, check the steering lock to lock and check the operation of the cable at both extremes of steering. Check that the cable does not go tight and that operation is not impaired. If one of the above is true, check the cable routing, adjustment and that all the nipples are located properly.

MAINTENANCE

Cable maintenance is essential to prolong the life of the cable and maintain the operation of the cable.

- ▶ **MX bikes** – After a race meeting or as often as possible after power washing, remove the cables from the bike and flush through with WD40. Keep flushing them through until the fluid runs clear. Once clean, lubricate the cable again with a light 3 in 1 oil and check the cable routing. Also lubricate nipples where required with Copper grease.
- ▶ **Trail bikes** – When servicing or after power washing, remove the cables from the bike and flush through with WD40. Keep flushing them through until the fluid runs clear. Once clean, lubricate the cable again with a light 3 in 1 oil and check the cable routing. Also lubricate nipples where required with Copper grease.
- ▶ **Road bikes** – At the beginning and end of the summer, remove the cables and flush through with WD40. Once clean, lubricate the cable with a light 3 in 1 general purpose oil and lubricate nipples where required with Copper grease. Note barrel nipples must be free to rotate in the lever blade.

Do not use heavy engine oils, chain lubricants or grease to lubricate cables as this will attract dirt, increase cable wear and reduce the operation of the cable. Remember: Cables are a service item and should be replaced at regular intervals. If you are in any doubt about replacing or installing a cable please consult you're nearest qualified motorcycle mechanic.