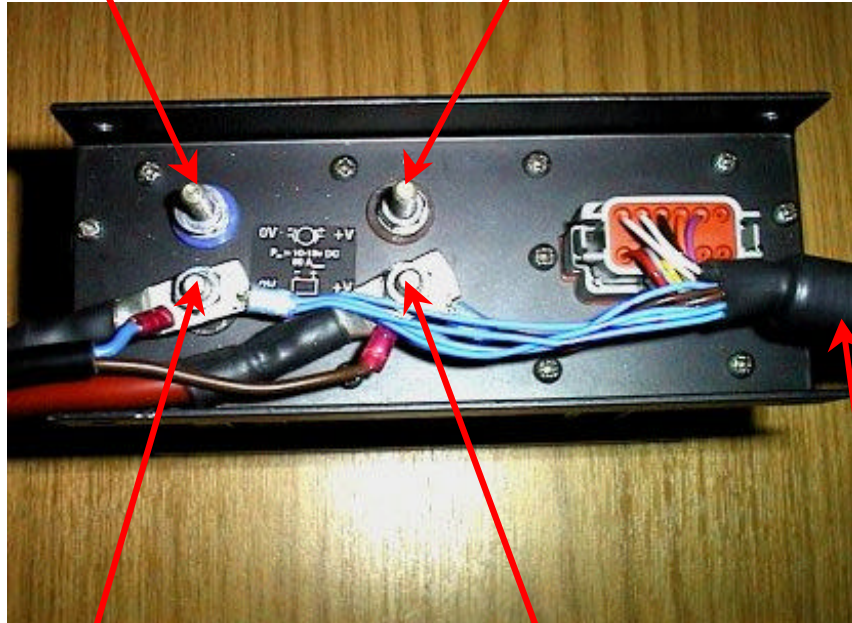


Wizard Artemis Wiring Information

MCM

Motor Drive -

Motor Drive +



0 Volts

12 Volts

MCM loom

The Motor Control Module (MCM) should be fitted as close enough to the motor so that the motor drive wires can be connected onto the module and the motor encoder can connect onto the MCM loom. Fit the module so that the sticker is facing out and cable connection points are at the bottom.

The motors direction of rotation will be dependant upon which way it is connected to the motor drive studs, if it is incorrect simply wire in reverse.

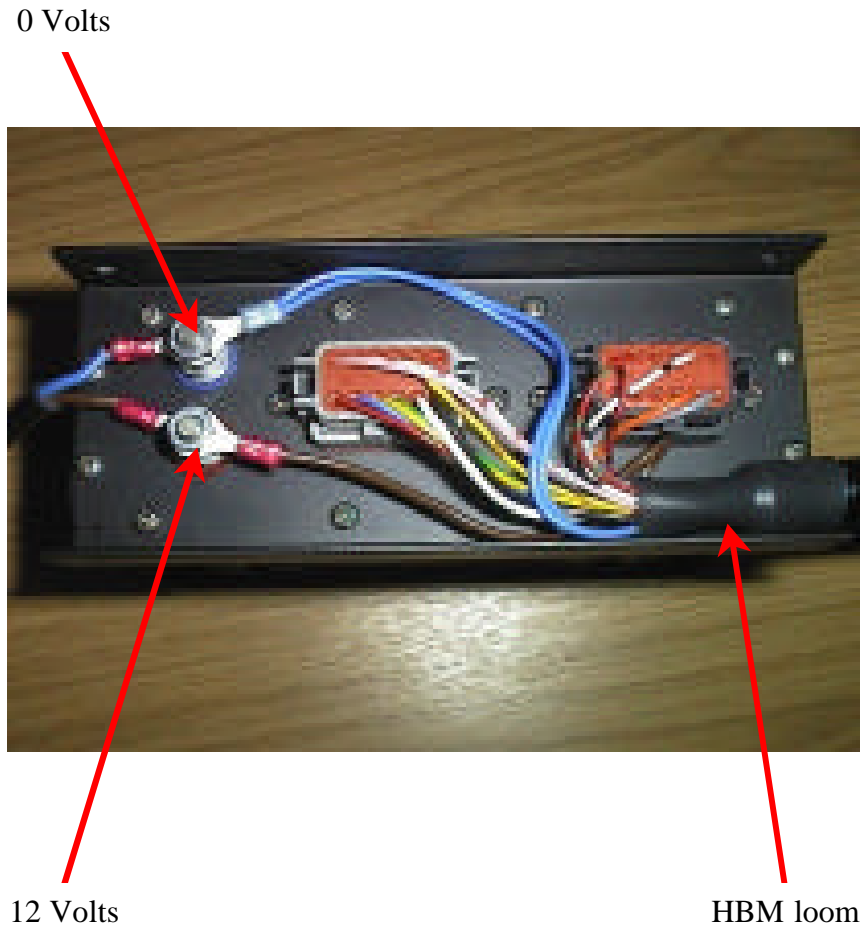
The yellow/green wire fitted to the motor should be connected onto the 0 volts stud to 'ground' the motor casing.

The 'liquorice' power cable should be connected to the power studs as shown above, along with these you will need to fit the cables from the MCM loom (remember blue is 0 volts and brown is 12 volts) and also a cable to carry power across to the HBM .

Ensure that all connections are tight and that there is no possibility of them shorting together.

It is advisable to coat the four studs with petroleum jelly or an equivalent.

HBM



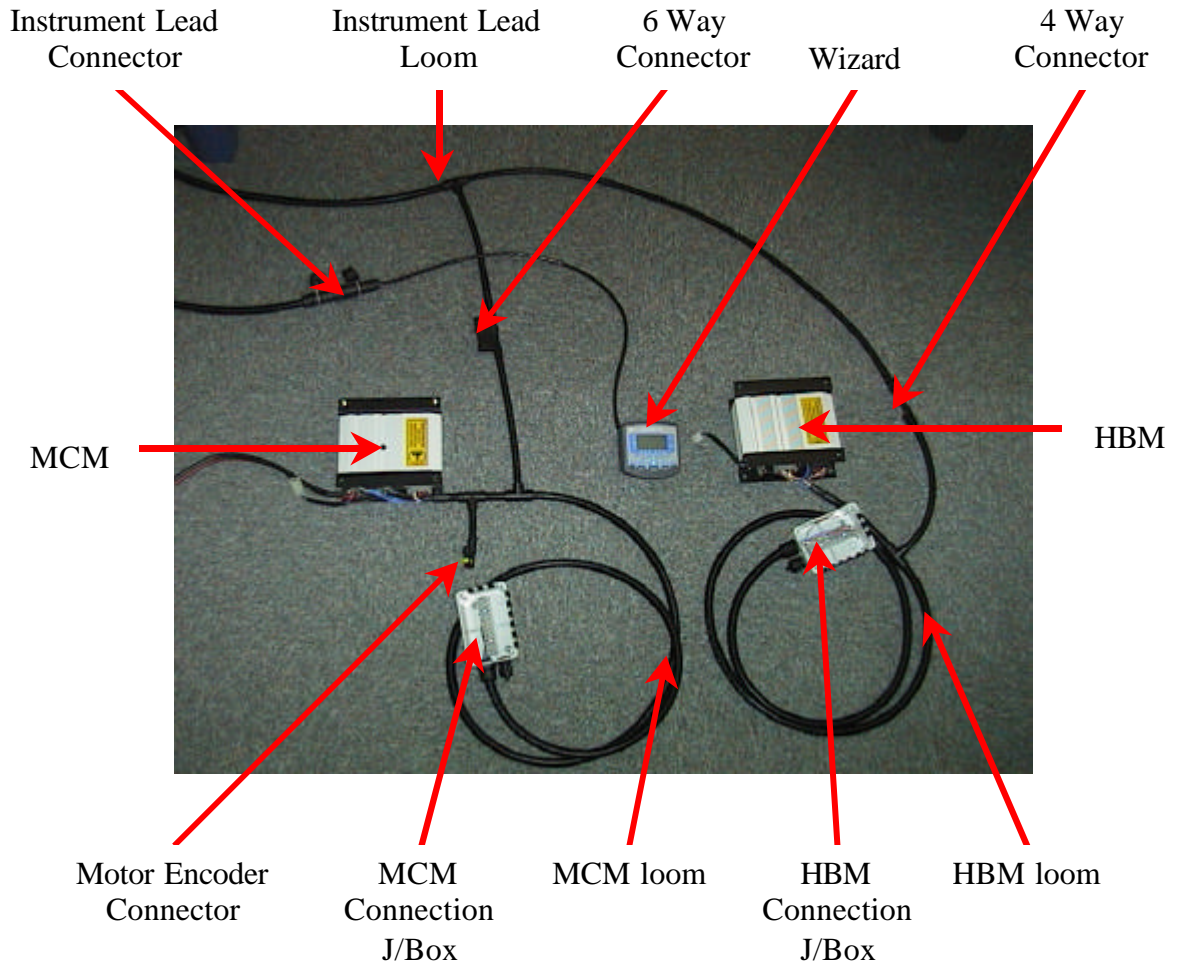
The H/Bridge Module (HBM) should be fitted with close proximity to the MCM so that the HBM loom can be easily connected to the main instrument loom, and the module power can be quite easily taken from the MCM. Fit the module so that the sticker is facing out and cable connection points are at the bottom.

The red stud is 12 volts and should have the brown wires from the HBM loom fitted as well, the black stud being 0 volts and having the blue wires from the HBM fitted as well.

Ensure that all connections are tight and that there is no possibility of them shorting together.

It is advisable to coat the four studs with petroleum jelly or an equivalent.

System Wiring

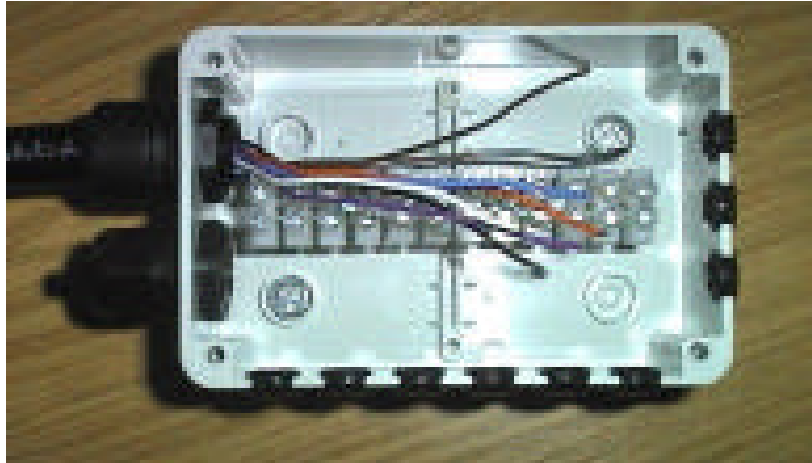


The above picture shows the entire system connected together.

The HBM loom connector is 4 ways and is simply CAN HI, CAN LO, 0 volts and 12 volts from the instrument to power the modules processor circuitry.

The MCM loom connector is 6 ways because it also takes 12 volts from the MCM power stud upto the instrument and also has a duplicate forward speed signal core so that if the tractors radar is used instead of one fitted to the drill the signal can be taken to the MCM module.

MCM Junction Box



The junction boxes supplied are both identical. The intention being that the conduit and cables inside the loom be cut down to a suitable length that enables the junction box to be fitted somewhere convenient to wiring.

Wire functions for the MCM loom are as follows:

| | |
|-----------|-----------------------------|
| White | Forward speed signal |
| Black | Shaft Confirmation 1 signal |
| Orange | Shaft Confirmation 2 signal |
| Violet | Priming switch signal |
| Red/Black | Area cut-out/TL advance |
| Brown | +12 volts |
| Blue | 0 volts |

There are two blue 0 volt cores and two brown 12 volt cores.

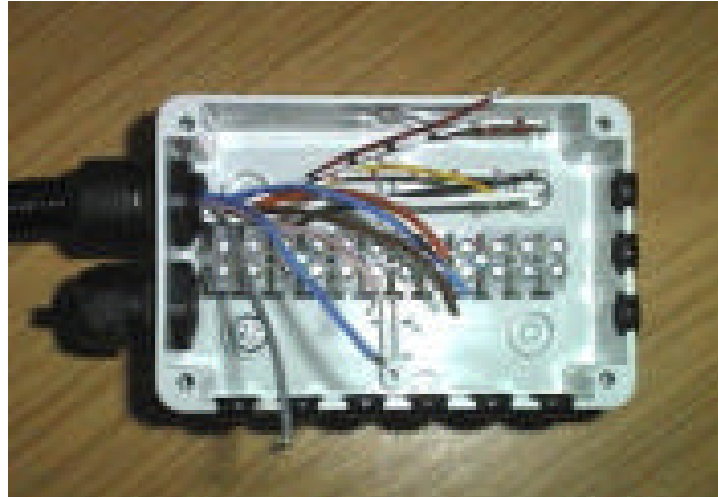
The radar/forward speed encoder will require power, this being gained from a brown wire.

The priming switch must be wired between 0 volts and signal, I would suggest the brown core of the switch being the signal and the blue 0 volts but it will operate wired either way.

The shaft confirmation sensors should also be wired between 0 volts and signal, again the suggested regime being as above but they will still function either way.

I would suggest that non-used cores be simply taped back instead of being cut off just in case they are required in the future.

HBM Junction Box



The junction boxes supplied are both identical. The intention being that the conduit and cables inside the loom be cut down to a suitable length that enables the junction box to be fitted somewhere convenient to wiring.

Wire functions for the HBM loom are as follows:

| | |
|-------------|--------------------------------|
| Pink | Area Cut-Out/TL Advance signal |
| White/Red | Not used |
| Yellow/Red | Hopper Level 1 signal |
| Black | TL1 + |
| White | TL1 – |
| Red/Black | Fan Speed signal |
| Red/Green | Not used |
| White/Black | Hopper Level 2 signal |
| Grey | TL2 + |
| Orange | TL2 – |
| Brown | +12 volts |
| Blue | 0 volts |

There are 2 blue 0 volt cores, it is suggested that one be used for the sensors and the other for the tramline outputs.

If only one level sensor is used then the non-used signal core must be connected to 0 volts otherwise the instrument will alarm continually. The level sensors do require power to function, brown being +volts, blue being 0 volts and yellow/green being signal.

The black/white and grey/orange tramline output cores simply work like a changeover relay to drive motors backwards and forwards. Motorised tramline mechanisms will require micro-switches to be fitted. If the tramline mechanism is of the solenoid type then simply pick up from the appropriate output core and 0 volts.

The area cut-out/TL advance and fan speed sensors must also be wired between the signal and 0 volts.

I would suggest that the non-used cores be simply taped back instead of being cut off just in case they are required in the future.