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GOODWINCH LIMITED

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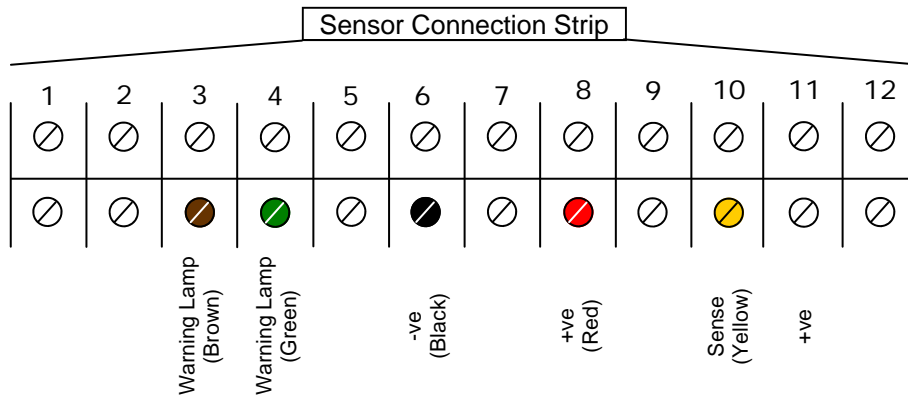
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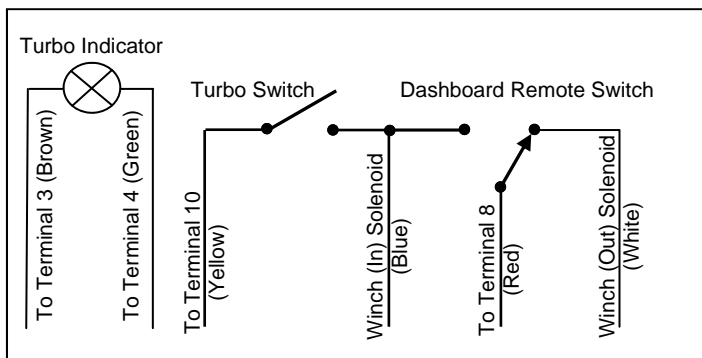
Importers, Exporters, Wholesale Distributors and Retailers of
Winches and Accessories

IMPORTANT

- i) Auxiliary battery must **NOT** be earthed to vehicle chassis or have anything else connected to it.
- ii) +ve Red for Remote must come from Turbo Unit (not the main +ve feed to the Winch)
- iii) Winch Solenoid -ve feed must come from Turbo Unit (remove existing Solenoid Earth)
- iv) A safety cut out switch **MUST** be fitted between the +ve Solenoid connection on the Controller and the Winch.
- v) **DO NOT INSTALL UNDER THE BONNET OR CLOSE TO THE EXHAUST SYSTEM OR ANY OTHER HEAT SOURCE. Best mounted vertically with the connector block at the top.**



1	Spare	7	Spare
2	Spare	8	+ve supply to Winch Remote Socket and Dashboard Remote Switch (Red)
3	Turbo Indicator (Optional) (Brown)	9	Spare
4	Turbo Indicator (Optional) (Green)	10	Sense wire from Turbo Switch (Yellow)
5	Spare	11	Auxiliary +ve 12v (across terminals 6 & 11 only)
6	-ve to Winch Solenoid Coil (Black)	12	Spare



Dashboard Control Panel

Note:

The Turbo Power Controller is wired between your existing vehicle battery and a second auxiliary battery. The auxiliary battery **must not be earthed** or **have anything else connected to it**, just the two heavy cables from the Turbo Power Controller.

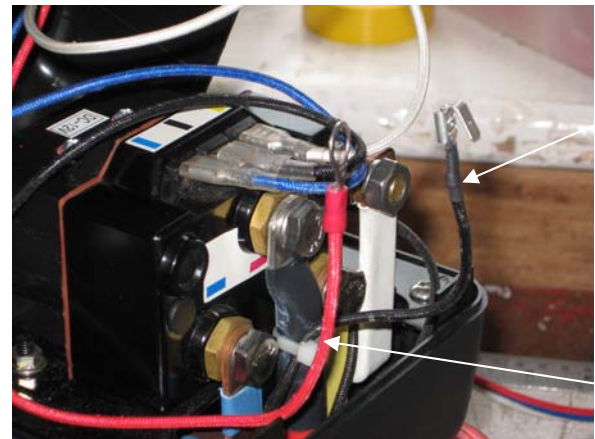
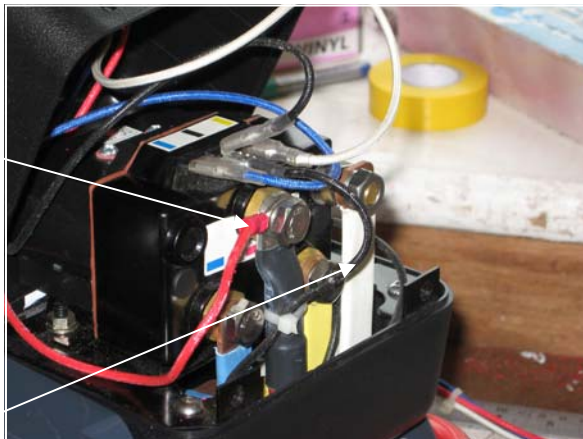
The reason for this is, the Turbo Power Controller switches the auxiliary battery from normally running in parallel with the vehicle battery, to being connected in series with the vehicle battery, on demand. When winching stops, the two batteries resume working together in parallel.

Red ended cable tails are +ve, green are -ve.



Complete kit ready for installation in Vehicle

Centre spade terminal on solenoid, connects to terminal 6 on Turbo Boost Unit



Red to Remote Handset socket

Black (solenoid earth) to motor earth bolt

Black Remove from solenoid, insulate and secure out of the way

Red, remove from solenoid and connect to terminal 8 on Turbo Boost Unit

EXISTING WIRING

NEW WIRING

Connections to Sealed Solenoid Pack. Please note: The Turbo Power Controller can only be used with this type of solenoid (not closed can type)



In-cab Dashboard Switch Panel



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Important Notes for Fitting Turbo Power Controllers

Dear Customer,

Use this procedure and you should have no problems.

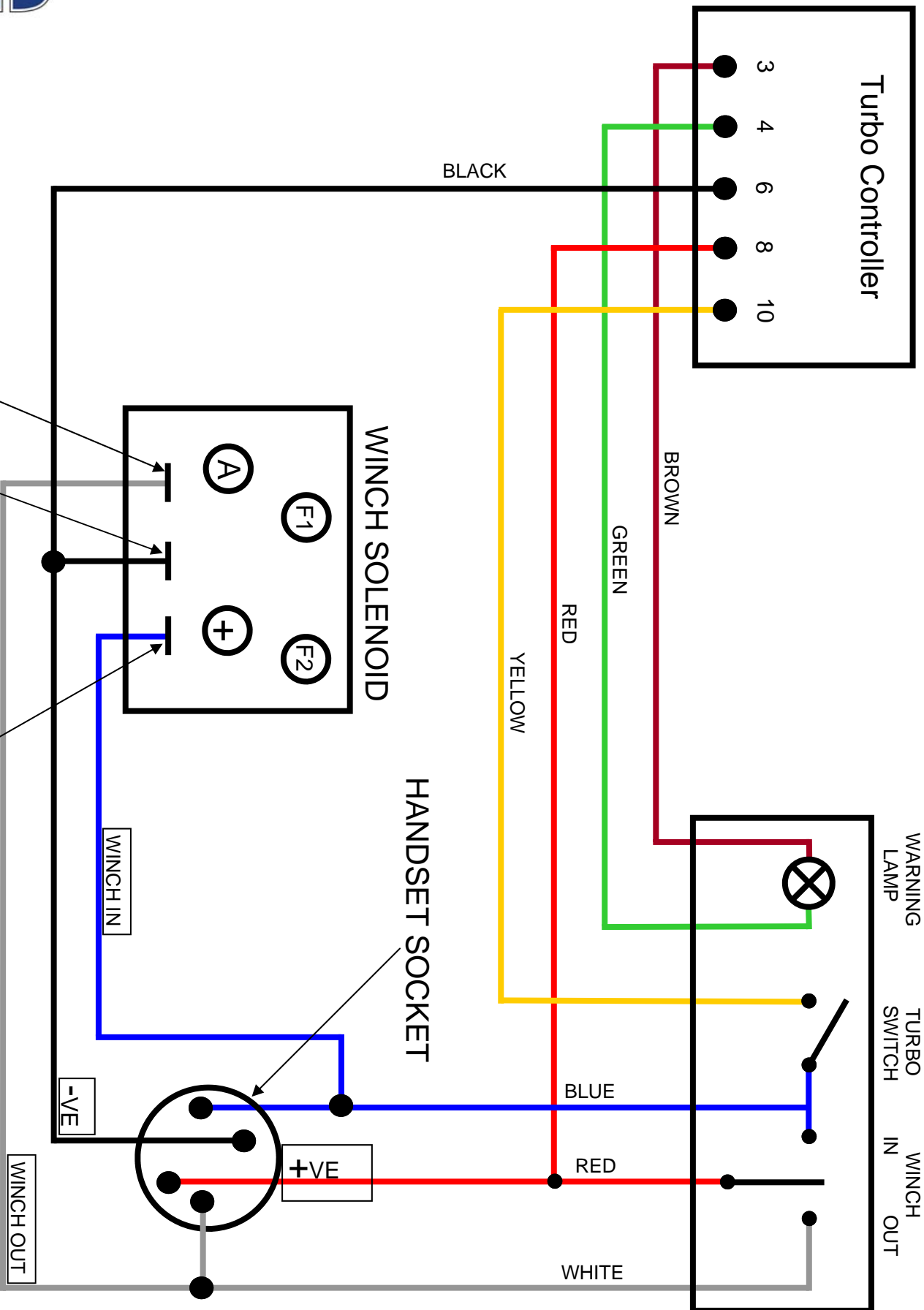
To be read in conjunction with the information sheet and wiring diagram overleaf.

The black cables are terminated at one end for ease of installation.

1. Fit Turbo Power Controller in suitable position **with the barrier strip at the top.**
2. Fit switch panel in convenient position.
3. Run switch cable to winch solenoid pack. **(NB. Black core is not used)**
4. Run second black cable from winch solenoid pack to Turbo Controller. **(NB. Blue and white cores are not used)**
5. Remove solenoid cover.
6. Disconnect winch solenoid –ve (earth), the centre spade (see photo on info sheet)
7. Remove +ve (pos) feed to remote socket from solenoid (see photo).
8. At the winch solenoid pack, strip back the black cables from switch panel and Turbo Box and fit connectors.
9. Connect i) Brown to Brown, ii) Green to Green, iii) Yellow to Yellow, iv) Blue to ‘IN’ on solenoid, v) White to ‘OUT’ on solenoid, vi) Black to centre spade on solenoid, vii) Connect together Red from remote socket, Red from Turbo Controller, Red from switch Panel. **Do not connect to winch Batt +ve feed. NB.** If using any remotes (i.e. Radio), they must be powered from the above red (+ve) and black (-ve).
10. Strip back black cable to Turbo Controller and make connections as shown on info sheet.
11. Connect winch +ve (via cut out switch).
12. Connect vehicle battery +ve.
13. Connect Aux battery +ve.
14. Connect winch, vehicle battery and aux batter –ve’s.

You should now be ready to operate. Winch **IN/OUT** for normal, switch cockpit switch up, winch out normal speed, winch in high speed and orange lamp illuminates.

Switch Panel in Cab



GOODWINCH TURBO CONTROLLER
INTERCONNECTION WIRING (Issue 1)
DRAWN - TP 20120731

TURBO POWER FOR SAFE OVER-VOLTING

GOODWINCH'S TURBO POWER Controller has been around for a couple of years, but a lot of people still don't seem to understand what it does. Put simply, it's a safe way of running a 12-volt winch on 24-volt power when you want to give it an extra short-term boost – making it ideal for use in competition scenarios where speed counts for so much.

Designed to work with the company's well known TDS and Bowmotor winches, the module has push-button operation and can be used on the fly to deliver an instant increase in speed. It operates by linking two similarly sized batteries – normally in parallel, maintaining an everyday 12-volt system but, when primed, automatically over-volting the winch by opening up a series circuit the instant the winch-in button is pressed.

'At the flick of a switch in the cab,' explains 'Mr Goodwinch' David Bowyer, 'you put the controller into standby for running the winch with the two batteries in series when you operate the hand control. A sensor cable fitted to the solenoids tells the controller to wake up, pushing out 24 volts because the "winch in" control has been pressed. You're giving maybe 200 amps to run the winch on 12 volts, which is good enough for most winching scenarios – but operate the master switch in the cab and hey presto, you have real speed!'

The concept of over-volting sounds like a recipe for disaster, but David says the controller is set up not to ask too much of the winch. 'As you are still charging at 12 volts, the winch voltage will drop after some serious winching from 24-26 down to 18-22, which 12-volt TDS or Bowmotors seem to be happy with. So you are not really over-volting too much for too long.

'What will damage motors is over speeding, which you can get when lowering out under load. However, our Turbo Power Controller is set so that you can only winch in on 24 volts and pay out on 12 volts.'

As for your batteries, they've thought of those, too. The 12-volt alternator is always charging both batteries when they are in parallel,' says David, 'but only the vehicle battery while the winch is in use. When you take your finger off the winch control, the alternator immediately pumps charge into the auxiliary battery again and should re-balance both batteries.'

Everyone we've spoken to who runs one of these set-ups has told us they're very happy with it. And that includes some properly hardcore winch users. If over-volting is on your horizon, the Turbo Power is definitely worth a look. It

costs £199 for the standard unit, or £299 for the '2' model – designed to be used with winches running twin Bowmotors. Either way, www.goodwinch.com is the place to go.

