

BOOST SOLENOID KIT FITTING INSTRUCTIONS (FOR LC100 SERIES)



- BOOST CONTROL KIT:

- 1 X PRE - TERMINATED WIRING HARNESS (FOR SOLENOID). ✓
- 1 X VACUUM HOSE. ✓
- 1 X UNICHIP PLUG. ✓
- 1 X BOOST CONTROL SOLENOID. ✓



1.1 | UNDERSTANDING YOUR KIT

IF YOU HAVE AN LC 100 WITHOUT A VNT TURBO THEN YOU WILL NEED TO HAVE THIS KIT FITTED TO YOUR LANDCRUISER TO ALLOW THE UNICHIP TO GET ITS FULL POTENTIAL.

YOU WILL HAVE THE FOLLOWING CONTENTS WITHIN THIS TO THAT NEED TO BE FITTED CORRECTLY BEFORE YOU START YOUR CAR AFTER INSTALLING THE UNICHIP.

- 1 X PRE - TERMINATED WIRING HARNESS (FOR SOLENOID).
- 1 X VACUUM HOSE.
- 1 X UNICHIP PLUG.
- 1 X BOOST CONTROL SOLENOID.

1.2 | BOOST SOLENOID & HARNESS

YOU WILL RECEIVE A BOOST SOLENOID IN YOUR KIT WHICH WILL NEED TO BE PLUMBED INTO YOUR TURBO VACUUM LINES AS WELL AS WIRED INTO THE UNICHIP.

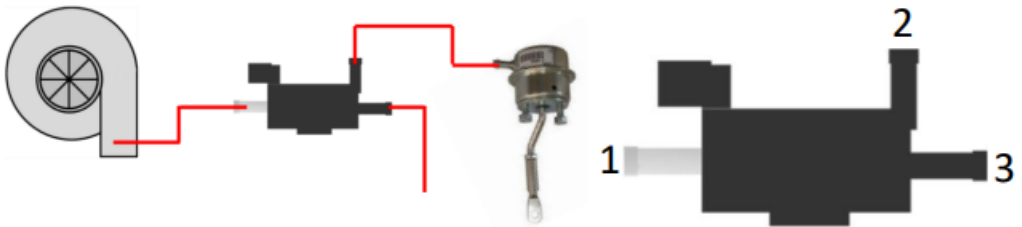
IF YOU ARE NOT COMFORTABLE WITH SOLDERING WIRES THEN PLEASE TAKE THIS TO A RESPECTABLE GARAGE THAT HAS THE CONFIDENCE TO FIT THIS KIT. FAILER TO FOLLOW THE INSTRUCTIONS AND FIT THE KIT CORRECTLY CAN CAUSE DAMAGE TO YOURSELF OR THE VEHICLE.



2.1 | BOOST SOLENOID

LOOKING AT YOUR BOOST SOLENOID CAN BE CONFUSING SO WE HAVE TRIED TO MAKE THESE INSTRUCTIONS AS SIMPLE AS POSSIBLE.

BELOW IS A DIAGRAM OF YOUR BOOST SOLENOID AND WHERE EACH THREE PORTS ON THE BOOST SOLENOID GOES TO.



PORT 1 - CONNECTS TO A SOURCE OF BOOST PRESSURE (TURBO).

PORT 2 - CONNECTS TO YOUR INTERNAL WASTEGATE.

PORT 3 - IS THE VENT TO ATMOSPHERE. THIS CAN ALSO BE CONNECTED TO TURBO INTAKE PIPEWORK AFTER ANY MAF SENSORS.

2.2 | MOUNTING THE BOOST SOLENOID

TO FIT THE BOOST SOLENOID, YOU **CANNOT MOUNT IT ANYWHERE THAT IS SOLID**, AS IN STRAIGHT TO THE SIDE OF THE ENGINE BAY, AS WHEN IT VIBRATES AND CAN CAUSE NOISE AND MAY SOUND ALARMING, BUT REST ASSURED IS NOT.

SO, YOU CAN **SECURE IT TO THE HARNESS THAT RUNS ALONG THE SIDE OF THE AIRBOX.**



2.3 | PLUMBING THE BOOST SOLENOID

FIRSTLY, YOU NEED TO **REMOVE THE AIRBOX** TO THEN GAIN ACCESS TO THE TURBO CHARGER, WHERE YOU WON'T BE ABLE TO SEE BUT WILL BE ABLE TO FEEL THE VACUUM LINE THAT NEEDS TO BE REMOVED AND BE REPLACED WITH THE SUPPLIED VACUUM HOSE FROM THE KIT.

DIRECTLY BENEATH THE TURBO AND AT THE FRONT **IS A 5CM LONG RUBBER PIPE, LINKING THE FRONT OF THE TURBO COMPRESSOR HOUSING VIA A 900 METAL FITTING TO THE WASTEGATE ACTUATOR CANISTER.**

THIS WILL NOT BE VISIBLE BUT CAN BE EASILY FELT ESPECIALLY THE 900 FITTING ON THE FACE OF THE INLET COMPRESSOR HOUSING. THIS PIPE NEEDS TO BE **REMOVED FROM BOTH THE COMPRESSOR HOUSING AND THE WASTEGATE ACTUATOR.**

ONCE BOTH REMOVED THE SUPPLIED VACUUM HOSE CAN THEN BE FITTED, YOU WILL **NEED TO TRIM THE VACUUM HOSE** TO WHATEVER LENGTH IS NECESSARY DEPENDING ON WHERE YOU FIT THE BOOST SOLENOID.

THE HOSE THAT YOU FIT ONTO THE 900 FITTING OF THE **COMPRESSOR HOUSING NEEDS TO BE CONNECTED ONTO THE METAL PORT OF THE SUPPLIED BOOST SOLENOID.** THIS IS ON THE SAME SIDE AS THE ELECTRICAL MULTIPLUG, **LABELLED '1'** ON THE DIAGRAM ABOVE.

THE HOSE THAT YOU FIT ONTO THE **WASTEGATE ACTUATOR NEEDS TO BE FITTED ONTO THE VERTICAL PORT OF THE BOOST SOLENOID, LABELLED '2'** ON THE DIAGRAM ABOVE.



THE THIRD PORT OF THE BOOST SOLENOID DOESN'T NEED TO BE CONNECTED TO ANYTHING AS THIS IS THE VENT.

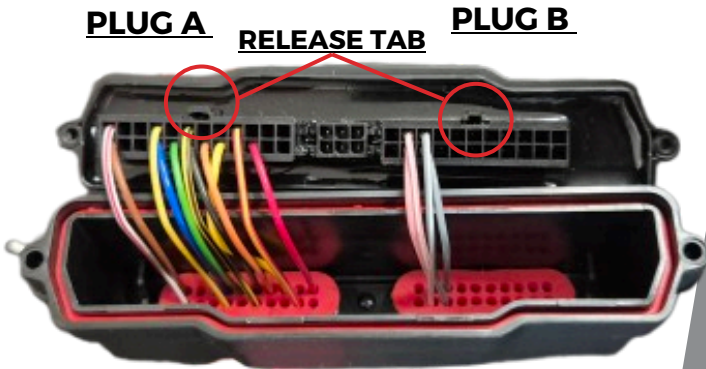
HOWEVER, WE RECOMMEND THAT IF YOUR VEHICLE IS USED OFTEN FOR OFF-ROADING THEN RUN A PIPE FROM THE VENT PORT ON THE BOOST SOLENOID AND INTO THE AIRBOX, OR SIMPLY ROUT AND MOUNT IT HIGH IN THE ENGINE BAY.

YOU CAN NOW SECURE THE VACCUM LINES TO THE FITTINGS ON THE TURBO AS WELL AS SECURING THEM OUT OF THE WAY FROM HEAT AND ANY MOVING PARTS, AS WELL AS REFITTING THE AIRBOX AND MOVE ONTO THE WIRING SIDE OF THE UNICHIP INSTALLATION.

3.1 | UNPLUGGING THE UNICHIP.

THE TOP OF THE UNICHIP COVER NEEDS TO BE UNSCREWED BY THE TWO ALLEN HEAD SCREWS ON EITHER END OF THE LID OF THE UNICHIP MODULE.

ONCE DOING THIS BOTH CONNECTORS A&B WILL BE VISIBLE, THE 22-PIN CONNECTOR IS CONNECTOR B, AS SEEN IN BELOW.



YOU WILL BE PUTTING ALL WIRES MENTIONED INTO THE B CONNECTOR, YOU WILL **NEED THIS TO BE UNPLUGGED** BEFORE YOU CAN PUT ANY WIRES IN TO IT.

THERE IS A SMALL BLACK TAB THAT NEEDS TO BE PUSHED IN TO RELEASE IT, AS SEEN ABOVE.

3.2 | WIRING THE GROUNDS.

THE TWO INCLUDED BROWN WIRES LABELLED 'GROUNDS' NEED TO BE POKED THROUGH THE RUBBER COVER, **TERMINAL SIDE FIRST**, AND THEN INSERTED INTO **THE B CONNECTOR AND INTO PINS 1 AND 2**, AS SEEN BELOW, UNTIL YOU FEEL IT CLICK INTO PLACE.

TO MAKE SURE THE TWO BROWN WIRES ARE IN PROPERLY YOU CAN LIGHTLY PULL ON THE WIRE AND THEY **SHOULDN'T PULL OUT EASILY OR AT ALL**.

THE OTHER END OF THE BROWN WIRES GOES TO A RING TERMINAL THAT CAN BE CONNECTED TO A **BARE METAL POINT**, WE PUT THIS ON ONE THE **ECU MOUNTING BOLTS**.

3.3 | WIRING THE BOOST SOLENOID

THE LONG WHITE/RED WIRE NEEDS TO BE RAN FROM THE ENGINE BAY INTO THE CAR, **TERMINAL SIDE FIRST**, VIA THE BULKHEAD GROMMET LOCATED ON THE RIGHT-HAND SIDE OF THE ENGINE BAY, LEADING IN BEHIND THE GLOVE BOX. ONCE IT HAS BEEN RUN, THE **TERMINAL SIDE OF THE WIRE** NEEDS TO BE POKED THROUGH THE RUBBER COVER AND INTO THE B CONNECTOR AND INTO PIN NUMBER 13, AS SEEN BELOW.



3.4 | POWERING THE BOOST SOLENOID

IN THE ENGINE BAY THERE IS A **BLUE PLUG** ON THE SIDE OF THE THROTTLE BODY WITH A **BLACK AND WHITE WIRE THAT HAS 12V** WHEN THE **IGNITION IS TURNED ON**, YOU NEED TO CHECK THIS WITH A MULTIMETER TO CONFIRM BEFORE PROCEEDING.

ONCE CONFIRMED, THIS WIRE THEN NEEDS TO BE STRIPPED SHOWING THE **BARE WIRE** WITHOUT THE INSULATION AND THE SAME NEED TO BE DONE FOR THE **RED WIRE** ON THE BOOST SOLENOID HARNESS SUPPLIED. ONCE BOTH WIRES ARE STRIPPED, **THE RED WIRE NEEDS TO BE SOLDERED ONTO THE BLACK AND WHITE WIRE** AND THEN **CORRECTLY INSULATED** WITH SOME INSULATION TAPE.

IF YOU ARE NOT CONFIDENT WITH THIS, THEN TAKING IT TO A GARAGE THAT CAN DO IT FOR YOU IS ADVISED.

ONCE DONE, THE PLUG ONTO SUPPLIED HARNESS CAN BE PLUGGED INTO THE MOUNTED BOOST SOLENOID.

GOING BACK INTO THE GLOVE BOX, THE **B CONNECTOR FOR THE UNICHIP** CAN BE PLUGGED BACK INTO THE MODULE AND THEN THE COVER CAN BE RECREWED DOWN READY FOR TESTING.



ADDITIONAL MODS

THE UNICHIP CAN BE **FURTHER CUSTOM TUNED BY YOUR LOCAL AUTHORIZED TUNER.** ALTERNATIVELY, YOU CAN PURCHASE A PROGRAMMING KIT FROM OUR WEBSITE AT **[QR CODE BELOW].**

THE PROGRAMMING KIT IS A VALUABLE TOOL THAT ALLOWS OUR ENGINEERS TO **DIAGNOSE ENGINE FAULTS AND PROVIDE ALTERNATIVE TUNED FILES.**

ONCE CONNECTED, YOU WILL BE ABLE TO VIEW THE VOLTAGE READINGS FROM THE VARIOUS ENGINE SENSORS LINKED TO THE UNICHIP.

PLEASE NOTE THAT THE AVAILABLE SOFTWARE WILL NOT ALLOW YOU TO CREATE YOUR OWN TUNED FILES.



PROGRAMMING
LEAD



SELF DIAGNOSIS - BRIDGE PLUG



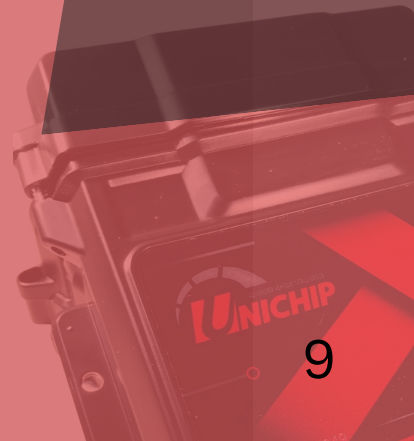
BRIDGE
PLUG

ON THE OFF CHANCE YOU SUSPECT ANY PROBLEMS WITH YOUR VEHICLE AFTER FITTING THE UNICHIP KIT, **WE INCLUDE A BRIDGE PLUG.**

TO FIT THIS YOU NEED TO **REMOVE THE TWO CAP HEAD SCREWS** - WITH THE SUPPLIED 2MM HEX DRIVE SCREWDRIVER - HOLDING THE COVER TO THE UNICHIP AND **UNPLUG ALL OF THE PLUGS GOING INTO THE UNICHIP MODULE PUT THE CORRESPONDING PLUGS INTO THE BRIDGEPLUG.**

THIS WILL REMOVE THE UNICHIP ITSELF AND **PUT THE CAR BACK TO STANDARD** AS IF IT HAS NEVER BEEN THERE.

ALSO CONVENIENT IF YOU NEEDED TO TAKE THE CAR BACK TO THE **MAIN DEALER** FOR ANY REASONS, WITH THE BRIDGE PLUG FITTED THEY WILL **NOT SEE ANYTHING OUT OF THE ORDINARY.**



CASE LIFE AFTER THE UNICHIP

AS THE CASE IS NOT VERY ENVIROMENTALY FRIENDLY, WE KINDLY RECOMMEND PRO-LONGING THE LIFE SPAN OF THE CASE AFTER INSTALLATION.

WE WOULD LOVE TO HEAR HOW THEY'RE BEING USED ON OUR FACEBOOK PAGE.

WE HAVE SEEN THEM BEING USED AS AN OFF ROADING FIRST AID KIT, A FISHING / TACKLE BOX, AN EASY TO REACH TOOL KIT AND EVEN A MANLY PICNIC CASE.

IF YOU HAVE ANY OTHER FUN SUGGESTIONS OR WANT TO SHOW OFF PLEASE SHARE TO OUR FACEBOOK PAGE.

