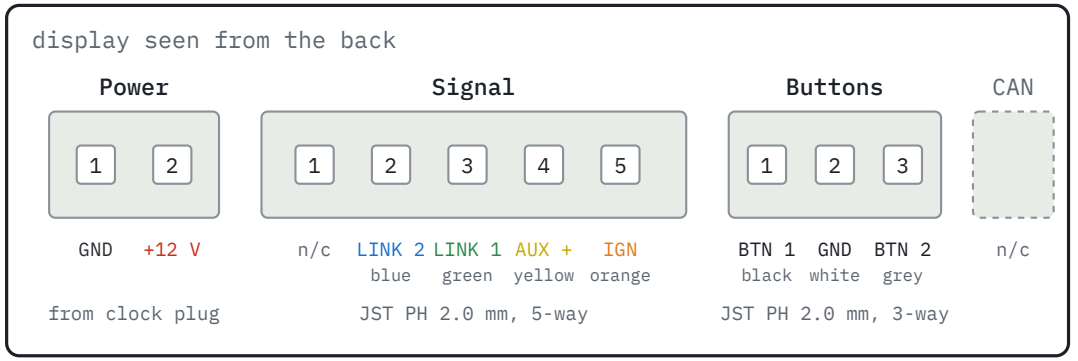
VAN DISPLAY UNIT

Display wiring and configurations

The display unit replaces the factory clock in a VW T3 and takes its power from the original clock plug. The two buttons plug into a 3-way button plug, and everything else connects through one small 5-way signal plug. Which signal wires you use depends on what the display is paired with, and in the simplest setup none of them are needed.

Connectors on the back of the display

PIN	FUNCTION	WIRE	CONNECT TO
POWER PLUG, 2-WAY			
1	**Ground** GND	clock plug	Factory clock plug, ground.
2	**+12 V** +12V-RAW	clock plug	Factory clock plug, permanent +12 V.
SIGNAL PLUG, 5-WAY			
1	**Not used** GND	—	Leave empty. Ground already comes through the power plug.
2	**Data link 2** LBUS2	**Blue**	Sensor module, only when an OBD2 link is also fitted.
3	**Data link 1** LBUS	**Green**	OBD2 socket, or the sensor module when there is no OBD2 link.
4	**Aux battery +** +12V-AUX	**Yellow**	Optional. Leisure battery positive, sense wire. Not needed with a sensor module.
5	**Ignition** IGN	**Orange**	Optional. +12 V live with the key. Not needed with a sensor module.
BUTTON PLUG, 3-WAY			
1	**Button 1** BTN1	**Black**	Push button, other side to pin 2.
2	**Ground** GND	**White**	Common for both buttons.
3	**Button 2** BTN2	**Grey**	Push button, other side to pin 2.



Pin 1 of each small plug is at the left. Wire colours as on the supplied pigtails.

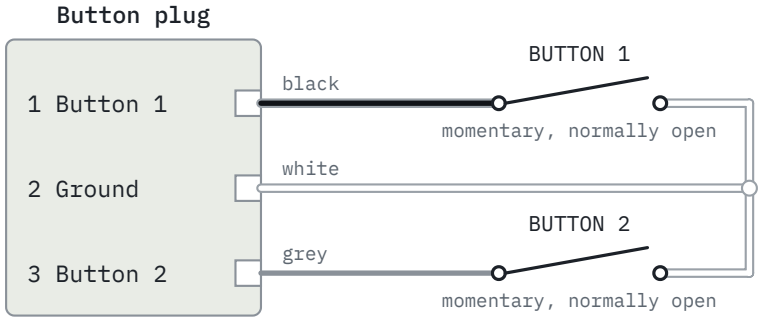
The 3-way CAN plug is not used in any configuration. The button plug is used in all of them.

Power is plug and play. The 2-way power plug mates with the van's original clock connector. No extra power wiring is needed for the display itself.

Buttons

The kit comes with a ready-made 3-wire lead with both buttons on it. Plug it into the button plug and you are done.

If you prefer your own buttons, any two momentary push buttons will do. Each button sits between its own pin and the shared ground pin in the middle. No resistors or extra parts are needed, and the wires can be thin.



Each button simply connects its pin to ground while pressed. Both buttons share the white ground wire in the middle of the plug.

Which wires to connect

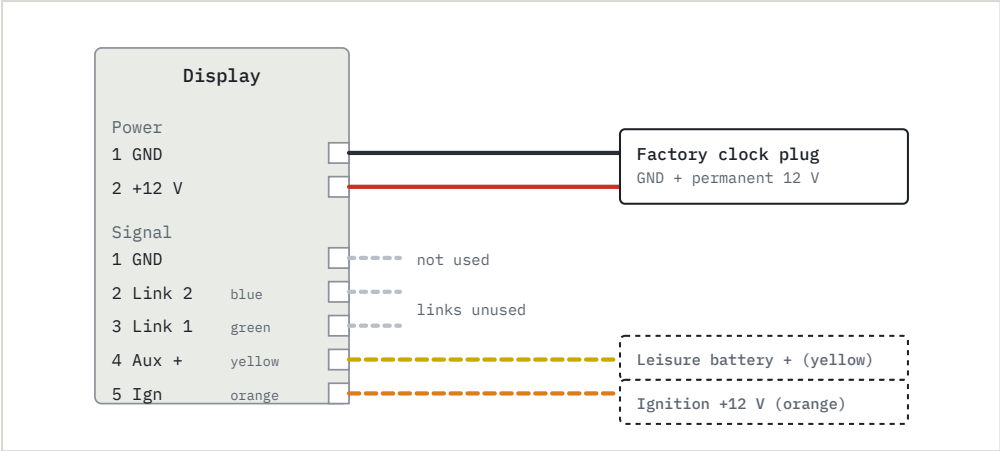
SIGNAL PLUG WIRE	DISPLAY ONLY	DISPLAY + OBD2	DISPLAY + SENSOR MODULE	DISPLAY + OBD2 + SENSOR MODULE
1 (not used)	—	—	—	—
2 Data link 2	—	—	—	Sensor module
3 Data link 1	—	OBD2	Sensor module	OBD2
4 Aux battery +	Optional	Optional	—	—
5 Ignition	Optional	Optional	—	—

Wire colours in the diagrams match the pigtail supplied with the kit. Wire 1 is never used: the display is grounded through the power plug. Wires 4 and 5 are optional extras for a display without a sensor module. When a sensor module is fitted it measures the leisure battery and the ignition itself, so they stay unconnected. Data link 1 always goes to the OBD2 socket if there is one; the sensor module takes whichever link is left.

+12 V (clock plug) · Ground (clock plug) · Green wire, data link 1 · Blue wire, data link 2 · Yellow wire, aux battery · Orange wire, ignition · Not connected

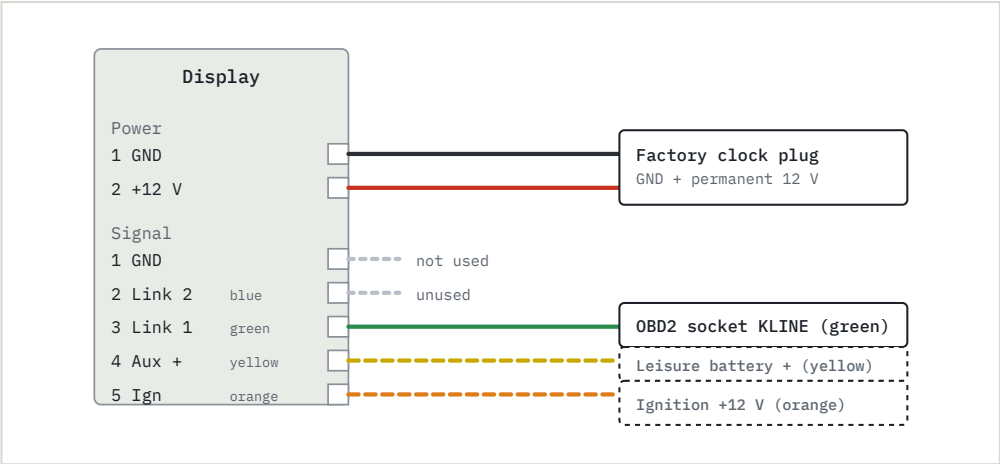
Configurations

1 · Display only



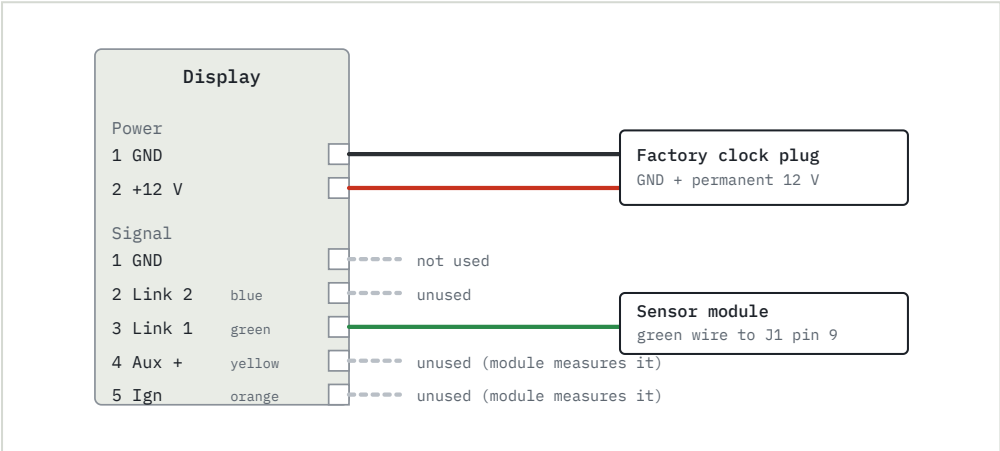
Nothing on the signal plug is required. Connect wire 4 to the leisure battery if you want its voltage shown, and wire 5 to an ignition-switched +12 V if you want the display to know when the key is on. Dashed wires are optional.

2 · Display + OBD2



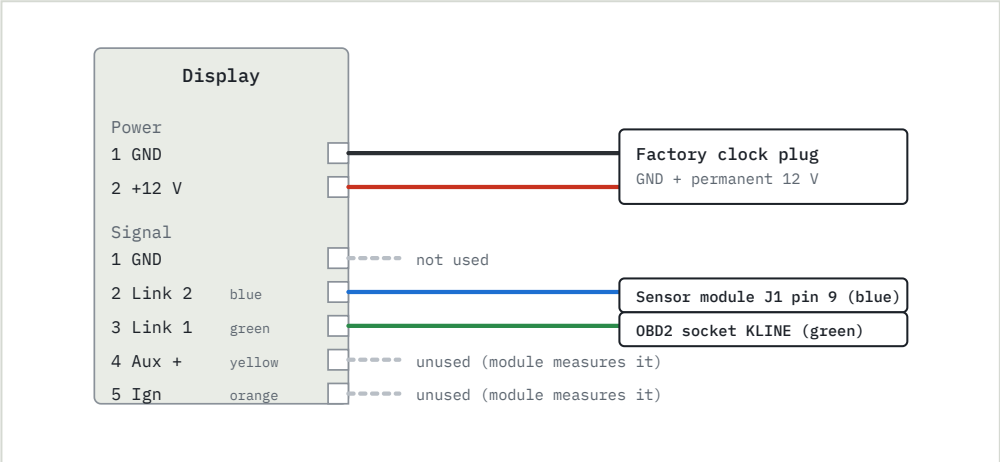
Data link 1 talks to the engine ECU through the KLINE wire of the OBD2 socket. The dashed leisure battery and ignition wires are optional, as in configuration 1.

3 · Display + sensor module



The sensor module reports the leisure battery and ignition itself, so wires 4 and 5 stay empty. The module is powered and grounded by its own wiring, see the sensor module guide.

4 · Display + OBD2 + sensor module



With both fitted, the OBD2 socket keeps data link 1 and the sensor module moves to data link 2. Wires 4 and 5 stay empty.

Installation notes

- **Power.** Unplug the original clock and plug the display into its connector. The clock circuit's own fuse protects the display.
- **Data links.** Each is a single wire: green for data link 1, blue for data link 2. Keep it under about 10 m and route it away from ignition leads. The sensor module end goes to J1 pin 9 on the module.
- **Leisure battery wire (configurations 1 and 2).** Optional. Sense only, draws almost no current. Use thin wire with a 1 A fuse at the battery end.
- **Buttons.** Use the supplied 3-wire button lead (black, white, grey), or wire your own momentary push buttons: one between black and white, the other between grey and white.
- **Ground.** The display is grounded through the power plug. Wire 1 of the signal plug is reserved and stays empty. The sensor module and the OBD2 socket have their own grounds to the vehicle.
- **OBD2.** Only the KLINE wire of the OBD2 socket is used. KLINE is pin 7 of the OBD2 socket on most vehicles, so check the socket before wiring.
- **Ignition wire (configurations 1 and 2).** Optional. Any +12 V feed that is live with the key on. Without it the display still works but cannot tell when the engine is running.
- **Not used.** The 3-way CAN plug stays empty in all four configurations.