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FORD SMARTLOCK BYPASS MODULE

Ford Falcons from 1991-2000 used a 'Smartlock' anti-theft system. This module will re-produce or simulate the correct signal for the engine computer (PCM) to run independently. The factory Smartlock / Body Electronics Module (BEM) or coded transponder ignition keys are no longer required for the engine to run.

This bypass module comes in 2 varieties. Either a simple 3-wire design, or a 5-wire unit that includes the option to use an aftermarket kill switch or immobiliser that can prevent the engine starting.

INSTALLATION

The bypass module should be mounted near the PCM (normally in the LH kick panel).

You can use the mounting tabs, or securely cable tie it to the wiring loom.

Connect to the wires coming from the PCM as described in the sections below.


The **Red**, **Black** and **Green/White** wires need to be connected for the unit to operate.


For 5-wire units, the **White/Brown** and **Brown/White** wires are optional. These are not present on 3-wire units.


See over page if the vehicle doesn't crank over or the smartlock warning light stays on after fitting.

MAIN CONNECTION

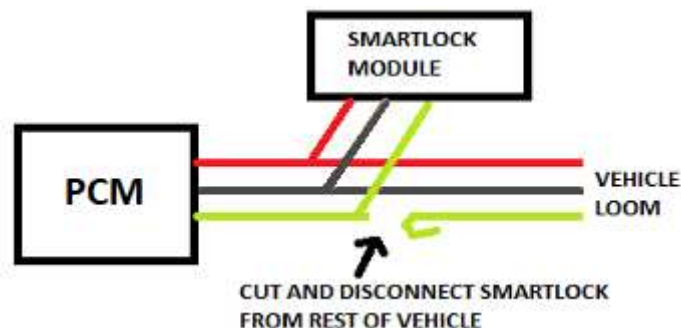
The PCM will have either a **60 pin** (EEC IV) or **104 pin** (EEC V) connector (see over page for pin-out diagram).

 | The red wire should be tapped into **ignition 12v**.

 | The black wire should be tapped into **earth/ground**.

 | The green/violet **signal** wire should be cut, and connected to green/white signal wire of module.

THE EXISTING GREEN/VIOLET WIRE MUST BE CUT SO IT NO LONGER RUNS TO THE REST OF THE VEHICLE!



OPTIONAL KILL SWITCH / IMMOBLISER DISABLE FEATURE CONNECTION

The **White/Brown** and **Brown/White** wires fitted to **5-Wire modules only** can be used to disable it.

A simple option is a manual toggle switch, however any source of constant positive or negative voltage can be used.

If they are not used, they should be cut short and insulated to prevent accidental activation of the disable feature.

They cannot shut the engine down after the ignition has been turned on. The signal to disable must be present immediately when the ignition is switched on.

If they are activated, the ignition may need to be cycled off and back on again to enable the engine to start.

Signal generation will be **disabled** when either:

 | The brown wire with white trace is connected to earth / ground, or

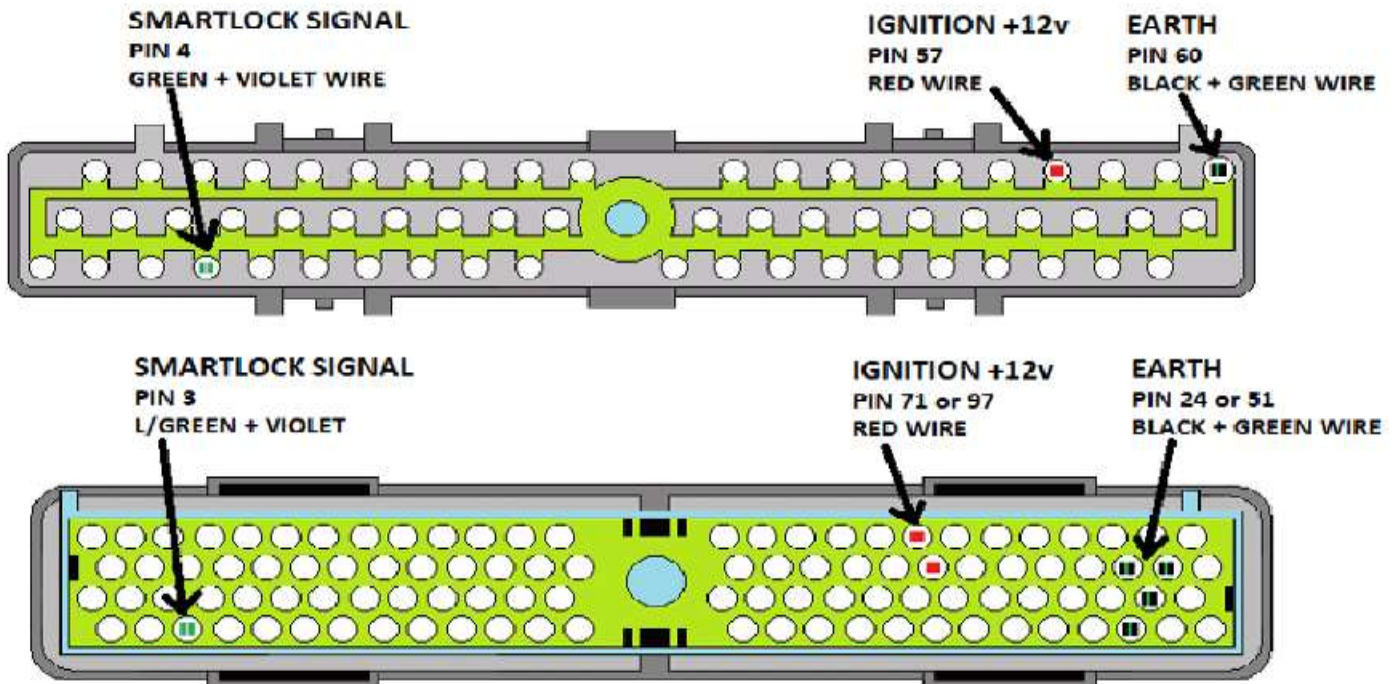
 | The white wire with brown trace is connected to +12v

Signal generation will be **enabled** when either:

-Both Brown/White and White/Brown wires are disconnected, or

-Brown/White wire connected to +12v, White/Brown wire connected to earth or ground, or one is disconnected

ECU PINOUTS



VEHICLE DOES NOT CRANK

The factory smartlock system includes a 'starter cut' feature. The factory smartlock/BEM module can disable the starter relay to prevent the engine from cranking. If the system has failed, you will need to join 2 wires at the smartlock/BEM module to re-enable the starter relay.

Model	Module Type	Wires to Join		
		Pin	Wire Colour	Connector Pinout
EB / ED / NC2	Smartlock module	18	Red/Blue	
		25	Red/Blue	
EF / NF	B.E.M Low Series	8	Red/Blue	
		19	Red/Blue	
	B.E.M High Series	15	Red/Blue	
		16	Red/Blue	
EL / NL	B.E.M	11	Red/Blue	
		22	Red/Blue	

SMARTLOCK WARNING LIGHT

If the factory smartlock system has failed, the warning light may remain on the dash even after the bypass module is fitted and the engine is running. The best solution is to remove the globe from the dash cluster.

DIAGNOSIS + TROUBLESHOOTING

If the vehicle has an underlying failure, such as a faulty fuel pump or ignition system, the engine will still not run. This module cannot fix other BEM functions that may not be working (such as central locking).

The module can be tested for operation by checking DC voltage of the **Green/White** signal wire with a multimeter. It should be approx. half battery voltage (5-8v) with ignition on (and any optional disable feature not operating).

If the voltage is 0v, confirm power and earth connections.

If the voltage is 12v, confirm no disable is activated.

If you are still having trouble, please contact me on eBay or email sales@mrmodule.com.au for further assistance.