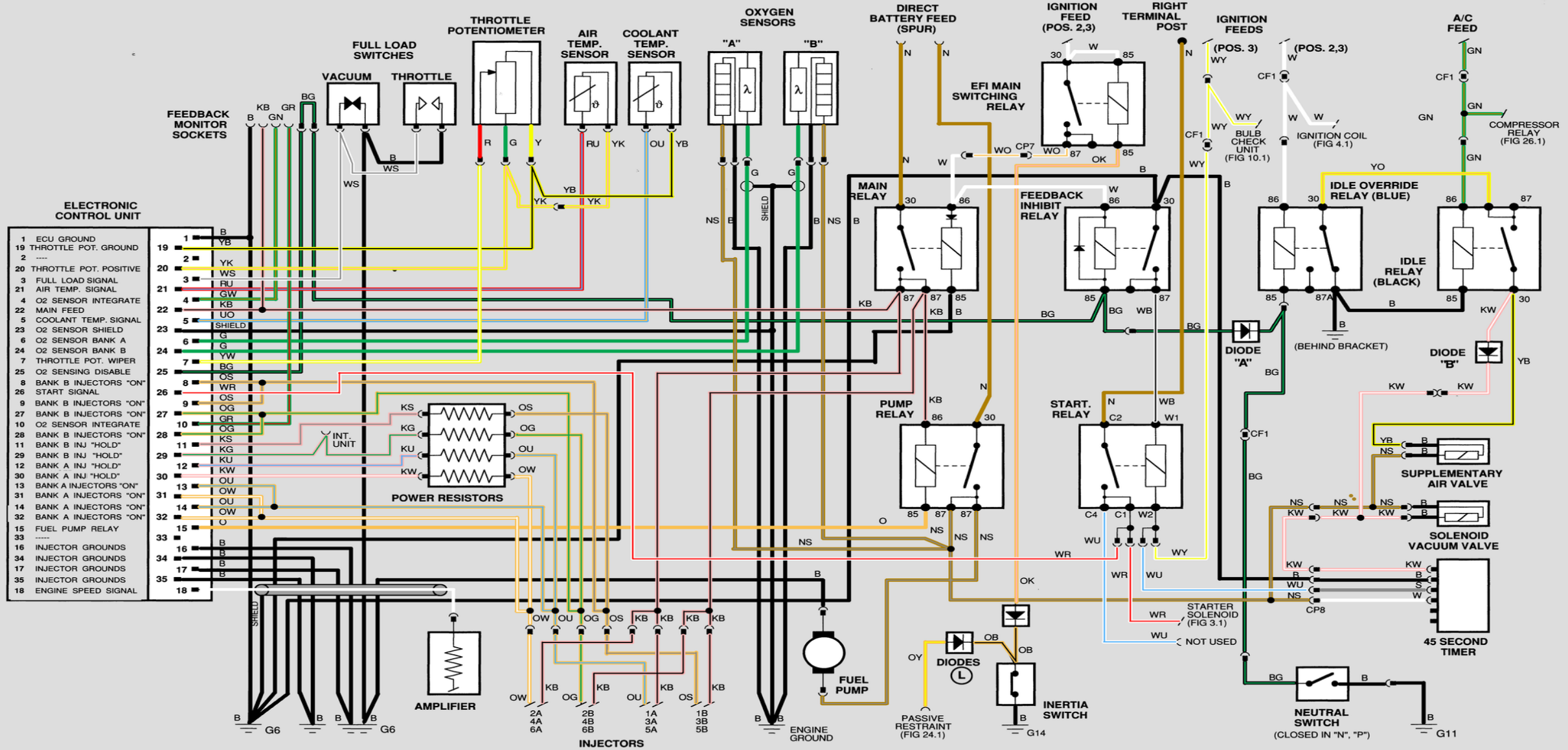


# Jaguar XJS EFI & Emmissions



How the system works:

The ECU first opens the injectors and then holds them open by reducing the current to prevent injector burnout. The relevant signals come from the ECU pins to the injectors and resistor pack as shown in the table below. The "open" signal bypasses the injectors and the "hold" signal goes to the injectors via the resistor pack.

ECU Pin number and name	Wire colour	To injector number	Explanation	Loom notes
8 and 9: B bank ON	Orange/slate	1B, 3B, 5B	The "ON" pulse earths the injector with unreduced current to open it initially, bypassing the resistor pack	Note: the injector loom plugs into the car loom, it does NOT plug into the resistor pack. The car loom, <b>pre the resistor pack</b> , makes the required splices to the resistor pack.
27 and 28: B bank ON	Orange/green	2B, 4B, 6B	The "ON" pulse earths the injector with unreduced current to open it initially, bypassing the resistor pack	
11: B bank HOLD	Pink/slate goes TO the resistor pack	ORANGE/slate goes FROM the resistor pack to: 1B, 3B, 5B	The "HOLD" signal goes via the resistor pack to hold the injector open for the required pulse width using reduced current	
29: B bank HOLD	Pink/green goes TO the resistor pack	ORANGE/green goes FROM the resistor pack to: 2B, 4B, 6B	The "HOLD" signal goes via the resistor pack to hold the injector open for the required pulse width using reduced current	

ECU Pin number and name	Wire colour	To injector number	Explanation	Loom notes
13 and 14: A bank ON	Orange/blue	1A, 3A, 5A	The "ON" pulse earths the injector with unreduced current to open it initially, bypassing the resistor pack	Note: the injector loom plugs into the car loom, it does NOT plug into the resistor pack. The car loom, <b>pre the resistor pack</b> , makes the required splices to the resistor pack.
31 and 32: A bank ON	Orange/white	2A, 4A, 6A	The "ON" pulse earths the injector with unreduced current to open it initially, bypassing the resistor pack	
12: A bank HOLD	Pink/blue goes TO the resistor pack	ORANGE/blue goes FROM the resistor pack to: 1A, 3A, 5A	The "HOLD" signal goes via the resistor pack to hold the injector open for the required pulse width using reduced current	
30: A bank HOLD	Pink/white goes TO the resistor pack	ORANGE/white goes FROM the resistor pack to: 2A, 4A, 6A	The "HOLD" signal goes via the resistor pack to hold the injector open for the required pulse width using reduced current	

## Injector loom plug details and how they work.

- There are EIGHT wires on the injector loom plug, matching the eight on the car loom plug it connects to.
- FOUR of these wires are **Pink/brown** and these ALWAYS carry 12 volts whenever the ignition is on.
- FOUR of these wires carry two types of current: FIRST the opening pulse of the full 12 volts (e.g. A bank ON in the table above) and SECOND the ECU switches the current to go via the resistor pack thus providing a reduced current to the injector to keep it open for the required duration (e.g. A bank HOLD in the above table). NOTE the same injector loom wire carries the opening pulse and the subsequently reduced pulse, the ECU managing this switch.
- Thus for injector activation purposes **there are really four PAIRS of wires in the injector loom**, each pair having one wire with a constant 12 volts and a second wire that manages the current load as organised by the ECU.
- The ECU activates the injectors by earthing them, that is the loom wire that controls the opening and the holding pulse is earthed by the ECU for the required duration to open and hold open the injector.
- **Within the injector loom itself**, it starts off at the plug with eight wires, being, as noted above, FOUR groups of TWO wires. Left along this would only be sufficient to activate four injectors. Therefore, within the injector loom, downstream from the plug, **each pair of two wires split three ways**.
- Each split pair thus is able to activate THREE injectors. And four x three = 12 injectors activated.