HDC WARNING LIGHT FAULT TRACING

According to RAVE, HDC warning lamp alone indicates the Brake Lamps Relay is open or short circuit.

101:Brake Light Relay Drive Short to Supply

Investigate Possible HDC Brake Light Relay Failure
Working With Connectors C0506, C0586
Investigate Possible Short Circuit: C0506/12 (GY) to Battery
Investigate Possible Short Circuit: C0586/13 (GY) to Battery
Investigate Possible Short Circuit: C0506/12 (GY) to any wire
Investigate Possible Short Circuit: C0586/13 (GY) to any wire

081:Brake Light Relay Short to Supply

Inspect or replace the Hill Descent Control Relay.
Working with Connectors C0506, C0586, C0583
Check Circuit Continuity: C0506/12 (GY) – C0586/13(GY)
Investigate Possible Short Circuit: C0506/15 (WO) to any wire
Investigate Possible Short Circuit: C0586/13 (GY) to any wire
Investigate Possible ABS ECU internal failure.

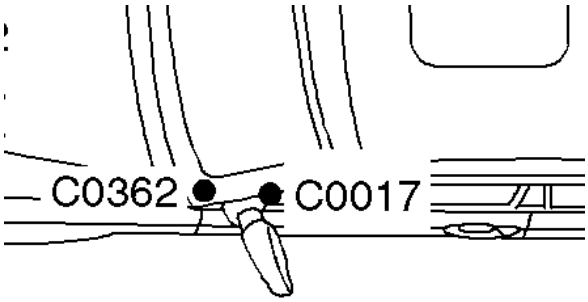
Most car electrical opens are the result of a:

- corroded connection,
- loose wire,
- disconnected wire,
- failed load,
- blown fuse,
- burned out bulb,

- or damaged wire (frayed, chaffed or burnt)

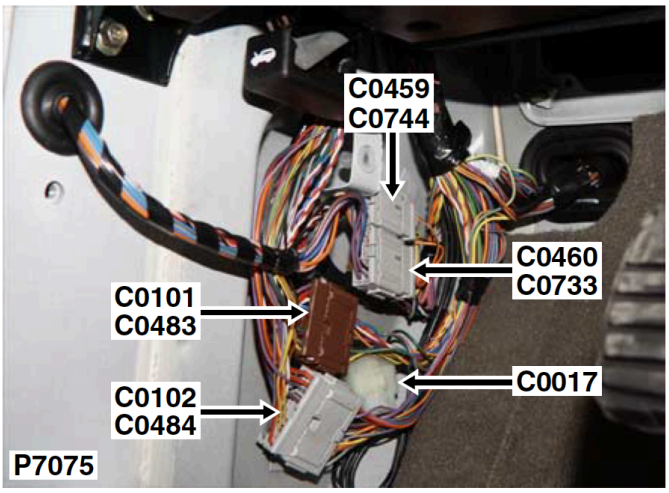
TO CHECK NEXT TIME HDC WARNING LIGHT COMES ON

- [x] Visual chk of all brake lights rear
- [x] New RR taillight assembly
- [ ] New LR taillight assembly
- [x] Brake pedal switch swap out with new style (noticed that sometimes brake lights didn't come on when car was off and didn't work at other times) - WHEN IT ARRIVES compare with https://landroverforums.com/forum/discovery-ii-18/genuine-land-rover-brake-light-switch-%2411-99-auto-zone-%2468-95-ab-71713/
- [x] Chk ground 0706 (RR taillight ground)
- [x] Chk ground 0707 (LR taillight ground)
- [x] Fuse 25 passenger compartment 15 amp - "Brake Pedal Switch" this goes to Hill Descent Relay as well in pass compartment fusebox
- [x] Fuse 27 pass compartment 10 amp - "Header 760"
- [x] Fuse 28 pass compartment 10amp - "Slabs ECU"
- [ ] Chk ground here - Header-Earth-0017 (K108) - this is where HDC relay on fusebox grounds to - black wire — it's here. Check pin #1 at this location, C0017-01 (below)



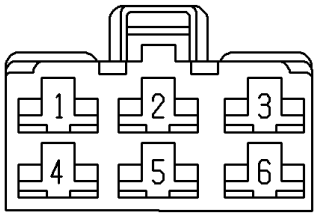
C0017

CONNECTOR DETAILS



Cav	Col	Cct
1	B	ALL
2	B	ALL
3	B	ALL
4	B	ALL
5	B	ALL
6	B	ALL
7	B	ALL
9	B	ALL
10	B	40

Description: *Header -Earth*
Location: *Under LH side of fascia*



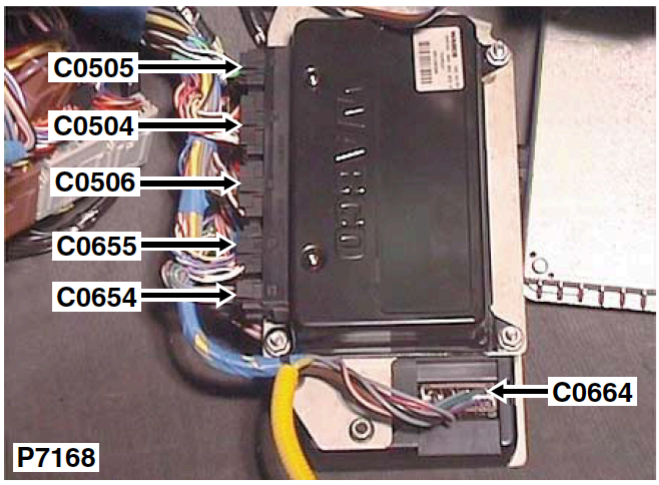
YPC10004

Colour: *NATURAL*
Gender: *Female*

- Black-Green wire between BCU and Fusebox at BCU - CO506-12

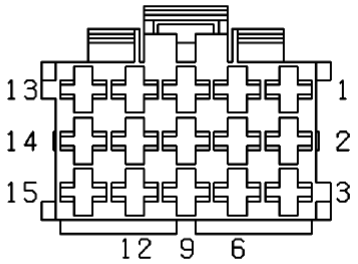
C0506

CONNECTOR DETAILS



Description: *ECU-Self-levelling/ABS (SLABS)*
Location: *Behind passenger side of fascia*

Cav	Col	Cct
1	SW	ALL
2	SR	ALL
3	BS	ALL
4	SG	ALL
5	SU	ALL
6	YG	ALL
7	SY	ALL
8	SN	ALL
9	BU	ALL
10	SP	ALL
11	SK	ALL
12	BG	ALL
15	WO	ALL

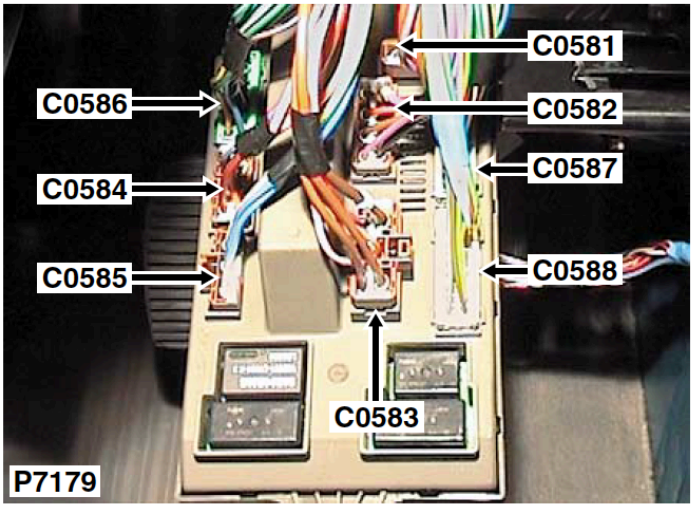


YPC108760

Colour: *BLACK*
Gender: *Female*

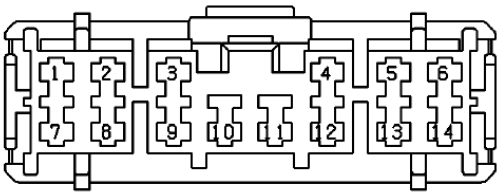
Black-Green wire between BCU and Fusebox at Fusebox - C0586-13

CONNECTOR DETAILS **C0586**



Description: *Fuse box-Passenger compartment*
Location: *Behind passenger compartment fusebox*

Cav	Col	Cct
1	RO	ALL
2	LGO	ALL
3	LGW	42
4	RU	37
4	UY	ALL
5	GY	ALL
6	GO	ALL
7	LGP	24
8	GLG	9
9	PN	ALL
10	GU	ALL
11	WLG	ALL
12	NS	ALL
13	BG	ALL
14	US	ALL



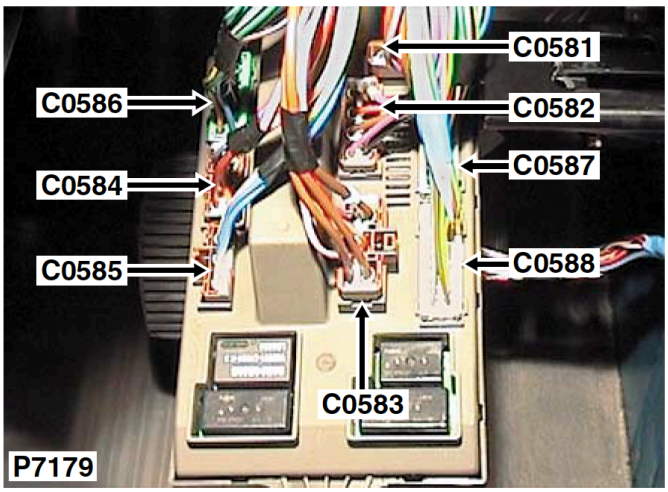
YPC10537

Colour: *GREEN*
Gender: *Female*

- From fusebox, check wire going to ground point 0017 - it's a black wire C0583-1 at fusebox. This goes to above ground point C0017-01

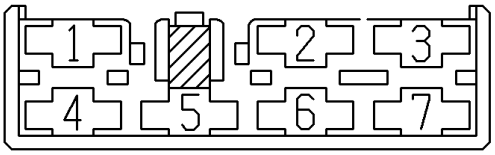
C0583

CONNECTOR DETAILS



Cav	Col	Cct
1	B	ALL
2	NG	ALL
3	PG	ALL
4	PG	24
5	NW	ALL
6	R	ALL
7	NR	13

Description: *Fuse box-Passenger compartment*
Location: *Behind passenger compartment fusebox*

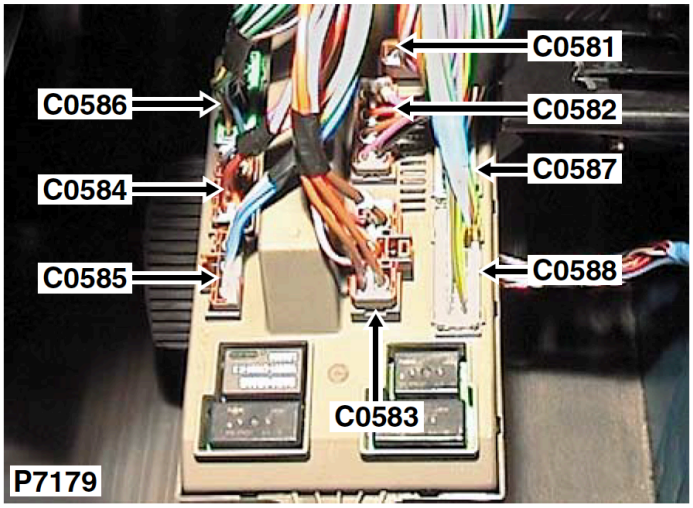


YPC10473

Colour: *BROWN*
Gender: *Female*

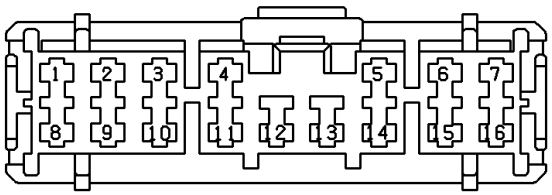
- [ ] Check fusebox for damage / corrosion — figure out which of the little relays is HDC/brake lamps
- [ ] After checking ground wire between fusebox and ground, check the other wire - C0588-16 (green/purple) out back of fusebox

CONNECTOR DETAILS C0588



Description: *Fuse box-Passenger compartment*
Location: *Behind passenger compartment fusebox*

Cav	Col	Cct
1	NG	ALL
2	LGP	ALL
3	RY	ALL
5	WR	ALL
6	W	ALL
7	LG	ALL
8	GS	ALL
9	GLG	ALL
10	G	ALL
11	PB	ALL
11	PN	ALL
12	LGP	ALL
13	UO	ALL
14	LGO	9
15	PB	37
15	RU	ALL
16	GP	ALL



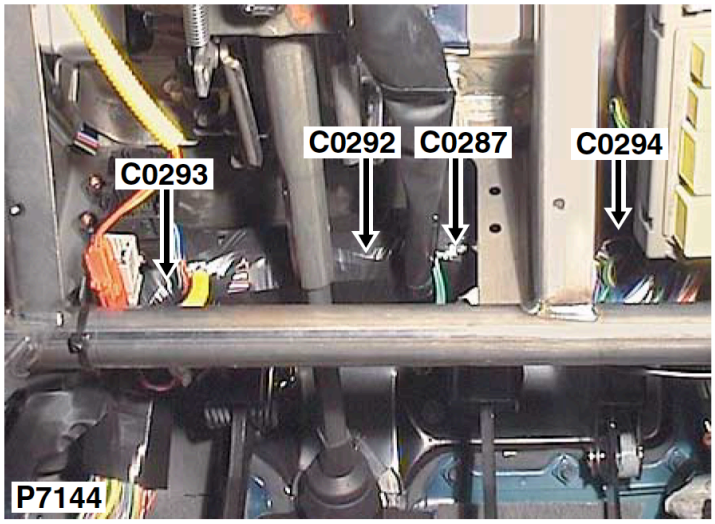
YPC113560

Colour: *YELLOW*
Gender: *Female*

- [ ] Check C0287-2 (Green/Purple in) / C0287-5 (Green/Purple out) - which is connector at brake light switch area

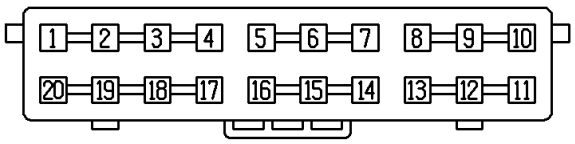
C0287

CONNECTOR DETAILS



Description: *Header - RHD*
Location: *Behind RH side of fascia*

Cav	Col	Cct
1	NY	2
2	NY	2
3	NY	14
5	WP	2
6	WP	2
7	WP	2
8	BY	2
9	BY	2
10	BY	2
11	BG	2
12	BG	2
13	BG	2
14	BW	2
15	BW	2
16	BW	2
18	W	2
19	W	2
20	W	2

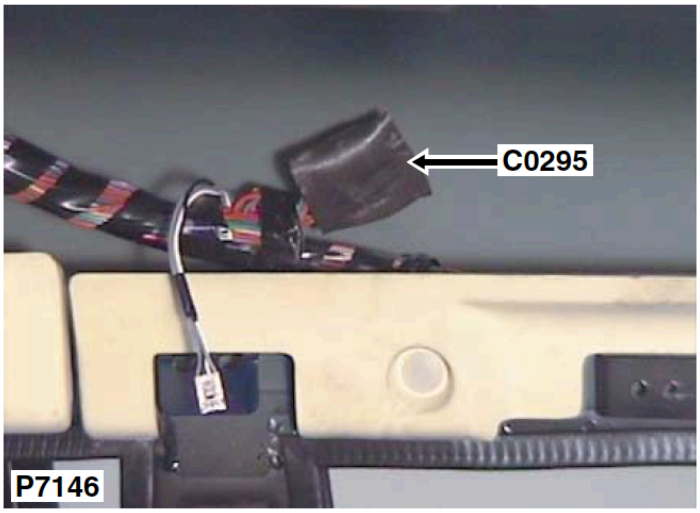


YQC10003

Colour: *ORANGE*
Gender: *Female*

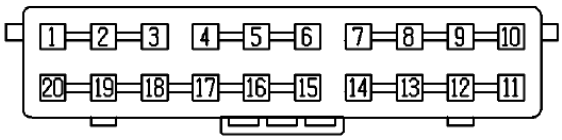
- [ ] Check C0295-4 (Green/Purple In) - and then 5/6 (both green/purple outs)

CONNECTOR DETAILS **C0295**



Description: *Header*
Location: *Top of LH 'B' post, behind headlining*

Cav	Col	Cct
1	GR	ALL
2	GR	ALL
3	GR	ALL
4	GP	ALL
5	GP	ALL
6	GP	ALL
7	RY	1
8	RY	1
9	RY	1
10	RY	1
11	GN	ALL
12	GN	ALL
13	GN	ALL
14	GN	ALL
15	RB	ALL
16	RB	ALL
17	RB	ALL
18	RB	ALL
19	RB	ALL
20	RB	ALL



YQC10007

Colour: *BLACK*
Gender: *Female*

- [ ] Relay Hill Descent R222 in pass fuse box -trace wires to it
- [ ] Header 0287 K109 -chk this wire bundle
- [ ] Chk c0484-9/c0102-9. (Green purple)
- [ ] Co688-2/co681-2 (under center console -really a last resort)

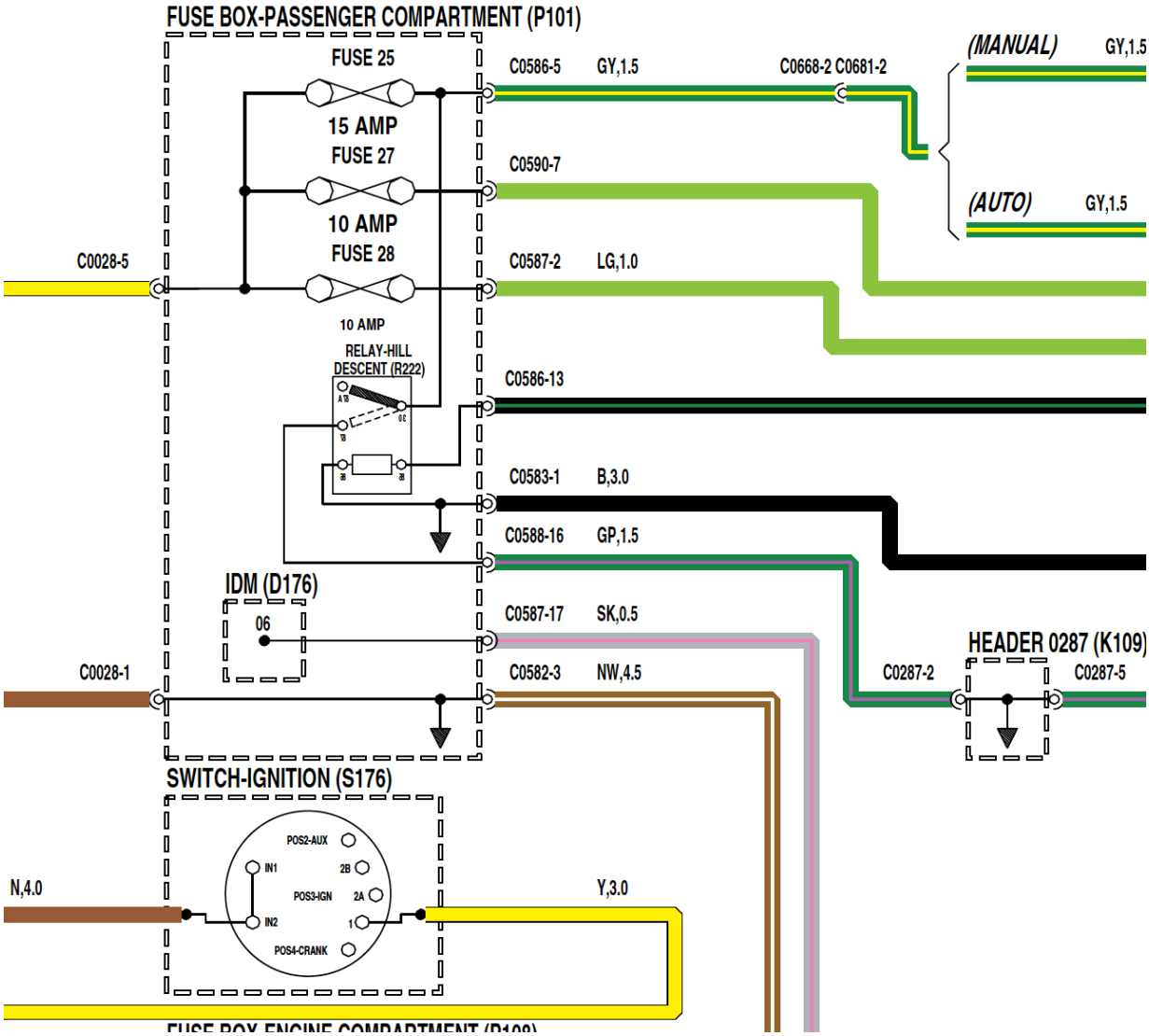
- [ ] HDC relay - is there one somewhere? Or is it same as “brake lamp relay” that’s built into the fuse box. If it’s fried, out of luck need new fusebox (https://www.aulro.com/afvb/discovery-2-a/192678-hill-descent-control-hdc-intermittent-warning-light-issue.html)
- [ ] LH rear taillight

Ignition switch supply
When the ignition switch is in position II, the feed from fusible link 8 flows through the ignition
switch to the passenger compartment fusebox on a Y wire and passes through fuses 25, 27
and 28.
From fuse 25 the feed is connected to the contacts of the hill descent relay. The feed from
fuse 25 is also connected on a GY wire to the reverse lamp switch (manual gearbox
vehicles) or the starter inhibitor/reverse lamp switch (automatic gearbox vehicles). When the
switch is operated, the feed is connected on a GN wire, through header joint C0287 LHD/
C0294 RHD, to the SLABS ECU pin C0504-7.
From fuse 27 the feed is connected, via header joint C0760, on an LG wire to the hill descent
switch. When the hill descent switch is operated the feed continues from the switch on a PS
wire to the SLABS ECU pin C0504-14.
From fuse 28 the feed is connected on an LG wire to the SLABS ECU pin C0504-2.

Check out https://www.aulro.com/afvb/discovery-2-a/192678-hill-descent-control-hdc-intermittent-warning-light-issue.html

https://www.landyzone.co.uk/land-rover/diagrams-vs-reality-mystery-or-am-i-dumb.160328/

Fusebox
https://expeditionportal.com/forum/threads/how-do-you-replace-the-passenger-compartment-fuse-block-in-a-d2.136529/



ScribD post - https://www.scribd.com/doc/195372926/Land-Rover-Discovery-II-Fuse-Box-Integrated-Relay-Repair

Fusebox locks on a 2004 - https://www.landroversonly.com/threads/2004-discovery-electronic-door-unlocking-doesnt-work.71257/

just replaced a hub this morning to get rid of my 3 amigos. It worked but I still have uno amigo. My Hill descent light is on and my scanner is reading one code. "Brake Light Relay short to internal supply" the best info I can find on that is to inspect and or replace my hill descent relay. I can;t seem to locate that? Where is this really? Am I on the right track?

According to RAVE, HDC warning lamp alone indicates the Brake Lamps Relay is open or short circuit.

It doesn't effect function of any of ABS, ETC, HDC, or EBD. I would check out the brake lights.

PG 102 /// INFO FROM ELECTRICAL LIBRARY

PG 874 RAVE

When HDC is enabled, the SLABS ECU calculates a target speed from the throttle position element of the engine data input, and compares this with actual speed. If the actual speed is higher than the target speed, the SLABS ECU
operates the ABS modulator in the active braking mode to slow the vehicle down to the target speed**. While the braking force is being applied, the SLABS ECU also energizes the brake lamp relay to put the brake lamps on**. Active braking is discontinued while vehicle speed is below the target speed or if the foot brakes are applied. Applying the foot brakes during active braking may result in a pulse through the brake pedal, which is normal.

PG 871 RAVE

Slabs ECU Pinout
C0506 connector
Pin 9 - goes to brake lamp relay. INCORRECT WHERE IS THIS FROM
Pin 12 - goes to brake lamp (HDC) relay

PG 876 RAVE

Brake lamps relay Open/Short circuit Off Off Off On (HDC)
Warning lamp fault operation
After detecting a fault, the SLABS ECU selects an appropriate default strategy which, where possible, retains some
operational capability. A shuttle valve switch fault and throttle position signal fault are classified as permanent faults. If a permanent fault is detected, the related warning lamp illumination and default strategies are automatically employed in subsequent ignition cycles, even if the fault is intermittent, until the fault has been rectified and cleared from memory. If a non permanent fault is detected, the related warning lamp illumination and default strategies will only be employed in subsequent ignition cycles if the fault is still present.