

Today

2008 Range Rover HSE 2008

160k miles

Runs great. Mpg 12-13 in the city

Aug 2014

At 100k miles, after a long drive p0420 catal conv insufficiency came on.. I reset it and returned 2 more times. I eventually put some bg 44 and the code never came back. (had done a throttle body clean, and spark plug change at 90k)

Jan 2020

Replaced radiator

Jan 2020 A week later

p0171 code comes up.
cleared it and 20 min later returned

Here are some #s using the iland tool

LTFT 1 15.6%

LTFT 2 14.0%

STFT B1 0.781% sensor 2

STFT B2 0.781% sensor 2

STFT Bank 1 -0.781%

STFT Bank 2 -3.125%

Feb 20 2020

Mass air flow 17.33%

LTFT 1 10.56%

LTFT 2 8.59%

STFT Bank 2 3.906%

STFT Bank 1 7.812%

See graphs below

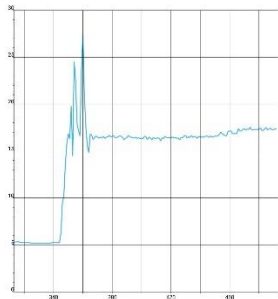
85% 21:27

< Data Stream

LANDROVER_...ntrol Module)

Mass air flow

17.33(g/s)



New S... Combi... Value Min/M...

85% 21:26

< Data Stream

LANDROVER_...ntrol Module)

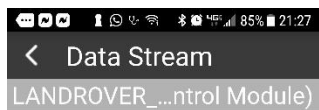
Long term fuel trim

(bank 1)

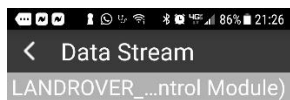
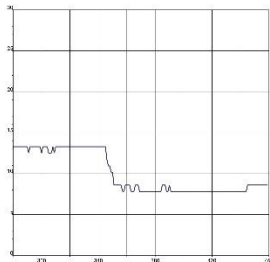
10.156(%)



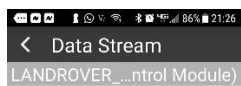
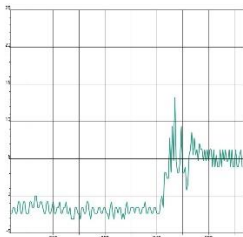
New S... Combi... Value Min/M...



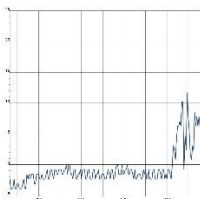
Long term fuel trim
(bank 2)
8.594(%)



Short term fuel trim
(bank 2)
3.906(%)



Short term fuel trim
(bank 1)
7.812(%)



March 2020

Brought to mechanic who found a vacuum leak on intake hose.

Code returned a weeks later

Another day I had the following codes

calc load value 48.23%

Eng Cool temp 82C

STFTB1 2.125%

LTFTB1 14.84%

STFTB2 0

LTFTB2 10.9%

Fuel Rail pressure 447 Pa

Manifold Abs Pressure sensor 44Pa

Eng Speed 3kph

Veh speed 3kph

mass air flow 7.28%

October 2020

Replaced air filter, oil change.. possibly found a small leak at the egr.

P0721 code erased

Drove rover for 300 mile trip no codes

Next day p0420 came up. I erased it and it hasn't returned.

November 2020

Had egr replaced and I also replaced the pcV.

Mechanic also changed out the MAF sensor temporarily (had a new one in his shop) and he said the values didn't change so he doesn't think it is maf.

After the egr and pcV changed, he didn't reset.. told me to drive vehicle and see if code goes away..

3 weeks later it is still there, but now with highe STFT values as well.

Here are some of the freeze frame data that I have over the last 6 months

		#####	11/3/20 259pm	11/3/202 0 5.28Pm	11/3 542pm	12/13 734a m	12/13 7:35a
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fuel rail pressure	447	450	447	450	447 pa	447	447	447
Manifold absolute pressure sensor	44	72	40	39	29pa		31	31
engine speed	???	1487	700	925	1122	2935	708	709
vehicle speed	3kph	79	1	12	50 kph	0	0	0
stftb2	0	0	-1.562	7.031	5.47%	9.375	14.8	16.4
ltftb2	10.9	10.9	11.719	12.5	11.72%	2.344	21	22.65
calculated load value	48	56	47.843	41.5	15.60%	16.8	28	27.45
engine coolant temp	82	86	80	83	85C	80	86	85
stftb1	2.125	-2.344	-2.344	7.031	3.91%	2.344	17.9	17.9
ltftb1	14.84	13.281	14.844	17.188	14.84%	14.844	21.09	22.656
intake air temp			29	23	26C	31	22	24
commanded exhaust gas circulation			0		3.14%	0	0	
time since engine started			804		249	964	50	131
absolute throttle position			14.51	16.078	14.12%	18.431	13.3	13.3

mass air flow			6.85	9.68g/s	5.58 g/s	19.16	4.21	4.14
Commanded evaporative purge				47.451	29.80%	47.45		
exhaust gas circulation				0	99.22%	0		0
absolute load value			22.353	23.922	11.37%	14.902	13.3	
control module voltage			13.73	13.925	13.75V	13.73	1.8	
Barometric pressure			102	102	101Pa	102	103	
fuel level input			21.91	10.95	45.88%	37.6	86	
Ambient air temp			23	11	13C	14	11C	
relative throttle position			3.137	4.314	2.75%	7.059	1.569	
Commanded equivalence ratio			1.003	0.992	1.007	0.974		

Accelerator pedal position sensor circuit E			13.725	30.5	23.50%	29.4	13.72 5	
Accelerator pedal position sensor circuit D			13.725	30.5	23.14%	29.4	13.72 5	
absolute throttle position B			31.765	32.5	30.98	34.9	30.58	
commande d throttle actuator control				23.9	22.35%	27.45 1	19.60 8	
			#####	11/3/20 259pm	11/3/202 0 5.28Pm	11/3 542p m	12/13 734a m	

Went to mechanic yesterday and he scanned it.

Doesn't think that this is an air intake problem...

Although the fuel trims do decrease with increase RPMS. For some reason, he doesn't think this is it...

Suggests that he looks at the fuel pressure and performs some tests with gages.

I have no misfires.. and car runs great.... Only thing is two days ago while driving on highway at 45 mph or so the vehicle shut off (rpm to zero) and I had to stop.. I restarted and vehicle drove great....

I have no problem spending money to fix the problem, but im trying to not throw parts.

I figured at 12 yrs and 160k I can replace the fuel filter next..

Any thoughts on what this can be? Or can not be?

Should I reflash the ECU? Is there an update for the ECU? If yes, can I do this with an iland tool? Or do I need to go to dealership?

Any other measures I can look at to figure this out? Any particular measures that relate to the fuel system I can evaluate with the iland tool to help me rule in or rule out?

I have not cleaned fuel injectors (one of the suggestions). My mechanic doesn't seem too inclined to do this.

I recently also have the following code p0128-00.. I replaced the hose that goes to thermostat and radiator over 10 months ago, but haven't replaced the thermostat... any recommendations on this code?

Thank you for your help and guidance.

Gus

