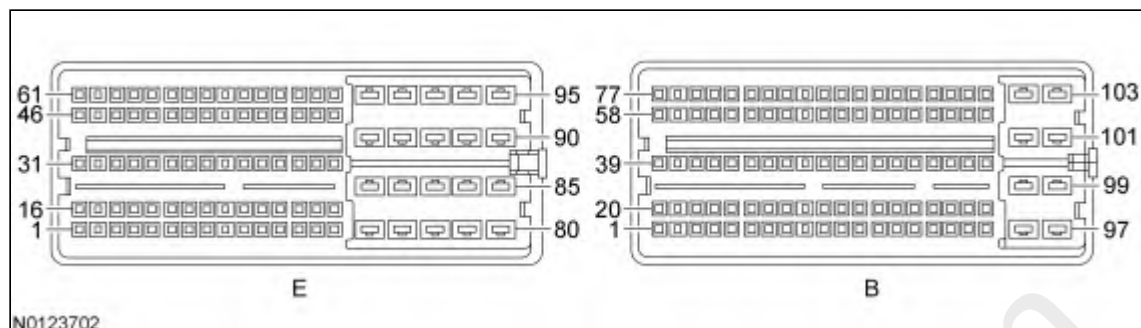


2.3L Ranger**198 Pin PCM****Typical Diagnostic Reference Values**

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
AAT	AAT Sensor	5 (41)	5 (41)	5 (41)	5 (41)	DEG C (DEG F)
AAT_V	AAT Sensor	3.66	3.67	3.70	3.72	VOLTS
AC_REQ	PID	NO	NO	NO	NO	YES/NO
APP	APP Sensor	0	0	0	6	%
APP1	APP Sensor	0.77	0.77	0.84	0.97	VOLTS
APP1 (APP_D)	APP Sensor	15	15	17	19	%
APP2	APP Sensor	0.38	0.38	0.42	0.48	VOLTS
APP2 (APP_E)	APP Sensor	7	7	8	9	%
APP_ MAXDIFF	PID	0	0	0	0	DEG
BARO	PID	100 (14.50)	100 (14.50)	100 (14.50)	100 (14.50)	kPa (PSI)
BARO_V	PID	3.96	3.96	3.96	3.96	VOLTS
BOO1	BPP Switch	FALSE	FALSE	FALSE	FALSE	TRUE/FALSE
BOO2	BPP Switch	FALSE	FALSE	FALSE	FALSE	TRUE/FALSE
BRKOV RD_ POSS	PID	9	9	10	10	NUMERIC VALUE
BRKOV R_ ACTION	PID	0	0	0	0	NUMERIC VALUE
CAM_SYNC	PID	NO	NO	NO	NO	YES/NO

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
CATEMP11	CAT11 Sensor	137 (278.6)	137 (278.6)	243 (469.4)	372 (701.6)	DEG C (DEG F)
CHT	CHT Sensor	92 (197.6)	94 (201.2)	93 (199.4)	95 (203)	DEG C (DEG F)
CHT2	CHT2 Sensor	100 (212)	100 (212)	104 (219.2)	110 (230)	DEG C (DEG F)
CHT2_V	CHT2 Sensor	3.40	3.41	3.28	3.06	VOLTS
CLRDIST	PID	1 (0.62)	1 (0.62)	1 (0.62)	2 (1.24)	KM (MILES)
CRNKCAS_PRS	Crankcase Pressure Sensor	0.05 (0.01)	-0.15 (-0.02)	-0.15 (-0.02)	-0.24 (-0.03)	kPa (PSI)
CRNKCAS_P_V	Crankcase Pressure Sensor	3.35	3.30	3.30	3.27	VOLTS
DECHOKE	PID	YES	NO	NO	NO	YES/NO
DIST_BRKOVDR	PID	52 (32.31)	52 (32.31)	52 (32.31)	53 (32.94)	KM (MILES)
DPFE_PRES	Differential Pressure Feedback EGR Sensor	-0.39 (-0.06)	-0.39 (-0.06)	0.95 (0.14)	0.63 (0.09)	kPa (PSI)
DPFE_V	Differential Pressure Feedback EGR Sensor	1.48	1.48	1.49	1.48	VOLTS
EBP	EBP Sensor	98.7 (14.32)	102.3 (14.84)	96.6 (14.01)	100.9 (14.63)	kPa (psi)
EBP_V	EBP Sensor	0.96	1.01	0.94	0.99	VOLTS
ECT	ECT Sensor	91 (195.8)	92 (197.6)	92 (197.6)	93 (199.4)	DEG C (DEG F)
ECT1_V	ECT Sensor	0.56	0.54	0.55	0.54	VOLTS
EGRT_B	EGRT12 Sensor	36 (96.8)	40 (104)	52 (125.6)	60 (140)	DEG °C (°F)
EGRT_B_V	EGRT12 Sensor	1.08	1.03	0.72	0.60	VOLTS
EGRVP	EGR Valve	0.94	0.93	0.93	0.93	VOLTS
EGR_A_ACT	EGR Valve	0	0	0	0	%
EQ_RAT11	PID	0	1.02	1.44	1.43	RATIO
ETC_ACT	PID	7.26	2.47	2.98	3.56	DEG
ETC_TRIM	PID	-0.36	-0.36	-0.36	-0.36	DEG
FANSS	FS Sensor	50	450	450	575	RPM
FLI	Fuel Level Sensor	60 (H)	60 (H)	56 (H)	59 (H)	%
FLP	Fuel Pressure Sensor	416 (60.34)	479 (69.47)	478 (69.33)	486 (70.49)	kPa (PSI)
FPM	PID	40	40	40	40	%
FRP	FRP Sensor	2.37 (343.74)	1.47 (213.21)	13.09 (1898.54)	20.32 (2947.17)	MPa (PSI)
FRT_A_RAW	FRPT Sensor	16 (60.8)	16 (60.8)	16 (60.8)	16 (60.8)	DEG C (DEG F)
FRT_V	FRT Sensor	0	0	0	0	VOLTS
FTP	FTP Sensor	0	0	0	0	kPa (PSI)
FTP_V	FTP Sensor	2.65	2.65	2.43	2.50	VOLTS

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
HTRCM11	HO2S11 Sensor	0	0	0	0	mA
HTRCM12	HO2S12 Sensor	0	0	0	0	mA
IAT	IAT Sensor	25 (77)	21 (69.8)	19 (66.2)	16 (60.8)	DEG C (DEG F)
IAT11	IAT Sensor	25 (77)	20 (68)	19 (66.2)	16 (60.8)	DEG C (DEG F)
IAT12	IAT2 Sensor	25 (77)	22 (71.6)	18 (64.4)	16 (60.8)	DEG C (DEG F)
IAT1_V	IAT Sensor	2.43	2.65	2.71	2.88	VOLTS
IAT2	IAT2 Sensor	25 (77)	22 (71.6)	19 (66.2)	16 (60.8)	DEG C (DEG F)
IAT2_V	IAT2 Sensor	2.44	2.56	2.72	2.89	VOLTS
KNK_CNTR_CYL1	PID	0	0	0	0	COUNT
KNK_CNTR_CYL2	PID	0	0	0	0	COUNT
KNK_CNTR_CYL3	PID	0	0	0	0	COUNT
KNK_CNTR_CYL4	PID	0	0	0	0	COUNT
KNOCK_1	KS11 Sensor	999	38	53	99	COUNT
KNOCK_2	KS12 Sensor	999	46	92	151	COUNT
LOAD	PID	0.00 (I)	27	25	33	%
LONGFT1	PID	(I)	-20 TO +20	-20 TO +20	-20 TO +20	%
MAP	MAP Sensor	100 (14.50)	34 (4.93)	79 (11.46)	96 (13.92)	kPa (PSI)
MAP_V	MAP Sensor	1.54	0.53	1.22	1.48	VOLTS
MIL_DIS	PID	0	0	0	0	KM (MILES)
MISFIRE	PID	FALSE	FALSE	FALSE	FALSE	TRUE/FALSE
MP_LRN	PID	TRUE	TRUE	TRUE	TRUE	TRUE/FALSE
NUM_MISFIRE	PID	0	0	4	4	COUNT
O2S11_CUR	HO2S11 Sensor	(I)	switching	switching	switching	mA/uA
O2S11_IMPED	HO2S11 Sensor	5	0.14	0.17	0.17	VOLTS
O2S11_READY	HO2S11 Sensor	FALSE	TRUE	TRUE	TRUE	TRUE/FALSE
O2S12	HO2S12 Sensor	1.22	0.41	0.60	0.94	VOLTS
O2S21_READY	HO2S21 Sensor	FALSE	FALSE	FALSE	FALSE	TRUE/FALSE
OCTADJ_R_LRND	PID	0	0	0	0	%

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
OSS_RAW	OSS Sensor	0	0	1323	2310	RPM
RO2FT1	PID	0	-0.01	0.02	0.03	%
RPM	CKP Sensor	0	901	2080	2072	RPM
SHRTFT1	PID	(I)	-10 TO +10	-10 TO +10	-10 TO +10	%
SYNC	PID	NO	YES	YES	YES	YES/NO
TCBP	TCBP Sensor	100.2 (14.53)	100.3 (14.55)	101.7 (14.75)	106.9 (15.50)	kPa (PSI)
TCBP_V	TCBP Sensor	1.43	1.44	1.46	1.52	VOLTS
TP1_LRN_TRIM	ETBTPS	10.25	10.25	10.25	10.25	DEG
TP1_PER	ETBTPS	17	12	12	20	%
TP2_LRN_TRIM	ETBTPS	0	0	0	0	DEG
TP_REL	PID	7	2	2	10	VOLTS
TURBO_BP1_STAT	TCBY Valve	NO FAULT	NO FAULT	NO FAULT	NO FAULT	FAULT/ NO FAULT
VCTSYS	PID	ENABLED	DISABLED	DISABLED	DISABLED	ENABLED/ DISABLED
VCT_EXH_ACT1	PID	0	-0.13	-0.19	19.88	DEG
VCT_EXH_DIF1	PID	0	0.13	0.13	0.13	DEG
VCT_INT_ACT1	PID	0	0.38	0.31	-20.50	DEG
VCT_INT_DIF1	PID	0	-0.38	-0.25	0	DEG
VSS	PID	0	0	48 km/h (30 MPH)	89 km/h (55 MPH)	km/h / MPH
WGATE_A_POS_PCT	Turbocharger Wastegate Motor 1	98.90	0	2.20	6.43	%
WGATE_A_V	Wastegate Vacuum Sensor	3.95	1.37	1.43	1.56	VOLTS

Outputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
AEIS_ACTION	PID	0	0	0	0	NUMERIC VALUE
AEIS_POSS	PID	0	0	0	0	NUMERIC VALUE

Outputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
BOOSTP_EVAL	PID	YES	YES	YES	YES	YES/NO
DIST_AEIS	PID	0	0	0	0	KM (MILES)
EGRVPDES	PID	0	0	0	0	%
EGR_A_CMD	PID	0	0	0	0	%
ETC [TAC_PCT]	PID	9	3	4	5	%
EVAP020C	PID	NO	NO	NO	NO	YES/NO
EVAPCP	EVAPCP Valve	0	0	0	5	%
EVAPCV	CANV Valve	0	0	0	0	%
EVAPPCT	PID	0	0	0	5	%
EVAPSOAK	PID	NO	NO	NO	NO	YES/NO
EVAPSTA	PID	NOT RUNNING	NOT RUNNING	NOT RUNNING	NOT RUNNING	STATUS
EVBV	EVAP Vapor Blocking Valve	0	0	100	100	%
FAN_DSD	PID	0	0	0	0	%
FP	Fuel Pump Control Module	75	23	24	25	%
FRP_DSD	PID	0.07 (10.15)	1.51 (219.01)	12.34 (1789.77)	20.05 (2908.01)	MPa (PSI)
FUELSYS_CL	PID	NO	YES	YES	YES	YES/NO
FUELSYS_OL	PID	NO	NO	NO	NO	YES/NO
F_VCV	Fuel Injection Pump	0	3	7	19	%
HFC	PID	OFF	OFF	OFF	OFF	ON/OFF
HTR11	HO2S11 Sensor	OFF	ON	ON	ON	ON/OFF
HTR12	HO2S12 Sensor	OFF	ON	ON	ON	ON/OFF
LFC	PID	OFF	OFF	OFF	OFF	ON/OFF
MFC	PID	OFF	OFF	OFF	OFF	ON/OFF
MIL_OBD	PID	OFF	OFF	OFF	OFF	ON/OFF
O2S11_HTR	HO2S11 Sensor	22	26	25	19	%
O2_DS_DISBL	PID	TRUE	TRUE	FALSE	FALSE	TRUE/FALSE
PATSENABL	PID	ENABLED	ENABLED	ENABLED	ENABLED	ENABLED/DISABLED
RPMDSD	PID	899	895	825	825	RPM
SPARKADV	PID	10	1.50	37	26	DEG
TURBO_BPASS	TCBY Valve	0	0	100	0	%
TURBO_WGATE	Turbocharger Wastegate Regulating Valve Solenoid	0	0	0	0	%

Outputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
VCT_EXH_DC1	VCT12 Solenoid	0	0	0	45	%
VCT_INT_DC1	VCT11 Solenoid	0	0	0	43	%

Other	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
VPWR	PID	VBAT	VBAT	VBAT	VBAT	VOLTS
VREF	PID	5	5	5	5	VOLTS

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