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2021 Ford Ranger Service and Repair Manual

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(Undefined / Not Used)						
PCM (powertrain control module) CAM_SYNC (State of synchronization with a camshaft position sensor)	YES/NO	PID	NO	NO	NO	NO
PCM (powertrain control module) CATTEMP11 (Catalyst Temperature Bank 1, Sensor 1) (Deg C)	DEG C (DEG F)	CAT11 Sensor	409 (768.2)	409 (768.2)	628 (1,162.4)	840 (1,544)
PCM (powertrain control module) CATTEMP21 (Catalyst Temperature Bank 2, Sensor 1) (Deg C)	DEG C (DEG F)	CAT21 Sensor	409 (768.2)	409 (768.2)	628 (1,162.4)	839 (1,542.2)
PCM (powertrain control module) CHT (Cylinder Head Temperature) (Deg C)	DEG C (DEG F)	CHT Sensor	96 (204.8)	95 (203)	98 (208.4)	99 (210.2)
PCM (powertrain control module) CHT_V (Cylinder Head Temperature Sensor Voltage) (V)	VOLTS	CHT Sensor	3.54	3.54	3.46	3.42
PCM (powertrain control module) CLRDIST (Distance since diagnostic trouble codes cleared) (km)	KM (MILES)	PID	0 (0)	0 (0)	0 (0)	1 (0.62)

PCM (powertrain control module) EQ_RAT21 (Equivalence Ratio (Lambda) (Bank 2, Sensor 1)) (Undefined / Not Used)	RATIO	PID	0	1	1.01	0.98
PCM (powertrain control module) ETC_ACT (Electronic Throttle Control Actual) (Deg)	DEG	PID	7.94	4.22	9.68	15.91
PCM (powertrain control module) ETC_TRIM (Learned Value of Throttle Angle Offset) (Deg)	DEG	PID	0.24 (E)	0.24 (E)	0.24 (E)	0.24 (E)
PCM (powertrain control module) ETC_[TAC_PCT] (Commanded Throttle Actuator Control) (%)	%	PID	9	5	11	19
PCM (powertrain control module) EVAP020C ((EVAP) Monitor 0.020 Leak Check Complete)	YES/NO	PID	NO	NO	NO	NO
PCM (powertrain control module) EVAPCP (Evaporative Emission Canister Purge Valve duty cycle) (%)	%	EVAPCP Valve	0	0	2	0
PCM (powertrain control module)	%	PID	0	0	2	0

PCM (powertrain control module) FLP_V (Low Side Fuel Pressure Voltage) (V)	VOLTS	Fuel Pressure Sensor	2.16	2.08	2.06	2.07
PCM (powertrain control module) FP (Fuel pump) (%)	%	Fuel Pump Control Module	75	16	17	17
PCM (powertrain control module) FPM (Fuel pump monitor) (%)	%	PID	40	40	41	40
PCM (powertrain control module) FRP (Fuel Rail Pressure) (kPa)	kPa (PSI)	FRP Sensor	24,720 (3,585.33)	17,310 (2,510.60)	19,780 (2,868.84)	7,700 (1,116.79)
PCM (powertrain control module) FRP_DSD (Fuel Rail Pressure Desired) (kPa)	kPa (PSI)	PID	330 (47.86)	5,510 (799.15)	19,960 (2,894.95)	7,520 (1,090.68)
PCM (powertrain control module) FRP_V (Fuel Rail Pressure Sensor Voltage) (V)	VOLTS	FRP Sensor	3.96	2.93	3.29	1.61
PCM (powertrain control module) FRT_A_RAW (Fuel Temperature -A- Raw) (Deg C)	DEG C (DEG F)	FRPT Sensor	46 (114.8)	46 (114.8)	48 (118.4)	48 (118.4)
PCM (powertrain control module) FRT_V (Fuel Rail	VOLTS	FRT Sensor	1.66	1.65	1.56	1.55

FUELSYS_CL (Fuel System 1 is: Closed loop - using oxygen sensor(s) as feedback for fuel control)						
PCM (powertrain control module) FUELSYS_OL (Fuel System 1 is: Open loop - has not yet satisfied conditions to go closed loop)	YES/NO	PID	YES	YES	YES	YES
PCM (powertrain control module) F_VCV_CMD (Fuel Volume Regulator Control Displacement (Percent Of Full Stroke) - Commanded) (%)	%	Fuel Injection Pump	0	0	29	18
PCM (powertrain control module) HTR11 (Heated Exhaust Gas Oxygen Sensor Heater (bank 1, sensor 1))	ON/OFF	HO2S11 Sensor	OFF	ON	ON	ON
PCM (powertrain control module) HTR12 (Heated Exhaust Gas Oxygen Sensor Heater (bank 1, sensor 2))	ON/OFF	HO2S12 Sensor	OFF	ON	ON	ON
PCM (powertrain control module) HTR21 (Heated Exhaust Gas Oxygen	ON/OFF	HO2S21 Sensor	OFF	ON	ON	ON

PCM (powertrain control module) IAT (Intake Air Temperature) (Deg C)	DEG C (DEG F)	IAT Sensor	47 (116.6)	47 (116.6)	48 (118.4)	44 (111.2)
PCM (powertrain control module) IAT11 (Intake Air Temperature Bank 1 Sensor 1) (Deg C)	DEG C (DEG F)	IAT Sensor	47 (116.6)	47 (116.6)	48 (118.4)	44 (111.2)
PCM (powertrain control module) IAT1_V (Intake Air Temperature voltage) (V)	VOLTS	IAT Sensor	1.48	1.50	1.47	1.61
PCM (powertrain control module) IGN_SW (Ignition switch)	ON/OFF	Ignition Switch	ON	ON	ON	ON
PCM (powertrain control module) INJECTOR_OFF (Engine Running Fuel Injector Control State)	-----/DISABLE	Injector 1-8	-----	-----	-----	-----
PCM (powertrain control module) KNOCK_1 (Knock sensor 1) (Undefined / Not Used)	COUNT	KS11 Sensor	999.00	38.00	111.00	114.00
PCM (powertrain control module) KNOCK_2 (Knock sensor 2) (Undefined / Not Used)	COUNT	KS12 Sensor	999.00	50.00	100.00	94.00

absolute pressure sensor voltage) (V)						
PCM (powertrain control module) MIL_DIS (The distance travelled since the (MIL) was activated.) (km)	KM (MILES)	PID	0 (0)	0 (0)	0 (0)	0 (0)
PCM (powertrain control module) MIL_OBD (Malfunction Indicator Lamp Status)	ON/OFF	PID	OFF	OFF	OFF	OFF
PCM (powertrain control module) MISFIRE (Engine Misfire currently detected)	TRUE/FALSE	PID	FALSE	FALSE	FALSE	FALSE
PCM (powertrain control module) MP_LRN (Misfire Profile Correction Learned)	TRUE/FALSE	PID	TRUE	TRUE	TRUE	TRUE
PCM (powertrain control module) NUM_MISFIRE (Misfire Events During Latest Misfire Cycle) (Undefined / Not Used)	COUNT	PID	0	0	10	10
PCM (powertrain control module) O2S11_CUR (Exhaust Gas Oxygen Sensor	mA/uA	HO2S11 Sensor	(A)	switching (C)	switching (C)	switching (C)

(Commanded duty cycle for the (O2S21) heater output.) (%)						
PCM (powertrain control module) O2S21_IMPED (O2S21) sensor impedance is expressed as a voltage.) (V)	VOLTS	HO2S21 Sensor	5.00	0.14	0.17	0.16
PCM (powertrain control module) O2S21_READY ((O2S21) is warm and ready to operate.)	TRUE/FALSE	HO2S21 Sensor	FALSE	TRUE	TRUE	TRUE
PCM (powertrain control module) O2S22 (Heated Exhaust Gas Oxygen Sensor (bank 2, sensor 2)) (V)	VOLTS	HO2S22 Sensor (A)		switching (D)	switching (D)	switching (D)
PCM (powertrain control module) O2_DS_DISBL (Downstream Oxygen Sensor Fuel Control Disabled.)	TRUE/FALSE	PID	TRUE	TRUE	FALSE	FALSE
PCM (powertrain control module) OCTADJ_R_LRND (Learned Relative Octane Adjustment) (Undefined / Not Used)	%	PID	0.00	0.00	0.00	0.00

SPARKADV (Spark Advance) (Deg)						
PCM (powertrain control module) SYNC ((CMP) and (CKP) Synchronized)	YES/NO	PID	NO	YES	YES	YES
PCM (powertrain control module) TP1_LRN_TRIM (Throttle Position Sensor 1 Learned Offset) (Deg)	DEG	ETBTPS	8.38	8.38	8.38	8.38
PCM (powertrain control module) TP1_PER (Throttle Position Sensor 1) (%)	%	ETBTPS	16	13	18	22
PCM (powertrain control module) TP2_LRN_TRIM (Throttle Position Sensor 2 Learned Offset) (Deg)	DEG	ETBTPS	0.00	0.00	0.00	0.00
PCM (powertrain control module) TP_REL (Relative Throttle Position) (%)	VOLTS	PID	7.5	4.3	11.0	13.7
PCM (powertrain control module) VCTSYS ((VCT) System status (open/closed loop))	ENABLED / DISABLED	PID	DISABLED	ENABLED	ENABLED	ENABLED
PCM (powertrain control module) VCT_EXH_ACT1 (Actual	DEG	PID	0.00	-0.19	34.44	17.50

Intake A Camshaft Position Bank 1) (Deg)						
PCM (powertrain control module) VCT_INT_ACT2 (Actual Intake A Camshaft Position Bank 2) (Deg)	DEG	PID	0.00	0.31	8.19	9.38
PCM (powertrain control module) VCT_INT_DC1 (Intake A Camshaft Position Duty Cycle Bank 1) (%)	%	VCT11 Solenoid	0	0	57	60
PCM (powertrain control module) VCT_INT_DC2 (Intake A Camshaft Position Duty Cycle Bank 2) (%)	%	VCT21 Solenoid	0	0	59	62
PCM (powertrain control module) VCT_INT_DIF1 (Intake A Camshaft Desired Minus Actual Bank 1) (Deg)	DEG	PID	0.00	-0.31	0.81	-2.00
PCM (powertrain control module) VCT_INT_DIF2 (Intake A Camshaft Desired Minus Actual Bank 2) (Deg)	DEG	PID	0.00	-0.31	1.38	-1.38
PCM (powertrain control module) VPWR (Module Supply Voltage) (V)	VOLTS	PID	12.72	14.35	13.91	14.21