

Make/Model: FORD SCOPRIO/GRANADA ('85) 2,9 24V 1991-94

Engine code: BOA

Output: 143 (195) 5750

Tuned for: R-Cat

System code	Code meaning	Action
010	Separator/command code	Briefly depress accelerator pedal fully
020	Command code	Briefly depress brake pedal fully
030	Command code	Briefly depress brake pedal fully

Flash type	Fault location	Probable cause
10	Cylinder 1, low	Cylinder compression, ignition components, injector
20	Cylinder 2, low	Cylinder compression, ignition components, injector
30	Cylinder 3, low	Cylinder compression, ignition components, injector
40	Cylinder 4, low	Cylinder compression, ignition components, injector
50	Cylinder 5, low	Cylinder compression, ignition components, injector
60	Cylinder 6, low	Cylinder compression, ignition components, injector
90	Cylinder balance test OK	-
111	Systems OK	-
112	Intake air temperature (IAT) sensor - voltage low	Wiring, IAT sensor, ECM
113	Intake air temperature (IAT) sensor - voltage high	Wiring, IAT sensor, ECM
114	Intake air temperature (IAT) sensor - voltage range	IAT sensor
116	Engine coolant temperature (ECT) sensor - range	ECT sensor
117	Engine coolant temperature (ECT) sensor - voltage low	Wiring, ECT sensor, ECM
118	Engine coolant temperature (ECT) sensor - voltage high	Wiring, ECT sensor, ECM
121	Throttle position (TP) switch/sensor - range	TP switch/sensor
122	Throttle position (TP) switch/sensor - voltage low	Wiring, TP switch/sensor, ECM
123	Throttle position (TP) switch/sensor - voltage high	Wiring, TP switch/sensor, ECM
124	Throttle position (TP) switch/sensor - voltage high	Wiring, TP switch/sensor, ECM
125	Throttle position (TP) switch/sensor - voltage low	Wiring, TP switch/sensor, ECM
129	Mass air flow (MAF) sensor/manifold absolute pressure (MAP) sensor - no signal change during throttle 'blip'	Mass air flow (MAF) sensor/manifold absolute pressure (MAP) sensor
136	Heated oxygen sensor (HO2S) 2, bank 2 - weak mixture	Wiring, HO2S, ECM
137	Heated oxygen sensor (HO2S) 2, bank 2 - rich mixture	Wiring, HO2S, ECM
139	Heated oxygen sensor (HO2S) 2, bank 2 - weak/rich mixture	Wiring, HO2S, ECM
144	Heated oxygen sensor (HO2S) 1, bank 1 - weak/rich mixture	Wiring, HO2S, ECM
157	Mass air flow (MAF) sensor - voltage low	Wiring, MAP sensor, ECM
158	Mass air flow (MAF) sensor - voltage high	Wiring, MAP sensor, ECM
159	Mass air flow (MAF) sensor - range	Wiring, MAP sensor, ECM
167	Throttle position (TP) switch/sensor - no signal change during throttle 'blip'	TP switch/sensor
171	Heated oxygen sensor (HO2S) 1, bank 1 - adaptive limit reached	Fuel pressure, wiring, air leaks, injectors, ECM

172	Heated oxygen sensor (HO2S) 1, bank 1 - weak mixture	Wiring, HO2S, ECM
173	Heated oxygen sensor (HO2S) 1, bank 1 - rich mixture	Wiring, HO2S, ECM
174	Heated oxygen sensor (HO2S)	Wiring, HO2S, ECM
175	Heated oxygen sensor (HO2S) 2, bank 2 - adaptive limit reached	Fuel pressure, wiring, air leaks, injectors, ECM
176	Heated oxygen sensor (HO2S) 2, bank 2 - weak mixture	Wiring, HO2S, ECM
177	Heated oxygen sensor (HO2S) 2, bank 2 - rich mixture	Wiring, HO2S, ECM
178	Heated oxygen sensor (HO2S)	Wiring, HO2S, ECM
179	Fuel trim (part throttle) - weak mixture	Fuel pressure, air leakss, injectors, ignition system
181	Fuel trim (part throttle) - rich mixture	Fuel pressure, air leakss, injectors, ignition system
182	Fuel trim (idle) - weak mixture	Fuel pressure, air leakss, injectors, ignition system
183	Fuel trim (idle) - rich mixture	Fuel pressure, air leakss, injectors, ignition system
184	Mass air flow (MAF) sensor - air flow high	Wiring, MAF sensor, ECM
185	Mass air flow (MAF) sensor - air flow low	Wiring, MAF sensor, ECM
186	Injector pulse width - too long	Wiring, injectors, ECM
187	Injector pulse width - too short	Wiring, injectors, ECM
188	Heated oxygen sensor (HO2S), bank 2 - weak mixture	Wiring, fuel pressure, injectors, air leak, HO2S, ECM
189	Heated oxygen sensor (HO2S), bank 2 - rich mixture	Wiring, fuel pressure, injectors, air leak, HO2S, ECM
191	Heated oxygen sensor (HO2S), bank 2 - idle mixture weak	Wiring, fuel pressure, injectors, air leak, HO2S, ECM
192	Heated oxygen sensor (HO2S), bank 1 - idle mixture rich	Wiring, fuel pressure, injectors, air leak, HO2S, ECM
194	Heated oxygen sensor (HO2S)	Wiring, HO2S, ECM
195	Heated oxygen sensor (HO2S)	Wiring, HO2S, ECM
211	Profile ignition pick-up (PIP) signal	Wiring, CKP sensor, ignition control (EDIS) module, ECM
212	Tachometer circuit	Wiring, ignition control (EDIS) module, tachometer
213	Spark output (SPOUT) signal	Wiring, ignition control (EDIS) module, ECM
214	Camshaft position (CMP) sensor - circuit malfunction	Wiring, CMP sebsor, ECM
215	Ignition coil 1, EDIS	Ignition coil
216	Ignition coil 2, EDIS	Ignition coil
217	Ignition coil 3, EDIS	Ignition coil
218	Tachometer circuit	Wiring, ignition control (EDIS) module, tachometer
222	Tachometer circuit	Wiring, ignition control (EDIS) module, tachometer
226	Ignition control (EDIS) module - pulse missing	Wiring, ignition control (EDIS) module, CKP/RPM sensor, ECM
227	Crankshaft position (CKP) sensor/engine speed (RPM) sensor	Wiring, CKP/RPM sensor
228	Ignition control (EDIS) module/ignition coil 1	Wiring, ignition control (EDIS) module, ignition coil
229	Ignition control (EDIS) module/ignition coil 2	Wiring, ignition control (EDIS) module, ignition coil
231	Ignition control (EDIS) module/ignition coil 3	Wiring, ignition control (EDIS) module, ignition coil
232	Ignition coil primary circuit	Wiring, ignition coil
233	Ignition control (EDIS) module	Ignition control (EDIS) module
234	Ignition coil	Ignition coil
235	Ignition coil	Ignition coil
236	Ignition coil	Ignition coil
237	Ignition coil	Ignition coil
238	Ignition control (EDIS) module/ignition coil	Wiring, ignition control (EDIS) module, ignition coil
239	Profile ignition pick-up (PIP) signal - PIP signal occurs when engine cranking	Wiring, CKP/RPM sensor, ignition control (EDIS) module, ECM
241	Engine control module (ECM)/ignition control (EDIS) module - false data	Engine control module (ECM), ignition control (EDIS) module
243	Ignition coil	Ignition coil
311	Pulsed secondary air injection (PAIR) system	Wiring, PAIR solenoid, MAP/MAF/VAF sensor, ECM

312	Pulsed secondary air injection (PAIR) system	Wiring, PAIR solenoid, MAP/MAF/VAF sensor, ECM
313	Pulsed secondary air injection (PAIR) system	Wiring, PAIR solenoid, MAP/MAF/VAF sensor, ECM
314	Pulsed secondary air injection (PAIR) system	Wiring, PAIR solenoid, MAP/MAF/VAF sensor, ECM
315	Pulsed secondary air injection (PAIR) system	Wiring, PAIR solenoid, MAP/MAF/VAF sensor, ECM
316	Pulsed secondary air injection (PAIR) system	Wiring, PAIR solenoid, MAP/MAF/VAF sensor, ECM
326	Exhaust pressure (EP) sensor	Wiring, EP sensor, ECM
327	Exhaust pressure (EP) sensor/exhaust gas recirculation (EGR) solenoid	Wiring, EP sensor, EGR solenoid, ECM
328	Exhaust gas recirculation (EGR) solenoid	Wiring, EGR solenoid, ECM
332	Exhaust gas recirculation (EGR) solenoid	Wiring, EGR solenoid, ECM
334	Exhaust gas recirculation (EGR) solenoid	Wiring, EGR solenoid, ECM
335	Exhaust pressure (EP) sensor	Wiring, EP sensor, ECM
336	Exhaust pressure (EP) - high	EP sensor
337	Exhaust pressure (EP) sensor/exhaust gas recirculation (EGR) solenoid	Wiring, EP sensor, EGR solenoid, ECM
338	Engine coolant temperature (ECT) sensor - temperature low	Wiring, ECT sensor, ECM
339	Engine coolant temperature (ECT) sensor - temperature high	Wiring, ECT sensor, ECM
341	Octane plug - connected to earth	Octane plug
411	Engine rpm too low during self-test	Wiring, compression, ignition, IAC valve, ECM
412	Engine rpm too high during self-test	Wiring, compression, ignition, IAC valve, ECM
413	Idle air control (IAC) valve	Wiring, IAC valve, ECM
414	Idle air control (IAC) valve	Wiring, IAC valve, ECM
415	Idle air control (IAC) valve	Wiring, IAC valve, ECM
416	Idle air control (IAC) valve	Wiring, IAC valve, ECM
452	Vehicle speed sensor (VSS)	Wiring, VSS, ECM
511	Engine control module (ECM) - ROM error	ECM
512	Engine control module (ECM) - KAM error	ECM
513	Engine control module (ECM) - internal reference voltage	ECM
519	Power steering pressure (PSP) switch - not activated during self-test	Wiring, PSP switch
521	Power steering pressure (PSP) switch - not activated	Wiring, PSP switch
522	Park/neutral position (PNP) switch - circuit malfunction	Wiring, PNP switch, ECM
523	Park/neutral position (PNP) switch - circuit malfunction	Wiring, PNP switch, ECM
528	Clutch pedal position (CPP) switch - circuit malfunction	Wiring, CPP switch, ECM
536	Brake pedal position (BPP) switch - not activated during self-test	Wiring, BPP switch, ECM
538	Operator error during self-test	-
539	AC switched ON during self-test	Wiring, AC switch
542	Fuel pump - circuit malfunction	Wiring, fuel pump relay, IFS switch
543	Fuel pump - circuit malfunction	Wiring, fuel pump relay, IFS switch
551	Idle air control (IAC) valve - circuit malfunction	Wiring, IAC valve, ECM
552	Pulsed secondary air injection (PAIR) system - circuit malfunction	Wiring, PAIR solenoid
556	Fuel pump - circuit malfunction	Wiring, fuel pump relay
558	Exhaust gas recirculation (EGR) solenoid - circuit malfunction	Wiring, EGR solenoid, ECM
563	Engine coolant blower motor relay - circuit malfunction	Wiring, engine coolant blower motor relay
564	Engine coolant blower motor relay - circuit malfunction	Wiring, engine coolant blower motor relay

565	Evaporative emission (EVAP) canister purge valve - circuit malfunction	Wiring, EVAP canister purge valve, ECM
566	3rd/4th gear shift solenoid	Wiring, 3rd/4th gear shift solenoid
573	Engine coolant blower motor relay - circuit malfunction	Wiring, engine coolant blower motor relay, ECM
574	Engine coolant blower motor relay - circuit malfunction	Wiring, engine coolant blower motor relay, ECM
575	Fuel pump/inertia fuel shut-off (IFS) switch - circuit	Wiring, fuel pump relay, IFS switch
576	Kick-down switch	Wiring, kick-down switch
577	Kick-down switch - not activated during self-test	Wiring, kick-down switch
612	Transmission range (TR) switch, 4th/3rd gear switch contacts - open circuit	Wiring, TR switch
613	Transmission range (TR) switch, 4th/3rd gear circuit - open circuit	Wiring, TR switch
614	Transmission range (TR) switch, 3rdh/2nd gear circuit - short circuit	Wiring, TR switch
615	Transmission range (TR) switch, 3rdh/2nd gear switch contacts - open circuit	Wiring, TR switch
621	Shift solenoid (SS) 1 - circuit malfunction	Wiring, shift solenoid, ECM
622	Shift solenoid (SS) 2 - circuit malfunction	Wiring, shift solenoid, ECM
624	AT electronic pressure control solenoid	AT electronic pressure control solenoid
625	AT electronic pressure control solenoid - circuit malfunction	Wiring, AT electronic pressure control solenoid, ECM
628	Modulated torque converter clutch (TCC) solenoid	Wiring, TCC solenoid
629	Torque converter clutch (TCC) solenoid	Wiring, TCC solenoid
634	Park/neutral position (PNP) switch	Wiring, PNP switch
635	Transmission fluid temperature (TFT) switch - circuit malfunction	Wiring, TFT switch, ECM
636	Transmission fluid temperature (TFT) switch - circuit malfunction	Wiring, TFT switch, ECM
637	Transmission fluid temperature (TFT) switch - circuit malfunction	Wiring, TFT switch, ECM
638	Transmission fluid temperature (TFT) switch - circuit malfunction	Wiring, TFT switch, ECM
639	Turbine shaft speed (TSS) sensor - signal low	Wiring, TSS sensor
645	1st gear failure - incorrect ratio	Wiring, transmission fault
646	2nd gear failure - incorrect ratio	Wiring, transmission fault
647	3rd gear failure - incorrect ratio	Wiring, transmission fault
648	4th gear failure - incorrect ratio	Wiring, transmission fault
649	Electronic throttle valve - failure	Wiring, electronic throttle valve, ECM
651	Electronic throttle valve - intermittent failure	Wiring, electronic throttle valve, ECM
652	Modulated torque converter clutch (TCC) solenoid - circuit malfunction	Wiring, TCC solenoid, ECM
653	Transmission control switch - not activated during self-test	Wiring, transmission control switch, ECM
658	Performance/economy switch - not activated during self-test	Wiring, performance/economy switch, ECM
998	ECT sensor/IAT sensor/MAF sensor/TP sensor - circuit malfunction	Wiring, ECT sensor/IAT sensor/MAF sensor/TP sensor, ECM