

944/968 Engine Swap Wiring Changes

14 Pin Connector By Brake Booster

Years represent actual years used but should carry across all years for model range

Pin #	968 ('93)	944 ('86)	944 S ('87)
1	Ignition coil term 1	Ignition coil term 1	Ignitor term 5*
2	DME relay term 87	DME relay term 87	DME relay term 87
3	DME relay term 87	DME relay term 87	DME relay term 87
4	Fuel pump	Fuel pump	Fuel pump
5	DME relay term 85b	DME relay term 85b	DME relay term 85b
6	Oil press. Gauge	Oil press. Gauge	Oil press. Gauge
7	DME relay term 85	12V during starting (term 50 ign switch)	Unused??
8	Water temp gauge	Water temp gauge	Water temp gauge
9	Oil press idiot light	Oil press idiot light	Oil press idiot light
10	Water temp idiot light	Water temp idiot light	Water temp idiot light
11	Not used	Not used	Not used
12	12 V fuse #7	Unused ?	12 V from fuse #7
13	Not Used	AC Compressor	AC compressor
14	Not Used	Not used	Ground for ignition coil wire (sheath of pin 1 wire)

* This wire runs to the ignitor module on the 944S, this is not used with 968 motor, disconnect the ignitor plug (located behind left headlight on inner fender) pull back the rubber boot and splice the green wires together to send the DME signal straight to the coil.

As you can see for the 'S' no wiring changes need to be made at the 14 pin connector located behind the brake booster. On the 944, obviously pin 7 must not have 12V since this is a ground signal sent from the 968 DME to 85 term of DME relay the 944 models have term 85 grounded directly, you don't want the wire on the 944 side of the connector hooked up or you will fry the DME, the S. It appears that you need to supply a 12V source on pin 12 on the normal 944.

Connector DME Passenger Footwell

(14 pin for 968 (smaller is tiptronic connector), 4 pin for 944 and 8 pin for 944 S)

Pin #	968 ('93)	944 ('86)	944S ('87)
1	Not used	Consumption Gauge	Consumption Gauge
2	Tach signal	Tach Signal	Tach signal
3	AC signal to DME	Not used (boost	Not used (boost

		gauge)	gauge)
4	AC relay	Not used (boost gauge)	Not used (boost gauge)
5	AC relay	NA	Not used
6	Speedometer ??	NA	Not used
7	Switched 12V (from alarm)	NA	Diagnostic plug (12V)
8	Oil level idiot light	NA	Oil level idiot light
9		NA	NA
10	Diagnostic K lead	NA	NA
11	Check engine light	NA	NA
12	Diagnostic L lead	NA	NA
13	Engine Knock	NA	NA
14	Not used	NA	NA

As you can see the change that needs to be made is to have a switched 12V supply to pin 7 on the 968 14 pin connector (the connectors aren't compatible so you will need to splice) on the 944S you can get this from pin 7 the 12V source for the diagnostic plug, in the 968 the signal comes from the factory alarm, if the alarm is tripped then no 12V and car doesn't run.

Disclaimer

Use this info at your own risk. The standard 944 info is done by extrapolation, the 944S info is based upon my notes from personal experience swapping a '93 968 engine into a '87 944S.

944 S2 Engine

14 Pin Connector By Brake Booster

Years represent actual years used but should carry across all years for model range

Pin #	944S2('90)	944 ('86)	944 S ('87)
1	Ignitor term 5	Ignition coil term 1	Ignitor term 5
2	DME relay term 87	DME relay term 87	DME relay term 87
3	DME relay term 87	DME relay term 87	DME relay term 87
4	Fuel pump	Fuel pump	Fuel pump
5	DME relay term 85b	DME relay term 85b	DME relay term 85b
6	Oil press. Gauge	Oil press. Gauge	Oil press. Gauge
7	unused	12V during starting (term 50 ign switch)	Unused??
8	Water temp gauge	Water temp gauge	Water temp gauge
9	Oil press idiot light	Oil press idiot light	Oil press idiot light
10	Water temp idiot light	Water temp idiot light	Water temp idiot light

11	Not used	Not used	Not used
12	12 V fuse #7	Unused ?	12 V from fuse #7
13	AC Compressor	AC Compressor	AC compressor
14	Ground for ignitor wire (sheath of pin 1 wire)	Not used	Ground for ignitor wire (sheath of pin 1 wire)

Connector DME Passenger Footwell

(14 pin for 944 S2, 4 pin for 944 and 8 pin for 944 S)

Pin #	944S2 ('90)	944 ('86)	944S ('87)
1	Not used	Consumption Gauge	Consumption Gauge
2	Tach signal	Tach Signal	Tach signal
3	Not used (boost gauge)	Not used (boost gauge)	Not used (boost gauge)
4	Not used (boost gauge)	Not used (boost gauge)	Not used (boost gauge)
5	12 V fuse 17	NA	Not used
6	unused	NA	Not used
7	Unused	NA	Diagnostic plug (12V)
8	Oil level idiot light	NA	Oil level idiot light
9	Unused	NA	NA
10	Diagnostic K lead	NA	NA
11	Diagnosis Plug	NA	NA
12	Diagnostic L lead	NA	NA
13	Diagnostic plug	NA	NA
14	Not used	NA	NA

Installing an S2 engine into a non-S chassis is actually more difficult than the 968 engine. This is due to the fact the S2 still uses the ignitor circuit that must be integrated into the non-S chassis in order to get the motor to work. This wire is shielded running from the 14 pin connector to the ignitor and on the other side from the connector to the DME. This reason alone makes the 968 swap easier into a non-S chassis than the S2 motor.

In an S chassis it is a non-issue since you use the existing ignitor and its' wiring. It appears that a 12V switched source is needed to pin 5 to power the DME similar to the 968 motor

Again this info is supplied only for reference, I have not personally performed the S2 motor swap.

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