MS3Pro ULTIMATE pinout

ecurecovery.com/pinouts/ms3pro/ultimate · Every pin checked against 2 MS3Pro documents · data checked 2026-11-04

Connector White · 35-pin

Connector Gray · 35-pin

Connector Black · 23-pin

MS3Pro's documents list the pins but do not draw the plug, so we do not draw it either.

MS3Pro ULTIMATE connector White pinout (35-pin)

Pin	Function	Wire
W1	High current out 1	Light green
W2	High current out 2	Light green / Dark blue
W3	Injector out J	White / Yellow
W4	Injector out I	White / Gray White/grey
W5	High current out 3	Light green / Red
W6	CKP+	White Shielded
W7	Knock In 2	Orange / Red
W8	5V+ VREF out 1	Gray Grey
W9	TPS in	Light blue Shielded
W10	MAT in	Orange
W11	CLT in	Yellow
W12	Analog In 6	Light blue / Dark green
W13	Power ground	-
W14	PWM / Idle Out 1	Light green
W15	CKP-	Black Shielded
W16	Logic ground	-
W17	Analog In 7	-
W18	Sensor return	Black / White
W19	Analog in 1	Light blue / Dark blue
W20	Analog in 2	Light blue / Red
W21	Analog in 3	Light blue / Purple
W22	Analog In 4	Light blue / Pink
W23	Analog In 5	-
W24	Tach out	Light green / Purple
W25	O2 in	Pink
W26	CMP+	Yellow Shielded
W27	CMP-	Red Shielded
W28	Fuel pump relay out	Purple
W29	PWM out 2	Light green / Pink
W30	PWM out 3	Light green / Dark green
W31	Knock in 1	Orange / Purple
W32	Digital switched in 1	Gray / Orange Grey/orange
W33	CAN L	Tan / Red
W34	CAN H	Tan
W35	12V+ switched power in	Red

MS3Pro ULTIMATE connector Gray pinout (35-pin)

Pin	Function	Wire
G1	Injector out A	White
G2	Injector out B	White / Orange
G3	Ground	Black
G4	Injector out C	White / Light green
G5	Ground	Black
G6	Injector out D	White / Pink
G7	Ground	Black
G8	Injector out E	White / Red
G9	Ground	Black
G10	Injector out F	White / Dark green
G11	Injector out G	White / Dark blue
G12	Injector out H	White / Purple
G13	Spark out G	Yellow / Dark blue
G14	Spark out E	Yellow / Red
G15	Spark out C	Yellow / Light green
G16	Spark out H	Yellow / Purple
G17	Digital frequency in 2	Purple / Red
G18	Ground	-
G19	Digital switched 12V in	Gray / Dark blue Grey/dark blue
G20	Digital switched in 2	Gray / Red Grey/red
G21	Digital frequency in 3	Purple / Dark blue
G22	Digital Frequency in 3 VR+	Purple Shielded
G23	Digital Frequency In 3 VR-	-
G24	Spark out F	Yellow / Dark green
G25	Spark out B	Yellow / Orange
G26	Spark out D	Yellow / Pink
G27	Spark out A	Yellow
G28	Digital frequency in 1	Purple / White
G29	Digital switched in 3	Gray / Purple Grey/purple
G30	Stepper IAC out 1B	Blue / Red
G31	Stepper IAC out 1A	Blue / White
G32	Stepper IAC out 2A	Green / White
G33	Stepper IAC out 2B	Green / Red
G34	Digital Frequency in 1 VR+	Purple Shielded
G35	Digital Frequency in 1 VR-	White Shielded

MS3Pro ULTIMATE connector Black pinout (23-pin)

Pin	Function	Wire
B1	PWM out 5	Light green / Red
B2	PWM out 4	Light green / Orange
B3	Digital out 2	Brown / Dark blue
B4	Digital out 1	Brown / Dark green
B5	Digital I/O 4	Brown / Pink
B6	Digital I/O 2	Brown / Orange
B7	Analog in 8	Light blue / Purple
B8	5V+ VREF out 2	Gray / Black Grey/black
B9	Fuel only coil negative	Black / Red
B10	Digital switched in 5	Gray / Orange Grey/orange

Pin	Function	Wire
B11	Digital switched in 4	Gray / Pink Grey/pink
B12	Digital I/O 5	Brown / Red
B13	Digital I/O 3	Brown / Light green
B14	Digital I/O 1	Brown
B15	5V+ VREF out 2	Gray / Black Grey/black
B16	Fuel only battery 12V+	Red / Black
B17	Sensor return	Black / White
B18	Sensor return	Black / White
B19	Sensor return	Black / White
B20	Sensor return	Black / White
B21	Sensor return	Black / White
B22	5V+ VREF out 1	Gray Grey
B23	Keep alive power	Red / White

Where this comes from

MS3Pro user manual (AMP EFI): connector pinout tables

AMP EFI MS3Pro ULTIMATE User Manual (firmware 1.5.2), 4.1 ECU connector pinout tables

MS3Pro wiring pinout card (AMP EFI)

AMP EFI MS3Pro ULTIMATE wiring pinout card