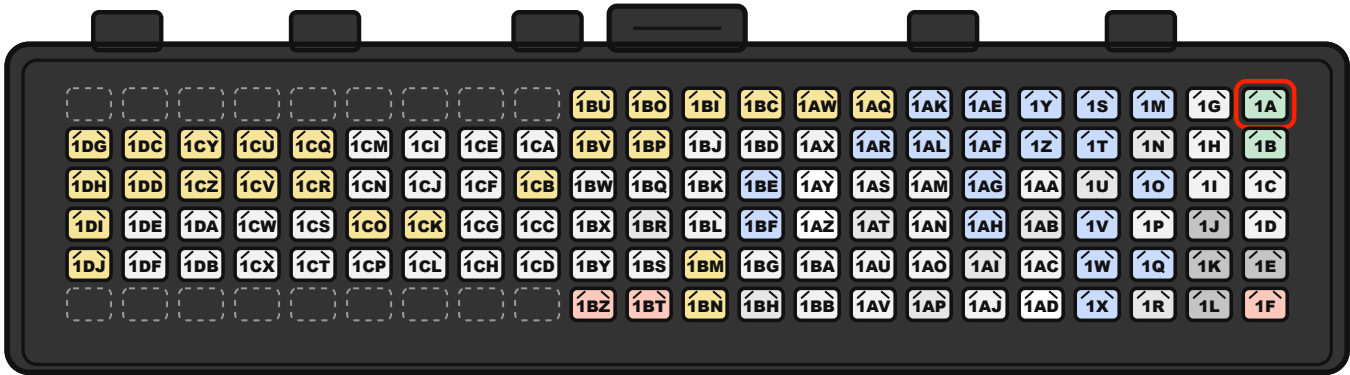


PCM PINOUT · MK4 · ND2
CONNECTOR 1 (114-WAY) · 114-WAY (1A-1DJ)

VIEW: LOOKING INTO THE ECU HEADER (SAME VIEW AS THE WIRE / BACK SIDE OF THE HARNESS PLUG) · THE PLUG'S MATING FACE READS MIRRORED

SKYACTIV-G 1.5 / 2.0 · VIN 300001 ON | MAZDA PCM (SM3476130) · 114-WAY + 72-WAY (186 TERMINALS) · ION SENSING · DBW · CAN

POWER **GROUND** **TRIGGER (CKP/CMP)** **SENSOR IN** **DRIVER / OUTPUT** **COMMS / DIAG** **OTHER / BODY** **UNKNOWN / NC**



FOJI SKETCH · PIN 1A RINGED (TOP-RIGHT) · KEYING INDICATIVE, CONFIRM ON PLUG

REAL CONNECTOR FACE (3 SECTIONS, 6 ROWS X 22 COLUMNS, 18 BLANKS). LOOKING INTO THE PCM HEADER, THE SAME VIEW AS THE WIRE/BACK SIDE OF THE HARNESS PLUG, MATCHING THE NA, NB AND NC SHEETS. LATE ND (VIN 650001-ON): 114-WAY + 72-WAY. LETTERS RUN DOWN EACH COLUMN FROM THE RIGHT-HAND END. PIN 1A IS TOP-RIGHT OF CONNECTOR 1 AND 2A IS TOP-RIGHT OF CONNECTOR 2 LARGE SECTION. CONNECTOR 1 IS A 4X9 HATCHED BLOCK PLUS TWO 6-ROW BLOCKS; CONNECTOR 2 IS A 2X3 BLOCK OF DOUBLE-HEIGHT POWER/GROUND CAVITIES PLUS A 6X11 BLOCK. FACE READ CELL BY CELL OFF THE FACTORY PCM INSPECTION FIGURE AC5WZW00010964 (SM3476130), CAPTIONED WIRING HARNESS-SIDE CONNECTOR WITH THE WIRE-SIDE VIEW ICON. NOT YET RUNG OUT ON A CAR.

PIN	FUNCTION	WIRE	I/O	PIN	FUNCTION	WIRE	I/O	PIN	FUNCTION	WIRE	I/O	PIN	FUNCTION	WIRE	I/O
1A	CAN_2H (CAN SYSTEM RELATED MODULES) [*1]	BR/B	I/O	1X	MAP	R	IN	1AU	NOT USED	-	-	1BR	GND (SENSOR SHIELD)	B	GND
1B	CAN_2L (CAN SYSTEM RELATED MODULES) [*1]	G/L	I/O	1Y	KNOCKING (+) (KS)	L	IN	1AV	NOT USED	-	-	1BS	NOT USED	-	-
1C	NOT USED	-	-	1Z	KNOCKING (-) (KS)	P	IN	1AW	PURGE CONTROL (PURGE SOLENOID VALVE)	V	OUT	1BT	INTAKE CMP	G	IN
1D	NOT USED	-	-	1AA	NOT USED	-	-	1AX	NOT USED	-	-	1BU	IGT4 (IGNITION COIL NO.4)	L/Y	OUT
1E	CONSTANT VOLTAGE (VREF) (CKP SENSOR)	G	PWR	1AB	GND (ECT SENSOR)	BR/B	GND	1AY	NEUTRAL SWITCH NO.2 [*2*5]	B/W	IN	1BV	ELECTRIC VARIABLE VALVE TIMING CONTROL (ELECTRIC VARIABLE VALVE TIMING DRIVER)	L/R	OUT
1F	CKP	W	IN	1AD	ELECTRIC VARIABLE VALVE TIMING DRIVER (DIAGNOSTIC)	P/G	IN	1AZ	BACK-UP LIGHT [*2]	L	IN	1BW	NOT USED	-	-
1G	NOT USED	-	-	1AE	ION (NO.2) (ION SENSOR NO.2)	G	IN	1BA	NOT USED	-	-	1BX	NOT USED	-	-
1H	NOT USED	-	-	1AF	ION (NO.4) (ION SENSOR NO.4)	R	IN	1BB	NOT USED	-	-	1BY	NOT USED	-	-
1I	NOT USED	-	-	1AG	GENERATOR OUTPUT VOLTAGE [*4]	P	IN	1BC	IGT1 (IGNITION COIL NO.1)	V	OUT	1BZ	EXHAUST CMP	W/B	IN
1J	CONSTANT VOLTAGE (VREF) (MAP SENSOR)	GY	PWR	1AH	ECT	GY/B	IN	1BD	NOT USED	-	-	1CA	NOT USED	-	-
1K	CONSTANT VOLTAGE (VREF) (FUEL PRESSURE SENSOR)	P	PWR	1AI	GND (INTAKE CMP SENSOR, EXHAUST CMP SENSOR)	R/Y	GND	1BE	OIL PRESSURE	R/L	IN	1CB	A/F SENSOR HEATER CONTROL	G	OUT
1L	CONSTANT VOLTAGE (VREF) (TP SENSOR NO.1, TP SENSOR NO.2)	BR	PWR	1AJ	NOT USED	-	-	1BF	NEUTRAL POSITION (NEUTRAL SWITCH NO.1) [*2]	L/W	IN	1CC	NOT USED	-	-
1M	A/F	W	IN	1AK	ION (NO.3) (ION SENSOR NO.3)	L	IN	1BG	NOT USED	-	-	1CD	NOT USED	-	-
1N	GND (SENSOR SHIELD)	B	GND	1AL	ION (NO.1) (ION SENSOR NO.1)	W	IN	1BH	GND	L	GND	1CE	NOT USED	-	-
1O	TP (NO.1) (TP SENSOR NO.1)	R/Y	IN	1AM	NOT USED	-	-	1BI	IGT2 (IGNITION COIL NO.2)	L	OUT	1CF	NOT USED	-	-
1P	NOT USED	-	-	1AN	NOT USED	-	-	1BJ	NOT USED	-	-	1CG	NOT USED	-	-
1Q	IAT (NO.2) (IAT SENSOR NO.2)	L/Y	IN	1AO	NOT USED	-	-	1BK	NOT USED	-	-	1CH	NOT USED	-	-
1R	GND (TP SENSOR NO.1, TP SENSOR NO.2)	Y	GND	1AP	GND (CKP SENSOR)	L/Y	GND	1BL	NOT USED	-	-	1CI	NOT USED	-	-
1S	A/F	R	IN	1AQ	GENERATOR FIELD COIL CONTROL [*3]	GY/L	OUT	1BM	ELECTRIC VARIABLE VALVE TIMING MOTOR (ROTATION PULSE)	W/B	OUT	1CJ	NOT USED	-	-
1T	A/F	B	IN	1AR	GENERATOR OUTPUT VOLTAGE [*3]	P	IN	1BN	ELECTRIC VARIABLE VALVE TIMING MOTOR (ROTATION DIRECTION)	BR	OUT	1CK	ENGINE OIL CONTROL (ENGINE OIL SOLENOID VALVE)	L/R	OUT
1U	GND (SENSOR SHIELD)	B	GND	1AS	NOT USED	-	-	1BO	IGT3 (IGNITION COIL NO.3)	G	OUT	1CL	NOT USED	-	-
1V	TP (NO.2) (TP SENSOR NO.2)	L/Y	IN	1AT	GND (SENSOR SHIELD)	B/W	GND	1BP	GENERATOR FIELD COIL CONTROL [*4]	GY/L	OUT	1CM	NOT USED	-	-
1W	FUEL PRESSURE	G	IN					1BQ	NOT USED	-	-	1CN	NOT USED	-	-

1CO	HYDRAULIC VARIABLE VALVE TIMING CONTROL (OCV)	L/B	OUT
1CP	NOT USED	-	-
1CQ	DRIVE-BY-WIRE CONTROL (+) (THROTTLE VALVE ACTUATOR)	V	OUT
1CR	DRIVE-BY-WIRE CONTROL (-) (THROTTLE VALVE ACTUATOR)	L	OUT
1CS	NOT USED	-	-
1CT	NOT USED	-	-
1CU	FUEL INJECTION CONTROL (+) (FUEL INJECTOR NO.3)	P	OUT
1CV	FUEL INJECTION CONTROL (-) (FUEL INJECTOR NO.3)	L	OUT
1CW	NOT USED	-	-
1CX	NOT USED	-	-
1CY	FUEL INJECTION CONTROL (+) (FUEL INJECTOR NO.2)	BR	OUT
1CZ	FUEL INJECTION CONTROL (-) (FUEL INJECTOR NO.2)	G	OUT
1DA	NOT USED	-	-
1DB	NOT USED	-	-
1DC	FUEL INJECTION CONTROL (+) (FUEL INJECTOR NO.4)	P	OUT
1DD	FUEL INJECTION CONTROL (-) (FUEL INJECTOR NO.4)	L/Y	OUT
1DE	NOT USED	-	-
1DF	NOT USED	-	-
1DG	FUEL INJECTION CONTROL (+) (FUEL INJECTOR NO.1)	R	OUT
1DH	FUEL INJECTION CONTROL (-) (FUEL INJECTOR NO.1)	W	OUT
1DI	HIGH PRESSURE FUEL PUMP CONTROL (+)	W/L	OUT
1DJ	HIGH PRESSURE FUEL PUMP CONTROL (-)	G/Y	OUT

VERIFY ON CAR: RING OUT EVERY PIN AND CONFIRM WIRE COLOURS AGAINST THE CAR. MAZDA HARNESS COLOURS CHANGE BETWEEN SUB-YEAR BUILDS AND MARKETS.

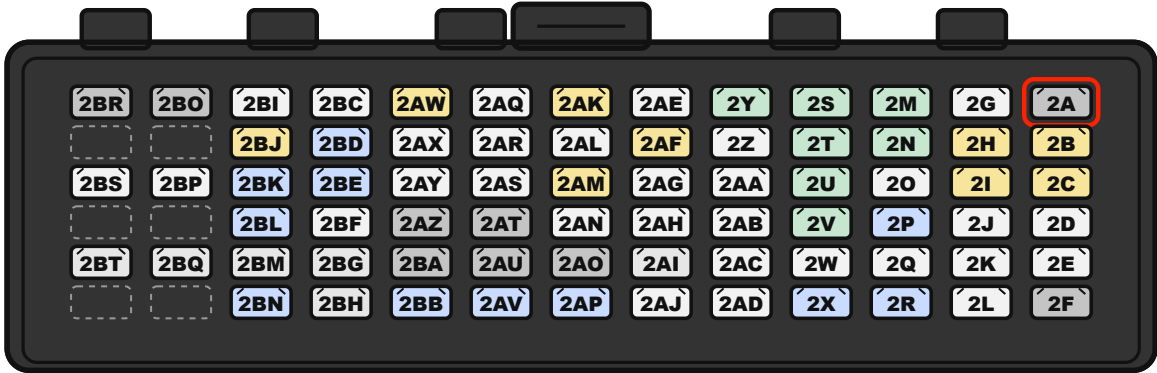
SOURCE: Functions from the Mazda MGSS PCM INSPECTION table SM3476130 (SKYACTIV-G 1.5 / 2.0): 186 terminals, 107 named, 79 dashed. Face read cell by cell off that document's own figure ac5wzw00010964, captioned WIRING HARNESS-SIDE CONNECTOR with Mazda's wire-side view icon, so no rotation and no mirror. Colours from the Mazda UK RHD CONTROL SYSTEM sheets WD605582 and WD827508 to WD827514, read as SVG text with coordinates rather than off a scan, corroborated by Autodata 1271438 + 1271440: 103 of 107 agree exactly. 2AU came off single-source 2026-09-10: Mazda draws that pin on WD827512 and prints two footnoted colours on the one wire, W(F)*30 and W(G/F)*31, so the W/G on this row is Mazda's value as well as Autodata's and the bare W is a market or equipment variant. That leaves 2A, 2B and 2F single-source, flagged on their rows. 2B is Autodata's BR/G, the Mazda label first matched to it belonging to the purge-solenoid block. 2BM reads ws on the Autodata A/T variant where its neighbours read sw, and both Mazda and the table call it a shield ground, so B stands. Footnotes: *1 A/T, *2 M/T, *3 with I-LOOP, *4 without, *5 with I-stop. Neither publisher declares a 1.5 versus 2.0 pin difference, so the split is by VIN. The PCM INSPECTION table read here is published on the VIN 650001 on carline, but Mazda's n140-1a (WD546117 / WD546946) covers VIN 300001-499999 and prints PCM pins 2BO and 2BR, which exist only on this 72-way connector, so the late PCM is fitted from VIN 300001. No source on disk gives a calendar year for that changeover, so this sheet states VIN ranges rather than model years. Not rung out on a car, no ND donor plug yet. FOJI internal reference, corroborated 2026-06. Original FOJI compilation, not reproduced from Mazda artwork.

PCM PINOUT · MK4 · ND2
CONNECTOR 2 (72-WAY) · 72-WAY (2A-2BT)

VIEW: LOOKING INTO THE ECU HEADER (SAME VIEW AS THE WIRE / BACK SIDE OF THE HARNESS PLUG) · THE PLUG'S MATING FACE READS MIRRORED

SKYACTIV-G 1.5 / 2.0 · VIN 300001 ON | MAZDA PCM (SM3476130) · 114-WAY + 72-WAY (186 TERMINALS) · ION SENSING · DBW · CAN

POWER GROUND TRIGGER (CKP/CMP) SENSOR IN DRIVER / OUTPUT COMMS / DIAG OTHER / BODY UNKNOWN / NC



FOJI SKETCH · PIN 2A RINGED (TOP-RIGHT) · KEYING INDICATIVE, CONFIRM ON PLUG

REAL CONNECTOR FACE (2 SECTIONS, 6 ROWS X 13 COLUMNS, 6 BLANKS), LOOKING INTO THE PCM HEADER, THE SAME VIEW AS THE WIRE/BACK SIDE OF THE HARNESS PLUG, MATCHING THE NA, NB AND NC SHEETS. LATE ND (VIN 650001-ON): 114-WAY + 72-WAY. LETTERS RUN DOWN EACH COLUMN FROM THE RIGHT-HAND END. PIN 1A IS TOP-RIGHT OF CONNECTOR 1 AND 2A IS TOP-RIGHT OF CONNECTOR 2 LARGE SECTION. CONNECTOR 1 IS A 4X9 HATCHED BLOCK PLUS TWO 6-ROW BLOCKS; CONNECTOR 2 IS A 2X3 BLOCK OF DOUBLE-HEIGHT POWER/GROUND CAVITIES PLUS A 6X11 BLOCK. FACE READ CELL BY CELL OFF THE FACTORY PCM INSPECTION FIGURE AC5WZW00010964 (SM3476130), CAPTIONED WIRING HARNESS-SIDE CONNECTOR WITH THE WIRE-SIDE VIEW ICON. NOT YET RUNG OUT ON A CAR.

PIN	FUNCTION	WIRE	I/O	PIN	FUNCTION	WIRE	I/O	PIN	FUNCTION	WIRE	I/O	PIN	FUNCTION	WIRE	I/O
2A	BATTERY VOLTAGE [1-SRC]	LG	PWR	2S	CAN_H (CAN SYSTEM RELATED MODULES)	BR	I/O	2AK	DC-DC CONVERTER (I-ELOOP) CONTROL *3	B	OUT	2BC	NOT USED	-	-
2B	MAIN RELAY CONTROL [1-SRC]	BR/G	OUT	2T	CAN_L (CAN SYSTEM RELATED MODULES)	SB	I/O	2AL	NOT USED	-	-	2BD	SELECTOR LEVER POSITION *1 (TR SWITCH, BCM)	GY	IN
2C	DC-DC CONVERTER (I-ELOOP) CONTROL [*3]	BE	OUT	2U	CAN_H (CAN SYSTEM RELATED MODULES)	LG	I/O	2AM	COOLING FAN CONTROL (COOLING FAN RELAY)	GY/R	OUT	2BE	INTAKE AIR (MAF SENSOR, IAT SENSOR NO.1)	BR/R	IN
2D	NOT USED	-	-	2V	CAN_L (CAN SYSTEM RELATED MODULES)	SB	I/O	2AN	NOT USED	-	-	2BF	NOT USED	-	-
2E	NOT USED	-	-	2W	NOT USED	-	-	2AO	CONSTANT VOLTAGE (VREF) (APP SENSOR NO.2)	SB	PWR	2BG	GND (APP SENSOR NO.2)	LG	GND
2F	IGNITION (IG1) (IG1 RELAY) [1-SRC]	W	PWR	2X	POWER BRAKE UNIT VACUUM (VACUUM SENSOR 2)	BR/G	IN	2AP	CLUTCH STROKE SENSOR [*2]	V	IN	2BH	GND (APP SENSOR NO.1)	V	GND
2G	NOT USED	-	-	2Y	LIN (CURRENT SENSOR) [*5]	GY	I/O	2AQ	NOT USED	-	-	2BI	NOT USED	-	-
2H	STARTER CUT-OFF CONTROL (STARTER RELAY, START STOP UNIT)	G/R	OUT	2Z	NOT USED	-	-	2AR	NOT USED	-	-	2BJ	HO2S HEATER CONTROL	P	OUT
2I	COOLING FAN CONTROL (FAN CONTROL MODULE)	L/G	OUT	2AA	NOT USED	-	-	2AS	NOT USED	-	-	2BK	HO2S (+)	BR	IN
2J	NOT USED	-	-	2AB	NOT USED	-	-	2AT	CONSTANT VOLTAGE (VREF) (MAF SENSOR, IAT SENSOR NO.1)	L	PWR	2BL	HO2S (-)	Y	IN
2K	NOT USED	-	-	2AC	NOT USED	-	-	2AU	CONSTANT VOLTAGE (VREF) (VACUUM SENSOR 2, CLUTCH STROKE SENSOR *2)	W/G	PWR	2BM	GND (SENSOR SHIELD)	B	GND
2L	NOT USED	-	-	2AD	NOT USED	-	-	2AV	REFRIGERANT PRESSURE	L/R	IN	2BN	APP (NO.1) (APP SENSOR NO.1)	B	IN
2M	CAN_H (CAN SYSTEM RELATED MODULES)	P	I/O	2AE	NOT USED	-	-	2AW	FUEL PUMP CONTROL (FUEL PUMP RELAY)	P	OUT	2BO	MAIN POWER SUPPLY (MAIN RELAY)	W/B	PWR
2N	CAN_L (CAN SYSTEM RELATED MODULES)	G	I/O	2AF	A/C CUT-OFF CONTROL (A/C RELAY)	V/G	OUT	2AX	NOT USED	-	-	2BP	NOT USED	-	-
2O	NOT USED	-	-	2AG	NOT USED	-	-	2AY	NOT USED	-	-	2BQ	GND	B	GND
2P	BRAKE (NO.2) (BRAKE SWITCH (NO.2 SIGNAL))	W	IN	2AH	NOT USED	-	-	2AZ	CONSTANT VOLTAGE (VREF) (REFRIGERANT PRESSURE SENSOR)	BE	PWR	2BR	MAIN POWER SUPPLY (MAIN RELAY)	W/B	PWR
2Q	NOT USED	-	-	2AI	GND	R	GND	2BA	CONSTANT VOLTAGE (VREF) (APP SENSOR NO.1)	G	PWR	2BS	NOT USED	-	-
2R	AMBIENT TEMPERATURE	L	IN	2AJ	NOT USED	-	-	2BB	APP (NO.2) (APP SENSOR NO.2)	W/B	IN	2BT	GND	B	GND

VERIFY ON CAR: RING OUT EVERY PIN AND CONFIRM WIRE COLOURS AGAINST THE CAR. MAZDA HARNESS COLOURS CHANGE BETWEEN SUB-YEAR BUILDS AND MARKETS.

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