
BRAKES

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Abbreviations

AAS	Active Adaptive Shift
ABS	Antilock Brake System
ABDC	After Bottom Dead Center
ACC	Accessories
ALC	Auto Level Control
ALR	Automatic Locking Retractor
ATDC	After Top Dead Center
ATF	Automatic Transaxle Fluid
ATX	Automatic Transaxle
BBDC	Before Bottom Dead Center
BDC	Bottom Dead Center
BTDC	Before Top Dead Center
CAN	Controller Area Network
CCM	Comprehensive Component Monitor
CKP	Crankshaft Position
CM	Control Module
CMDTC	Continuous Memory Diagnostic Trouble Code
CMP	Camshaft Position
CPU	Central Processing Unit
DC	Drive Cycle
DEF	Defroster
DSC	Dynamic Stability Control
EBD	Electronic Brakeforce Distribution
EEPROM	Electrically Erasable Programmable Read-Only Memory
ELR	Emergency Locking Retractor
EPS	Electric Power Steering
ESS	Emergency Stop signal System
EX	Exhaust
FBCM	Front Body Control Module
FSC	Forward Sensing Camera
GPS	Global Positioning System
HBC	High Beam Control
HF/TEL	Hands-Free Telephone
HI	High
HS	High Speed
HU	Hydraulic Unit
IDEVA	Intake stroke EGR using Double Exhaust Valve Actuation system
IDS	Integrated Diagnostic Software
IG	Ignition
IN	Intake
INT	Intermittent
KOEO	Key On Engine Off
KOER	Key Off Engine Running
LCD	Liquid Crystal Display
LDWS	Lane Departure Warning System
LED	Light Emitting Diode
LF	Left Front
LH	Left Hand
L.H.D.	Left Hand Drive
LO	Low
LR	Left Rear
M	Motor
MAX	Maximum
MIN	Minimum
MS	Middle speed
MTX	Manual Transaxle
NVH	Noise, Vibration, Harshness
OCV	Oil Control Valve
ODDTC	On-demand Diagnostic Trouble Code
PAD	Passenger Air Bag Deactivation

PCV	Positive Crankcase Ventilation
PDS	Portable Diagnostic Software
PID	Parameter Identification
POWER MOS FET	Power Metal Oxide Semiconductor Field Effect Transistor
PSD	Power Sliding Door
P/W CM	Power Window Control Module
PTC	Positive Temperature Coefficient
RBCM	Rear Body Control Module
RDS	Radio Data System
REC	Recirculate
RES	Rear Entertainment System
RF	Right Front
RH	Right Hand
R.H.D.	Right Hand Drive
RR	Right Rear
SAS	Sophisticated Air Bag Sensor
SST	Special Service Tool
SW	Switch
TCS	Traction Control System
TDC	Top Dead Center
TFT	Transaxle Fluid Temperature
TNS	Tail Number Side Lights
TPMS	Tire Pressure Monitoring System
USB	Universal Serial Bus
VBC	Variable Boost Control
VENT	Ventilation
W/M	Workshop Manual
1GR	First Gear
2GR	Second Gear
2WD	2-Wheel Drive
3GR	Third Gear
4GR	Fourth Gear
4WD	4-Wheel Drive
5GR	Fifth Gear
6GR	Sixth Gear

Features

Improved safety	<ul style="list-style-type: none"> • Intrusion minimizing brake pedal adopted • ABS adopted • Electronic brakeforce distribution (EBD) control adopted • Dynamic stability control (DSC) adopted • Roll over mitigation (ROM) adopted • Electrical brake assist control adopted • Vehicle roll prevention function adopted (ATX) • Hill launch assist (HLA) adopted • Tire pressure monitoring system (TPMS) adopted • Smart city brake support (SCBS) adopted (vehicles with smart city brake support (SCBS)) • Secondary collision reduction (SCR) adopted
Improved braking force	<ul style="list-style-type: none"> • Large diameter front disc brakes adopted • Large diameter rear disc brakes adopted • A vacuum pump adopted
Improved serviceability	<ul style="list-style-type: none"> • Enhanced malfunction diagnosis system for use with Mazda Modular Diagnostic System (M-MDS) • Center lever type parking brake, adjustable from vehicle interior, adopted
Size and weight reduction	<ul style="list-style-type: none"> • Integrated construction of the hydraulic unit (HU) and control module (CM) adopted for the DSC HU/CM
Improved brake pedal operability	<ul style="list-style-type: none"> • A master cylinder with smaller diameter long-stroke type has been adopted

Improved reliability	<ul style="list-style-type: none"> • Semi-conductor element type ABS wheel-speed sensor adopted • Magnetic encoder type ABS sensor rotor adopted • DSC HU/CM with built-in brake fluid pressure sensor • Receives the DSC control signal from the sophisticated air bag sensor (SAS) control module instead of the conventional combined sensor
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Specifications

Item		Specification
Brake pedal	Type	Suspended design
	Pedal lever ratio	2.79
	Max. stroke (mm {in})	132.7 {5.224}
Master cylinder	Type	Tandem
	Cylinder bore (mm {in})	20.64 {0.8126}
Front brake (disc)	Type	Ventilated disc
	Cylinder bore (mm {in})	60.3 {2.37}
	Pad dimensions (area x thickness) (mm ² x mm {in ² x in})	European (L.H.D. U.K.) specs.: 5,890 × 10 {9.130 × 0.39} Australian, China, and General (L.H.D. R.H.D.) specs.: 6,000 × 10 {9.300 × 0.39}
	Disc plate dimensions (mm {in})	297 × 28 {11.7 × 1.1}
Rear brake (disc)	Type	Solid disc
	Cylinder bore (mm {in})	38.1 {1.50}
	Pad dimensions (area x thickness) (mm ² x mm {in ² x in})	2,800 × 8.5 {4.340 × 0.33}
	Disc plate dimensions (mm {in})	303 × 10 {11.9 × 0.39}
Power brake unit	Type	Vacuum multiplier, single diaphragm
	Outer diameter (mm {in})	248.5 {9.783}
Rear wheel braking force control device	Type	Electronic brakeforce distribution (EBD)
Brake piping	Piping layout	X pattern
Parking brake	Type	Mechanical design, rear two-wheel braking
	Operating method (application/release)	Manually operated lever design
	Play adjustment method	Auto-adjusting
Brake fluid	Type	European (L.H.D. U.K.) specs.: SAE J1703 or FMVSS116 DOT-3 or DOT-4 Australian, China, and General (L.H.D. R.H.D.) specs.: SAE J1703 or FMVSS116 DOT-3