



M315 GC

Wheeled Excavator

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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M315 GC Wheeled Excavator Specifications

Engine

Engine Model	Cat® C4.4	
Gross Power		
ISO 14396	110.0 kW	148 hp
Net Power		
ISO 9249	104 kW	139 hp
Bore	105 mm	4.0 in
Stroke	127 mm	5.0 in
Displacement	4.4 L	268.5 in³
Number of Cylinders	4	

- Meets China Nonroad Stage IV emission standards.
- Net power advertised is the power available at the flywheel when engine is equipped with air cleaner, CEM exhaust gas aftertreatment, alternator, and cooling fan running at intermediate speed.
- Recommended for use up to 3000 m (9,843 ft) altitude with engine power derate above 3000 m (9,843 ft).
- Rated speed 2,000 rpm.
- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

***Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

Transmission

Forward/Reverse		
1st Gear	9 km/h	6.0 mph
2nd Gear	37 km/h	23.0 mph
Creeper Speed		
1st Gear	6.0 km/h	3.0 mph
2nd Gear	15 km/h	9.0 mph
Drawbar Pull	73 kN	23,380 lbf
Maximum Gradeability at (14 000 kg/30,865 lb)	60%	

Service Refill Capacities

Fuel Tank (total capacity)	250 L	66.0 gal
Cooling System	23 L	6.1 gal
Engine Oil	15 L	4.0 gal
Hydraulic Tank	98 L	25.9 gal
Hydraulic System (including tank)	230 L	61 gal
Rear Axle Housing (differential)	11 L	2.9 gal
Front Steering Axle (differential)	9.0 L	2.4 gal
Final Drive (each)	2.0 L	0.5 gal
Powershift Transmission	3.0 L	0.8 gal

Swing Mechanism

Maximum Swing Speed	11.5 rpm	
Maximum Swing Torque	34 kN	25,234 lbf-ft

Undercarriage

Ground Clearance	360 mm	14.2 in
Maximum Steering Angle	35°	
Oscillation Axle Angle	± 9°	
Minimum Turning Radius		
Outside of Tire	6750 mm	22.1 ft
End of One-Piece Boom	7950 mm	26.1 ft

Machine Weights*

Operating Weight	14 150 kg	31,195 lb
Typical configurations:		
One-Piece Boom **		
Rear Blade Only	14 150 kg	31,195 lb

*Operating weight includes full fuel tank, operator, GD bucket and dual pneumatic tires. Weight varies depending on configuration.

**Typical configurations include 2.2 m (7'3") stick and 2600 kg (5,732 lb) counterweight.

Major Component Weights

Boom		
4.4 m (14'5") One-Piece Boom	1112 kg	2,450 lb
Stick (including cylinder, bucket linkage, pins and standard hydraulic lines):		
2.2 m (7'3") Stick	633 kg	1,400 lb
Counterweight:		
2600 kg (5,730 lb) Counterweight	2600 kg	5,730 lb
Undercarriage (including axles, standard tires and steps):		
Rear Blade (parallel)	4299 kg	9,480 lb
Bucket:		
Pin-On Bucket	499 kg	1,100 lb
Quick Coupler:		
Pin Grabber Quick Coupler	187 kg	410 lb

M315 GC Wheeled Excavator Specifications

Hydraulic System

Maximum Pressure – Implement Circuit		
Normal	35 000 kPa	5,076 psi
Travel Circuit	35 000 kPa	5,076 psi
Maximum Pressure – Auxiliary Circuit		
High Pressure	35 000 kPa	5,076 psi
Swing Mechanism	25 900 kPa	3,756 psi
Maximum Flow		
Implements	245 L/min	65 gal/min
Travel Circuit	180 L/min	48 gal/min
Auxiliary Circuit		
High Pressure	100 L/min	26.4 gal/min
Swing Mechanism	122 L/min	32.2 gal/min
Cylinders		
Boom Cylinder (one-piece) – Bore	105 mm	0'4"
Boom Cylinder (one-piece) – Stroke	932 mm	3'1"
Stick Cylinder – Bore	115 mm	0'5"
Stick Cylinder – Stroke	1147 mm	3'9"
Bucket Cylinder – Bore	95 mm	0'4"
Bucket Cylinder – Stroke	939 mm	3'1"

Tires

Standard	10.00-20 (Dual Pneumatic)
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Dozer Blade

Blade Type	Parallel	
Width	2490 mm	8'2"
Blade Roll-Over Height	583 mm	1'11"
Blade Total Height	610 mm	2'0"
Maximum Lowering Depth From Ground	108 mm	0'4"
Maximum Raising Height Above Ground	475 mm	1'7"

Vibration Levels

Maximum Hand/Arm (ISO 5349-2001)	<2.5 m/s ²
Maximum Whole Body (ISO/TR 25398:2006)	<0.5 m/s ²
Seat Transmissibility Factor (ISO 7096:2020-spectral class EM6)	<0.7

Standards

Brakes	ISO 3450:2011
Cab/Operator Protective Guards (OPG) (optional)	ISO 10262:1998, SAE J1356:2022 and GB/T 19932-2005
Cab/Sound Levels	Meets appropriate standards as listed below
Cab/Rollover Protective Structure (ROPS)	ISO 12117-2:2008

Sound Performance

GB/T 25614-2010 (external)	71 dB(A)
GB/T 25615-2010 (inside cab)	102 dB(A)

- External Sound – The labeled spectator sound power level represents the Guaranteed Value per 2000/14/EC amended by 2005/88/EC, when properly equipped, and is measured according to the test procedures and conditions specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Internal Sound – The operator sound pressure level is measured according to the test procedures and conditions specified in ISO 6396:2008 for a cab offered by Caterpillar, when properly installed and maintained and tested with the door and windows closed. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/windows open) for extended periods or in noisy environment(s).

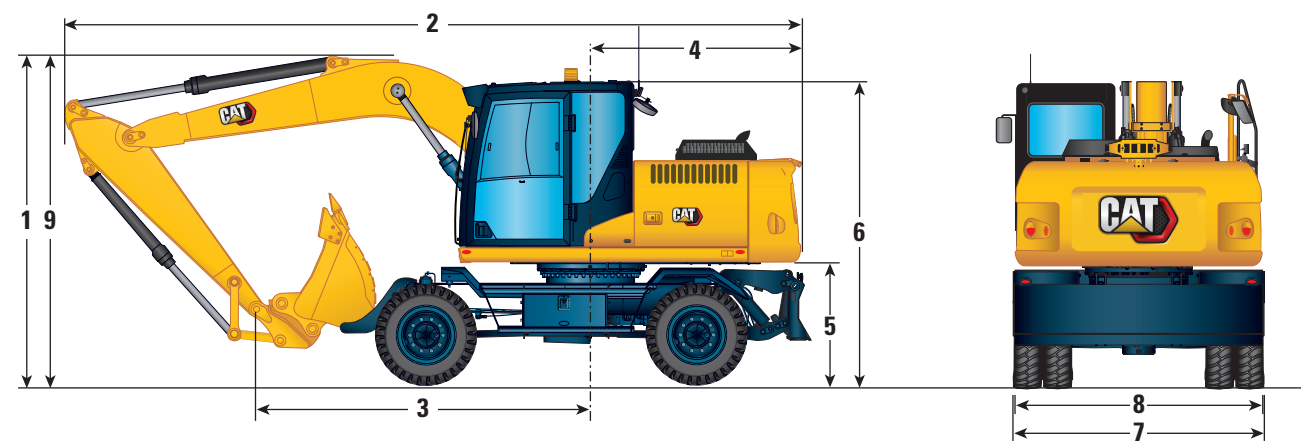
Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.85 kg of refrigerant, which has a CO₂ equivalent of 1.216 metric tonnes.

M315 GC Wheeled Excavator Specifications

Dimensions

All Dimensions are approximate. Values are with 10.00-20 Dual Pneumatic Tires.



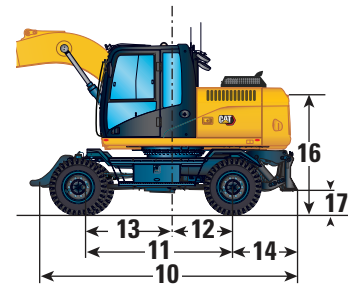
Boom Option	One-Piece Boom	
	4.4 m (14'5")	
Stick Options	2.2 m (7'3")	
1 Shipping Height with OPG (highest point between Boom and Cab)	3250 mm	10'8"
2 Shipping Length	7920 mm	26'0"
3 Support Point	2414 mm	7'11"
4 Tail Swing Radius	2190 mm	7'2"
5 Counterweight Clearance	1264 mm	4'2"
6 Cab Height		
No OPG	3135 mm	10'3"
With OPG	3250 mm	10'8"
7 Machine Width with Blade with 10.00-20 tires	2550 mm	8'3"
8 Upperframe Width	2490 mm	8'2"
9 Height in Rooding Position	3675 mm	12'1"

M315 GC Wheeled Excavator Specifications

Undercarriage Dimensions

All Dimensions are approximate. Values are with 10.00-20 Dual Pneumatic Tires.

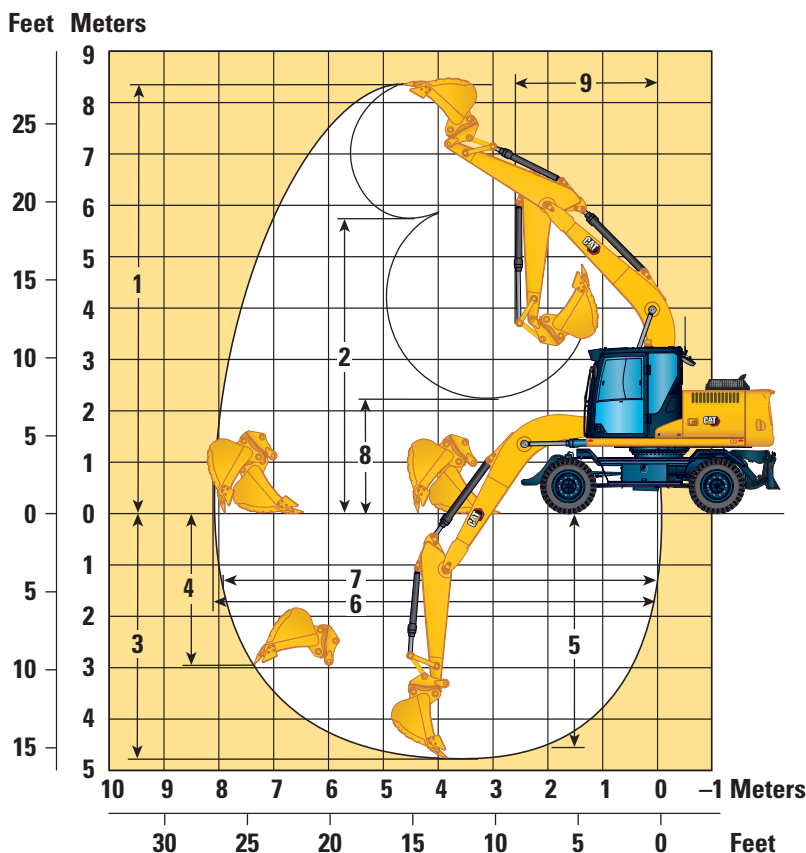
Undercarriage	Rear Blade – Parallel	
10 Overall Undercarriage Length	4846 mm	15'11"
11 Wheel Base	2800 mm	9'2"
12 Swing Bearing Center to Rear Axle	1100 mm	3'7"
13 Swing Bearing Center to Front Axle	1700 mm	5'7"
14 Rear Axle to Parallel Blade (end)	1168 mm	3'10"
15 Blade Width	2490 mm	8'2"
Maximum Blade Depth Below Ground	108 mm	0'4"
Ground Clearance		
16 Enclosure Height (doors)	2535 mm	8'4"
17 Blade Clearance (parallel)	474 mm	1'7"
18 Axle Clearance	360 mm	1'2"



M315 GC Wheeled Excavator Specifications

Working Ranges

All Dimensions are approximate. Values are with 10.00-20 Dual Pneumatic Tires.



Boom Option		One-Piece Boom			
		4.4 m (14'5")			
Stick Options		2.2 m (7'3")			
Pin Grabber Quick Coupler		No		Yes	
1 Maximum Cutting Height		8254 mm	27'1"	8392 mm	27'6"
2 Maximum Loading Height		5892 mm	19'4"	5722 mm	18'9"
3 Maximum Digging Depth		4624 mm	15'2"	4795 mm	15'9"
4 Maximum Vertical Wall Digging Depth		3777 mm	12'5"	2962 mm	9'9"
5 Maximum Depth Cut for 2440 mm (8 ft) Level Bottom		4361 mm	14'4"	4556 mm	14'11"
6 Maximum Reach		7941 mm	26'1"	8112 mm	26'7"
7 Maximum Reach at Ground Line		7739 mm	25'5"	7914 mm	26'0"
8 Minimum Loading Height		2394 mm	7'10"	2223 mm	7'4"
9 Minimum Front Swing Radius		2600 mm	8'6"	2600 mm	8'6"
Bucket Forces (ISO)		98 kN	22,031 lbf	83 kN	18,659 lbf
Stick Forces (ISO)		73 kN	16,411 lbf	69 kN	15,512 lbf
Bucket Type		GD		GD	
Bucket Capacity		0.65 m ³	0.85 yd ³	0.65 m ³	0.85 yd ³
Bucket Tip Radius (Pin-On)		1225 mm	4'0"	—	—
Bucket Tip Radius (QC)		—	—	1395 mm	4'7"

Range values are with dual pneumatic tires (10.00-20).

M315 GC Wheeled Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	Free on wheels	Rear dozer lowered
		mm	in	m³	yd³	kg	lb	%		
Pin-On (No Quick Coupler)									One Piece Boom	
									R2.2 (7'3")	
General Duty	312	1050	41.3	0.65	0.85	490	1,080	100	●	●
Utility Duty	312	450	17.7	0.20	0.26	291	642	100	●	●
Maximum load with pin-on (payload + bucket)								kg	2233	2305
								lb	4,923	5,082
With Pin Grabber Coupler									One Piece Boom	
									R2.2 (7'3")	
General Duty	312	1050	41.3	0.65	0.85	549	1,211	100	●	●
Utility Duty	312	450	17.7	0.20	0.26	291	642	100	●	●
Maximum load with coupler (payload + bucket)								kg	2026	2098
								lb	4,467	4,626

The above loads are in compliance with hydraulic excavator standard EN474-5:2006+A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Maximum Material Density:

● 2100 kg/m³ (3,500 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

M315 GC Wheeled Excavator Specifications

Attachments Offering Guide

Not all Attachments are available in all regions. Consult your Cat dealer for configurations available in your region.

☒ Match

PIN-ON ATTACHMENTS

Boom Type		One Piece Boom
Stick Length		2.2 m (7'3")
Hydraulic Hammers	H100 Side Mount	✓
	H110 GC	✓
	H110 GC Side Mount	✓
	H110 GC S	✓
	H110 S	✓
	H115 GC	✓
	H115 GC Side Mount	✓
	H115 GC S	✓
	H115 S	✓
Compactors (Vibratory Plate)	CVP75	✓

M315 GC Standard and Optional Equipment

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
BOOM, STICKS AND LINKAGES			SAFETY AND SECURITY		
4.4 m (14'5") One-piece boom	✓		Rear-view camera	✓	
2.2 m (7'3") stick	✓		Right-side-view camera		✓
Bucket linkage, 312-family without lifting eye	✓		Travel alarm		✓
ELECTRICAL SYSTEM			Signal/warning horn	✓	
LED lights on boom and cab	✓		Rotating beacon on cab and chassis		✓
LED lights on chassis (right-hand-side)		✓	Cat Asset tracker		✓
Roading and indicator lights, front and rear	✓		Neutral lever (lock out) for all controls	✓	
Maintenance free batteries	✓		Ground-level accessible secondary engine shutoff switch in cab	✓	
Centralized electrical disconnect switch	✓		Anti-skid plate and countersunk bolts on service platform	✓	
Electrical refueling pump		✓	SERVICE AND MAINTENANCE		
ENGINE			Scheduled Oil Sampling (S·O·S SM) ports	✓	
Cat® C4.4 Single Turbo diesel engine	✓		TECHNOLOGY		
Power mode selector	✓		Cat Product Link™	✓	
One-touch low idle with automatic engine speed control	✓		UNDERCARRIAGE AND STRUCTURES		
Automatic idle shutdown	✓		All wheel drive	✓	
Work up to 3000 m (9,840 ft) altitude capability above sea level without engine power de-rating	✓		Automatic brake/axle lock	✓	
52° C (125° F) high-ambient cooling capacity	✓		Creeper speed	✓	
Cold starting capability for -18° C (0° F)		✓	Electronic swing and travel lock	✓	
Cold starting capability for -25° C (-13° F)		✓	Heavy-duty axles, advanced disc brake system and travel motor, adjustable braking force	✓	
Double element air filter with integrated pre-cleaner	✓		Oscillating front axle, lockable, with remote greasing point	✓	
Electric fuel priming pump	✓		10.00-20 16 PR, dual tires	✓	
Biodiesel capability up to B20	✓		Steps with left-hand tool box in undercarriage	✓	
HYDRAULIC SYSTEM			Two-piece drive shaft	✓	
Boom, stick and bucket drift reduction valves	✓		Two speed hydrostatic transmission	✓	
Electronic main control valve	✓		Rear blade undercarriage with bucket rest	✓	
Element type main hydraulic filter	✓		Fenders, front and rear, steel	✓	
1-slider joystick		✓	2600 kg (5,730 lb) counterweight	✓	
3-button joystick		✓	Drive shaft guard		✓
Advanced Tool Control (one/two way high-pressure flow with drift reduction)		✓	Radiator screen		✓
Quick coupler circuit for Cat Pin Grabber and CW dedicated		✓			
Automatic swing brake	✓				
Adjustable hydraulic aggressiveness	✓				

M315 GC Attachments

Dealer Installed Kits and Attachments

Attachments may vary. Consult your Cat dealer for details.

GUARDS

- Operator Protective Guards (not compatible with rain protector)

Cab Options

	Comfort
Sound suppressed ROPS cab	●
Mechanical suspension seat	●
High-resolution 203 mm (8") LCD touchscreen monitor	●
Automatic bi-level air conditioner	●
Keyless push-to-start engine control	●
51 mm seat belt	●
Bluetooth® integrated radio with USB ports and speakers	○
Two 12V DC outlets	●
Cup and bottle holders	●
Openable two-piece front window (tempered)	●
Openable steel hatch	●
LED dome lights	●
Rear window emergency exit	●
Washable floor mat	●
Beacon ready	●
OPG ready	●
LED cab lights	●
Rainvisor	○

● Standard

○ Optional

M315 GC Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

Engine

- The M315 GC meets China Nonroad Stage IV emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

***Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.85 kg (1.87 lb) of refrigerant which has a CO₂ equivalent of 1.216 metric tonnes (1.340 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

Sound Performance

GB/T 25614-2010 (external)	71 dB(A)
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GB/T 25615-2010 (inside cab)	102 dB(A)
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- External Sound – The labeled spectator sound power level represents the Guaranteed Value per 2000/14/EC amended by 2005/88/EC, when properly equipped, and is measured according to the test procedures and conditions specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Internal Sound – The operator sound pressure level is measured according to the test procedures and conditions specified in ISO 6396:2008 for a cab offered by Caterpillar, when properly installed and maintained and tested with the door and windows closed. The measurements were conducted at 70% of the maximum engine cooling fan speed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/windows open) for extended periods or in noisy environment(s).

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.

- Advanced hydraulic systems balance power and efficiency
- ECO mode minimizes fuel consumption for light applications
- One-touch low idle with automatic engine speed control
- Extended maintenance intervals reduce fluid and filter consumption

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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AEXQ3522-02 (01-2024)
Replaces AEXQ3522-01
Build Number: 05C
(China)

