



Cat[®] 920

COMPACT WHEEL LOADER

FEATURES:

- **Cat[®] C3.6 Engine** – Meets EU Stage V and U.S. EPA Tier 4 Final emission standards.
- **Cat Optimized Z-bar Loader Linkage** – The Cat Optimized Z-bar Loader linkage combines the digging efficiency of a traditional Z-bar with tool carrier capabilities for great performance and versatility. With parallel lift and high tilt forces throughout the working range you can safely and confidently handle loads with precise control. A High Lift option is available to extend both reach and dump clearance for more demanding tasks.
- **Work Tools** – The 920 features the Cat exclusive, Performance Series Buckets, as well as high visibility pallet forks. These tools enhance productivity and are available with either an Integrated Toolcarrier (IT), ISO (wide) or Fusion™ interface coupler style. Legacy coupler tools such as brooms, grapple buckets, multi-purpose buckets and other work tools remain compatible.
- **Hydraulics and Controls** – State of the art electro-hydraulic system provides low effort, fine control with fast cycle times. All-in-one joystick helps keep eyes on the work. Operator can adjust machine responsiveness with the push of a button, which allows the operator to set up the machine exactly the way they want it based on the application. High Flow option allows for the use of even the most demanding work tools.
- **Tuned Drivetrain** – Smooth shifting and powerful acceleration is matched with modulated hydrostatic braking in the inching/braking pedal, creating a rhythm for material moving. Creeper and electronic engine speed control makes broom and snow blower work easy. Operator tunes between smooth or aggressive shifting with the push of a button.
- **Cab** – All around visibility is further enhanced with the availability of a rearview camera. The deluxe cab ensures operator comfort with a heated, air suspension seat and easy to use controls. Available features such as Implement and Hystat Aggressiveness, Ride Control, Lift and Tilt Kickouts, Fork/Bucket Mode and Rimpull Control allow the operator to customize the machine via a soft touch keypad.
- **Serviceability** – Extended service intervals and excellent service access make daily checks quick and easy allowing you to get to work sooner.
- **Efficiently Powerful** with its high full turn tipping loads, powerful breakout forces and increased engine power delivers a balanced solution for all customer applications.
- **Standard Fuel Savings Features** such as Eco Mode, On Demand Cooling Fan, and Auto Engine Idle Shutdown make the 920 both powerful and fuel efficient.

Specifications

Engine

Engine Model	Cat [®] C3.6	
Maximum Gross Power:		
Maximum Engine Speed	2,350 RPM	
SAE J1995	92 kW	123 hp
ISO 14396	90 kW	121 hp
ISO 14396 (DIN)	90 kW	122 hp
Rated Net Power:		
Rated Engine Speed	2,200 RPM	
SAE J1349	90 kW	120 hp
ISO 9249	88 kW	118 hp
ISO 9249 (DIN)	88 kW	120 hp
Displacement	3.6 L	220 in ³
Bore	98 mm	3.86 in
Stroke	120 mm	4.72 in

Engine (continued)

Maximum Gross Torque:		
SAE J1995	505 N-m	372 lbf-ft
ISO 14396	500 N-m	369 lbf-ft
Maximum Net Torque:		
SAE J1349	496 N-m	366 lbf-ft
ISO 9249	493 N-m	363 lbf-ft

- Engine meets Tier 4 Final/Stage V emission standards.
- Net power advertised is the power available at the flywheel plus front drive implement pump when the engine is equipped with fan, air cleaner, muffler and alternator.



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Buckets

Bucket Capacities – General Purpose	1.3-1.9 m ³	1.7-2.5 yd ³
Bucket Capacities – Light Material	2.5-3.5 m ³	3.3-4.6 yd ³

Steering

Steering Articulation Angle (each direction)	40 degrees	
Maximum Flow – Steering Pump	82 L/min	21.7 gal/min
Maximum Working Pressure – Steering Pump	22 000 kPa	3,190 psi
Steering Cycle Times (full left to full right): At 2,350 RPM: 90 RPM steering wheel speed	2.3 seconds	
Number of Steering Wheel Turns – full left to full right or full right to full left	3.4 turns	

Loader Hydraulic System

Maximum Flow – Implement Pump	165 L/min	43.6 gal/min
3rd Function, Maximum Flow, Standard	95 L/min	25 gal/min
3rd Function, Maximum Flow, High	150 L/min	40 gal/min
4th Function, Maximum Flow	95 L/min	25 gal/min
Maximum Working Pressure – Implement Pump	28 000 kPa	4,061 psi
Relief Pressure – Tilt Cylinder	32 000 kPa	4,641 psi
3rd Function Relief Pressure	32 000 kPa	4,641 psi
4th Function Relief Pressure	32 000 kPa	4,641 psi

Hydraulic Cycle Times:

Raise (ground level to maximum lift)	4.8 seconds
Dump (at maximum reach)	1.8 seconds
Rack Back	2.2 seconds
Float Down (maximum lift to ground level)	2.7 seconds
Total Cycle Time	11.5 seconds

Note: All cycle times listed are with cylinder snubbing turned off.

Service Refill Capacities

Fuel Tank	165 L	43.6 gal
Cooling System	21.5 L	5.7 gal
Engine Crankcase	10 L	2.6 gal
Axles:		
Front	17 L	4.5 gal
Rear	17 L	4.5 gal
Hydraulic System (including tank)	98 L	25.9 gal
Hydraulic Tank	55 L	14.5 gal
Transmission	3.2 L	0.8 gal
Diesel Exhaust Fluid (DEF) Tank	18 L	4.8 gal

- DEF used in Cat Selective Catalyst Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241-1.

Transmission

Forward and Reverse:		
Speed Range 1*	10 km/h	6.3 mph
Speed Range 2	20 km/h	12.5 mph
Speed Range 3	40 km/h	25 mph

*Creeper Control allows speed control from a stand still up to 10 km/h (6.3 mph). The Creeper Control will only work in Range 1.

Axles

Front	Fixed Locking differential (standard)
Rear	Oscillating ±11 degrees Locking differential (standard)

Cab

ROPS	ISO 3471:2008
FOPS	ISO 3449:2005

- Cab and Rollover Protective Structures (ROPS) are standard in North America and Europe.

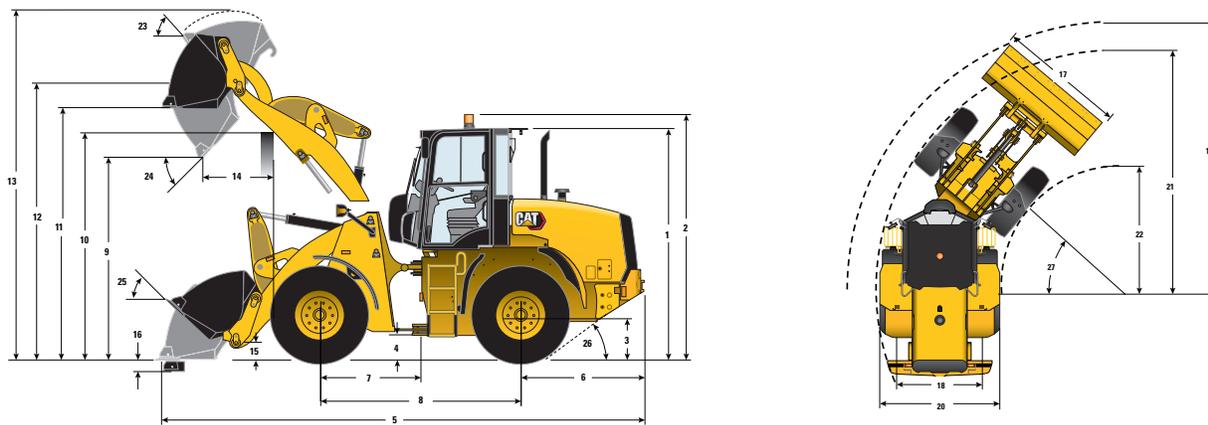
Tires

Standard Size	17.5 R25 L2 XTLA
Other Choices Include:	17.5 R25 L3 XHA2 20.5 R25 L3 XHA3 17.5-25 L2/L3 SGL 20.5-25 L2/L3 SGL 17.5-25 L3 HRL D/L-3A 17.5 R25 L2 Snow 20.5 R25 L2 Snow 17.5 R25 Solid

- Other tire choices are available. Contact your Cat dealer for details.
- In certain applications, the loader's productive capabilities may exceed the tire's tonnes-km/h (ton-mph) capabilities.
- Caterpillar recommends that you consult a tire supplier to evaluate all conditions before selecting a tire model.

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Dimensions and Operating Specifications (All dimensions are approximate. Dimensions vary with bucket and tire choice.)



	Standard Lift – IT		Standard Lift – ISO		Standard Lift – Pin On		Standard Lift – Fusion		Standard Lift – Fusion	
Bucket @100% fill factor used for below data	1.7 m ³	2.2 yd ³	1.7 m ³	2.2 yd ³	1.8 m ³	2.4 yd ³	1.7 m ³	2.2 yd ³	1.7 m ³	2.2 yd ³
Tire used for below data	17.5 R25 L2 XTLA		17.5 R25 L2 XTLA		17.5 R25 L2 XTLA		17.5 R25 L2 XTLA		20.5 R25 L3 XHA2	
** 1 Height: Ground to Cab	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3155 mm	10'4"
** 2 Height: Ground to Beacon	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3345 mm	10'11"
** 3 Height: Ground Axle Center	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	685 mm	2'3"
** 4 Height: Ground Clearance	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	483 mm	1'7"
* 5 Length: Overall	6700 mm	21'11"	6756 mm	22'1"	6631 mm	21'9"	6877 mm	22'6"	6901 mm	22'7"
6 Length: Rear Axle to Bumper	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"
7 Length: Hitch to Front Axle	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"
8 Length: Wheel Base	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"
* 9 Clearance: Bucket at 45 degrees	2838 mm	9'3"	2800 mm	9'2"	2882 mm	9'5"	2708 mm	8'10"	2749 mm	9'0"
** 10 Clearance: Load over Height	3381 mm	11'1"	3381 mm	11'1"	3381 mm	11'1"	3381 mm	11'1"	3474 mm	11'5"
** 11 Clearance: Level Bucket	3562 mm	11'8"	3562 mm	11'8"	3563 mm	11'8"	3493 mm	11'5"	3586 mm	11'9"
** 12 Height: Bucket Pin	3818 mm	12'6"	3818 mm	12'6"	3818 mm	12'6"	3818 mm	12'6"	3911 mm	12'10"
** 13 Height: Overall	4847 mm	15'10"	4882 mm	16'0"	4825 mm	15'9"	4857 mm	15'11"	4950 mm	16'3"
* 14 Reach: Bucket at 45 degrees	933 mm	3'0"	974 mm	3'2"	881 mm	2'10"	972 mm	3'2"	898 mm	2'11"
15 Carry Height: Bucket Pin	353 mm	1'1"	345 mm	1'1"	353 mm	1'1"	355 mm	1'1"	448 mm	1'5"
** 16 Dig Depth	60 mm	2.3"	61 mm	2.4"	60 mm	2.3"	131 mm	5.1"	86 mm	3.3"
17 Width: Bucket	2401 mm	7'10"	2401 mm	7'10"	2401 mm	7'10"	2450 mm	8'0"	2450 mm	8'0"
18 Width: Tread Center	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"
19 Turning Radius: Over Bucket	5410 mm	17'8"	5425 mm	17'9"	5390 mm	17'8"	5506 mm	18'0"	5506 mm	18'0"
20 Width: Over Tires	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2289 mm	7'5"
21 Turning Radius: Outside of Tires	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4891 mm	16'1"
22 Turning Radius: Inside of Tires	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2524 mm	8'2"
23 Rack Angle at Full Lift	55 degrees		55 degrees		55 degrees		56 degrees		56 degrees	
24 Dump Angle at Full Lift	47 degrees		47 degrees		47 degrees		46 degrees		46 degrees	
25 Rack Angle at Carry	44 degrees		44 degrees		44 degrees		45 degrees		45 degrees	
26 Departure Angle	33 degrees		33 degrees		33 degrees		25 degrees		25 degrees	
27 Articulation Angle	40 degrees		40 degrees		40 degrees		40 degrees		40 degrees	
*Tipping Load – Straight (ISO 14397-1)	7083 kg	15,609 lb	6917 kg	15,244 lb	7457 kg	16,434 lb	6597 kg	14,540 lb	6979 kg	15,382 lb
*Tipping Load – Full Turn (ISO 14397-1)	6026 kg	13,280 lb	5878 kg	12,955 lb	6364 kg	14,026 lb	5597 kg	12,335 lb	5930 kg	13,069 lb
*Breakout Force	8481 kg	18,691 lb	7934 kg	17,485 lb	9113 kg	20,085 lb	7625 kg	16,805 lb	7625 kg	16,805 lb
*Operating Weight	9843 kg	21,694 lb	9865 kg	21,742 lb	9656 kg	21,282 lb	9981 kg	21,998 lb	10,611 kg	23,387 lb

Dimensions listed are for a machine configured with bolt-on cutting edges, standard guarding, 80 kg (176 lb) operator and full fluids.

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Dimensions and Operating Specifications (All dimensions are approximate. Dimensions vary with bucket and tire choice.)

	High Lift – IT		High Lift – ISO		High Lift – Pin On		High Lift – Fusion		High Lift – Fusion	
Bucket @100% fill factor used for below data	1.7 m ³	2.2 yd ³	1.7 m ³	2.2 yd ³	1.8 m ³	2.4 yd ³	1.7 m ³	2.2 yd ³	1.7 m ³	2.2 yd ³
Tire used for below data	17.5 R25 L2 XTLA		17.5 R25 L2 XTLA		17.5 R25 L2 XTLA		17.5 R25 L2 XTLA		20.5 R25 L3 XHA2	
** 1 Height: Ground to Cab	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3203 mm	10'6"
** 2 Height: Ground to Beacon	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3393 mm	11'1"
** 3 Height: Ground Axle Center	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	733 mm	2'5"
** 4 Height: Ground Clearance	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	531 mm	1'9"
* 5 Length: Overall	7154 mm	23'5"	7210 mm	23'7"	7085 mm	23'2"	7320 mm	24'0"	7344 mm	24'1"
6 Length: Rear Axle to Bumper	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"
7 Length: Hitch to Front Axle	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"
8 Length: Wheel Base	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"
* 9 Clearance: Bucket at 45 degrees	3126 mm	10'3"	3089 mm	10'1"	3171 mm	10'4"	2997 mm	9'9"	2997 mm	9'9"
** 10 Clearance: Load over Height	3447 mm	11'3"	3447 mm	11'3"	3447 mm	11'3"	3447 mm	11'3"	3517 mm	11'5"
** 11 Clearance: Level Bucket	3851 mm	12'7"	3851 mm	12'7"	3852 mm	12'7"	3782 mm	12'4"	3875 mm	12'8"
** 12 Height: Bucket Pin	4106 mm	13'5"	4106 mm	13'5"	4106 mm	13'5"	4106 mm	13'5"	4199 mm	13'9"
** 13 Height: Overall	5135 mm	16'10"	5170 mm	16'11"	5114 mm	16'9"	5146 mm	16'10"	5239 mm	17'2"
* 14 Reach: Bucket at 45 degrees	1137 mm	3'8"	1178 mm	3'10"	1084 mm	3'6"	1176 mm	3'10"	1176 mm	3'10"
15 Carry Height: Bucket Pin	499 mm	1'7"	527 mm	1'8"	499 mm	1'7"	524 mm	1'8"	524 mm	1'8"
** 16 Dig Depth	214 mm	8.4"	214 mm	8.4"	213 mm	8.3"	283 mm	11.1"	190 mm	7.5"
17 Width: Bucket	2401 mm	7'10"	2401 mm	7'10"	2401 mm	7'10"	2450 mm	8'0"	2450 mm	8'0"
18 Width: Tread Center	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"
19 Turning Radius: Over Bucket	5694 mm	18'8"	5722 mm	18'9"	5666 mm	18'7"	5784 mm	18'11"	5815 mm	19'0"
20 Width: Over Tires	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"
21 Turning Radius: Outside of Tires	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"
22 Turning Radius: Inside of Tires	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"
23 Rack Angle at Full Lift	47 degrees		47 degrees		47 degrees		48 degrees		48 degrees	
24 Dump Angle at Full Lift	48 degrees		48 degrees		47 degrees		46 degrees		46 degrees	
25 Rack Angle at Carry	35 degrees		36 degrees		35 degrees		37 degrees		37 degrees	
26 Departure Angle	33 degrees		33 degrees		33 degrees		33 degrees		33 degrees	
27 Articulation Angle	40 degrees		40 degrees		40 degrees		40 degrees		40 degrees	
*Tipping Load – Straight (ISO 14397-1)	6084 kg	13,409 lb	5940 kg	13,091 lb	6414 kg	14,137 lb	5688 kg	12,535 lb	6255 kg	13,784 lb
*Tipping Load – Full Turn (ISO 14397-1)	5143 kg	11,334 lb	5014 kg	11,051 lb	5444 kg	11,997 lb	4791 kg	10,559 lb	5281 kg	11,638 lb
*Breakout Force	8008 kg	17,649 lb	7486 kg	16,499 lb	8608 kg	18,970 lb	7260 kg	16,000 lb	7260 kg	16,000 lb
*Operating Weight	10 223 kg	22,531 lb	10 245 kg	22,579 lb	10 036 kg	22,118 lb	10 361 kg	22,835 lb	11 287 kg	24,875 lb

Dimensions listed are for a machine configured with bolt-on cutting edges, standard guarding, 80 kg (176 lb) operator and full fluids.

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 Cat® C3.6 engine meets U.S. EPA Tier 4 Final and EU Stage V 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 (hydrogenated 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.

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.0 kg (2.2 lb) of refrigerant which has a CO₂ equivalent of 1.430 metric tonnes (1.57 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

With cooling fan speed at maximum value:

Operator Sound Pressure Level (ISO 6396:2008) – 77 dB(A)*
Exterior Sound Power Level (ISO 6395:2008) – 103 dB(A)**
Exterior Sound Pressure Level (SAE J88:2013) – 101 dB(A)**

*Measurements were conducted with properly installed and maintained cab doors and windows closed.

**The labeled sound power level for the CE and UK marked configurations when measured according to the test procedure and conditions specified in 2000/14/EC and UK Noise Regulation 2001 No. 1701.

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.
 - Engine Idle Shutdown
 - Advanced Electro Hydraulics
 - Engine Demand Fan
 - ECO Mode
 - Hydrostatic Transmission
 - Programmable Linkage Sensors and Kickouts
 - Performance Series Buckets and Optimized Z Bar Linkage
 - Rimpull
 - Remote Flash and Remote Troubleshoot

Recycling

- The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	60.41%
Iron	27.24%
Nonferrous Metal	2.77%
Mixed Metal	0.71%
Mixed-Metal and Nonmetal	0.80%
Plastic	1.16%
Rubber	2.46%
Mixed Nonmetallic	0.04%
Fluid	1.82%
Other	2.59%
Uncategorized	0%
Total	100%

- A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714 (Earthmoving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused, or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following value in the table may vary.

Recyclability – 95%

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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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AEHQ8248-02 (04-2023)
Replaces AEHQ8248-01
Build Number: 14A
(EU, Am North,
ANZP, Japan)

