

WLP1 - Replacing Manual Transmission (Workshop Campaign)

Model Line: **911 (991)**

Model Year: **As of 2012 up to 2014**

Concerns: **Manual transmission**

Information: **On vehicles of the 911 (991) series of model years 2012–2014 with 7-speed manual transmissions, it is possible that the transmission actuation of the reversing light switch was not manufactured in accordance with the required specification.**

Action Required: Check function of reversing light.

Depending on the assigned campaign scope, additionally replace the manual transmission for further laboratory analysis.



Information

Every vehicle is assigned just **one campaign scope**.

⇒ To find out which scope is assigned to the vehicle, see PCSS Vehicle Information.

- **Scope 1: Check function of reversing light switch**
- **Scopes 2 – 9:** Check the reversing light switch function **and** replace the manual transmission

On a vehicle that is assigned only to campaign scope 1, if the reversing light does not function and the error analysis shows that the cause is actually damage to the actuation in the transmission of the reversing light switch, the manual transmission must also be replaced on that vehicle.

Please contact the responsible contact person in campaign management at PCNA, so that the vehicle can be assigned to the corresponding campaign scope for the replacement of the transmission (scopes 2-9) and the replacement of the transmission can be invoiced accordingly.

Affected Vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information).

Parts required



Information

For **checking** the rear-view light switch (scope 1), there are **no parts required**.

Parts required for the **replacement of the manual transmission** (scope 2):

Parts Info:

Part No.	Designation - Version	Qty.
991300010CX*	⇒ Manual transmission - Transmission type G9100 (rear-wheel drive) - Differential (I-no. 219)	1 ea.
or		
991300020CX*	⇒ Manual transmission - Transmission type G9100 (rear-wheel drive) - Mechanical rear differential lock (I-no. 220)	1 ea.
or		
991300010DX*	⇒ Manual transmission - Transmission type G9130 (all-wheel drive) - Differential (I-no. 219)	1 ea.
or		
991300020DX*	⇒ Manual transmission - Transmission type G9130 (all-wheel drive) - Mechanical rear differential lock (I-no. 220)	1 ea.

* The parts must be stored until such a time as the related warranty or campaign claim has been credited in WWS.

Important: A barcode will be generated with the credit note and this must then be used to return the manual transmission to Porsche AG as usual so that extensive analysis can be carried out on these parts. Important: A barcode will be generated with the credit note and this must then be used to return the manual transmission to Porsche AG as usual so that extensive analysis can be carried out on these parts.

Additionally parts required for vehicles with rear-wheel and all-wheel drive:

9A700846400	⇒ External hexagon round-head bolt BM 12x1.5x55 - Transmission to engine	6 ea.
PAF009267	⇒ Hexagon-head bolt M10x40 - Transmission support brace	6 ea.
WHT008727	⇒ Cheese head bolt M10x1x46.5 - Drive shafts	12 ea.
WHT008676	⇒ Hexagon-head bolt AM12x1.5x40 - Rear diagonal brace	2 ea.
99951004601	⇒ Cheese head bolt M10x45 - Center diagonal brace	2 ea.
99907344301	⇒ Combination screw M12x1.5x40 - Front diagonal brace	2 ea.

99907605301	⇒ Hexagon nut, M10 – Transmission support	2 ea.
99908600902	⇒ Nut M12x1.5 – Transmission to longitudinal member	1 ea.
90038516401	⇒ External hexagon round-head bolt BM12x1.5x140 – Transmission to longitudinal member	1 ea.
99907284101	⇒ Combination screw M10x50 – Longitudinal member	2 ea.

Additional parts required for vehicles **with all-wheel drive**:

9A700815900	⇒ Torx screw, BM10 x 35 – Cardan shaft to transmission	3 ea.
99642114501	⇒ Cardan shaft boot – Cardan shaft	1 ea.
90037825501	⇒ Hexagon-head bolt M10x70 – Transmission support brace	4 ea.

Materials: **Required materials** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330516	⇒ Coolant additive, 20 liter/ 5.28 gal container – Cooling system	As much as required (approx. 1 liter/ 33.8 fl oz required per vehicle)
00004330548	⇒ Transmission oil, 20 liter/ 5.28 gal container – Manual transmission	As much as required (approx. 0.5 liter/ 16.9 fl oz required per vehicle)

Required tools

- Tools:
- **9768 - Electronic torque wrench, 2 - 100 Nm (1.5 - 74 ftlb.)**
 - Suitable engine jack, e.g. **VAS 6931 Engine and gearbox jack or equivalent**
 - Suitable hose clamps, e.g. **3093 - Hose clamp**
 - **9255 Assembly sleeve**
 - **VAS 6933 Disassembly tool**
 - **V.A.G 1274B Cooling system tester**
 - **9900 - PIWIS Tester 3**
 - Battery charger with a current rating of **at least 90 A**, e.g. **VAS5908 Battery charger 90A**

Check the reversing light switch function - Vehicles with assigned campaign scope 1

- Work Procedure: 1 Switch on ignition.
- 2 Engage reverse gear.
- 3 Check whether the reversing light is illuminated when the reverse gear is engaged.

Result of check		Action required
(✓)	Reversing light lights up.	<p>End of remedial action. Disengage reverse gear again, switch off ignition and enter the campaign in the Warranty and Maintenance booklet. For warranty invoicing, see ⇒ ⇒ <i>Technical Information 'Warranty processing'</i>. [Invoicing: Scope 1]</p>
(X)	Reversing light is not on.	<p>Find the fault and correct it. If the cause is due to the reversing light switch or manual transmission, the manual transmission must be replaced. ⇒ Continue with ⇒ <i>Technical Information 'Replacing transmission'</i>. [Invoicing: Scope 2-9]</p>

Check reversing light switch function and replace manual transmissions - Vehicles with associated campaign scopes 2-9

- Work Procedure: 1 Check whether the reversing light is illuminated when the reverse gear is engaged.
- 1.1 To do this, turn on the ignition and engage the reverse gear.
- 1.2 Check function of reversing light switch.
- 1.3 Disengage reverse gear and turn off ignition.
- 1.4 Please document the **test result** in the **warranty claim**.
- 2 Disconnect the battery ⇒ *Workshop Manual '2X00IN Work instructions after disconnecting the battery'*.
- 3 Raise the vehicle at the prescribed jacking points. ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*
- 4 Remove rear underbody cover ⇒ *Workshop Manual '519419 Removing and installing cover for rear underbody'*.

Additional work required for all-wheel drive vehicles:

- 5 Remove center underbody cover ⇒ *Workshop Manual '519319 Removing and installing cover for centre underbody'*.
- 6 Remove cardan shaft ⇒ *Workshop Manual '390219 Removing and installing cardan shaft'*.
- 7 **Remove manual transmission and install new manual transmission** ⇒ *Workshop Manual '343519 Removing and installing transmission'*.
If necessary, dismantle the add-on parts on the previously removed transmission and mount them to the new transmission.
- 8 Test transmission oil and add if necessary ⇒ *Workshop Manual '340135 Checking and adding transmission oil'*.
- 9 Carry out function test on shift and selector cables ⇒ *Workshop Manual '341220 Removing and installing shift and selector cables'*.
- 10 **For vehicles with all-wheel drive:** Install the previously removed cardan shaft and cover in the center underbody.
⇒ *Workshop Manual '390219 Removing and installing cardan shaft'*
⇒ *Workshop Manual '519319 Removing and installing cover for centre underbody'*
- 11 Install rear underbody cover ⇒ *Workshop Manual '519419 Removing and installing cover for rear underbody'*.
- 12 Check the coolant and replace if necessary ⇒ *Workshop Manual '193817 Draining and filling coolant'*.
- 13 Vent cooling system ⇒ *Workshop Manual '190107 Venting cooling system'*.
- 14 Connect the battery and carry out work instructions after disconnecting battery ⇒ *Workshop Manual '2X00IN Work instructions after disconnecting the battery'*.
- 15 Enter the campaign in the Warranty and Maintenance booklet.

Warranty processing**Information**

The specified working times were determined specifically for carrying out this campaign and may differ from the working times published in the Labor Operation List in PCSS.

Scope 1: **Checking function of reversing light****Working time:**

Checking function of reversing light

Labor time: **10 TU**⇒ **Damage Code WLP1 066 000 1**Scope 2: **Check the reversing light function and replace the manual transmission****911 Carrera (991)/911 Carrera S (991)**

- **with rear-wheel drive**
- **without** Porsche Dynamic Chassis Control (PDCC, I-no. 352)

Working time:

Check function of reversing light and replace manual transmission

Labor time: **466 TU**

Includes: Lifting and lowering vehicle
Removing and installing cover for rear underbody

Parts required:

991300010CX	Manual transmission – Transmission type G9100 (rear-wheel drive) – Differential (I-no. 219)	1 ea.
or		
991300020CX	Manual transmission – Transmission type G9100 (rear-wheel drive) – Mechanical rear differential lock (I-no. 220)	1 ea.
9A700846400	External hexagon round-head bolt BM 12x1.5x55	6 ea.
PAF009267	Hexagon-head bolt, M10x40	6 ea.
WHT008727	Cheese head bolt, M10x1x46.5	12 ea.
WHT008676	Hexagon-head bolt, AM12 x 1.5 x 40	2 ea.
99951004601	Cheese head bolt, M10 x 45	2 ea.
99907344301	Combination screw M12x1.5x40	2 ea.
99908600902	Nut M12x1.5	1 ea.
90038516401	External hexagon round-head bolt BM12x1.5x140	1 ea.
99907284101	Combination screw M10x50	2 ea.

Required materials:

00004330516	Coolant additive (20 liter/ 5.28 gal container)	0.05 ea. (= approx. 1 liter/ 33.8 fl oz)
00004330548	Transmission oil (20 liter/ 5.28 gal container)	0.02 ea. (= approx. 0.5 liter/ 16.9 fl oz)

⇒ Damage Code WLP1 066 000 2

Scope 3:

Check the reversing light function and replace the manual transmission

911 Carrera (991)/911 Carrera S (991)

- **with rear-wheel drive**
- **with** Porsche Dynamic Chassis Control (PDCC, I-no. 352)

Working time:

Check function of reversing light and replace manual transmission Labor time: **513 TU**
 Includes: Lifting and lowering vehicle
 Removing and installing cover for rear underbody

Parts required:

991300010CX	Manual transmission – Transmission type G9100 (rear-wheel drive) – Differential (I-no. 219)	1 ea.
or		
991300020CX	Manual transmission – Transmission type G9100 (rear-wheel drive) – Mechanical rear differential lock (I-no. 220)	1 ea.
9A700846400	External hexagon round-head bolt BM 12x1.5x55	6 ea.
PAF009267	Hexagon-head bolt, M10x40	6 ea.
WHT008727	Cheese head bolt, M10x1x46.5	12 ea.
WHT008676	Hexagon-head bolt, AM12 x 1.5 x 40	2 ea.
99951004601	Cheese head bolt, M10 x 45	2 ea.
99907344301	Combination screw M12x1.5x40	2 ea.
99908600902	Nut M12x1.5	1 ea.

90038516401	External hexagon round-head bolt BM12x1.5x140	1 ea.
99907284101	Combination screw M10x50	2 ea.
Required materials:		
00004330516	Coolant additive (20 liter/ 5.28 gal container)	0.05 ea. (= approx. 1 liter/ 33.8 fl oz)
00004330548	Transmission oil (20 liter/ 5.28 gal container)	0.02 ea. (= approx. 0.5 liter/ 16.9 fl oz)
⇒ Damage Code WLP1 066 000 2		

Scope 4:

Check the reversing light function and replace the manual transmission**911 Carrera 4 (991)/911 Carrera 4S (991)**

- **with all-wheel drive**
- **without** Porsche Dynamic Chassis Control (PDCC, I-no. 352)

Working time:		
Check function of reversing light and replace manual transmission		Labor time: 579 TU
Includes:	Lifting and lowering vehicle Removing and installing cover for rear underbody	
Parts required:		
991300010DX	Manual transmission – Transmission type G9130 (all-wheel drive) – Differential (I-no. 219)	1 ea.
or		
991300020DX	Manual transmission – Transmission type G9130 (all-wheel drive) – Mechanical rear differential lock (I-no. 220)	1 ea.
9A700846400	External hexagon round-head bolt BM 12x1.5x55	6 ea.
PAF009267	Hexagon-head bolt, M10x40	6 ea.
WHT008727	Cheese head bolt, M10x1x46.5	12 ea.
WHT008676	Hexagon-head bolt, AM12 x 1.5 x 40	2 ea.

99951004601	Cheese head bolt, M10 x 45	2 ea.
99907344301	Combination screw M12x1.5x40	2 ea.
99908600902	Nut M12x1.5	1 ea.
90038516401	External hexagon round-head bolt BM12x1.5x140	1 ea.
99907284101	Combination screw M10x50	2 ea.
9A700815900	Torx screw BM10x35	3 ea.
99642114501	Cardan shaft boot	1 ea.
90037825501	Hexagon-head bolt, M10 x 70	4 ea.
Required materials:		
00004330516	Coolant additive (20 liter/ 5.28 gal container)	0.05 ea. (= approx. 1 liter/ 33.8 fl oz)
00004330548	Transmission oil (20 liter/ 5.28 gal container)	0.02 ea. (= approx. 0.5 liter/ 16.9 fl oz)
⇒ Damage Code WLP1 066 000 2		

Scope 5:

Check the reversing light function and replace the manual transmission

911 Carrera 4 (991)/911 Carrera 4S (991)

- **with all-wheel drive**
- **with** Porsche Dynamic Chassis Control (PDCC, I-no. 352)

Working time:	
Check function of reversing light and replace manual transmission	Labor time: 626 TU
Includes: Lifting and lowering vehicle	
Removing and installing cover for rear underbody	
Parts required:	
991300010DX	Manual transmission 1 ea. – Transmission type G9130 (all-wheel drive) – Differential (I-no. 219)
or	

991300020DX	Manual transmission – Transmission type G9130 (all-wheel drive) – Mechanical rear differential lock (I-no. 220)	1 ea.
9A700846400	External hexagon round-head bolt BM 12x1.5x55	6 ea.
PAF009267	Hexagon-head bolt, M10x40	6 ea.
WHT008727	Cheese head bolt, M10x1x46.5	12 ea.
WHT008676	Hexagon-head bolt, AM12 x 1.5 x 40	2 ea.
99951004601	Cheese head bolt, M10 x 45	2 ea.
99907344301	Combination screw M12x1.5x40	2 ea.
99908600902	Nut M12x1.5	1 ea.
90038516401	External hexagon round-head bolt BM12x1.5x140	1 ea.
99907284101	Combination screw M10x50	2 ea.
9A700815900	Torx screw BM10x35	3 ea.
99642114501	Cardan shaft boot	1 ea.
90037825501	Hexagon-head bolt, M10 x 70	4 ea.
Required materials:		
00004330516	Coolant additive (20 liter/ 5.28 gal container)	0.05 ea. (= approx. 1 liter/ 33.8 fl oz)
00004330548	Transmission oil (20 liter/ 5.28 gal container)	0.02 ea. (= approx. 0.5 liter/ 16.9 fl oz)
⇒ Damage Code WLP1 066 000 2		

Scope 6:

Check the reversing light function and replace the manual transmission**911 Carrera Cabriolet (991)/911 Carrera S Cabriolet (991)**

- **with rear-wheel drive**
- **without** Porsche Dynamic Chassis Control (PDCC, I-no. 352)

Working time:

Check function of reversing light and replace manual transmission

Labor time: **482 TU**

Includes: Lifting and lowering vehicle
 Removing and installing cover for rear underbody

Parts required:

991300010CX Manual transmission 1 ea.
 – Transmission type G9100 (rear-wheel drive)
 – Differential (I-no. 219)

or

991300020CX Manual transmission 1 ea.
 – Transmission type G9100 (rear-wheel drive)
 – Mechanical rear differential lock (I-no. 220)

9A700846400 External hexagon round-head bolt BM 6 ea.
 12x1.5x55

PAF009267 Hexagon-head bolt, M10x40 6 ea.

WHT008727 Cheese head bolt, M10x1x46.5 12 ea.

WHT008676 Hexagon-head bolt, AM12 x 1.5 x 40 2 ea.

99951004601 Cheese head bolt, M10 x 45 2 ea.

99907344301 Combination screw M12x1.5x40 2 ea.

99908600902 Nut M12x1.5 1 ea.

90038516401 External hexagon round-head bolt 1 ea.
 BM12x1.5x140

99907284101 Combination screw M10x50 2 ea.

Required materials:

00004330516 Coolant additive (20 liter/ 5.28 gal container) 0.05 ea.
 (= approx. 1 liter/ 33.8 fl oz)

00004330548 Transmission oil (20 liter/ 5.28 gal container) 0.02 ea.
 (= approx. 0.5 liter/ 16.9 fl oz)

⇒ Damage Code WLP1 066 000 2

Scope 7: **Check the reversing light function and replace the manual transmission**

911 Carrera Cabriolet (991)/911 Carrera S Cabriolet (991)

- **with rear-wheel drive**
- **with Porsche Dynamic Chassis Control (PDCC, I-no. 352)**

Working time:

Check function of reversing light and replace manual transmission

Labor time: **529 TU**

Includes: Lifting and lowering vehicle
Removing and installing cover for rear underbody

Parts required:

991300010CX	Manual transmission – Transmission type G9100 (rear-wheel drive) – Differential (I-no. 219)	1 ea.
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or

991300020CX	Manual transmission – Transmission type G9100 (rear-wheel drive) – Mechanical rear differential lock (I-no. 220)	1 ea.
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9A700846400	External hexagon round-head bolt BM 12x1.5x55	6 ea.
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PAF009267	Hexagon-head bolt, M10x40	6 ea.
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WHT008727	Cheese head bolt, M10x1x46.5	12 ea.
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WHT008676	Hexagon-head bolt, AM12 x 1.5 x 40	2 ea.
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99951004601	Cheese head bolt, M10 x 45	2 ea.
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99907344301	Combination screw M12x1.5x40	2 ea.
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99908600902	Nut M12x1.5	1 ea.
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90038516401	External hexagon round-head bolt BM12x1.5x140	1 ea.
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99907284101	Combination screw M10x50	2 ea.
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Required materials:

00004330516	Coolant additive (20 liter/ 5.28 gal container)	0.05 ea. (= approx. 1 liter/ 33.8 fl oz)
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00004330548	Transmission oil (20 liter/ 5.28 gal container)	0.02 ea. (= approx. 0.5 liter/ 16.9 fl oz)
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⇒ **Damage Code WLP1 066 000 2**

Scope 8: **Check the reversing light function and replace the manual transmission**

911 Carrera 4 Cabriolet (991) / 911 Carrera 4S Cabriolet (991)

- **with all-wheel drive**
- **without** Porsche Dynamic Chassis Control (PDCC, I-no. 352)

Working time:

Check function of reversing light and replace manual transmission

Labor time: **594 TU**

Includes: Lifting and lowering vehicle
 Removing and installing cover for rear underbody

Parts required:

991300010DX	Manual transmission – Transmission type G9130 (all-wheel drive) – Differential (I-no. 219)	1 ea.
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or

991300020DX	Manual transmission – Transmission type G9130 (all-wheel drive) – Mechanical rear differential lock (I-no. 220)	1 ea.
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9A700846400	External hexagon round-head bolt BM 12x1.5x55	6 ea.
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PAF009267	Hexagon-head bolt, M10x40	6 ea.
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WHT008727	Cheese head bolt, M10x1x46.5	12 ea.
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WHT008676	Hexagon-head bolt, AM12 x 1.5 x 40	2 ea.
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99951004601	Cheese head bolt, M10 x 45	2 ea.
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99907344301	Combination screw M12x1.5x40	2 ea.
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99908600902	Nut M12x1.5	1 ea.
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90038516401	External hexagon round-head bolt BM12x1.5x140	1 ea.
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99907284101	Combination screw M10x50	2 ea.
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9A700815900	Torx screw BM10x35	3 ea.
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99642114501	Cardan shaft boot	1 ea.
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90037825501	Hexagon-head bolt, M10 x 70	4 ea.
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Required materials:

00004330516	Coolant additive (20 liter/ 5.28 gal container)	0.05 ea. (= approx. 1 liter/ 33.8 fl oz)
00004330548	Transmission oil (20 liter/ 5.28 gal container)	0.02 ea. (= approx. 0.5 liter/ 16.9 fl oz)

⇒ Damage Code WLP1 066 000 2

Scope 9:

Check the reversing light function and replace the manual transmission

911 Carrera 4 Cabriolet (991) / 911 Carrera 4S Cabriolet (991)

- **with all-wheel drive**
- **with Porsche Dynamic Chassis Control (PDCC, I-no. 352)**

Working time:

Check function of reversing light and replace manual transmission

Labor time: **641 TU**

Includes: Lifting and lowering vehicle
Removing and installing cover for rear underbody

Parts required:

991300010DX	Manual transmission – Transmission type G9130 (all-wheel drive) – Differential (I-no. 219)	1 ea.
or		
991300020DX	Manual transmission – Transmission type G9130 (all-wheel drive) – Mechanical rear differential lock (I-no. 220)	1 ea.
9A700846400	External hexagon round-head bolt BM 12x1.5x55	6 ea.
PAF009267	Hexagon-head bolt, M10x40	6 ea.
WHT008727	Cheese head bolt, M10x1x46.5	12 ea.
WHT008676	Hexagon-head bolt, AM12 x 1.5 x 40	2 ea.
99951004601	Cheese head bolt, M10 x 45	2 ea.
99907344301	Combination screw M12x1.5x40	2 ea.
99908600902	Nut M12x1.5	1 ea.
90038516401	External hexagon round-head bolt BM12x1.5x140	1 ea.

99907284101	Combination screw M10x50	2 ea.
9A700815900	Torx screw BM10x35	3 ea.
99642114501	Cardan shaft boot	1 ea.
90037825501	Hexagon-head bolt, M10 x 70	4 ea.
Required materials:		
00004330516	Coolant additive (20 liter/ 5.28 gal container)	0.05 ea. (= approx. 1 liter/ 33.8 fl oz)
00004330548	Transmission oil (20 liter/ 5.28 gal container)	0.02 ea. (= approx. 0.5 liter/ 16.9 fl oz)
⇒ Damage Code WLP1 066 000 2		

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