



Operator Cooling Fan

Groundmaster® or Reelmaster® Traction Unit with Universal Sunshade

Model No. 03247

Installation Instructions

This product complies with all relevant European directives. For details, please see the Declaration of Incorporation (DOI) at the back of this publication.

Installation

Loose Parts

Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use
1	No parts required	–	Prepare the machine.
2	No parts required	–	Remove the sunshade.
3	No parts required	–	Install the switch panel kit.
4	Long fan-mount bracket Cooling fan Short fan-mount bracket Carriage bolt (1/4 x 5/8 inch) Flange locknut (1/4 inch) Fan switch Jam nut Knob Fan-speed controller Thread-forming screw (#8 x 3/8 inch)	1 1 1 4 4 1 1 1 1 2	Install the cooling fan, fan-speed controller, and switch.
5	Wire harness Cable ties Fuse (25 A)	1 4 1	Install the wire harness.
6	No parts required	–	Connect the battery.
7	No parts required	–	Adjust the cooling fan position.
8	No parts required	–	Install the sunshade.



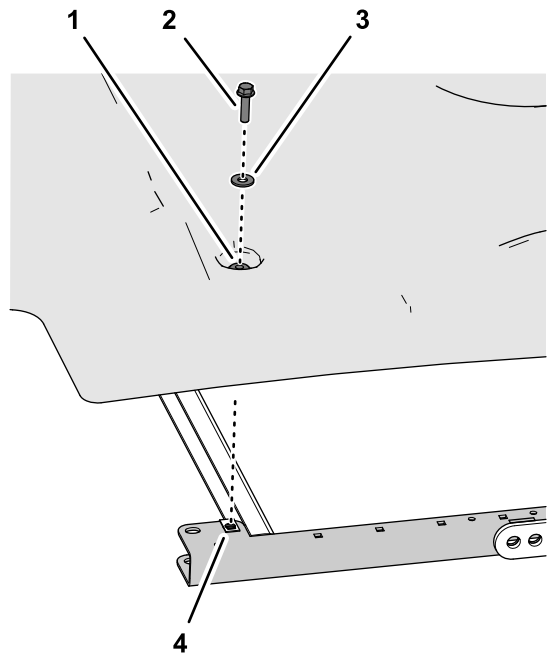
1

Preparing the Machine

No Parts Required

Procedure

1. Park the machine on a level surface.
2. Shut off the engine, engage the parking brake, and remove the key from the ignition switch.
3. Disconnect the battery; refer to the electrical system maintenance section of your *Operator's Manual*.



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Figure 2

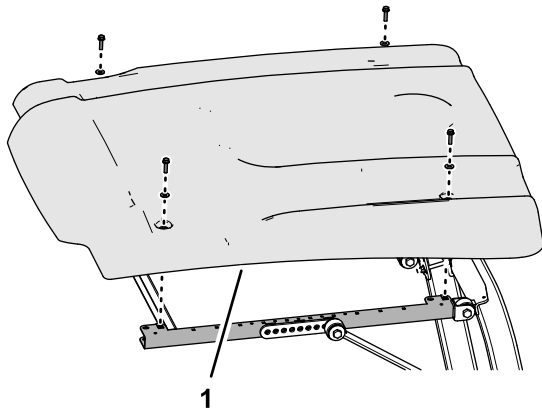
- | | |
|---|----------------------------------|
| 1. Grommet | 3. Washer (5/16 inch) |
| 2. Flange-head bolt (5/16 x 1-1/4 inches) | 4. Clip nut (side-frame channel) |

2

Removing the Sunshade

No Parts Required

Procedure



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Figure 1

1. Sunshade

3

Installing the Optional Switch Panel Kit

No Parts Required

Procedure

If the optional Switch Panel Kit is not installed, install it; refer to the installation instructions for the switch panel kit.

1. Remove the 4 flange-head bolts (5/16 x 1-1/4 inches) and 4 washers (5/16 inch) that secure the sunshade to the side-frame channels (Figure 1 and Figure 2).

Note: Do not remove the grommets from the sunshade.

4

Installing the Cooling Fan, Fan Switch, and Fan-Speed Controller

Parts needed for this procedure:

1	Long fan-mount bracket
1	Cooling fan
1	Short fan-mount bracket
4	Carriage bolt (1/4 x 5/8 inch)
4	Flange locknut (1/4 inch)
1	Fan switch
1	Jam nut
1	Knob
1	Fan-speed controller
2	Thread-forming screw (#8 x 3/8 inch)

Installing the Cooling Fan

1. Locate the 2 slots in the cooling-fan housing closest to the fan harness with the 2-socket connector (Figure 3).

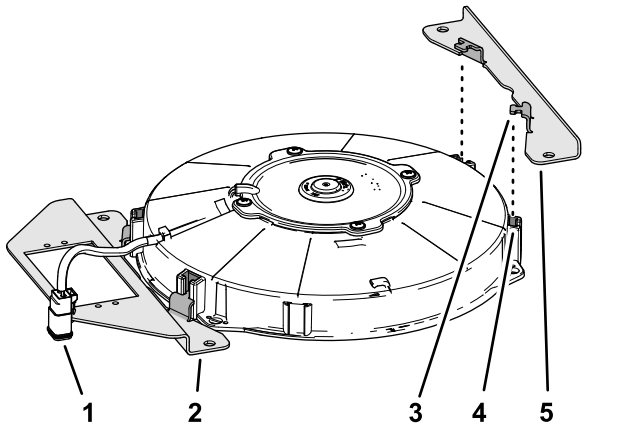


Figure 3

1. 2-socket connector
2. Long fan-mount bracket
3. Mounting tab
4. Slot (cooling-fan housing)
5. Short fan-mount bracket

2. Insert the 2 mounting tabs of the long fan-mount bracket into the slots in the fan housing (Figure 3) that you identified in step 1.

3. Insert the 2 mounting tabs of the short fan-mount bracket into the other 2 slots in the cooling-fan housing (Figure 3).
4. Align the holes in the fan mount brackets to the hole in the switch panel as shown in Figure 4.

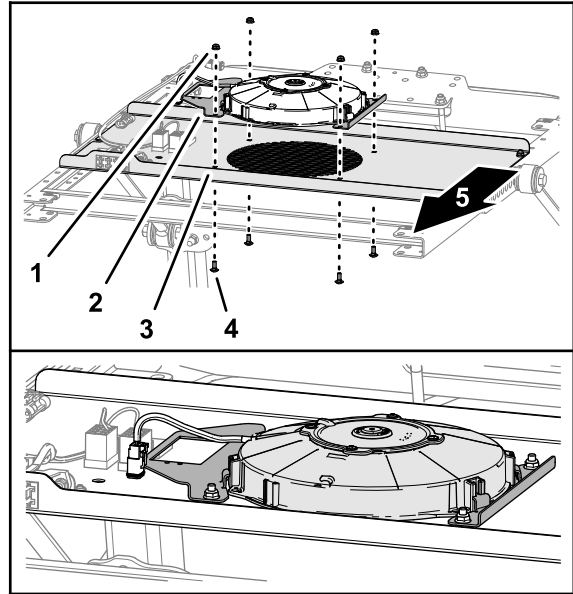


Figure 4

1. Flange locknut (1/4 inch)
2. Long fan-mount bracket
3. Switch panel
4. Carriage bolt (1/4 x 5/8 inch)
5. Front of machine

5. Assemble the cooling fan and brackets to the switch panel (Figure 4) with 4 carriage bolts (1/4 x 5/8 inch) and 4 flange locknuts (1/4 inch).
6. Torque the flange locknuts to 1017 to 1243 N·cm (90 to 110 in-lb).

Installing the Fan Switch

1. Align the flat on the outer shaft of the fan-switch shaft with the D-shaped hole in the switch panel (Figure 5).

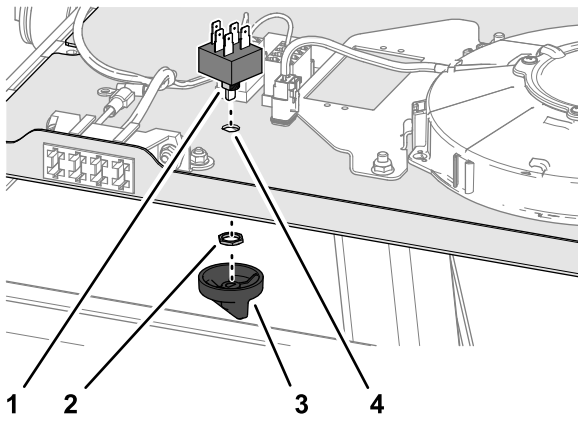


Figure 5

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|----------------------------|------------------|
| 1. Flat (fan-switch shaft) | 3. Knob |
| 2. Jam nut | 4. D-shaped hole |

2. Insert the fan-switch shaft through the hole in the panel and secure the switch with the jam nut (Figure 5).
3. Align the D-shaped hole in the knob with the flat on the inner shaft of the fan-switch shaft (Figure 5).
4. Press the knob onto the switch until knob is fully seated (Figure 5).

Installing the Fan-Speed Controller

1. Align the fan-speed controller to the flange of the long fan-mount bracket with the electrical terminals align toward the back of the machine (Figure 6).

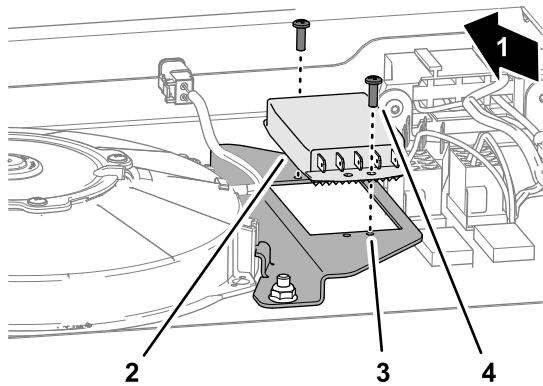


Figure 6

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|-------------------------|---|
| 1. Front of the machine | 3. Long fan-mount bracket |
| 2. Fan-speed controller | 4. Thread-forming screw (#8 x 3/8 inch) |

2. Secure the fan-speed controller to the flange of the long fan-mount bracket (Figure 6) with the 2 thread-forming screw (#8 x 3/8 inch).

5

Installing the Wire Harness and Fuse

Parts needed for this procedure:

1	Wire harness
4	Cable ties
1	Fuse (25 A)

Installing the Wire Harness

1. Align the wire harness of the kit to the switch panel as shown in Figure 7.

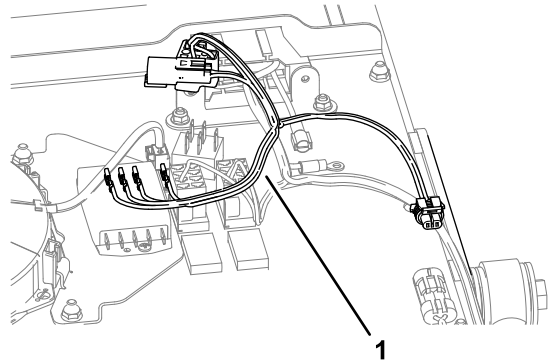


Figure 7

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1. Kit-wire harness
2. Connect the socket terminals of the kit wire harness to the blade terminals of the fan-speed controller (Figure 8) as shown in the following table:

Wire Harness—Wire Color for the Socket Terminals	Fan-Speed Controller—Blade Terminal
Violet	1—Low
Brown	2—Medium
Orange	3—High 1
Optional	4—High 2
Pink	5—Motor

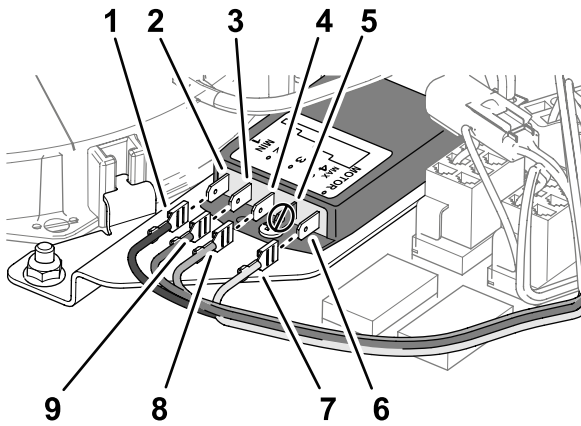


Figure 8

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|---|---|
| 1. Violet (wire-harness terminal labeled RESISTOR MODULE L) | 6. Blade terminal 5—Motor (fan-speed controller) |
| 2. Blade terminal 1 (Low—fan-speed controller) | 7. Pink (wire-harness terminal labeled MOTOR (+)) |
| 3. Blade terminal 2 (Medium—fan-speed controller) | 8. Orange (wire-harness terminal labeled RESISTOR MODULE H) |
| 4. Blade terminal 3 (High 1—fan-speed controller) | 9. Brown (wire-harness terminal labeled RESISTOR MODULE M) |
| 5. Blade terminal 4—Optional (High 2—fan-speed controller) | |

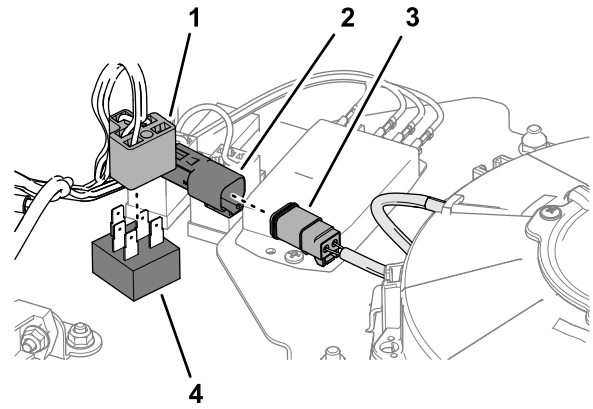


Figure 10

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- | | |
|--|---|
| 1. 5-socket connector (kit wire harness) | 3. 2-socket connector (cooling-fan harness) |
| 2. 2-pin connector (kit wire harness) | 4. Fan switch |

-
- Connect the 2-pin connector of the kit wire harness into the 2-socket connector of the cooling-fan harness (Figure 10).
 - Secure the wire harness with the 4 cable ties.

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- At the 20 cm (8 inch) branch of the kit wire harness, connect the 2-socket connector into the 2-pin connector of the adapter wire harness for the switch panel (Figure 9).

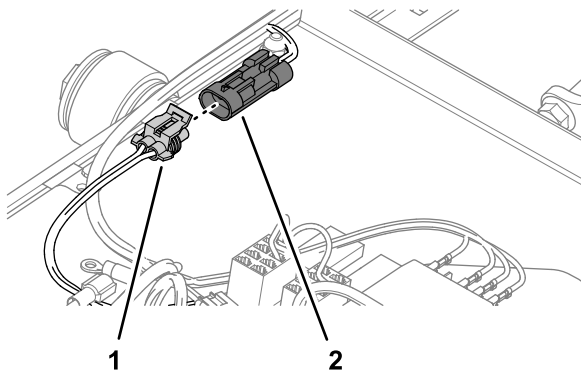


Figure 9

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- | | |
|---|--|
| 1. 2-socket connector (20 cm (8 inch) branch— kit wire harness) | 2. 2-pin connector (adapter wire harness—switch panel) |
|---|--|

-
- Connect the 5-pin connector of the fan switch into the 5-socket connector of the kit wire harness (Figure 10).

Installing the Fuse

Inset the fuse (25 A) into the fuse block at the second fuse slot from the left (Figure 11).

Note: The fuse may not need to be installed if a fuse has already been installed from another Toro kit.

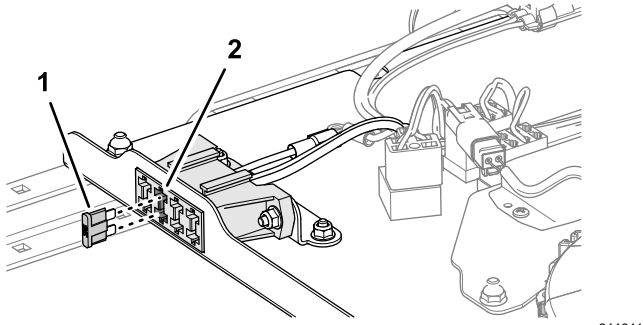


Figure 11

1. Fuse (25 A)
2. Fuse slot—second from left (switch panel fuse block)

6

Connecting the Battery

No Parts Required

Procedure

Connect the battery; refer to the electrical system maintenance section of your *Operator's Manual*.

7

Adjusting the Cooling Fan Position

No Parts Required

Procedure

1. Seat the operator of the machine in the operator's seat.
2. Rotate the fan switch to medium fan speed.
3. Determine if the operator wants the airstream of the cooling fan moved forward or rearward:

- If the airstream position is correct, shut off the cooling fan.
- If the operator wants the airstream of the cooling fan moved, perform the following steps:

- A. Shut off the cooling fan.
- B. Remove the 4 carriage bolts (1/4 x 5/8 inch) and 4 flange locknuts (1/4 inch) that secure the switch panel to the left and right side-frame channels (Figure 12).

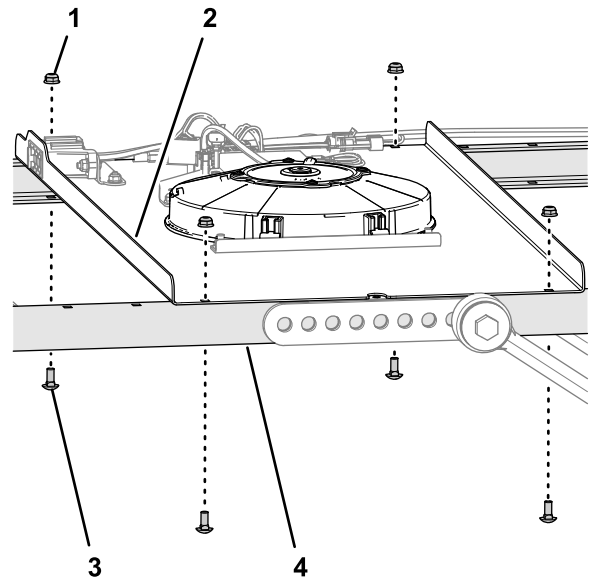


Figure 12

1. Flange locknut (1/4 inch)
2. Switch panel
3. Carriage bolt (1/4 x 5/8 inch)
4. Side-frame channel

- C. Move the switch panel forward or rearward (Figure 13) to align the cooling fan the position that you determined in step 3.

Note: You can set the cooling fan to 1 of 5 positions.

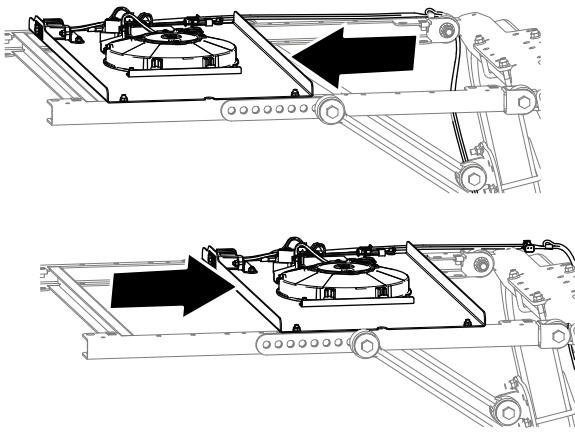


Figure 13

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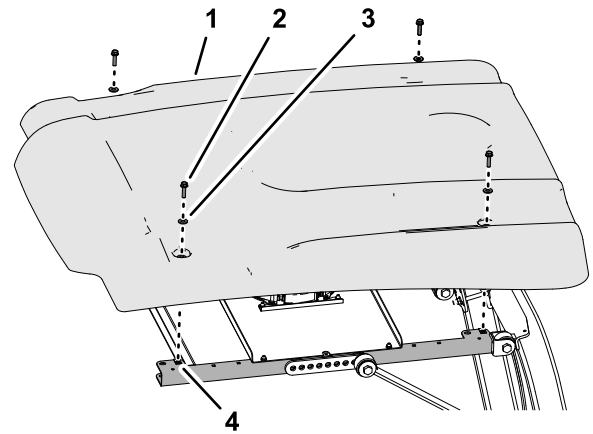


Figure 14

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- D. Assemble the switch panel to the side-frame channels with the carriage bolts and locknuts (Figure 12) that you removed in step 3B.
- E. Torque the flange locknuts to 1017 to 1243 N·cm (90 to 110 in-lb).

1. Sunshade
2. Flange-head bolt (5/16 x 1-1/4 inches)
3. Washer (5/16 inch)
4. Clip nut (side-frame channel)

3. Torque the flange-head bolts to 1017 to 1355 N·cm (90 to 120 in-lb).

Operation

Using the Cooling Fan

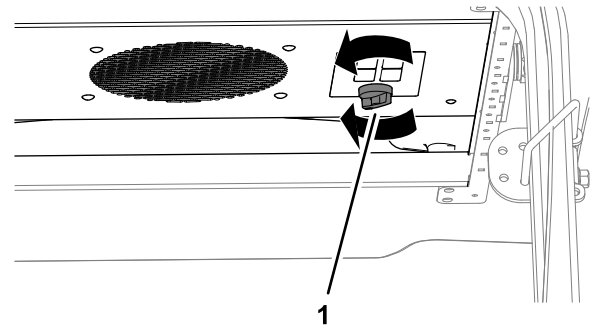


Figure 15

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1. Knob (fan switch)

- To run the cooling fan, rotate the knob for the fan switch clockwise to the LOW, MEDIUM, or HIGH fan-speed position (Figure 15).
- To shut off the cooling fan, fully rotate the knob counterclockwise to the OFF position (Figure 15).

8

Installing the Sunshade

No Parts Required

Procedure

1. Align the holes in the grommets of the sunshade with the 4 clipnuts of the side-frame channels.
2. Assemble the sunshade to the frame channels (Figure 14) with the 4 flange-head bolts (5/16 x 1-1/4 inches) and 4 washers (5/16 inch) that you removed in 2 Removing the Sunshade (page 2).

Notes:

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Declaration of Incorporation

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the directives listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
03247	—	OPERATOR COOLING FAN	OPERATOR COOLING FAN	OPERATOR COOLING FAN	2006/42/EC, 2014/30/EU

Relevant technical documentation has been compiled as required per Part B of Annex VII of 2006/42/EC.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Directives.

Certified:



Tom Langworthy
Engineering Director
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October 3, 2022

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UK Declaration of Incorporation

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Relevant technical documentation has been compiled as required per Scedule 10 of S.I. 2008 No. 1597.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Directives.

This declaration has been issued under the sole responsibility of the manufacturer.
The object of the declaration is in conformity with relevant UK legislation.



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