

Modus Cool Ventilator Speed Controller (PWM) installation instructions.



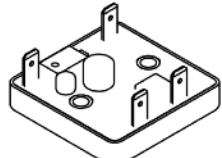



Technical document number: **8600558A**

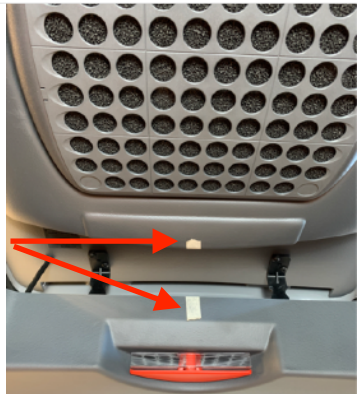

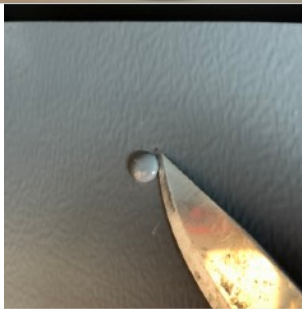
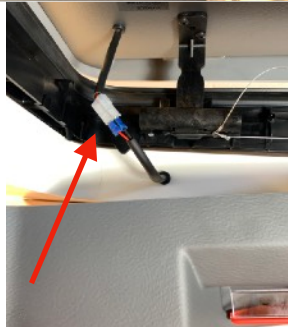
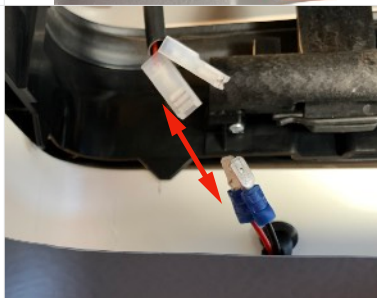

This modification is applicable for Modus Cool versions where the speed controller resistor has been disabled. Document **8600555A** applies for speed resistor bypass and must be carried out before the PWM Speed Controller Unit is installed.



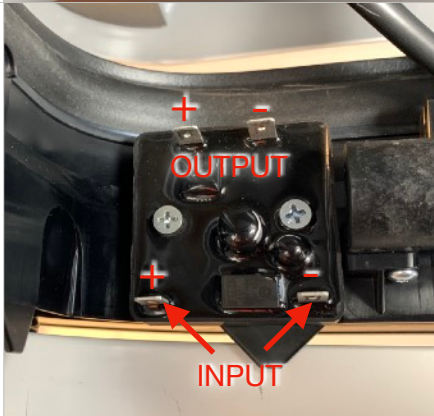

Work performed by:	Date	Vehicle Identification Number (VIN)







Working conditions: **POWER MUST BE SWITCHED OFF**

Necessary tools and materials

A	Screw driver with replaceable tip or fixed with PH2.	
B	Screw driver tip PH2	
C	PWM Speed Controller Module Product number: 8602016A Operating voltage: 9-32V Included	
D	Self tapping screw 3,9X19mm 2 pcs Product part number: 8602026 Included	
E	Plastic rivets for inner frame attachment 6 pcs light gray 6 pcs dark gray Included	
F	Connection cable 80mm Female-Female AMP 6.3mm 2 pcs Part number: 8602022 Included	

1	<p>Before removing the inner frame, mark one end. In case the inner frame is completely removed, it is easier to remount and match the installation holes. In this process it is not necessary to remove the inner frame completely.</p>	
2	<p>Remove the inner frame rivets / unscrew the inner frame.</p>	 
3	<p>After removing the 6 inner frame screws / rivets, the inner frame hangs from the emergency exit ropes (between the mechanisms and the internal exit handle).</p> <p>It is not necessary to remove the inner frame. There is plenty of space to install the PWM Speed Controller module.</p> <p>When the inner frame has been detached from the outer frame, the connection interface becomes visible.</p>	
4	<p>Before taking any action, make sure you have disconnected the power.</p> <p>Detach the connectors.</p>	
5	<p>Take the PWM Speed Control Module and the screws included in the package.</p>	

7	<p>The designated location of the PWM Speed Controller module is in the outer frame parallel to the 2M mechanism. Please observe, that the Module should not be mounted higher than the bottom part of the main seal.</p>	
8	<p>Attach the PWM Speed Control Module with the attached self-rapping screws to the outer frame.</p>	
9	<p>PWM Speed Control Module connection interface.</p>	
10	<p>Connect the fan cables to the PWM Speed Control Module terminals (standard 6-3mm AMP connectors) as illustrated:</p> <p>Left: RED Cable (+) Right: BLACK Cable (-)</p>	

11	Connect the enclosed adapter cables to the PWM input terminals (Female to Female)	
12	<p>Connect the vehicle cables to the adapter cables as illustrated. Make sure the polarity is correct.</p> <p>The PWM Speed Controller module is protected against wrong polarity, so it does not work if connection is done wrong.</p> <p>Test the ventilator fan that it is working correctly and the exhaust fan works the correct way (suction is easy to test with a piece of paper).</p>	
13	Install the inner frame back to its position. It is usually easiest to start from the middle.	 
14	Make visual inspection, remove possible markings and close the hatch.	 

PIN CONFIGURATION / Pinbelegung

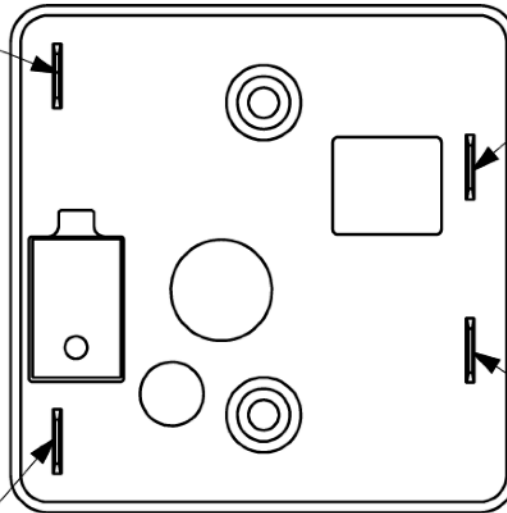
X1

CL30 BATTERY VOLTAGE
OR CI15 IGNITION/
KI30 Batteriespannung
oder KI15 Zündung

**A 5A FUSE MUST
BE USED! /
Es ist eine Sicherung
von 5A vorzuschalten!**

X2

CL31 GROUND /
KI31 Masse
(CAN BE TAPPED
FROM THE CLOSEST
GROUND POINT.)



X3

MOTOR PLUS

X4

MOTOR MINUS

CONNECTORS / Steckverbinder



TE CONNECTIVITY
6,35 MM FLAT CONTACT
PART-NO. 1217169-1

MATING CONNECTOR / Gegenstecker



6,3 MM FLAT RECEPTACLE

WIRE SIZE 0,75 ... 1 mm² /

Leitungsquerschnitt 0,75 ... 1 mm²

WIRE SIZE CI30 AND CI31 1,5 ... 2,5 mm² (*)

Leitungsquerschnitt CI30 & CI31 1,5 ... 2,5 mm² (*)

NUMBER OF CONTACT DURABILITY: 10 /

Anzahl der Steckzyklen: 10

(*) FROM A CABLE LENGTH OF 10 M, 1,5 MM² ARE REQUIRED.

(*) Ab Leitungslänge 10 m sind 1,5 mm² erforderlich