



Observe additional requirements from the operating and installation instructions for the Air Top 2000 STC and the control element.

Select appropriate wiring diagram (dependent on application and Webasto control element).

8.1 Information on the electrical connection

- Insulate ends of lines that are not required.

8.2 Connecting heater



NOTE

After it is switched off the heater continues running. The power supply must not be disconnected before approx. 240 seconds have elapsed.

An electrical battery disconnecter or relay can be connected in accordance with the wiring diagram.

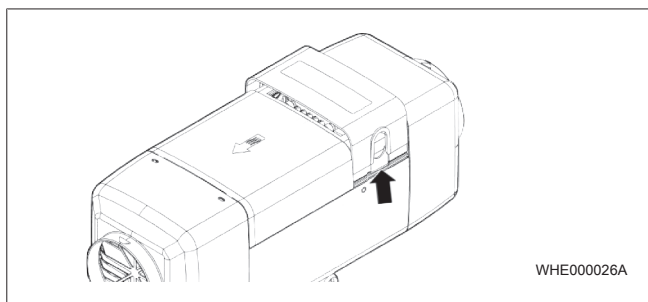


Fig. 20 Control unit cover

- Use a blunt blade on both sides to remove the control unit cover.
- Plug in wiring harness connector at control unit.
- Route cable through left or right cable lead-through.
- Position cable grommet such that the cable lead-through is sealed off in the control unit cover.
- Connect the supply voltage to the vehicle electrical system.
- Install fuse holder in vehicle interior.

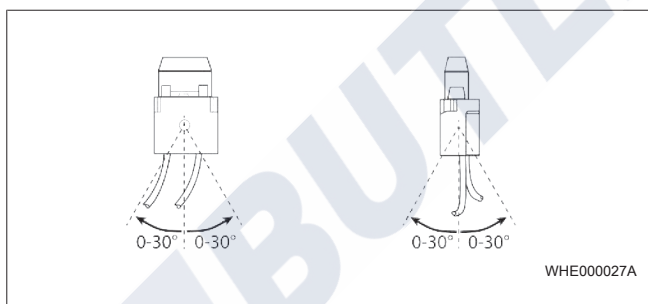


Fig. 21 Fuse installation positions

- Install a fuse (according to SAE J 1284, F= 15 A for 24 V, F= 20 A for 12 V) with fuse holder as a safety measure for the heater.
- Connect heater corresponding to the wiring diagram.
- Replace control unit cover.
- Connect fuel pump cable for heater.

8.3 Connecting control element

- Carry out assembly according to the control element installation instructions.
- Connect plug to control element according to the labelling on the heater wiring harness.

8.4 Connecting heater to ADR vehicles

According to the requirements in chapter 2.3.2, "ECE R122 Requirements" on page 5, the heater in ADR vehicles must continue running for a reduced time (40 s) in the event of a motor shutdown and/or activation of the auxiliary drive. This function is triggered by corresponding circuitry of the heater pins D+ and NA.

Application example for vehicles with auxiliary drive (pin 3 (purple) is connected to auxiliary drive):

- Connect pin 4 (grey) to terminal D+/61. Continued running for ADR (40 s) is triggered by a change in potential from +12/24V to 0V (motor off).

or

- If a voltage of 12V/24V is applied to pin 3 (purple), continued running for ADR (40 s) is triggered (auxiliary drive on). The heater is locked while the voltage is applied to pin 3 (purple).

Application example for vehicles without auxiliary drive (pin 3 (purple) is connected to earth):

- Connect pin 4 (grey) to terminal D+/61. Continued running for ADR (40 s) is triggered by a change in potential from +12/24V to 0V (motor off).
- ✓ After connection in accordance with the ADR wiring diagram (see Wiring Diagram), the heater will continue running for 40 s when switch S5 is operated.
- Connect heater and control element as described in chapter 8.2, "Connecting heater" on page 16 and chapter 8.3, "Connecting control element" on page 16.



DANGER

ADR installations may be carried out by certified specialists only. The function should be checked on each vehicle.

8.5 Cable cross-sections and colours



Wires or components shown with dashed lines are optional and not included in the scope of delivery or in the wiring harness.

Line length	< 7.5 m	7.5 – 15 m
Cable cross-sections (Wiring diagram based on < 7.5 m)	0.5 mm ²	1.0 mm ²
	1.0 mm ²	1.5 mm ²
	1.5 mm ²	2.5 mm ²
	2.5 mm ²	4.0 mm ²
	4.0 mm ²	6.0 mm ²

Colour	Abbreviation	Colour	Abbreviation
blue	bl	orange	or
brown	br	red	rt
yellow	ge	black	sw
green	gn	violet	vi
grey	gr	white	ws

8.6 Legend to wiring diagram

No.	Description	Remarks
A1	Heater	Air Top 2000 STC
A2	Control unit	Control unit 1574
B1	Flame monitor	Only for petrol heaters

No.	Description	Remarks
B2	Temperature sensor	Inside
B3	Overheat sensor	Overheating protection
B4	Room temperature sensor	External (optional)
E	Glow plug	–
F1	Fuse: 24 V = 15 A, 12 V = 20 A	Blade fuse DIN 72581-3
F2	Fuse 1A	Blade fuse DIN 72581-3
H6	LED (green, blue, white, red)	Operation indicator, Ready indicator, ON in- dicator, fault list
H7	Symbol on display	–
M1	Drive motor	Heating and combus- tion air fan
P	SmartControl / MultiControl / W-Bus control element	W-bus
R1	Resistor	Only for internal tem- perature sensor
S3	Switch	CO ₂ setting
X1 – X6	Plug connection	To Item A2
X9	4-pin plug connection	-
X9 (a)	4-pin plug connection	Analogue, setpoint sensor connection
X9 (c)	4-pin plug connection	W-Bus, W-Bus control element connection
X10	4-pin plug connection	To Item P1 or P2
X11	2-pin plug connection	To Item B4 (optional)
X13	2-pin plug connection	To Item Y1
X15	1-pin plug connection	To Item S3
X16	2-pin plug connection	Wiring harness connec- tion DP42.4
X17	2-pin plug connection	Wiring harness connec- tion DP42.4
Y1	Fuel pump	DP42.4
②	All heater versions: connection of W-bus diagnostics, SmartControl/MultiControl, UniControl, ThermoCall.	
⑤	Grey and violet wires required for ADR function. Non- ADR vehicles: Insulate and tie back ends of wires.	
⑥	External room temperature sensor (optional)	

8.7 Pin assignments plug connection X6

No.	Description
1	Power supply + (terminal 30)
2	Power supply – (terminal 31)
3	Auxiliary drive
4	Terminal D+
5	W-bus (Webasto Thermo Test Diagnosis connection)
6	K-bus
7	CO ₂ setting
8	External temperature sensor
9	External temperature sensor

No.	Description
10	Setpoint sensor +
11	Setpoint sensor -
12	Input, switch-on signal (ON/OFF)
13	Power supply, control element / error code output
14	Output, vehicle fan relay/output, battery disconnecter af- terring signal
15	Output, battery disconnecter afterring signal/output, vehicle fan relay
16	Input, Ventilate (only for operation with control element without W-bus)
17	Not used
18	Not used

8.8 Wiring Diagram

No.	Configuration	Wiring Diagram
1	12 V / 24 V with MultiControl (see Fig. 22)	9038915A
2	12 V / 24 V with rotary switch and vehicle blower (see Fig. 23)	9032487A
3	12 V / 24 V ADR operation with rotary switch (see Fig. 24)	9032488A
4	12 V / 24 V ADR operation with SmartControl (see Fig. 25)	9032489A
5	12 V / 24 V with UniControl / battery disconnecter (see Fig. 26)	9036920A

Table 5: Wiring diagram overview

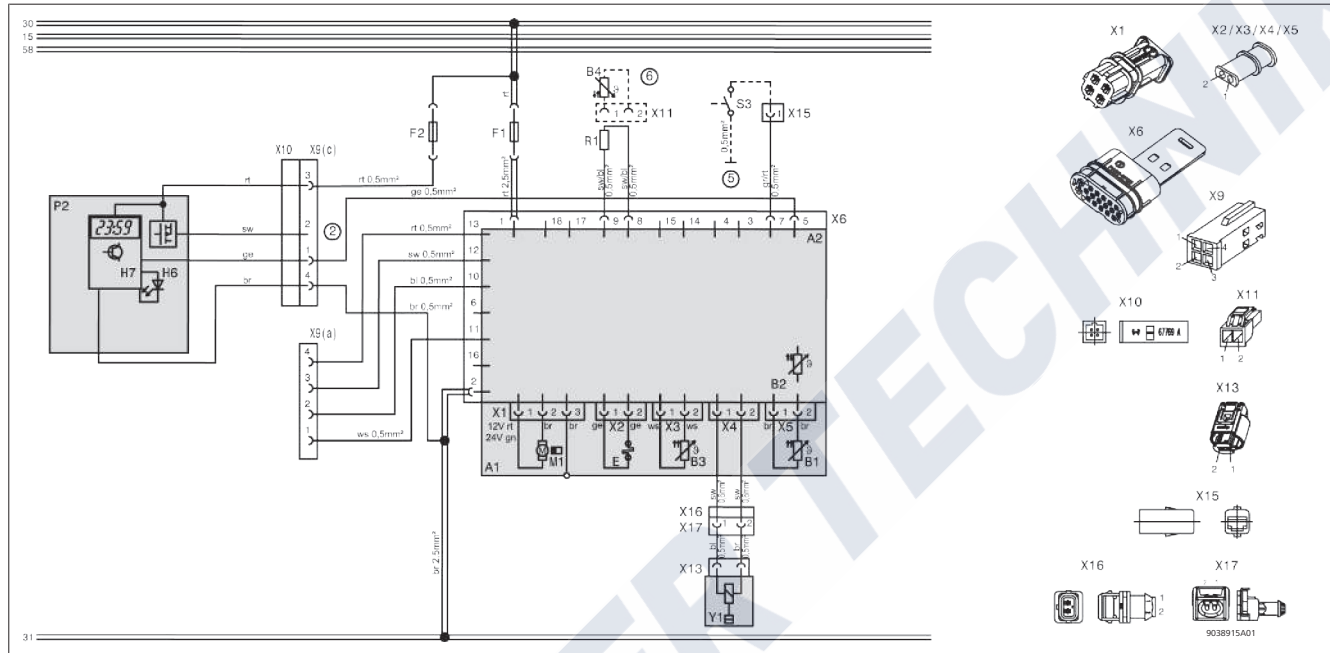


Fig. 22 MultiControl wiring diagram (9038915A)

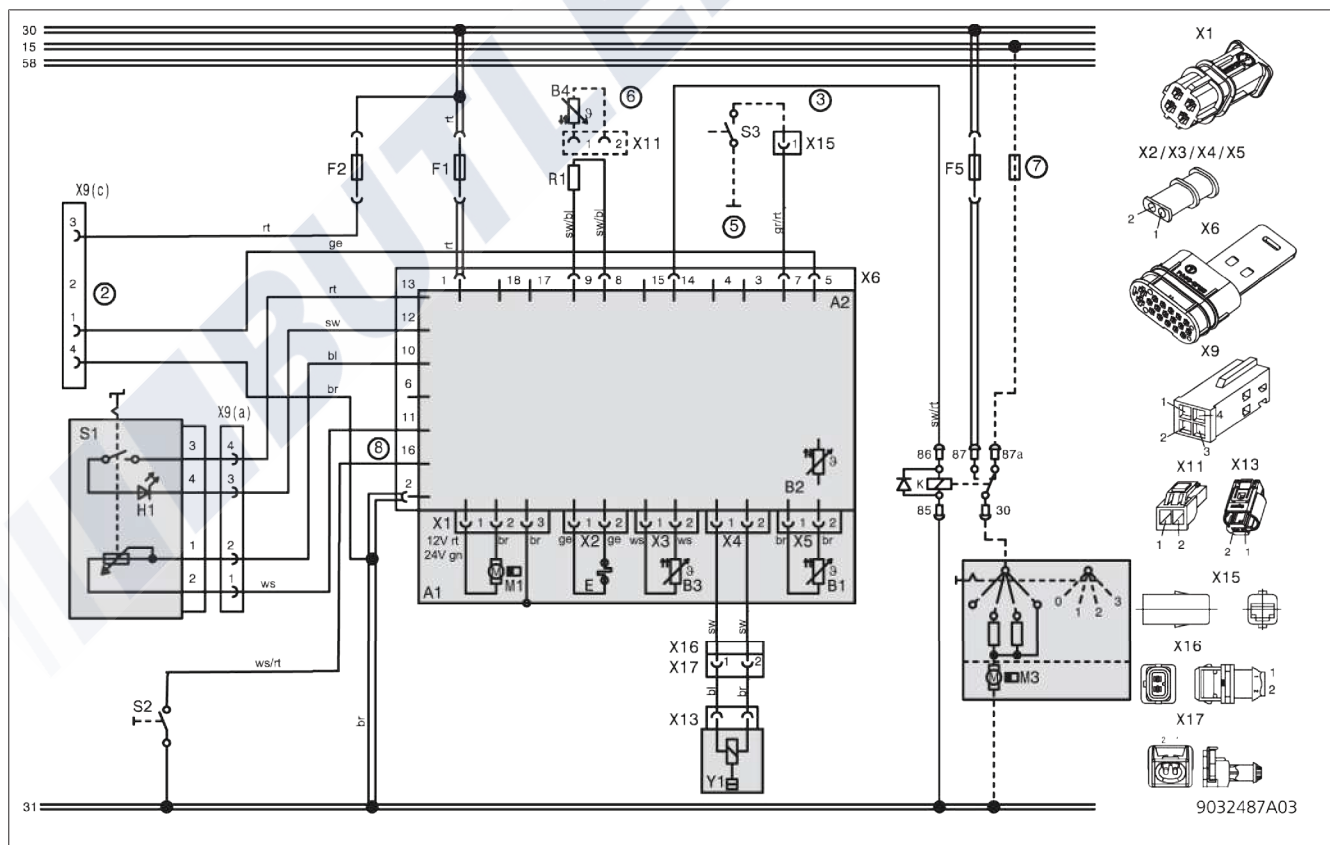


Fig. 23 Wiring diagram for rotary switch (9032487A)