

**Air Heaters**

**Wiring Diagrams**



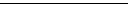
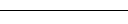
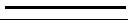
**Air Top Evo 40**

Air Top Evo 40 B (Petrol)

Air Top Evo 40 D (Diesel)

## 7.2 Legend for wiring diagrams

### Cable cross-sections

	< 7.5 m	7.5 - 15 m
	0.75 mm <sup>2</sup>	1.0 mm <sup>2</sup>
	1.0 mm <sup>2</sup>	1.5 mm <sup>2</sup>
	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
	2.5 mm <sup>2</sup>	4.0 mm <sup>2</sup>
	4.0 mm <sup>2</sup>	6.0 mm <sup>2</sup>

### Cable colours

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

Item	Description	Comment
A1	Heater	Air Top Evo 40 / Air Top Evo 55
A2	Control unit	Control unit 1580
B2	Room temperature sensor	Internal
B3	Blow-out temperature sensor	Overheating guard
B4	Room temperature sensor	External
B5	Exhaust temperature sensor	Overheating protection/flame monitor
E	Glow plug	
F1	Fuse 15 A (24 V) or 20 A (12 V)	Flat fuse SAE J 1284
F2	Fuse 4 A	Blade fuse SAE J 1284, not contained in wiring harness
F3	Fuse 1 A	Flat fuse SAE J 1284
F4	Fuse 4 A	Blade fuse SAE J 1284, not contained in wiring harness
F5	Fuse	Value in [A] to be selected depending on line cross-section
H1	LED green (in Item S1)	Operating Indicator
H2	LED red (in Item P)	Lighting of immediate heat button, operating indicator
H3	Display (in Item P)	Heating symbol, operating indicator
H4	Light bulb/LED (in Item P and S)	Display and button lighting
H5	Light bulb/LED	Switch-on check for pumping device, max. 500 mA
K	Relay with free-wheeling diode	for vehicle fan, max. 500 mA
M1	Drive motor	Combustion and heating air fan
M3	Motor	Vehicle fan
P	Combination timer 1531	Timer and temperature selector

Item	Description	Comment
S	Air Top Evo Multi Control (MC04) control element	On/Off switch, selector switch for additional functions and temperature selector
S1	Heater-control rotary selector	On/Off switch and temperature selector
S2	Switch	Ventilation
S3	Switch	CO <sub>2</sub> setting
S4	Push button	External instant heat button
S5	Switch	Pumping devices/ auxiliary drive
S6	Switch, single or two-pin	Isolation switch
S7	Battery isolation switch	Electronically controlled isolating switch, max. 500 mA
V1/V2	Blocking diode	min. 500 mA
X1-X8	Plug connector	on Item A2
X9 (a)	Plug connector	on Item S or S1
X9 (b)	Plug connector	on Item S or S2
X9 (c)	Plug connector	W bus, optional connection of Telearstart (12 V) or Thermo Call
X1-X11	Plug connector	In heater on control unit
X13	Plug connector	to Item Y1
X14	Plug connector	to Item P
X15	Plug connector	to Item S3
X16	Plug connector	Connection of wiring harness DP 42
X17	Plug connector	Connection of wiring harness DP 42
Y1	Fuel pump	DP 42
Y2	Solenoid valve/pump	Pumping devices/auxiliary drive, max. 500 mA

## 7 Wiring Diagrams

### 7.1 General information

The Air Top Evo 40 / Air Top Evo 55 heaters can be operated with the rotary selector, a combination timer or the Air Top Evo Multi Control (MC04) control element.

The wiring diagrams (Fig. 702 to Fig. 707) show the possible circuits for 12 or 24 V.

- Rotary selector and vehicle fan
- ADR operation with rotary selector
- Combination timer and electrical battery isolation switch
- Air Top Evo Multi Control (MC04) control element
- "Master heater" with rotary selector
- "Slave heater"

Fig. 701 shows the plug assignment on the control unit.

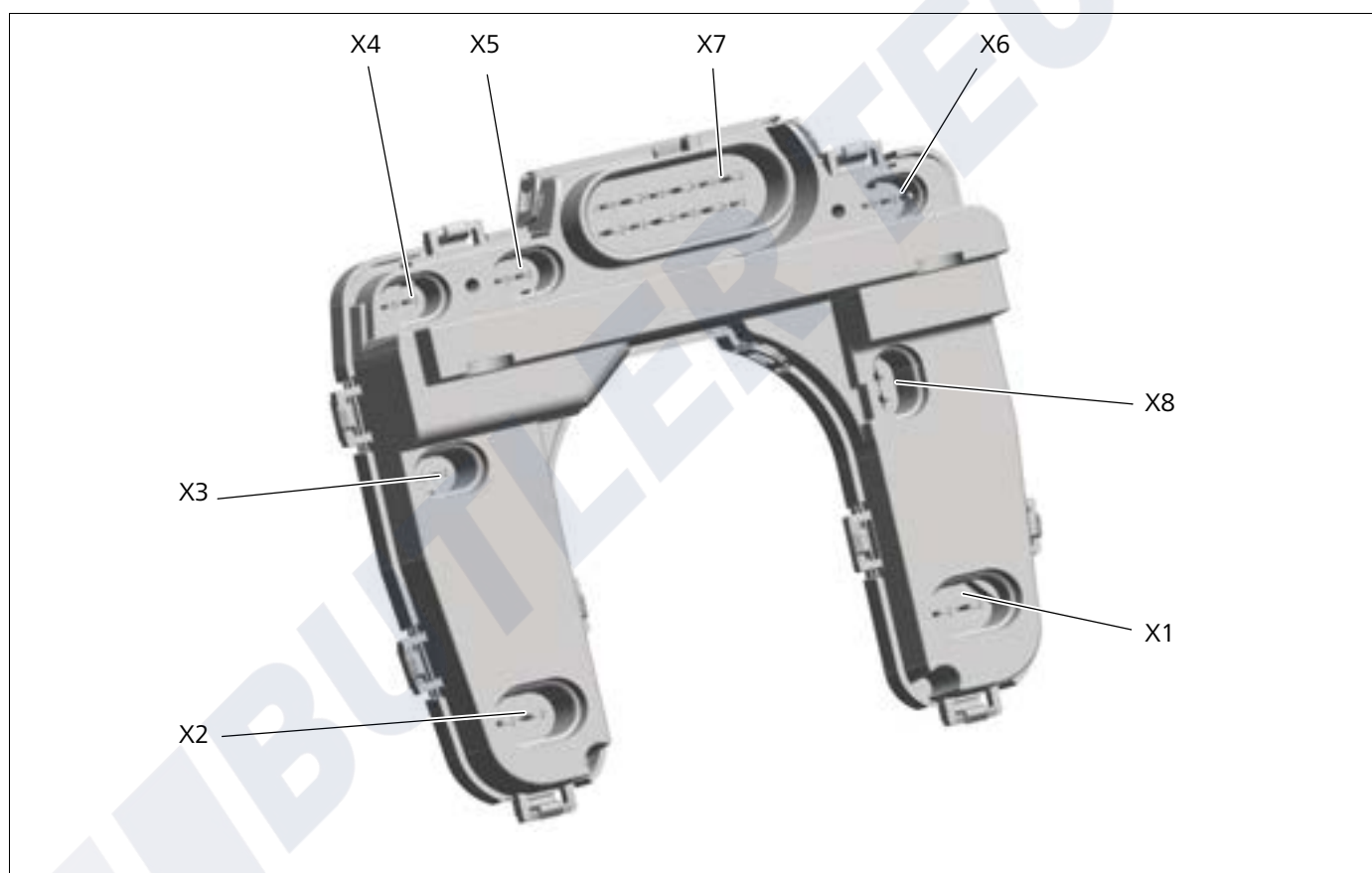


Fig. 701 Connector assignment on control unit

- X1 = Drive motor connection
- X2 = Glow plug connection
- X3 = Blow-out temperature sensor connection
- X4 = Fuel pump connection

- X5 = Connection of external temperature sensor
- X6 = D+ and auxiliary drive unit connection
- X7 = Heater wiring harness connection
- X8 = Exhaust temperature sensor connection

Fig. 708 shows the schematic connection of the combination timer.

Fig. 709 shows the schematic connection of the Air Top Evo Multi Control (MC04) control element.

See Section 7.2 for wiring diagram legends.

#### IMPORTANT

The use of force when pressing on the connectors can destroy the mechanical coding, i.e. the reverse polarity protection or the correct assignment of the connection is no longer ensured. This can then result in considerable damage to the heater.

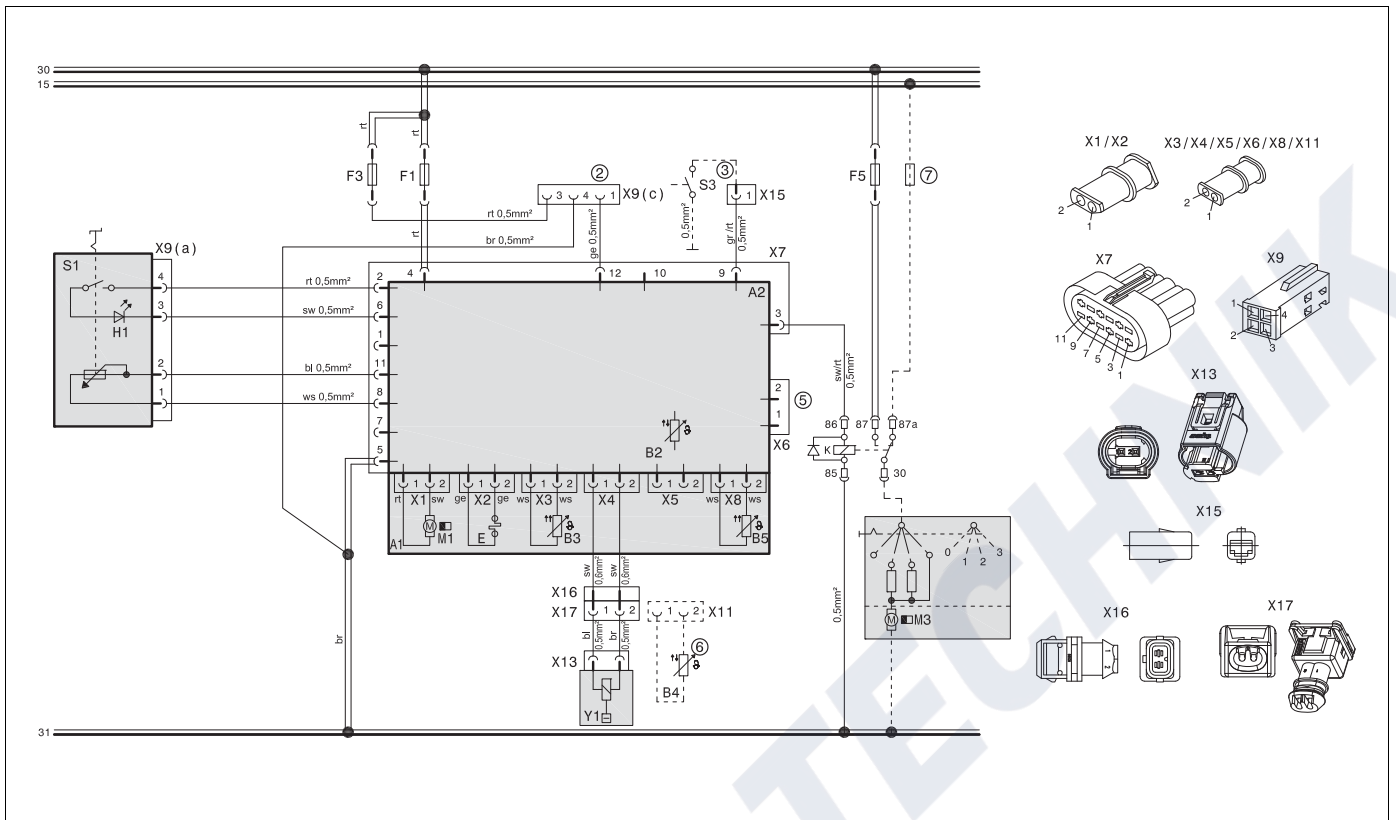


Fig. 702 Wiring diagram for Air Top Evo 40 and Air Top Evo 55, 12 V/24 V with rotary selector and vehicle fan

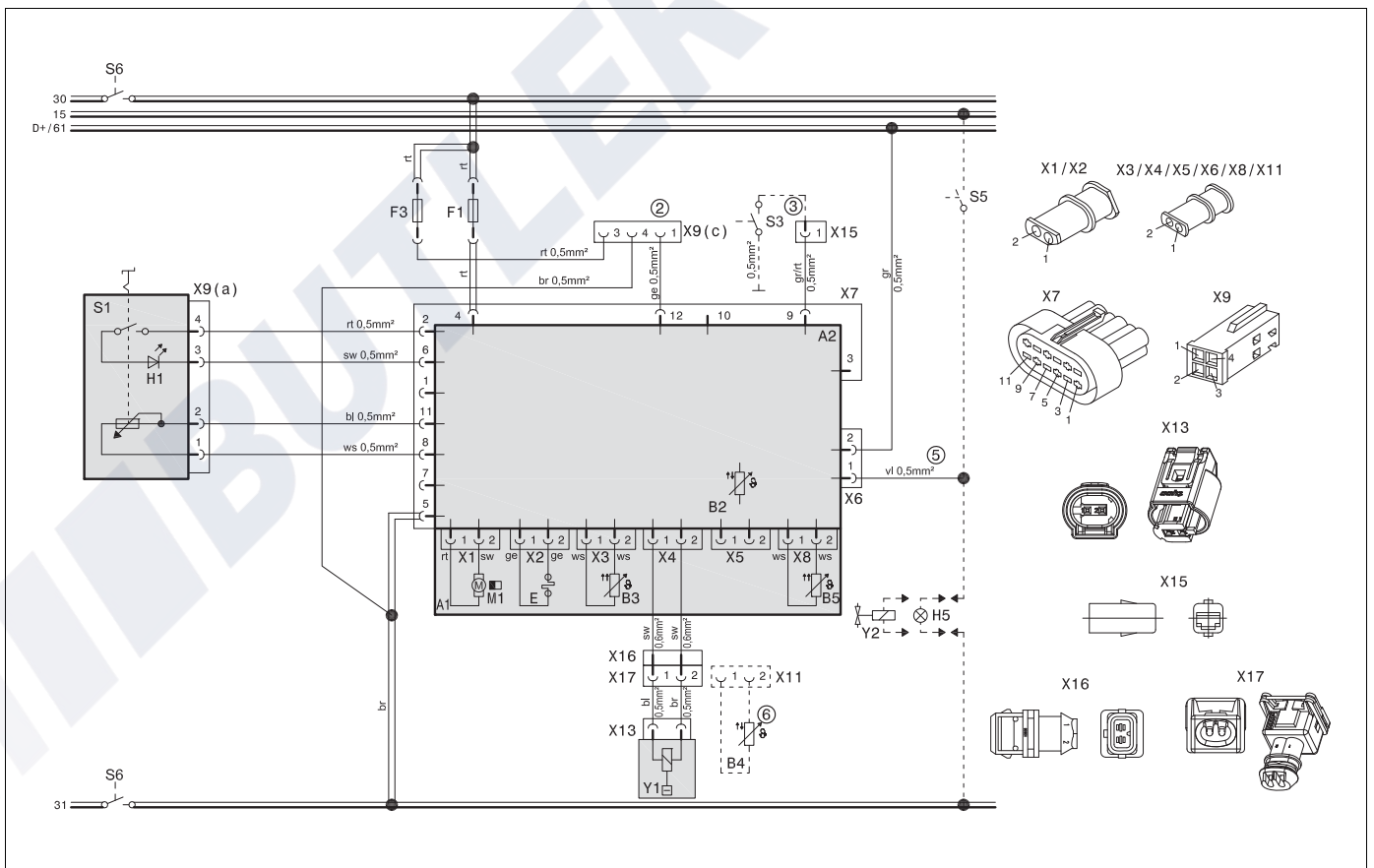


Fig. 703 Wiring diagram for Air Top Evo 40 and Air Top Evo 55, 24 V for ADR operation with rotary selector

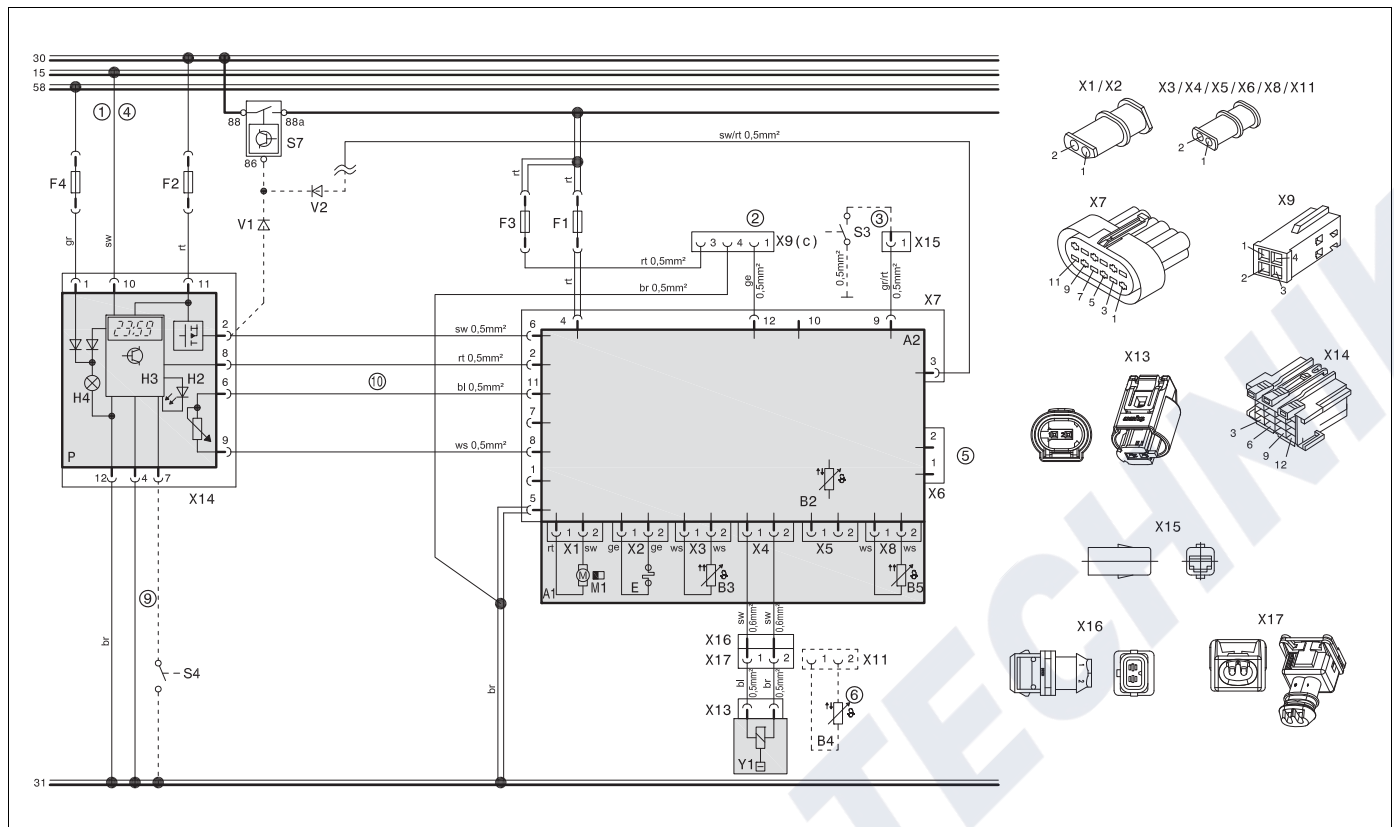


Fig. 704 Wiring diagram for Air Top Evo 40 and Air Top Evo 55, 12 V/24 V with 1531 combination timer and electr. battery isolation switch

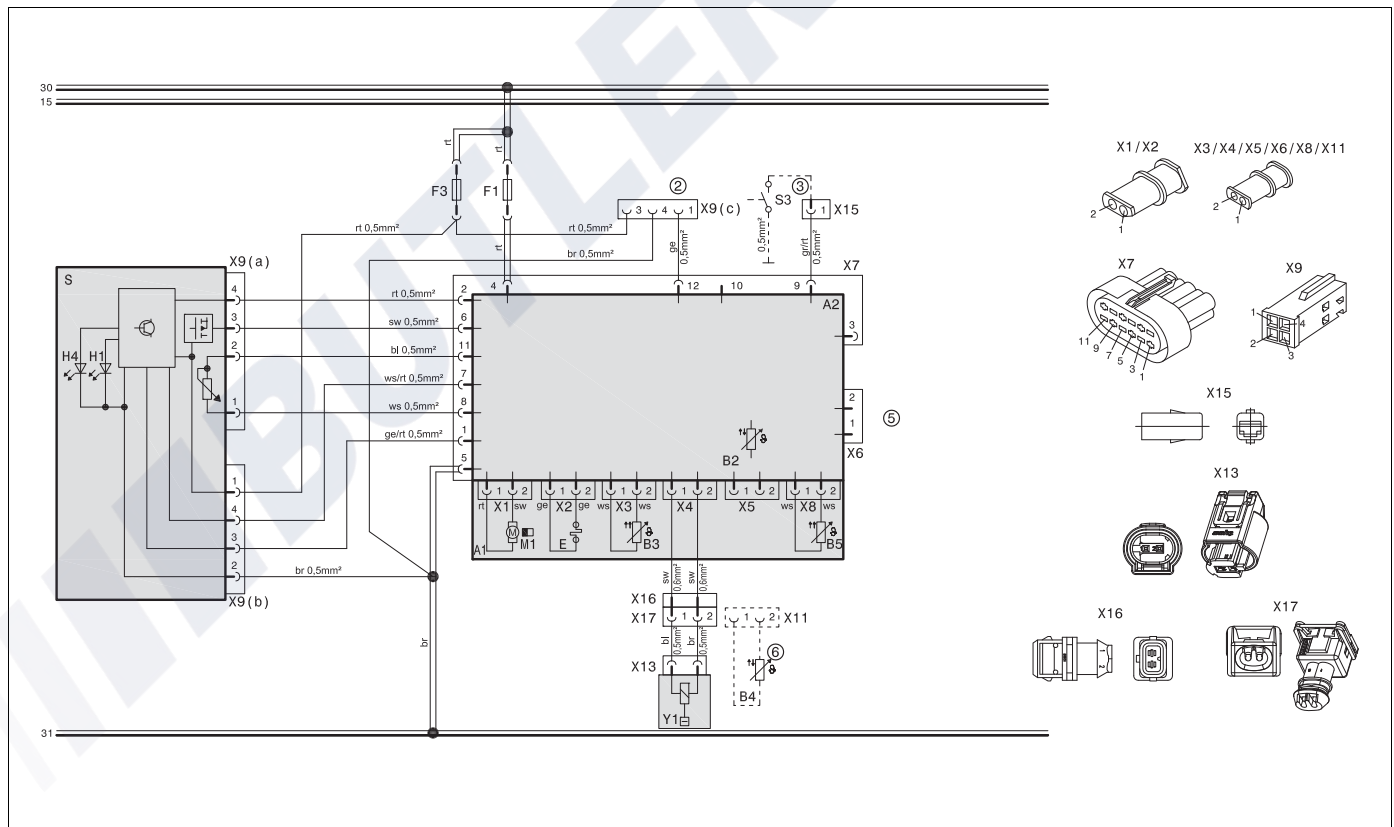


Fig. 705 Wiring diagram for Air Top Evo 40 and Air Top Evo 55, 12 V/24 V with Air Top Evo MultiComfort (MC04) control element. Wiring harness available as an option.

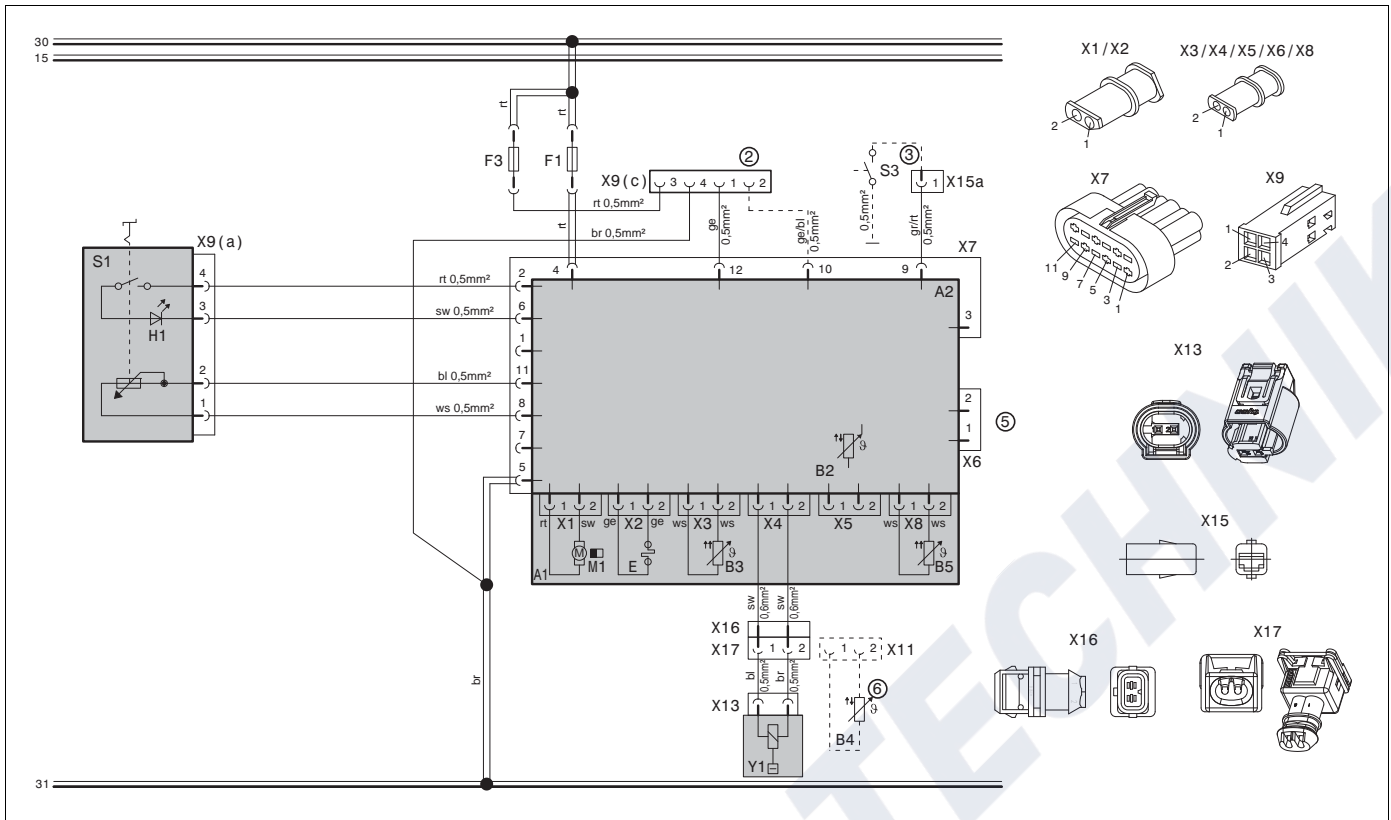


Fig. 706 Wiring diagram for Air Top Evo 40 and Air Top Evo 55 "Master heater", 12 V/24 V with rotary selector

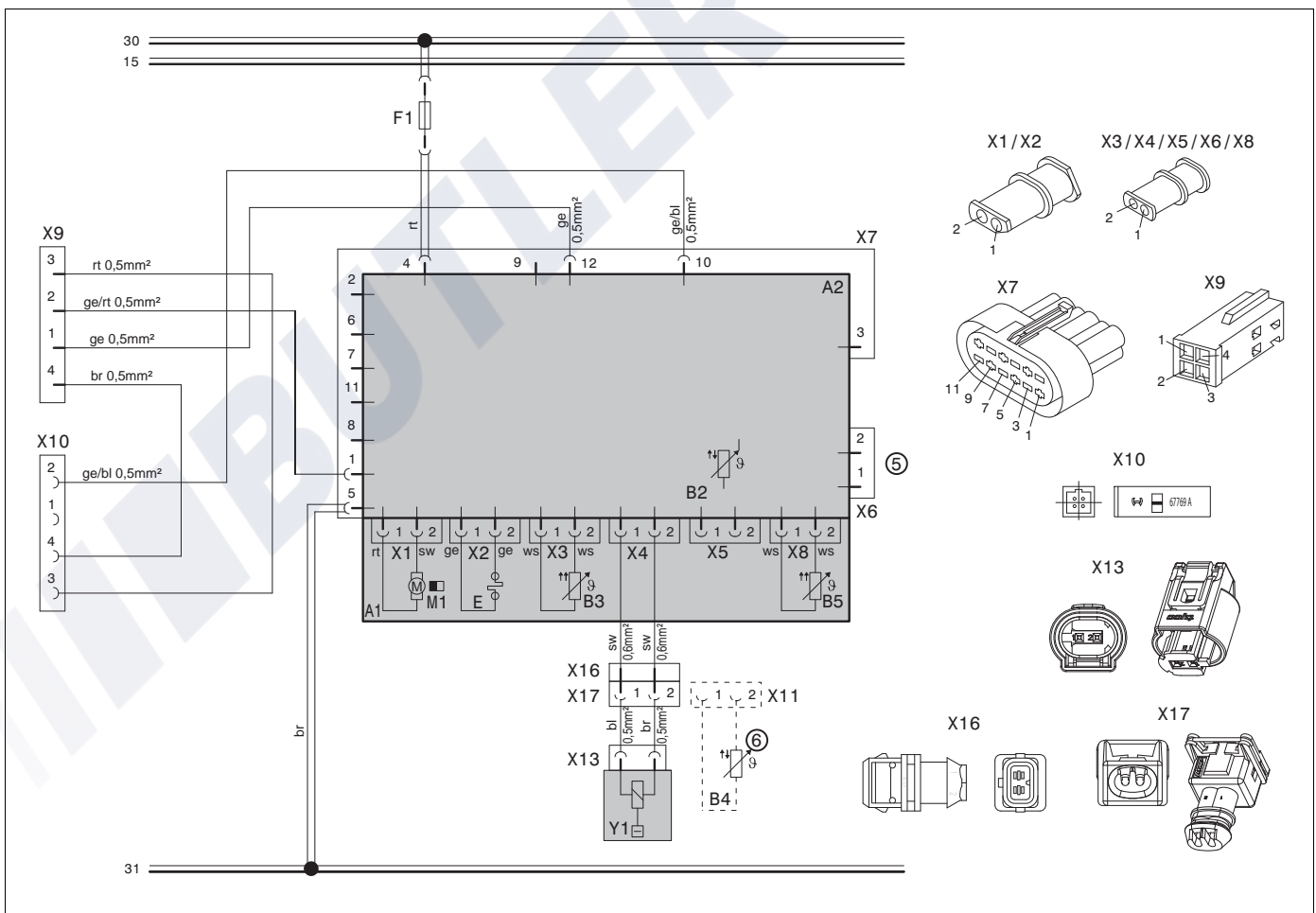


Fig. 707 Wiring diagram for Air Top Evo 40 and Air Top Evo 55 "Slave heater", 12 V/24 V

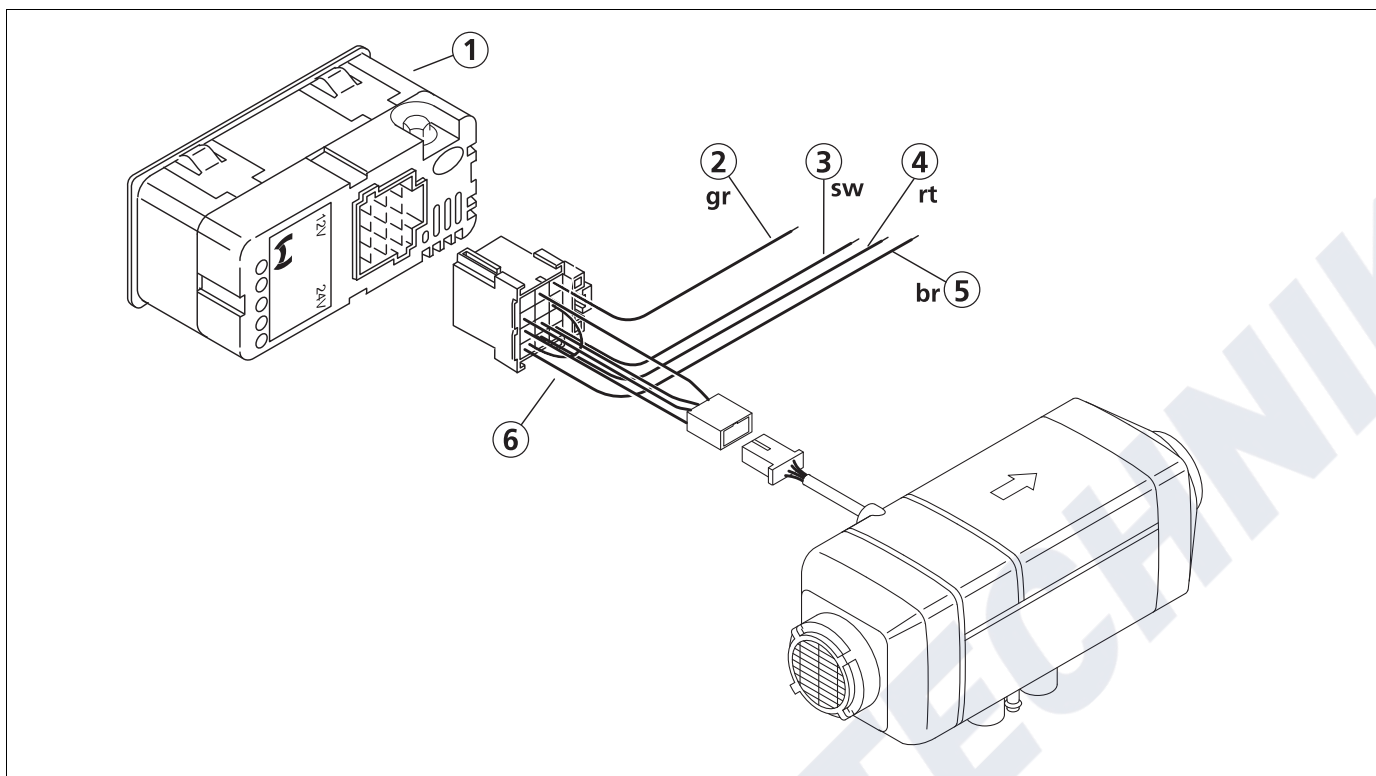


Fig. 708 Connection diagram for Air Top Evo 40 and Air Top Evo 55 with 1531 combination timer

- |                           |                           |
|---------------------------|---------------------------|
| 1. 1531 combination timer | 4. red: Terminal 30       |
| 2. grey: Terminal 58      | 5. brown: Terminal 31     |
| 3. black: Terminal 15     | 6. Wiring harness adapter |

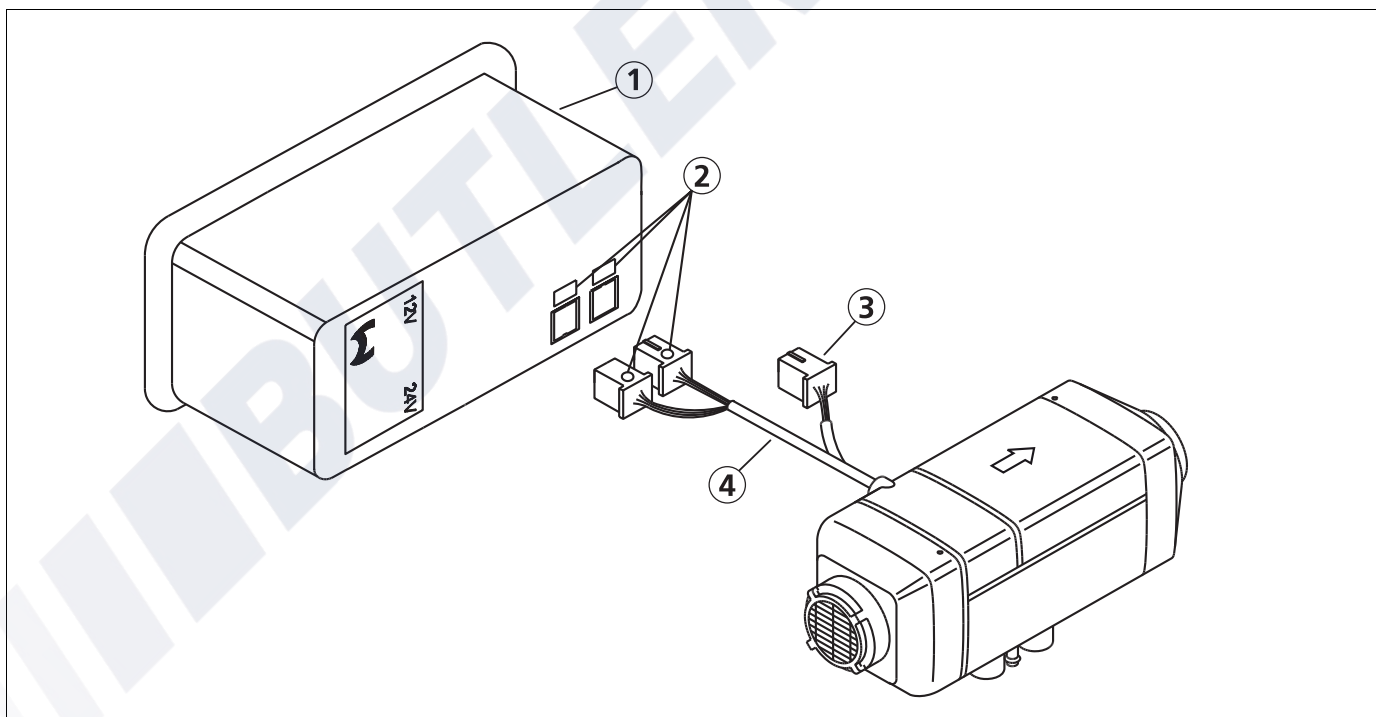


Fig. 709 Connection diagram for Air Top Evo 40 and Air Top Evo 55 with Air Top Evo Multi Control (MC04) control element

- |   |   |
|---|---|
| 1. Air Top Evo Multi Control (MC04) control element | 3. Optional connection for:                       |
| 2. Observe coloured markings                        | - Telearstart/Thermo Call (12 V only)             |
|   | - Webasto Thermo Test PC Diagnosis                |
|   | 4. Heater wiring harness (available as an option) |

**Note numbers**

- (1) With plus from Terminal 15/75 to Connection 10:  
Continuous operation with immediate heating as long as ignition is switched on.
- (2) All heater variants: W bus PC Diagnostics connection.  
Heater variants with Air Top Evo Multi Control (MC04) control element and combination timer:  
Thermo Call connection  
Telestart connection (12 V only).  
Master heater variant: Slave heater connection (ye/bl wire).  
Prefabricated cable is contained in slave delivery scope.
- (3) CO<sub>2</sub> setting.
- (4) If the connection is made to Terminal 30, continuous heating is possible with the ignition switched off!  
In this case, no connection may be made to Terminal 15/75!
- (5) Grey and purple wires are required for ADR function.  
On non-ADR vehicles the wire ends must be insulated and tied back.
- (6) External room temperature sensor (optional).  
NOTE: The sensor is mandatory for the Master heater variant.
- (7) Fuse present in vehicle.
- (8) Pin 7 "Boost" only for Ambulance heater variant (door contact on Terminal 31).
- (9) Connection necessary when using 1531 combination timer in ADR vehicles.
- (10) Wiring harness adapter is available as an option.