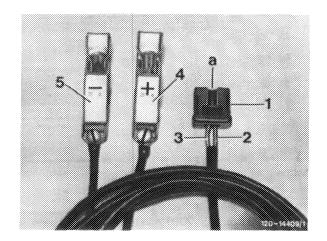
## Self-made tools

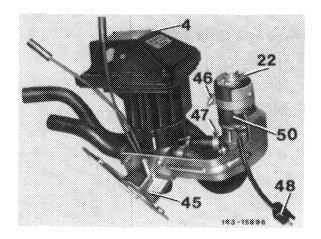
- 1 Coupling part no. 002 545 49 28
- 2 Line black 1.5 mm dia. approx. 1 m long
- 3 Line brown 1.5 mm dia. approx. 1 m long
- 4 Cable terminal +
- 5 Cable terminal -
- a Locating groove



## Removal

- 1 Drain coolant.
- 2 Remove clamp (46).
- 3 Loosen two hose clips (47) and pull off water hoses.
- 4 Disconnect electrical plug connection (48).
- 5 Remove heating water pump (22).

Note: If heating water pump is leaking, seal (83-631).

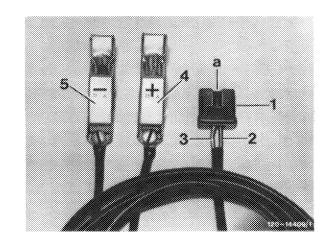


## Installation

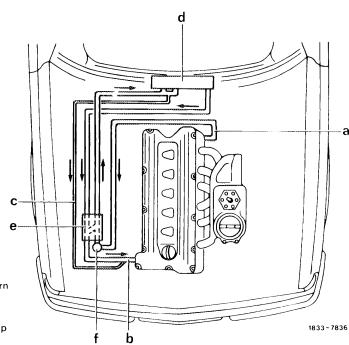
6 Attach water hoses to heating water pump and tighten with hose clips (47).

- 7 Attach heating water pump with clamp (46) to holder (45) while paying attention to damping (50).
- 8 Connect electrical plug (48) and attach with clip.
- 9 Fill-in coolant and check hose connections for leaks

- 10 Bleed cooling system, while bridging temperature switch (21) for heating water pump or connecting heating water pump directly to vehicle battery by means of self-made harness. Push "DEF" button and run engine at approx. 2000/min until operating temperature of engine is attained.
- 11 Check operation of heating water pump during warming-up period of engine.



## Heating water circuit



- a Heating water feed
- b Heating water return
- c Vent line
- d Heat exchanger e Regulating valve
- f Heating water pump

83.6-630/2