

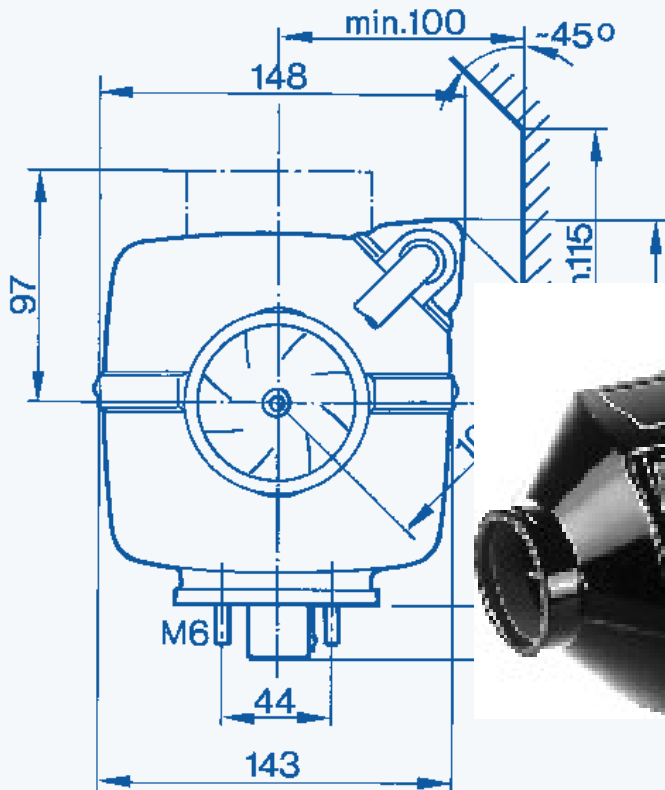


# Eberspacher D1LC Compact Air Heater Fault Codes

## Error Codes & Remedies

### D1LC compact

For Heater Models	Release period
25 1976 05 - 12Volt	October/97-present
25 1977 05 - 24Volt	February/98-present
25 1965 05 - 12Volt	April/97-October/97
25 1966 05 - 24Volt	August/96-February/98
25 1895 05 - 12Volt	August/96-April/97
25 1896 05 - 24Volt	August/96-Limited



**Note:** If there are no heater faults, the heater will go through a normal start cycle and regulate based on thermostat setting.

Fault Code	Fault Description	Causes / Repair
000	Normal Operation	
001	Warning - overvoltage	Check vehicle charging system.
002	Warning - undervoltage	Check batteries and connections.
004	Warning - short in blower signal	Check for short between pin 1 to blower relay. If no short exists replace control unit.
005	Warning - short circuit in anti-theft alarm output	Check for short between pin 2 and alarm relay.
009	TRS - shut down	Check for change of signal from (+) to (-) at pin 10 or a (+) signal at pin 12.
010	Overvoltage	Check voltage between terminals 9 and 11. This must be less than 15.9 volts (15.2 volts with glow plug on). Check vehicle charging system.
011	Undervoltage shut down	Check voltage between control unit pins 9 and 11. This must be greater than 10.5 volts (9.5 volts with glow plug on). Check batteries and connections.
012	Overheat	Check for possible causes of overheat. Check overheat switch resistance values. (see component value chart).
013	Overheat at flame sensor	Flame sensor senses temperature above 340°C (resistance value above 2270 Ω ). Check flame sensor resistance values and overheat switch resistance values (see component value chart).
015	Too many overheats	Control unit limits heater to 3 consecutive overheats (fault code 12,13). Remove cause of over heat. Reset control unit using control unit tester or fault code retrieval device to unlock control unit.
020	Open circuit - glow plug	Check glow plug for break in coils. Check resistance across glow plug leads (1-2 Ω ). Check for continuity between pins 6 and 9. If aforementioned checks okay, replace control unit.
021	Short circuit - glow plug	Check glow plug for short across coils. Check pin 6 to glow plug for short. If glow plug short detected, replace glow plug. If aforementioned checks okay replace control unit
025	Diagnostics output short	Check for short between pin 4 and diagnostics and output connection.
033	Burner motor speed deviation	Motor speed varies from specification by more than 10% for longer than 30 seconds. If too slow, check for restriction, and check for short in motor circuit or control unit. If none found, replace blower. If too fast, check for damage to magnetic sensor control on control unit. Replace blower motor if damaged. Replace control unit otherwise.



Fault Code	Fault Description	Causes / Repair
047	Short circuit - fuel metering pump	Check for short between pin 3 and fuel metering pump. Test fuel metering pump.
048	Open circuit - fuel metering pump	Check for open circuit between pins 3 and fuel metering pump.
050	Too many no start attempts	Control unit restricts heater to 10 start attempts (20 starts if no flame is detected during start attempts). Check fuel, glow plug, combustion air and exhaust flow. Use control unit tester or fault code retrieval device to unlock control unit.
051	Faulty flame recognition	Allow heater to cool 15 minutes then try restart. Check flame sensor resistance value.
052	No start safety time exceeded	No flame detected on start attempt. Temperature at flame sensor <100°C (1380Ω). Check flame sensor resistance values. Check fuel, glow plug, combustion air and exhaust flows.
053	Flame cutout in boost mode	Heater has started successfully the flame has extinguished. Check fuel supply. Check combustion air and exhaust flow. Check flame sensor resistance value.
054	Flame cutout in high mode	Heater has started successfully the flame has extinguished. Check fuel supply. Check combustion air and exhaust flow. Check flame sensor resistance value.
055	Flame cutout in medium mode	
056	Flame cutout in low mode	
060	Open circuit - external temperature sensor	Temperature sensor detects a value beyond it's range. Check connections. Check sensor resistance between pins 8 and 13 > 2800Ω - open < 280Ω - short
061	Short circuit - external temperature sensor	
062	Open circuit - set point potentiometer (control switch)	Potentiometer values outside of range. Check resistance between pins 7 and 13. > 2800Ω - open < 280Ω - short Normal range 1750 - 2080 Ω (+/- 80).
063	Short circuit - set point potentiometer (control switch)	
064	Open circuit - flame sensor	Sensor is sensing value outside of range > 3200 Ω - open < 200 Ω - short
065	Short circuit - flame sensor	
071	Open circuit - overheat sensor	
090	Control unit defect	Internal failure. Replace control unit.
091	External voltage disturbance	Check vehicle charging system.
092	Control unit defective	Internal failure. Replace control unit.
093		
094		
096		
096	Control unit defective (internal temperature sensor)	Internal failure. Replace control unit or use external sensor.
097	Control unit defective (power failure)	Internal failure. Replace control unit.