

Diagnostic Unit

(Part Number : 20 2900 70 5020)



Espcor Heater Systems

The Diagnostic Unit is used for reading, displaying and deleting fault codes saved in the electronic control unit of the heater. The electronic control unit can save up to 5 fault codes, labeled F1 to F5. The most recent fault code is in memory location F1.

The current or actual fault code is shown as “AF” and is always written into the F1 memory location. Previous fault codes are transferred to memory locations F2 to F5.



1. Button : delete fault memory
2. Button : delete fault memory
3. Button : switch heater on/off, request diagnostic fault codes
4. Button : backwards, fault F5 – F1, AF
5. Button : forward AF, F1 – F5
6. Display

Connection

1. When available, connect the unit to the diagnostic pigtail (8-pin black connector) on the heater’s main wiring harness, located at the heater main connection.
2. If the diagnostic pigtail is not present, connect the unit as outlined in the appropriate heater technical manual. A tester wiring adaptor may be required.

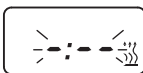
Heater	Tester Adapter Part Number
AIRTRONIC D2/D4/D5	22 1000 31 86 00
D8 LC	20 2900 70 50 31
HYDRONIC D4/D5	20 2900 70 50 28
HYDRONIC 10/HYDRONIC M	20 2900 70 50 30 (Has round connector) 20 2900 70 50 44 (has square connector)
HYDRONIC M II (8/10/12 kW)	25 2800 70 10 04
HYDRONIC 16/24/30/35	20 2900 70 50 36

3. Once correctly connected, the Diagnostic Unit display shows:



Fault Code Retrieval

4. Press the button on the diagnostic unit to switch on the heater. The display shows:



5. After 8 seconds, the display shows one of the following:



No error



Current fault (i.e. fault code 64)



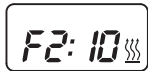
Fault diagnosis not possible

Possible causes:

- Adapter cable not connected properly.
- Control unit defect or incapable of diagnosis (i.e. control unit not equipped with self-diagnostics)

Display of the Fault Memory F1 – F5 or F5 – F1

6. Press the buttons or once or several times to show the individual fault code memories in decreasing or increasing order. The display shows:

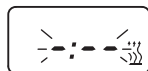


i.e. fault memory 2 / fault code 10

Only those fault memory position with an error assigned to them are displayed.

Delete Fault Memory

7. Eliminate the cause of the fault. Be sure to correct the root cause, not just the symptom.
8. Press both buttons at the same time until the display shows:



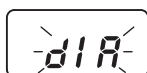
9. Once the fault memories are deleted, the last current fault is shown. The current fault is not reset to 00 until the next restart of the heater, providing no other current fault has occurred. The display shows:



Heater has no malfunction

End Diagnosis

10. Press button on the diagnosis unit to switch the heater off. The display shows:



11. Wait for the end of the heater cool down period.
12. Remove the adapter cable from the cable harness and restore the connection.