

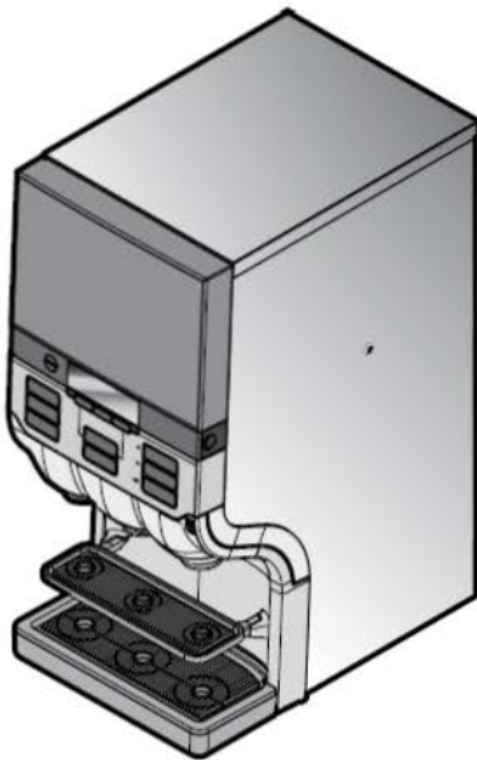


**DOUWE EGBERTS**

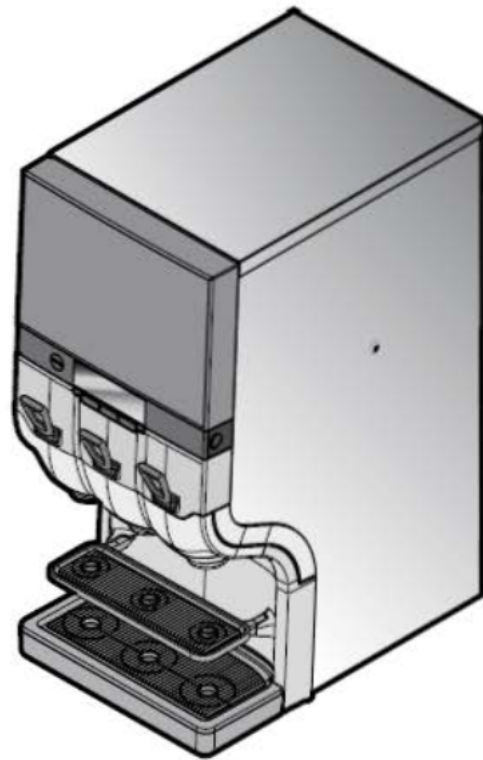
**Errors &**

**Troubleshooting Guide**

**NG300**



Version „Push Button“



Version „Classic“

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## 3.1 Errors water system

No.	Description	Over- rules	Set condition	Reset condition	Remarks	Cause	Remedy
10	<b>Overboil safety has tripped -&gt;</b> the dispenser is blocked for hot drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>off</b>	21	Software detects the over boil has tripped. Temp 65 °C (149 °F)	Automatically when software detects that safety is manually reset	Safety error	1. Overboil sensor defective  <b>or</b> heating is ON for too long: 2. Temperature sensor defective  3. Heating or safety relays defective  <b>or</b> there is a boiler overflow: 4. Normal level sensor is defective.  5. Inlet valve does not close.  6. Wiring incorrect, MCB defective	1. Check the overboil sensor  <b>or</b> 2. Check the temperature sensor and wiring. 3. Check and the heating or safety relays and wiring.  <b>or</b> 4. Check the normal level sensor and wiring. 5. Check, if the inlet valve is not leaking. 6. Check the MCB and wiring.  Replace components if necessary.
11	<b>Boiler water level is too low -&gt;</b> the dispenser is blocked for hot drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>off</b>		Low level sensor = dry	Switch off dispenser	Safety error	1. Water supply tap not open or blocked 2. Water pressure is too low  3. Inlet valve is defective 4. Inlet hose is blocked  5. Low level sensor defective  6. Wiring incorrect or connections defective 7. MCB defective	1. Open or clean tap  2. Check water pressure (see chapter 2) 3. Check / replace inlet valve 4. Check and clean/replace inlet hose 5. Check / replace low level sensor 6. Check wiring and replace connections 7. Replace MCB (see chapter 5K)

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

No.	Description	Over- rules	Set condition	Reset condition	Remarks	Cause	Remedy
12	<b>Boiler level sensors are not detected</b> -> the dispenser is blocked for hot drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>off</b>		Contact bridge in level sensor connector is not detected	Automatically when hardware detects the contact bridge		1. Wiring incorrect or sensor connections defective 2. MCB defective	1. Check wiring or replace sensor connections (see chapter 5K) 2. Replace MCB (see chapter 5K)
17	<b>Leaking outlet valves (small leak)</b>  Cooling control: <b>normal</b> Boiler level & heating control: <b>normal</b>		The refill cycles have occurred up to 10 times without dispensing	Press the LOCK/Clear error button*		1. One or more outlet valves are calcified 2. Valve body, lip seal, plunger are defective 3. There are other leakages	Check the outlet valves 1. Carry out the flush procedure, descale the boiler 2. Check/replace valve body, lip seal or plunger 3. Check for other leakages, e.g. boiler drain hose
18	<b>Leaking outlet valve (severe leak)</b> -> the dispenser is blocked for hot drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>off</b>		More than 14 refill cycles have occurred without dispensing	Press the LOCK/Clear error button*	After the reset condition the timer restarts	1. One or more outlet valves are calcified 2. There are other leakages	Check the outlet valves 1. Carry out the flush procedure or replace the outlet valve 2. Check for other leakages, e.g. boiler drain hose

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

No.	Description	Over- rules	Set condition	Reset condition	Remarks	Cause	Remedy
19	<b>Refilling the boiler takes too long</b> -> all delivery is blocked  Cooling control: <b>normal</b> Boiler level & heating control: <b>off</b>		Inlet valve was open for 2 minutes	Press the LOCK/Clear error button*	On reset the refilling starts again	1. Water supply tap not open or blocked 2. Water filter clogged or defective 3. Water pressure too low 4. Inlet valve defective 5. Inlet hoses clogged or defective	1. Open or clean tap 2. Clean or replace water filter 3. Check water pressure (see chapter 2) 4. Replace inlet valve 5. Clean or replace hoses
21	<b>Boiler water heating defective</b> -> the dispenser is blocked for hot drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>off</b>		Heating was continuously on for 45 minutes	Press the LOCK/Clear error button*	May occur after ERR 10 and ERR 11	1. Temperature sensor defective 2. Heating element(s) or relay(s) defective 3. Wiring incorrect or connections defective 4. MCB defective	1. Check/replace temperature sensor (see chapter 5A) 2. Check/replace heating element(s) or relay(s) 3. Check wiring or replace connections (see chapter 5K) 4. Replace MCB (see chapter 5K)
24	<b>Water temperature too low</b> -> the dispenser is blocked for hot drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>normal</b>		Temperature sensor reading: Water temperature below hygiene block setting	Automatically when temperature rises above reset temperature (95° C)		Heating element circuit defective.	1. Check wiring or replace connections (see chapter 5K) 2. Replace temperature sensor (see chapter 5A) 3. Replace MCB (see chapter 5K) 4. Replace heating elements

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

No.	Description	Over-rules	Set condition	Reset condition	Remarks	Cause	Remedy
25	<b>Water temperature sensor defective</b> -> the dispenser is blocked for hot drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>off</b>	24	The temperature sensor reading is out of limits	Automatically when temperature reading is within limits		1. Temperature sensor defective 2. Incorrect wiring or connections defective 3. MCB defective	1. Replace temperature sensor (see chapter 5A) 2. Check wiring or replace connections (see chapter 5K) 3. Replace MCB (see chapter 5K)

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

## 3.2 Errors cooling system

No.	Description	Over-rules	Set condition	Reset condition	Remarks	Cause	Remedy
30	<b>Cooling box temperature too high for too long</b> -> dispenser blocked for chocolate based drinks  Cooling control: <b>normal</b> Boiler level & heating control: <b>normal</b>		Reading of temperature sensor cooling plus timer: above 7°C / 45°F for more than 12 hours	Automatically		<ol style="list-style-type: none"> <li>Cooling compartment door not fully closed or sealed</li> <li>Ventilation grid soiled</li> <li>Ambient temperature too high (dispenser placed in a too hot environment or direct sunlight)</li> <li>Cooling compressor defective</li> <li>Temperature sensor cooling defective</li> <li>MCB or multi-relay board defective</li> </ol>	<ol style="list-style-type: none"> <li>Close cooling compartment door or replace seal</li> <li>Clean ventilation grid</li> <li>Change the location of the dispenser</li> <li>Check/replace starter unit</li> <li>Replace temperature sensor (see chapter 5F)</li> <li>Replace MCB or multi-relay board (see chapter 5K)</li> </ol>
31	<b>Cooling box temperature is too low for too long</b>  Cooling control: <b>off</b> Boiler level & heating control: <b>normal</b>		Reading of temperature sensor cooling plus timer below -1°C / 30°F for more than 12 hours	Automatically		<ol style="list-style-type: none"> <li>The dispenser was stored or transported in freezing conditions</li> <li>Temperature sensor cooling defective</li> <li>MCB or multi-relay board defective</li> </ol>	<ol style="list-style-type: none"> <li>Disconnect main power and open the dispenser door for 15 minutes.</li> <li>Replace temperature sensor (see chapter 5F)</li> <li>Replace MCB or multi-relay board (see chapter 5K)</li> </ol>
32	<b>Temperature sensor cooling defective</b> -> dispenser blocked for chocolate based drinks		Temperature sensor reading: < -10°C / 14°F or > 100°C / 212°F	Automatically when sensor readings are within limits		<ol style="list-style-type: none"> <li>Wiring incorrect or connections defective</li> <li>Temperature sensor defective</li> <li>MCB defective</li> </ol>	<ol style="list-style-type: none"> <li>Check wiring or replace connections (see chapter 5K)</li> <li>Replace temperature sensor (see chapter 5F)</li> <li>Replace MCB (see chapter 5K)</li> </ol>

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

No.	Description	Over- rules	Set condition	Reset condition	Remarks	Cause	Remedy
40	<b>1BIB: Left BIB empty</b>		BIB Empty sensor	Automatically when the sensor detects that the BIB is not empty.	Error visible on all machine versions. The beep is generated when the error is set and reset.	1. Float in B2 dosing unit defective 2. Wiring incorrect or connections defective 3. Empty sensor defective 4. MCB defective	1. Replace the product pack 2. Check wiring or replace connections (see chapter 5K) 3. Replace empty sensor (see chapter 5F) 4. Replace MCB (see chapter 5K)
41	Reserved						
42	<b>1BIB: Right BIB empty</b>		BIB Empty sensor	Automatically when the sensor detects that the BIB is not empty.	Error visible on all machine versions. The beep is generated when the error is set and reset.	1. Float in B2 dosing unit defective 2. Wiring incorrect or connections defective 3. Empty sensor defective 4. MCB defective	1. Replace the product pack 2. Check wiring or replace connections (see chapter 5K) 3. Replace empty sensor (see chapter 5F) 4. Replace MCB (see chapter 5K)
43	<b>1BIB: Left B2 defective</b>		B2 current too high or too low	Press the LOCK/Clear error button*	(locking error: remains active after it occurred)	1. Wiring incorrect or connections defective 2. B2 coil defective 3. MCB defective	1. Check wiring or replace connections (see chapter 5K) 2. Replace B2 coil ( <b>see chapter 5C</b> ) 3. Replace MCB (see chapter 5K)
<b>Error 43 or 45 - Check for Blown fuse on MCB</b>							
44	Reserved						
45	<b>1BIB: Right B2 defective</b>		B2 current too high or too low	Press the LOCK/Clear error button*	(locking error: remains active after it occurred)	1. Wiring incorrect or connections defective 2. B2 coil defective 3. MCB defective	1. Check wiring or replace connections (see chapter 5K) 2. Replace B2 coil ( <b>see chapter 5C</b> ) 3. Replace MCB (see chapter 5K)
50	Reserved						
51	Reserved						
52	Reserved						

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode



**3.3 Errors product delivery system**

No.	Description	Over-rules	Set condition	Reset condition	Remarks	Cause	Remedy
60	Reserved						
61	Reserved						
62	Reserved						
63	Reserved						

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

## 3.4 Errors hygiene system

No.	Description	Over-rules	Set condition	Reset condition	Remarks	Cause	Remedy
71	<b>Flushing was not executed in time -&gt;</b> dispenser is completely blocked  Cooling control: <b>normal</b> Boiler level & heating control: <b>normal</b>		Timer	Automatically by flushing		Flushing program was executed correctly within 24 hours	Reset by executing flushing program, adjust settings for flushing, if required
73	<b>Cleaning was not executed in time -&gt;</b> dispenser is completely blocked  Cooling control: <b>normal</b> Boiler level & heating control: <b>normal</b>		Timer	Automatically by cleaning and flushing		Cleaning program was executed correctly within 24 hours	Reset by executing flushing program, adjust settings for cleaning, if required
74	<b>Water throughput limit exceeded</b>		Software timers plus calculation	When water filter counter has been reset only, <b>NOT by power up or LOCK/error clear switch</b>		1. Water filter not replaced in time 2. Water throughput counter not reset	1. Replace water filter 2. Reset counter

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

## 3.5 Errors hardware and network

No.	Description	Over- rules	Set condition	Reset condition	Remarks	Cause	Remedy
81	<b>User Interface error</b> the dispenser is fully blocked		No response or error reported	Automatically when connects		1. User interface board not responding or not connected to MCB 2. The user interface board is defective	1. Check connection/wiring to user interface board, correct or replace 2. Replace the user interface board
82	<b>Payment module error -&gt;</b> fully blocked		No response or error reported	Automatically when connects		1. Software is set to PAYMENT and payment module not installed or not connected 2. Payment board or multi-relay board defective 3. Wiring incorrect or defective	1. Change software setting to NO PAYMENT 2. Check and replace payment board/multi-relay board 3. Check, correct/replace wiring
83	Reserved						
84	Reserved						
85	<b>Cold module error</b> -> delivery of cold drinks is blocked		No response or error reported	Press the LOCK/Clear error button*		1. Cold module board not responding 2. Cold module board defective	1. Check connection/wiring to cold module board, correct or replace 2. Replace the cold module board
90	Check sum error parameter .field 1		Software	Press the LOCK/Clear error button*, after initialization has indicated that the checksum is OK			
91	Check sum error parameter .field 2		Software	Lock/clear button*, after initialization has indicated that the checksum is OK			

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

No.	Description	Over-rules	Set condition	Reset condition	Remarks	Cause	Remedy
92	<b>Data file missing in flash file system</b>		Software	Lock/clear button*, after initialization has indicated that the flash file system is OK		1. Flash file system is not available 2. MCB is defective.	1. Reload flash file system 2. Replace the MCB circuitboard.
95	<b>RTC (Real Time Clock) not running</b>		Software	Reset when time and date is set in RTC automatically	Can be setup in operator mode or higher	1. Installation sequence not executed 2. MCB defective	1. Set time 2. Replace MCB (see chapter 5K)
97	<b>Push button is stuck</b>		Software	Lock/clear button*	Locking error	1. Mechanically damaged push button or door 2. Incorrect placement of the user interface PCB 3. Screws not tightened correctly 4. Micro switches on user interface PCB defective 5. User interface PCB defective	1. Check button caps and door and replace them if necessary 2. Correct placement of user interface PCB 3. Tighten screws 4. Replace user interface PCB (see chapter 5K) 5. Replace user interface PCB (see chapter 5K)
99	<b>Initialization error</b> -> the dispenser is fully blocked		LOCK/error clear button is pressed during initialization of the dispenser	By service device or power down of the dispenser	1. Heating is switched off 2. Cooling is switched off 3. Boiler and level control is off	LOCK/error clear button is pressed during initialization of the dispenser	Check the dispenser, relays wiring, hose connections, MCB

### 3.6 Other errors

No.	Description	Over-rules	Set condition	Reset condition	Remarks	Cause	Remedy
200	Reboot		System start up				

\*) Errors are reset by pressing the LOCK/Error clear button in cleaner-, operator-, service- or development mode

# NG100 & 300

## Troubleshooting the cooling system

10/08/2012

# NG Unit is Not Cooling

If unit has been in service, begin at **RED** box with voltage testing & troubleshooting of the Relay Board

For new installations, if heating capacity was adjusted & power cord was changed, begin troubleshooting at the terminal block below.

First check power, which must be 120 volts between L1 & neutral

If yes, is jumper bridge correct & fully inserted?

Is Compressor Running?

Yes

Is the compressor hot?

Yes

Allow the compressor to cool to room temperature and restart.

Is machine cooling now?

Yes

Check for poor ventilation or high ambient temperature  
Monitor cooling through two cooling cycles,

Normal temp. (°F)	Normal temp. (°C)	Normal resistance (R) (ohm)
14	-10	27667
23	-5	21156
32	0	16322
41	5	12690
50	10	9946
59	15	7851
68	20	6243
77	25	4998
86	30	4027
95	35	3265
104	40	2663
113	45	2185

Correct the line voltage or terminal block (line cord connection) problem first

No

No

Replace cooling unit or machine

No

If compressor is not running, it will be necessary to take a series of voltage readings

Check for 120 vac at P32, pins 1 & 2 (see test 1)

No

Check for 24 vdc at P30, pins 3 & 4 (see test 2)

No

Check for 24 vdc at P03, pins 7 & 15 of the MCB (see test 3)

No

Refer to red box at top, see if sensor is showing a value other than the actual cool box temperature

After confirming that Temperature sensor is within specification, Replace MCB

Prior to voltage tests, use the WBSD to make sure the temperature sensor is showing the correct value and that the board is actually calling for cooling

Yes

Check wiring harness to compressor. If OK, cooling system is defective

Yes

Check wiring at P30, check connector lock, check 6.3A fuse (FH1A) on relay board. If OK replace Relay Board. If fuse is blown, inspect for burned wire traces, replace fuse or Relay Board & test cooling unit

Yes

Find and correct the defect in the wiring harness going from P03 of the MCB to P30

Yes

Check temperature sensor mounting, and connection, if OK replace the temperature sensor

Product Freezes

Use the WBSD to make sure the temperature sensor is showing the correct value

Does the temperature sensor show a temperature warmer than expected

Yes

Check the sensor for correct mounting and a very thin layer of transfer grease

Does the temperature sensor show a temperature warmer than expected

Yes

Replace Sensor

Normal temp. (°F)	Normal temp. (°C)	Normal resistance (R) (ohm)
14	-10	27667
23	-5	21156
32	0	16322
41	5	12690
50	10	9946
59	15	7851
68	20	6243
77	25	4998
86	30	4027
95	35	3265
104	40	2663
113	45	2185

No

Is Compressor Running?

Yes

Unplug P30 from the front of the power pack

Is Compressor still Running?

Yes

Replace the relay board

No

Product package could be frozen to the cooling plate

No

Replace the MCB board

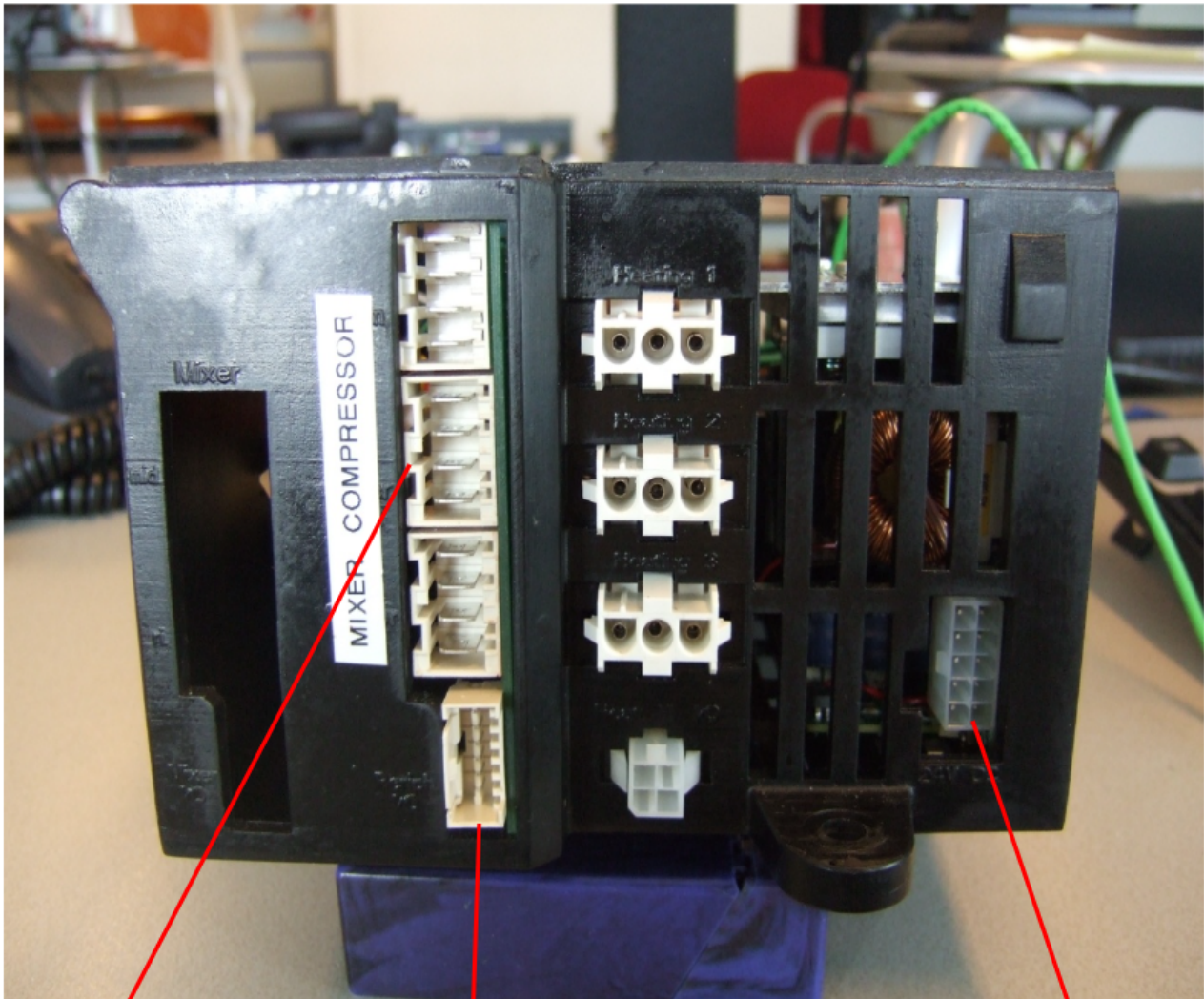
Product throughput is too low. Enable mandatory cleaning cycles so that package is moved every day.

And / Or

Apply strips of weather stripping to the cold plate to separate box from cooling plate (see photo at the end of this document)

# Power Pack for NG 110 and NG 300

## Test points and plug pinouts



- 1 - Blue
- 2 - Brown
- 4 - Green

P32  
Test 1



- 1 - Yellow
- 2 - Blue
- 3 - Violet
- 4 - White
- 5 - Red
- 6 - Black

P30  
Test 2

**Important note:**  
Unless you have insulation piercing meter leads  
This test must be done on the  
plug (wiring harness) end.  
Not the socket on the front of the power pack.

- 6 - Blue
- 7 - Blue
- 8 - Blue
- 9 - Blue \*
- 10 - Blue !



- 1 - Red White
- 2 - Red White
- 3 - Red White
- 4 - Red \*
- 5 - Red !

Switching Power  
Supply Output

Notes:  
\* If used for café cool  
! If used for fan



# Service Bulletin

## Important Service Information

Next Generation 110 and 300

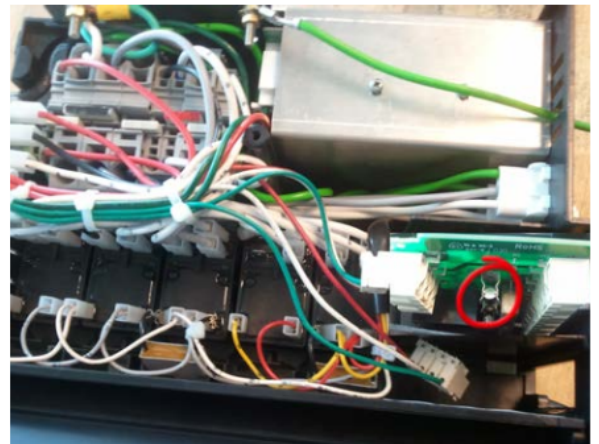
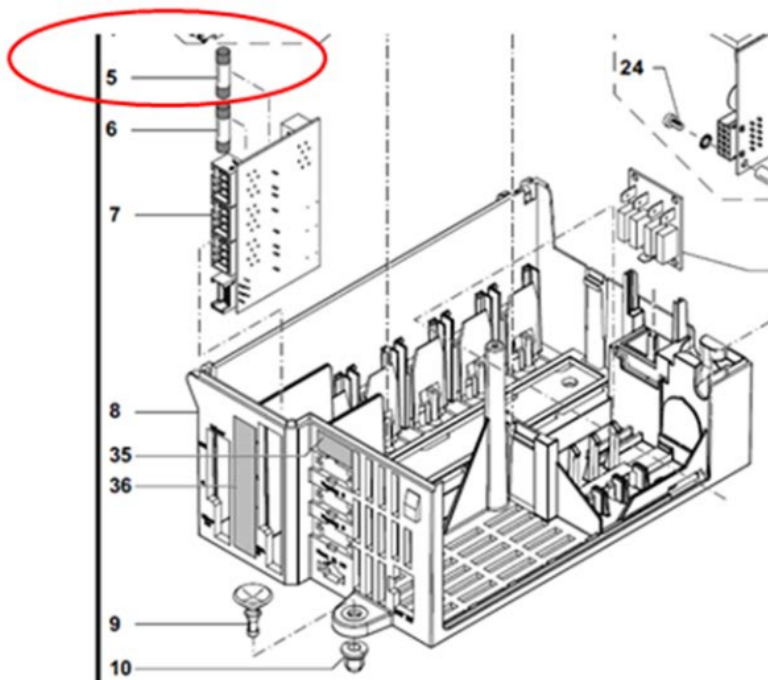
Fuse values on mains relay board.

*If you have replaced a Mains Relay Board or service a machine where the cooling fuse blows:*

- Earlier parts manuals show the wrong part number and value for the cooling system fuse on the Mains Relay Board (p/n 47185200).
- In addition, the fuse supplied on spare part boards may be the wrong value.

The correct fuse for location FH1A (printed on the relay board) is a 6.3 amp (p/n D-0411)

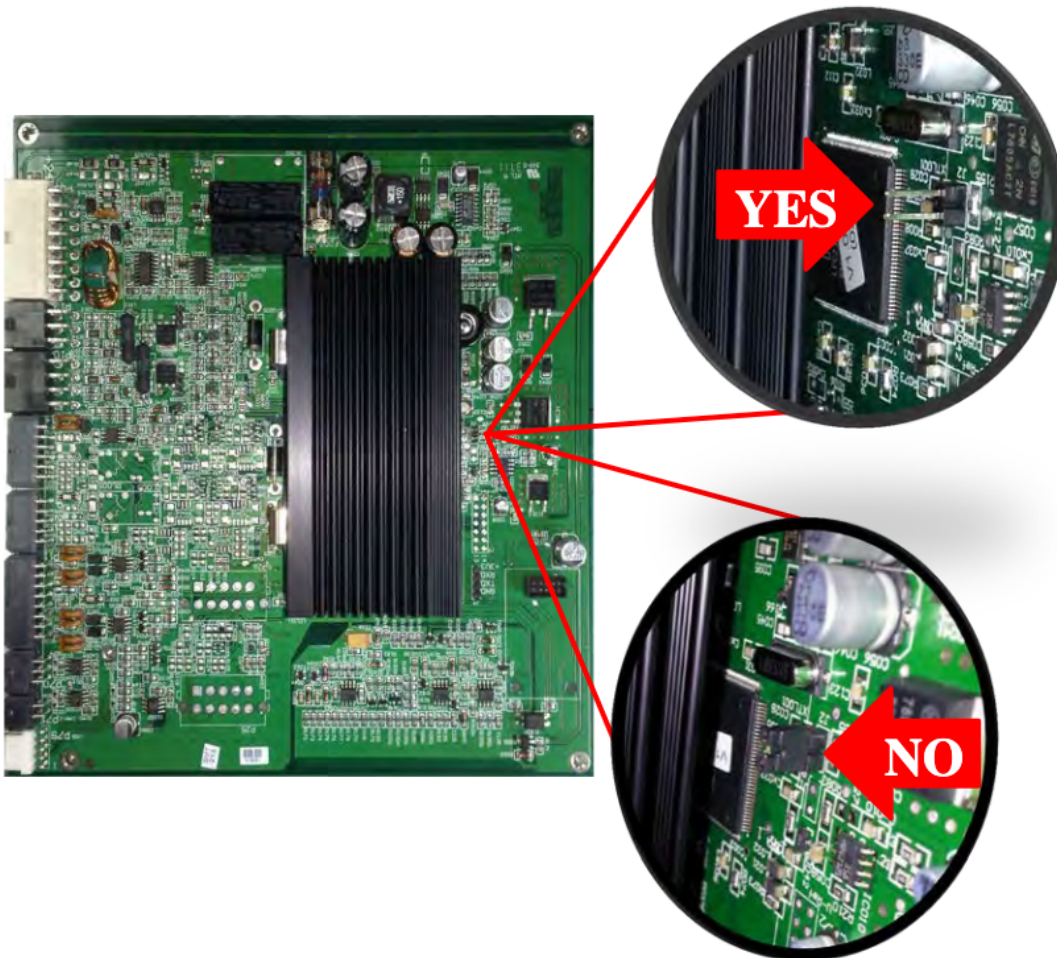
The incorrect fuse indicated in the manual (and possibly on replacement boards) is 3.15 amp (p/n D-0658)





**SERVICE BULLETIN: 2012 – 02**  
**Model(s): NG110 & NG300**  
**Title: ERROR 80**

- Please be aware of the possible presence of a jumper at **J2** (see cut-out images). ***There should be no jumper in the J2 position.***
- When a jumper ***is installed***, Error 80 will show on the display as soon as the power is switched on.
- If you find a jumper installed at J2 on a spare part MCB (as shown in the bottom image), ***please remove the jumper*** and discard it before using the MCB.



# Service Bulletin

8/23/2013

## NG Equipment Directive - Disable "Aroma Lady"

### Type of Equipment:

NG110 & NG300

### Conditions:

As part of our agreement with Douwe Egberts Master Blenders 1753 the amount of time we can use the DE brand is limited. An announcement was made in late 2012 that we would be phasing away from the DE Brand.

Therefore, at each NG machine service opportunity the icon on the front display should be changed to disable the "DE Aroma Lady" logo from the front display so that only the Steaming Cup shows.

### Solution:

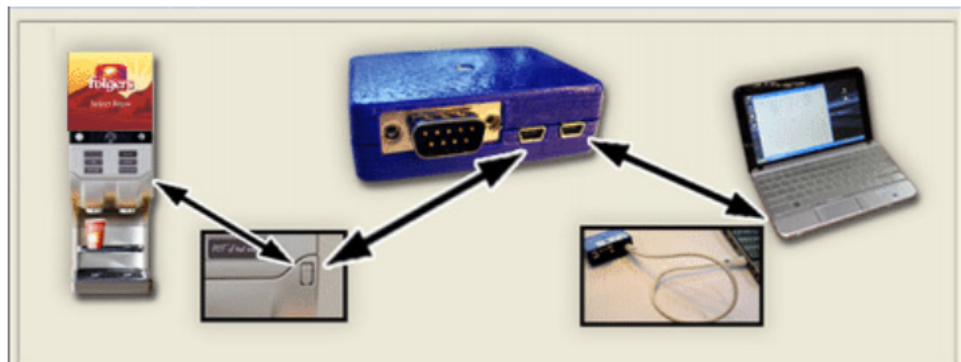
Disable Aroma Lady from display

### Instructions:

1. Make sure the machine is powered **ON** and is in standby mode.



2. Attach the **WBSD** to your PC and the machine.

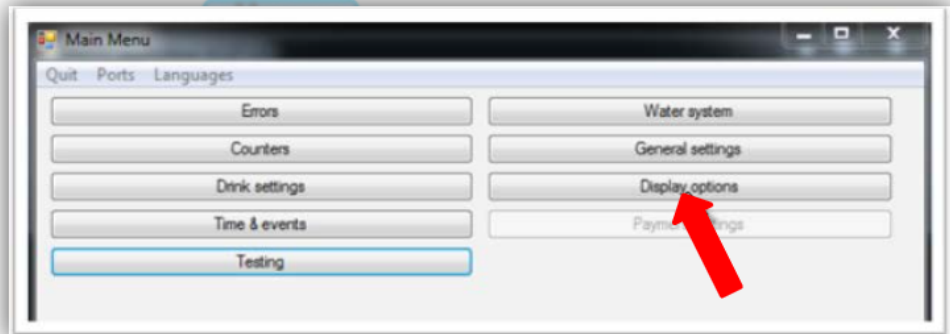


## Remove Aroma Lady – Continued

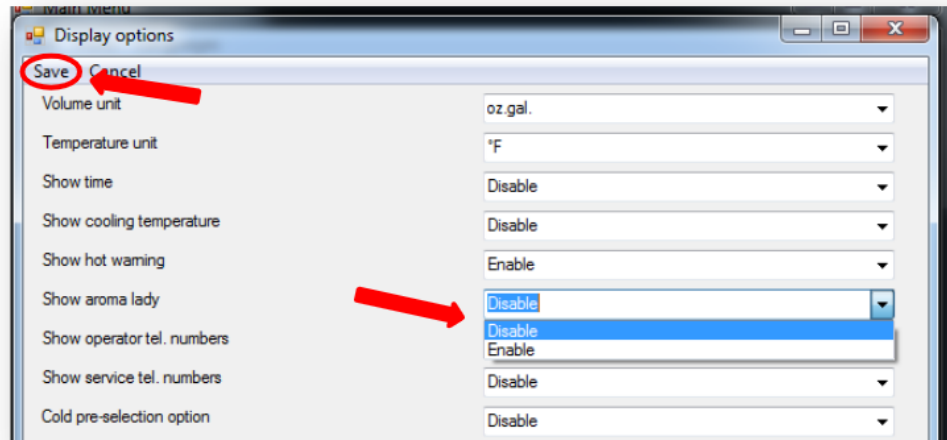
3. Launch the **WBSD Application** software on your PC.



4. Click on **Display Options** in the **Main Menu** window.



5. In the **Display Options** window, click on the drop down menu next to **Show aroma lady** and choose **Disable** from the list.



6. Click **Save** in the upper left corner of the **Display Options** window.
7. Disconnect the **WBSD** from the machine. The display should show the Steaming Cup without the **DE Aroma Lady** as below.



If you have any questions, Call technical support: 800-477-7490

# Main control board (MCB)

## Test points and plug pinouts



- |                  |                 |
|------------------|-----------------|
| 9 - Blue         | 1 - Blue        |
| 10 - Red / White | 2 - Red / White |
| 11 -             | 3 -             |
| 12 - Yellow      | 4 -             |
| 13 - Red         | 5 - Yellow      |
| 14 - White       | 6 - Grey        |
| 15 - Violet      | 7 - White       |
| 16 - Red         | 8 - Black       |



P03  
Test 3

Adding weather strip to stop package from freezing to cold plate

