

**CANDY WASHING MACHINES "NEW AESTHETICS 2005"  
AUTO-TEST CHECKING ROUTINE AND ERROR CODES**

**1) PRELIMINARY OPERATIONS TO THE AUTO-TEST CHECKING ROUTINE:**

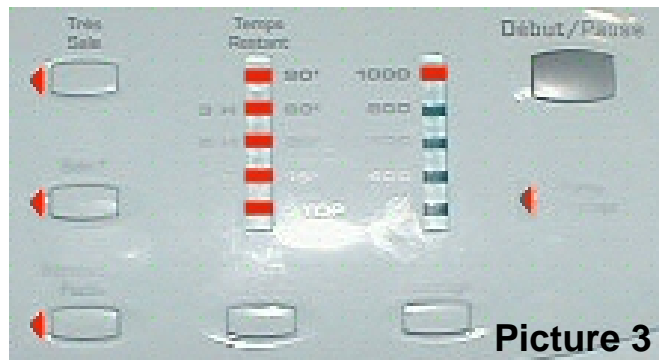
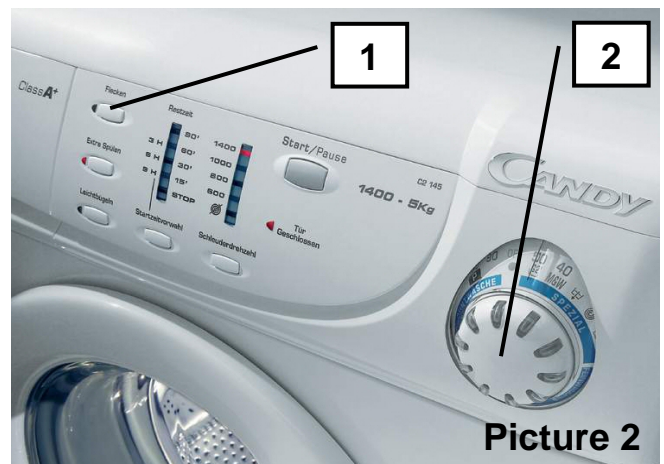
- Connect a 20A/AC reading scale 2 digits Digital Ammeter, in series to one of the phases of the mains current, on the mains wire of the appliance.

What above will allow the check of the good functionality of the electromechanical components, when fed during the carrying out of the Auto-test sequence.

- Carefully empty the drum of the washing machine, because during the carrying out of the Auto-test sequence, the anti-unbalancement safety is normally disabled.
- Set the Program Selector's Knob (Ref. 2 in Picture 2) on the OFF position.

**2) STARTING THE AUTO-TEST SEQUENCE:**

- Push and hold the 1<sup>st</sup> Option Button to the left (Ref. 1 in Picture2).
- Rotate the Knob of the Program Selector 2 steps in clockwise sense (Ref. 2 in Picture 2), until it comes in correspondence with the "60 P" washing program for COTTON.
- After 3 seconds from the moment the LED of the 1<sup>st</sup> Option Button is ON, release the hold on Option Button n. 1.
- All LEDs of the Option Buttons and Residual Time Indicator are switched ON lighted, together with the LED of the set speed of spin (see Picture 3).
- **MDL:** After 3 seconds and within 5 seconds, push the **START/PAUSE** button.
- **INVENSYS:** After 5 seconds, push the **START/PAUSE** button.
- The LEDs of the Residual Time Indicator and the LED of the set Spin Speed start flashing together, alternatively to the flashing of the LEDs of the Option Buttons.



**NOTE: if the control module is by INVENSYS (see Note 015 LB - 07/04/2006) all LEDS stay ON FIXED.** From now on, the Test sequence is carried out automatically.

### 3) DESCRIPTION OF THE SEQUENCE OF AUTO-TEST:

- Water load the "basic" level of 5/6 liters, through the Pre-wash Detergent Compartment, by the Solenoid Valve for Cold Water (and by the Solenoid Valve for Hot Water too, when it's present). If present, it's fed the Recycle Pump.
- 1 second of pause.
- It's fed for 20 seconds, the Water Heating Element (about 9.10 A reading by the Digital Ammeter); the water distribution set the Water Spray Nozzle over the 2<sup>nd</sup> Detergent Compartment (Main Wash).
- Are simultaneously fed the Solenoid Valve for Cold Water load, the Recycle Pump (when present) and the Main Motor, to make the drum tumble in Counterclockwise sense at 55 RPM, for ~ 15 seconds.
- Pause of the Motor of ~ 4 seconds. The water load continues, as in the previous step.
- Are now simultaneously fed the Solenoid Valve for Cold Water load, the Recycle Pump (when present) and the main Motor, to make the drum tumble in Clockwise sense at 55 RPM, for ~ 10 seconds.
- It's fed the Drain Pump, until it's obtained the "Empty Tank" Pressostat's condition.
- It's carried out a Short Spin Phase, lasting ~ 15 seconds, at the half of the maximum speed of spin which is available, on the tested appliance.
- End of the Auto-test Sequence.

#### 4) FAULTS WARNINGS AND DISPLAYING OF THE ERROR CODES:

All the washing machines belonging to the "New Aesthetics 2005", come supplied with a software capable of storing in memory (for a next displaying), the Error Codes related the most important troubles that may happen during both the normal working of the appliance, than during the carrying out of the Auto-test checking routine.

In case a serious trouble should happen, both the normal working than the Auto-test are immediately halted. The Code of Error is then displayed on the Control Panel, in order to help the Service Technician in finding the actual reason of the same trouble.

The Codes of Error are displayed by making flash simultaneously the FIRST LED of the Residual Times (90') and the LED of the FIRST OPTION BUTTON (see Picture 4).

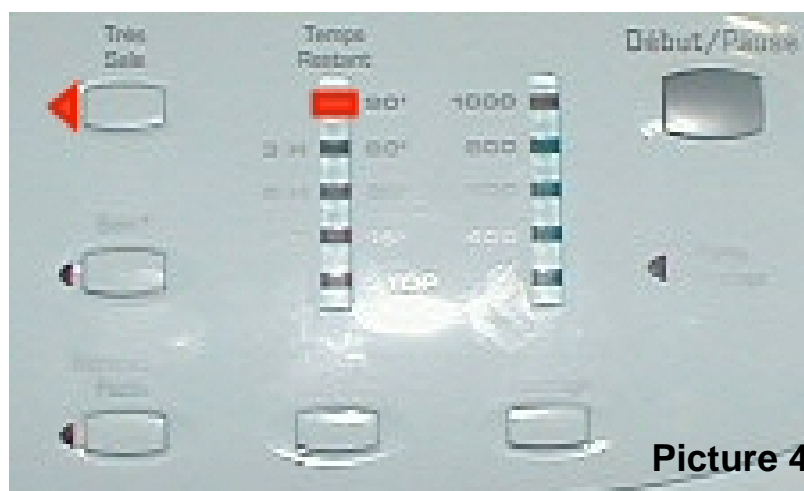
The length of the time of displaying is 15 seconds. During this period of time, both LEDs flash together at a 1 Hz frequency (one flash per second), for a number of times corresponding to the number of the found error. After, they stay OFF for all the time missing to the end of the 15 seconds period. Then, the sequence is repeated until the Service Intervention or until the machine is being switched OFF.

Example for MDL Cuore Power Module: Error Code Number 2 is displayed as follows:

- 2 flashes by the 2 LEDs together, in the first 2 sec. (0.5" ON – 0.5" OFF).
- For the remaining 13 seconds, both LEDs stay of OFF.
- Above sequence is repeated.

Example for INVENSYS Cuore Power Module: Error Code Number 2 is displayed as follows:

- 2 flashes by the 2 LEDs together, in the first 2 sec. (0.5" ON – 0.5" OFF).
- For 5 seconds, both LEDs are OFF (the 5" OFF time of both LEDs, is same for all ERRORS).
- The sequence as above is repeated.



5) LIST OF THE AVAILABLE ERROR CODES FOR CUORE MODULES BY MDL:

Error Code	Number of Flashes By 2 LEDs	Time the 2 LEDs are OFF	Probable Reason of the Error Warning:
Error 1	1	14	Open Circuited Door Safety Device and/or Wiring.
Error 2	2	13	Missing Completion of the Water Load Phase, within the Limit Time of 5 minutes and 18 seconds - Low Hydraulic Pressure and/or Solenoid Valve and/or Fill Hose.
Error 3	3	12	Missing Completion of the Water Drain Phase, within the Limit Time of 6 minutes – Clogged Filter and/or Drain Pump and/or Wall Drain and/or Drain Hose.
Error 4	4	11	3 Sequential Interventions by the Anti-flood Safety Pressostat – Faulty Pressostat and/or Solenoid Valve and/or Wiring.
Error 5	5	10	Faulty NTC Temperature Probe and/or Defective Core Board and/or Wiring. Ohmic Values of NTC are: 20 Kohm at 25°C – 2.14 Kohm at 85°C.
Error 6	6	9	Faulty Core Board and/or Wiring.
Error 7	7	8	Blocked Motor's Rotor and/or Wiring (MDL).
Error 8	8	7	Opened or Shorted Tachometric Dynamo and/or Wiring: Ohmic value of Dynamo by Ceset: 42 Ohm Ohmic value of Dynamo by Hoover: 156 Ohm Ohmic value of Dynamo by Sole: 184 Ohm
Error 9	9	6	Short Circuited Motor's Triac on Core Board and/or Wiring.
Error 10	10	5	Defective Program's Selector and/or Wiring.
Error 12	12	3	Faulty Core Board and/or Wiring (INVENSYS).
Error 13	13	2	Faulty Core Board and/or Wiring (INVENSYS).
Error 14	14	1	Faulty Core Board and/or Wiring (MDL).
Error 14	14	1	Missing carrying out of the heating phase (INVENSYS).

Making reference to the above resuming table of the available Error Codes, we like to remind the importance of the perfect continuity of the electric wiring and of the related connectors, when dealing with electronic controls of the "Core" family. This is both true for the contacts on the Control Board then for the corresponding contacts on the controlled peripherals (Program's Selector, Display Board, etc.). A partial oxidation of some connector's contacts on the "Core" Control Board or on the connected peripherals, could generate the displaying of a peripheral related Error Code, even being the involved peripheral in perfect conditions.

Therefore, we suggest to carefully check the related wiring, before any replacement of the "Core" Control Board and before replacing any of the related peripherals. A valid check of the wiring can be performed by removing the connectors from their location (both on the Control Board then on the related Peripheral) and by spraying inside the same connectors a small amount of Contact Cleaner liquid. Then, re-fit the connector in position and re-start the Auto-test routine, to see if the Error Warning is displayed again.

**5) LIST OF ALL PRESENTLY AVAILABLE ERROR CODES FOR CUORE MODULES BY INVENSYS:**

<b>ERROR CODE</b>	<b>Times the 2 LEDs FLASHES</b>	<b>Seconds the 2 LEDs stays OFF</b>	<b>MOST PROBABLE REASON FOR THE ISSUING OF ERROR CODE:</b>
ERROR 1	1	5	Door Safety Device/Drum's Braking device defective and/or Wiring.
ERROR 2	2	5	The Water Fill Phase was not completed within the designed limit time. Defective Solenoid Valve, Pressostat, Water Fill Hose, Low Water Pressure in the network and/or Wiring.
ERROR 3	3	5	The Water Drain Phase was not completed within the designed limit time. Clogged Filter, Drain Pump, Drain Hose, Wall Discharge and/or Wiring.
ERROR 4	4	5	Several (3) interventions by the Anti-flood Safety Contact of Pressostat. Solenoid Valve blocked opened, defective Pressostat and/or Wiring.
ERROR 5	5	5	NTC Temperature Reading Probe opened or shorted and/or Wiring.
ERROR 6	6	5	Eeprom – Defective "Cuore" Control Module and/or Wiring.
ERROR 7	7	5	Jammed Motor's Rotor and/or Wiring.
ERROR 8	8	5	Defective Tachometric Dynamo (opened or shorted) and/or Wiring.
ERROR 9	9	5	Defective "Cuore" Control Module (damaged Motor's TRIAC) and/or Wiring.
ERROR 12	12	5	Missing dialogue between "Cuore" Control Module and Display board and/or Wiring.
ERROR 13	13	5	Missing dialogue between "Cuore" Control Module and Display board and/or Wiring.
ERROR 14	14	5	Missing Water Heating: defective NTC Probe and/or defective Water Heating Element and/or Wiring.
ERROR 15	15	5	Defective "Cuore" Control Module – Not Programmed "Cuore" Control Module.
ERROR 16	16	5	Water Heating Element is short circuited or defective electrical insulation.
ERROR 17	17	5	Wrong signal from Tachometric Dynamo.
ERROR 18	18	5	Defective "Cuore" Control Module and/or Wiring – Wrong Network Frequency.

Best regards.

GIAS Corporate