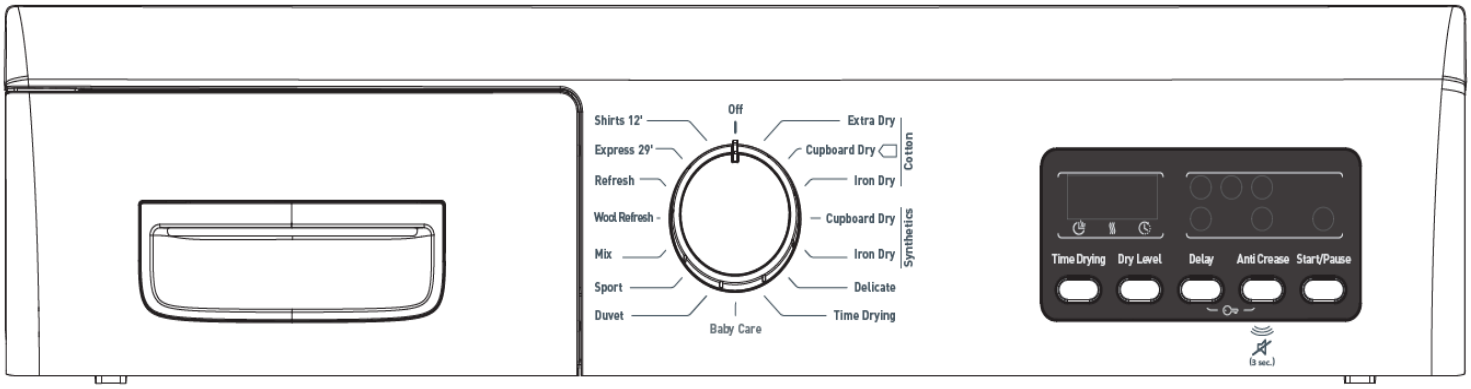
SECHE-LINGE

BANDEAU F4

BANDEAU F4 - SERVICE MANUEL

. BANDEAU DE COMANDE ET TABLE DE SELECTION DES PROGRAMMES

1. Bandeau de Commande

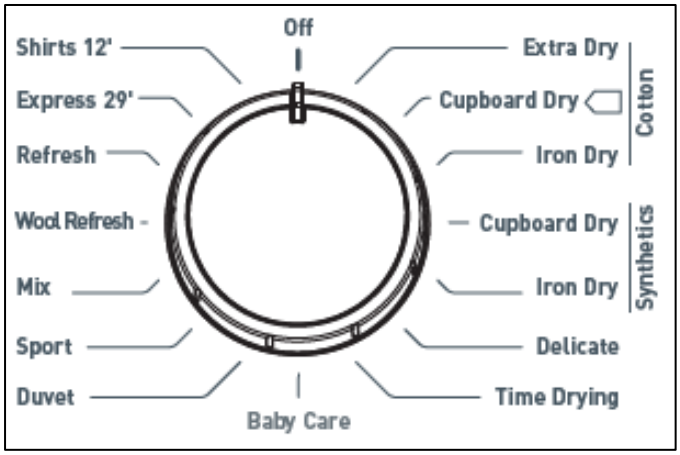


Symboles de l'affichage

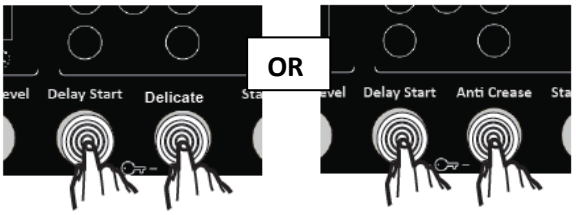
Indicateur d'alerte du réservoir d'eau	
Indicateur d'alerte du nettoyage du filtre	
Indicateur d'alerte du nettoyage du condenseur	

2. Program List

KNOB POSITION	PROGRAM
1	Cotton Extra Dry
2	Cotton Cupboard Dry
3	Cotton Iron Dry
4	Synthetics Cupboard Dry
5	Synthetics Iron Dry
6	Delicate
7	Time Drying
8	Baby Care
9	Duvet
10	Sport
11	Mix
12	Wool Refresh
13	Refresh
14	Express 29'
15	Shirts 12 '
16	OFF



3. Children's Safety



There is a child lock option to avoid changes in the program flow when keys are pressed during the program.

There is 2 panels version which is Delicate or Anti Crease .To activate child lock,

If It is Anti Crease panel, press and hold "Delay Start" and " Anti-Crease " keys simultaneously for 3 seconds.

If It is Delicate panel, press and hold "Delay Start" and "Delicate" keys simultaneously for 3 seconds

When the child lock is active, all keys will be deactivated. Child lock will be deactivated automatically at the end of the program. When activating/deactivating the child lock, the leds of the "Anti-Crease" and "Delicate Drying" options will flash and an audible warning will be heard.

.FAILURE MODES AND SERVICE AUTOTEST

1.Failure Modes and Warning Leds

F4 CONDENSER MODEL ERROR CODES	
ERROR CODE	REASON
E03	Aquaswitch connector is disconnected
E04	Heater connector is disconnected
E05	Heater NTC connector is disconnected
E06	Door NTC connector is disconnected
E08	Voltage fluctuation

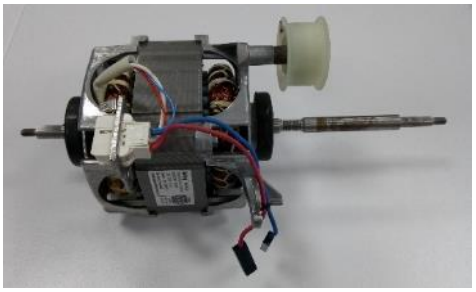
2 Service Auto Test Steps

Steps	Control	Led	Possible Errors
Enter Servis Autotest	While pushing SW2 button for 5 sec, position knob to Program 1. Then press Start/Pause button. Machine enters to service autotest. All warning leds makes fast blink for 2 sec and then becomes fix off Machine will show the last error.		

	When knob positioned to program 2, control steps starts.		
Step 2 (Knob Position 2)	Software check Aqua switch	EO3	Aqua switch connector is taken out Aqua switch connector is short circuit Styrofoam is broken or not
Step 3 (Knob Position 3)	Pump activation is checked by service person	-	Service must pour water to pump reservoir and check whether water is pumped to tank. If water is not pumped to water tank; Pump connector is taken out
Step 4 (Knob Position 4)	Motor motion is checked by service person Motor CCW (Tumble CW)-Motor stops	-	Service must check whether tumble is moving to CW. If not; Motor connector is taken out Motor might be locked Motor belt might be dislocated
Step 5 (Knob Position 5)	Motor motion is checked by service person Motor CW (Tumble CCW) -Motor stops	-	Service must check whether tumble is moving to CCW If tumble is moving to CW again, then motor relay short circuit CCW
Step 6 (Knob Position 6)	Software checks heater NTC	E05	Heater NTC connector is taken out or short circuit
Step 7 (Knob Position 7)	Software checks door NTC	E06	Door NTC connector is taken out or short circuit
Step 8 (Knob Position 9)	Heater power is checked by using energy analyzer by service Resistance (1600W+900 W)- Motor CCW (Tumble CW) -motor off	-	Power of heater must be checked according to voltage of home***
Step 8 (Knob Position 9)	Service person check conductivity sensor when door is opened and motor is off by putting his hands on the conductivity sensor	E01	Service puts his hand on the humidity sensor plates and software checks sensor data If sensor data=0, humidity sensor connector is taken out

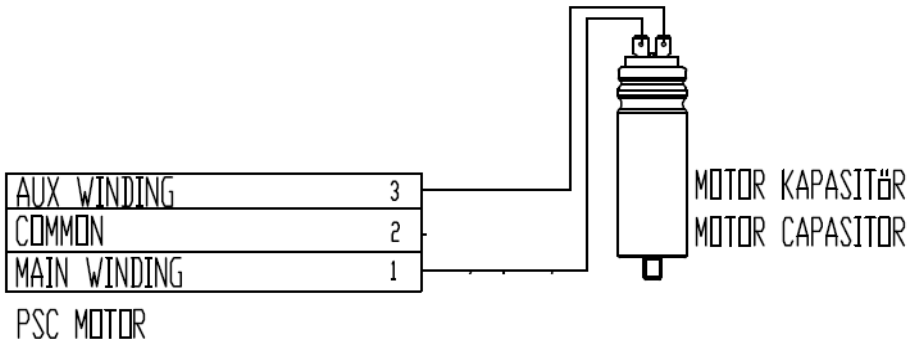
. COMPONENT SPECIFICATIONS

1. Motor

The dryer has an asynchronous motor. In the photo on the right, the socket on the motor are shown to be measured by multiple counters. It is driven with triac via the electronic card (to give energy) and relay (for direction control).	
Technical Features	
Type: single-phase asynchronous motor Power: 200 W (Unloaded drum) Main windings: 21.5±7% (20 °C temp.) Aux windings: 19.5±7% (20 °C temp.)	Motor speed : 2750 rpm (Unloaded drum) Drum speed : 52 ± 2 Capacitor value : 11 µF ± %5
Component Test	

- Check whether the motor cable is connected to the motor connector.
- Check the connection of the capacitor cables
- Measure the resistance values and check the capacitor values
- Check whether it is working by connecting via the terminals 1 and 2 (Blue-White) connection
- If it is working, revolution of the drum is measured in unloaded state.

The terminals 1-3 of the motor should be connected with capacitor
Resistance measurement of main winding: Terminal 1 -2 (Blue-White) is measured.
Resistance measurement of aux winding: Terminal 3 -2 (Red-White) is measured.

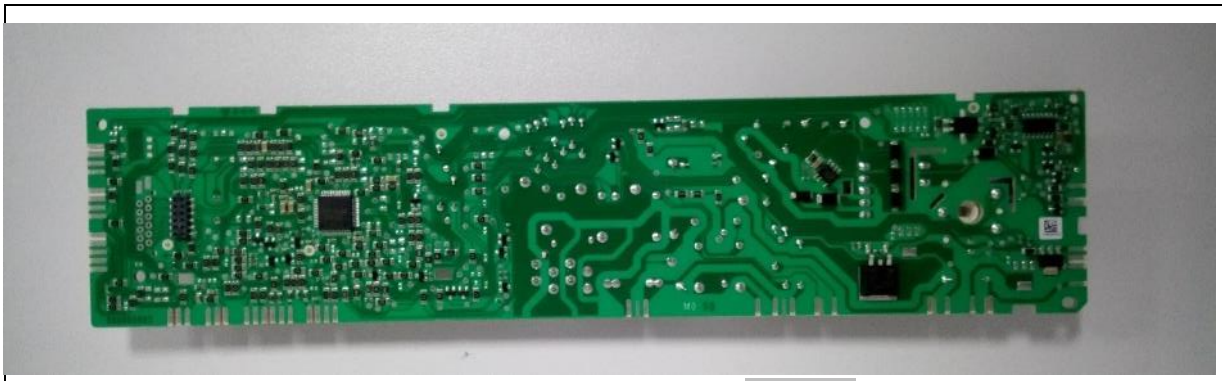


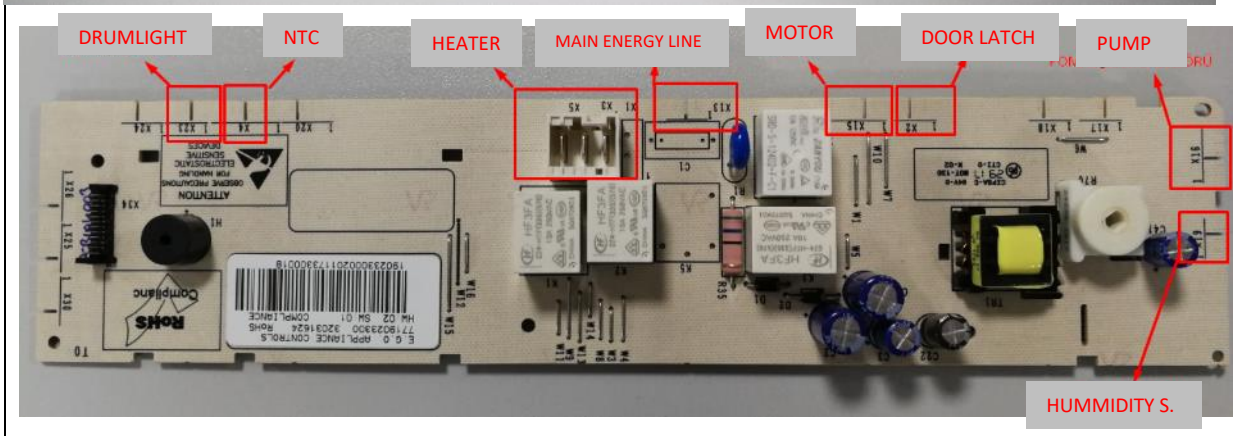
2. Pump

In Tumble Dryer models, the pump is used to transport the water that accumulates in the condensation chamber to tank in the drawer area. One triac is measured on the electronic card.	
Technical Features	
Resistance : 764±10% ohm Voltage: 220-240 Volt Frequency: 50 Hz	Input Power : 13W max
Component Test	

- Check the connection of the pump connector
- Check the pump resistances
- Check whether pump is working, by feeding externally
- If the pump is working, the water in the tank is unloaded by running the pump Then, Unload 500 ml of water from water tank to pump reservoir and check whether water is pumping.
- While pump is working, if water is not reached into water tank, hoses should be checked.

3. Electronic Card





Technical Features
Electronic card is single sided printed circuit board and CEM-1 material The upper picture shows where the components are inserted.

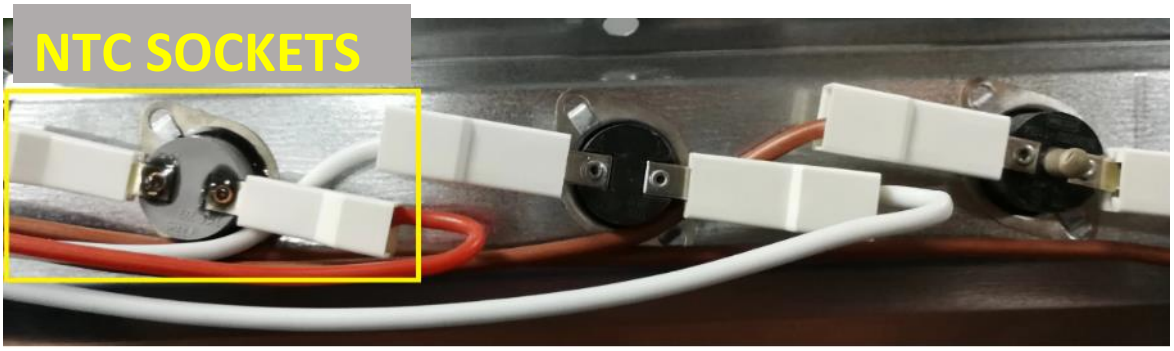
4. Door/Heater NTC Sensor

Two NTC sensors are used. The NTC resistance decreases when the temperature rises. The heater works till the temperature reach required value.	

Technical Features
Door NTC Resistance : 12 kΩ (Measured from IDC connected to electronic card) Heater NTC Resistance : 19.5 kΩ (Measured from IDC connected to electronic card)

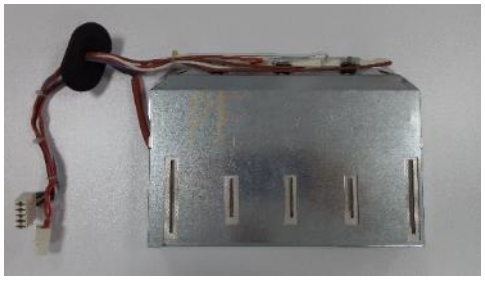
Component Test

- Resistance is measured from IDC connected to electronic card
- If the resistance cannot be measured, (from door,7-pin sockets or heater) check the connector connections of the NTCs
- If there is no problem about connector , check whether there is break in the cables by using multimeter



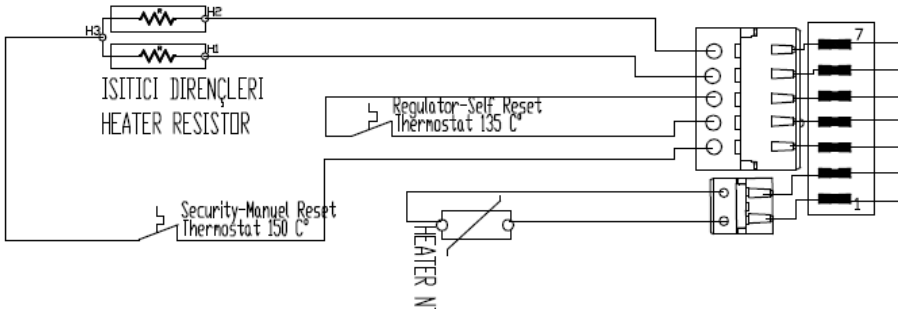
5. Heater

Resistance is the component used to increase the temperature of the air in the drum. It consists of two stages. It is controlled by two relays via electronic card.



Technical Features

Type : Open spiral heater
Nominal Power and Voltage: 230VAC, 1600+900 W = 2500 W ± %5
Resistance : 1600 W stage 1 (33.44 Ω± %5) – measured from terminal 3 and 6
: 900 W stage 2 (59.45 Ω± %5) – measured from terminal 3 and 7



Component Test

- Heater resistances are measured from sockets
- If resistance cannot be measured, check the connection of the heater connectors with 7-pin sockets. Heater connectors must be plugged into 7-pin connectors in accordance with their password. Connections of the manual thermostat and auto thermostat connector on the heater are checked. The thermostat with manual reset is checked whether there is open circuit at the terminals by the multimeter. If it's open circuit, button is up and the heater doesn't work. By pressing the button circuit will be closed, then heater works.

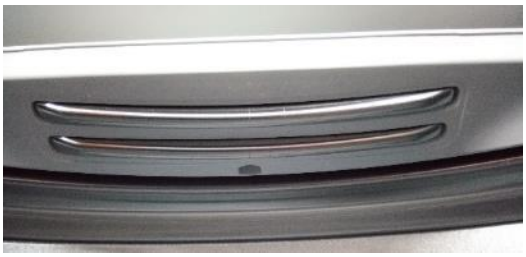
6. Door Latch

Door latch locks when the door is closed. It's designed to be opened from inside, in case of children are in the drum	

Component Test

- When the door is closed, check whether there is electrical transmission from IDC connected to electronic card
- Check the connection of the component connector

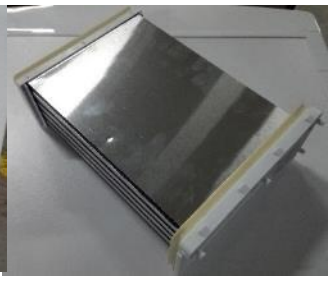
7. Humidity Sensor

The Humidity Sensor measures the amount of dryness of the laundry in the drum.	

Component Test

- Each humidity sensor plate is checked whether there is electrical transmission from IDC connected to electronic card.
- Check the connection of the component connector

8. Condenser

In the condenser, there are crossed channels that allow to flow the hot and cold fluid. Thus, They allow the hot air reach to the condenser and leave its humidity by cooling.	 

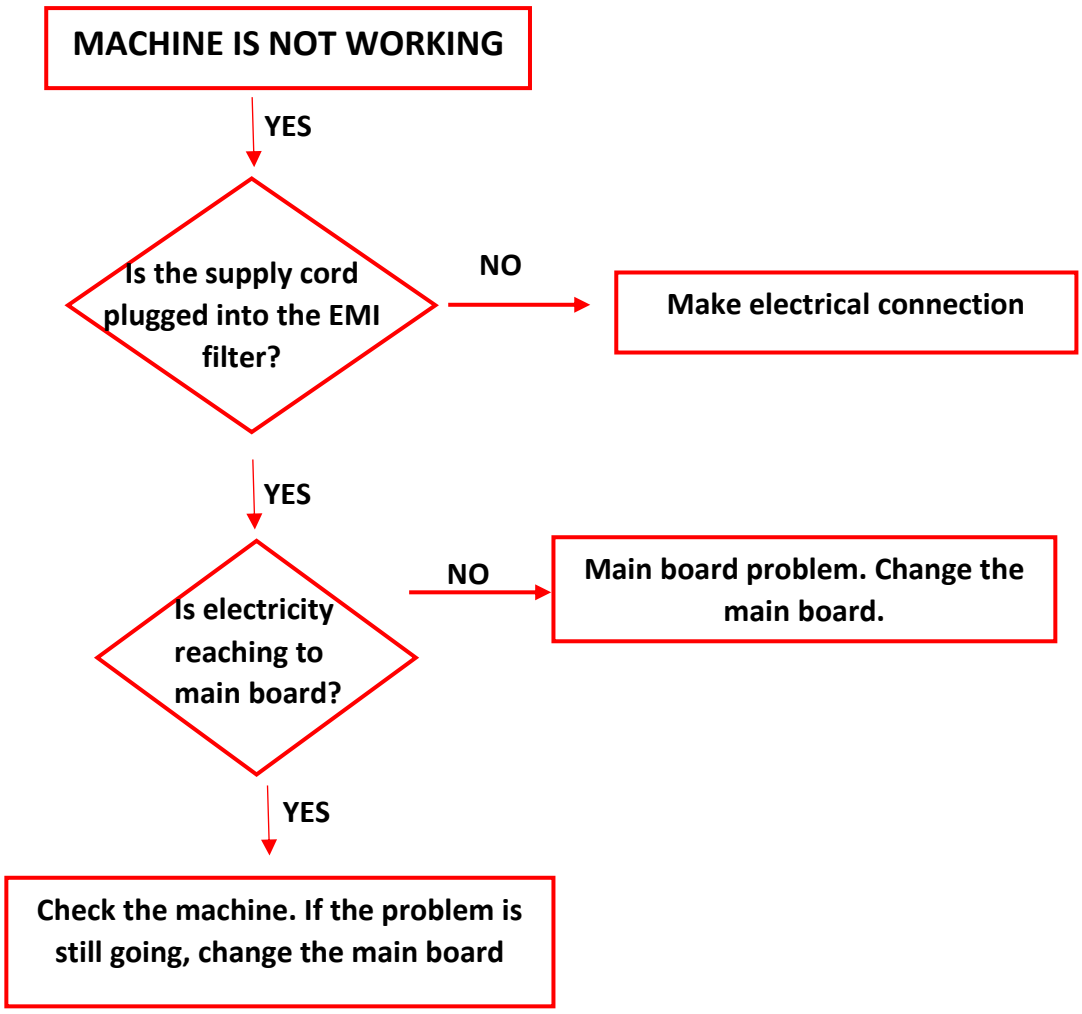
9. Drumlight

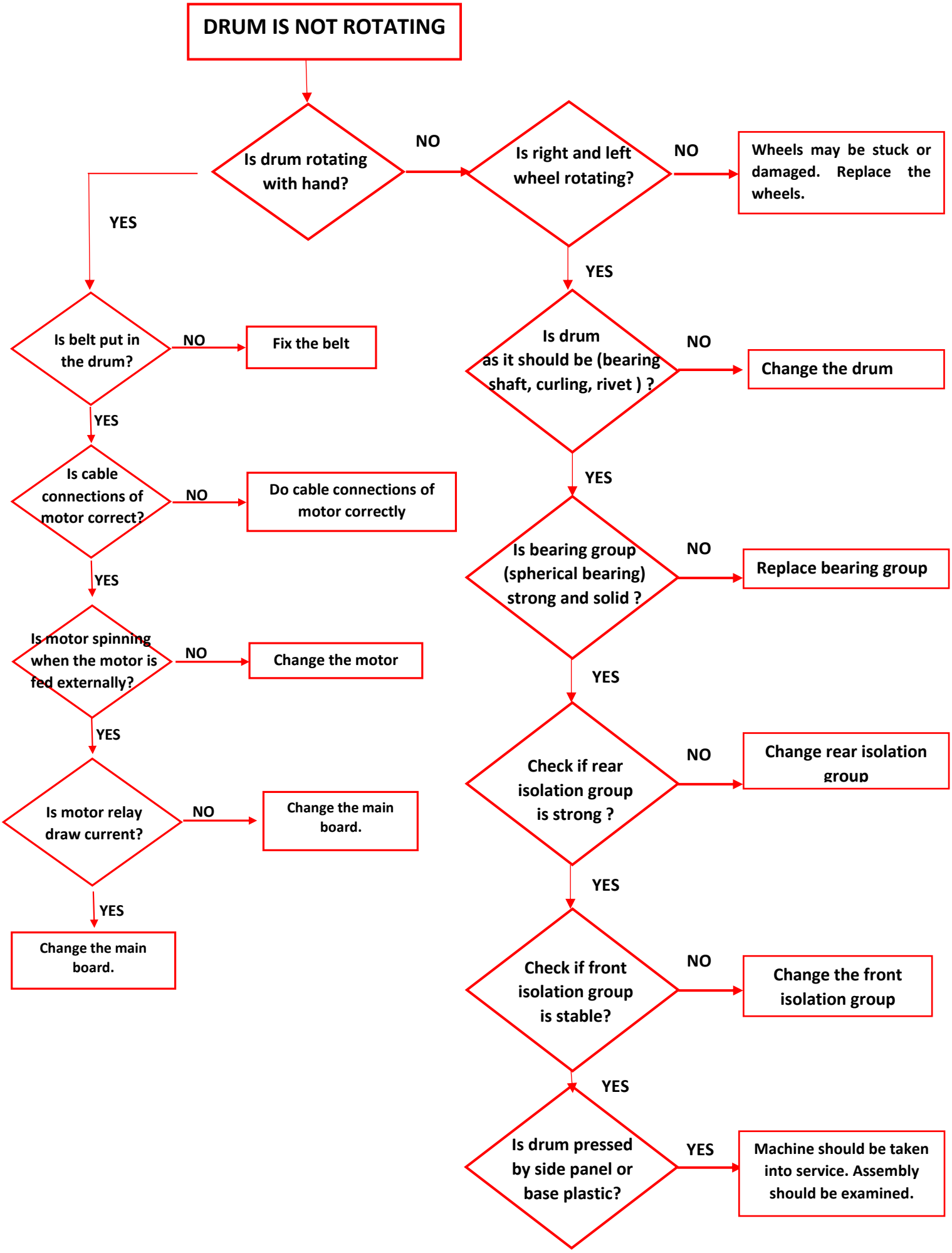
Drumlight lights inside of the drum	

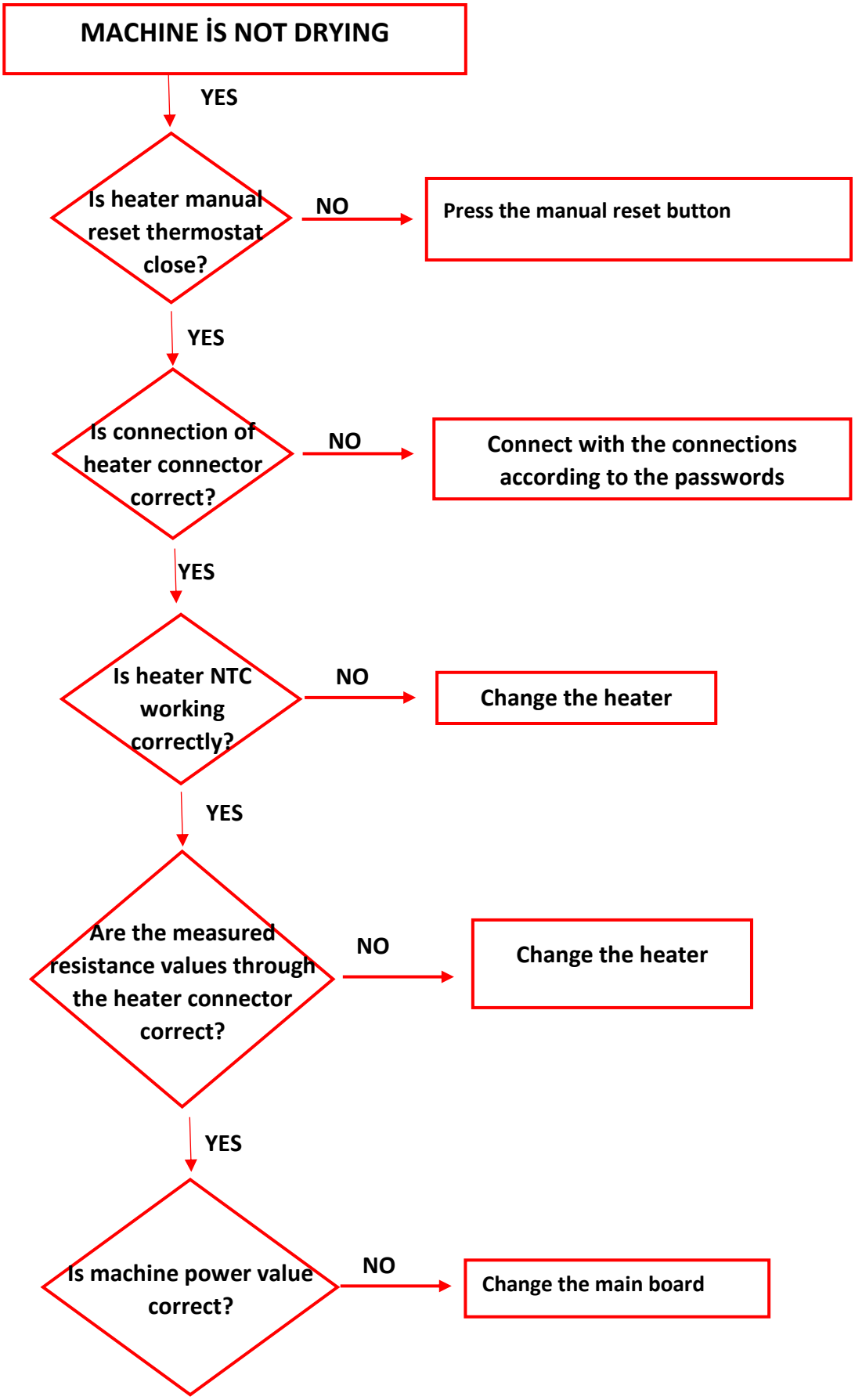
Component Test

Check whether there is electrical transmission from IDC connected to electronic card.

. TROUBLESHOOTING




DRUM IS NOT ROTATING
Is drum rotating with hand?
NO
YES
Is right and left wheel rotating?
NO
Wheels may be stuck or damaged. Replace the wheels.
YES
Is belt put in the drum?
NO
Fix the belt
YES
Is drum as it should be (bearing shaft, curling, rivet) ?
NO
Change the drum
YES
Is cable connections of motor correct?
NO
Do cable connections of motor correctly
YES
Is bearing group (spherical bearing) strong and solid ?
NO
Replace bearing group
YES
Is motor spinning when the motor is fed externally?
NO
Change the motor
YES
Check if rear isolation group is strong ?
NO
Change rear isolation group
YES
Is motor relay draw current?
NO
Change the main board.
YES
Check if front isolation group is stable?
NO
Change the front isolation group
YES
Change the main board.
Is drum pressed by side panel or base plastic?
YES
Machine should be taken into service. Assembly should be examined.


MACHINE İS NOT DRYING
YES
Is heater manual reset thermostat close?
NO
Press the manual reset button
YES
Is connection of heater connector correct?
NO
Connect with the connections according to the passwords
YES
Is heater NTC working correctly?
NO
Change the heater
YES
Are the measured resistance values through the heater connector correct?
NO
Change the heater
YES
Is machine power value correct?
NO
Change the main board