SOGEDIS

ELECTROMENAGER

Manuel de service

Series DL

3. Control Panel and Acronyms
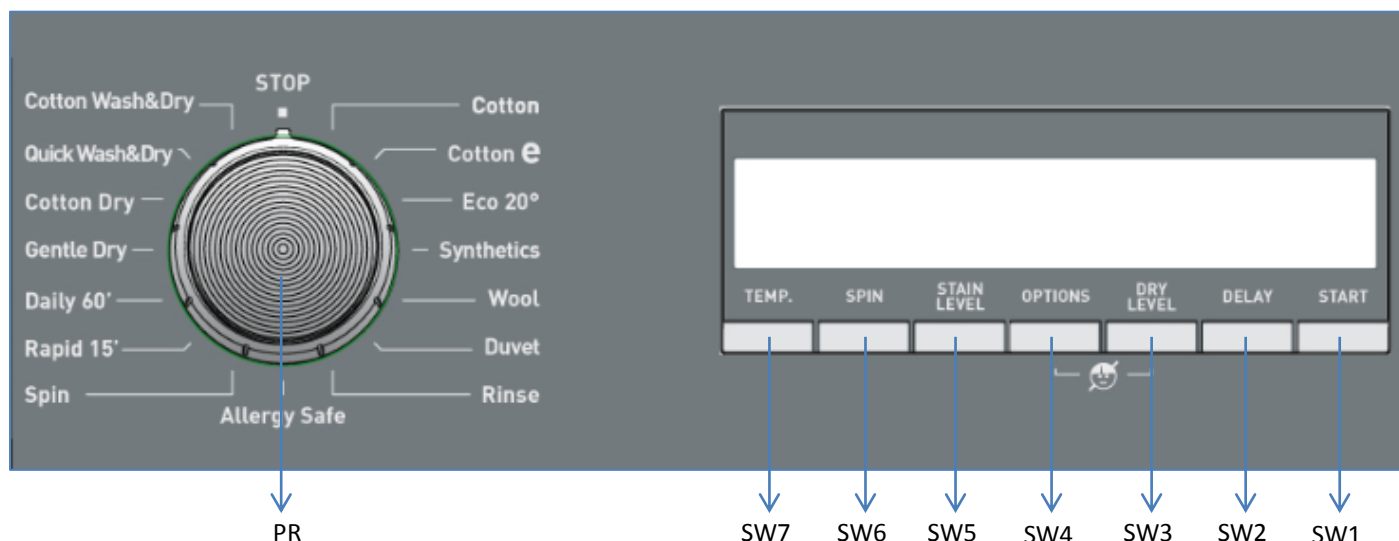
PR	Program selector 16 programs including off position
SW1	Touch button 1, Start / Pause
SW2	Touch button 2, Delay Timer Option
SW3	Touch button 3, Dry Level Option
SW4	Touch button 4, Options (Single button for Extra Rinse/Anti Allergic and Prewash options)
SW5	Touch button 5, Stain Level Option
SW6	Touch button 6, Max. Spin Speed Option
SW7	Touch button 7, Temperature Option
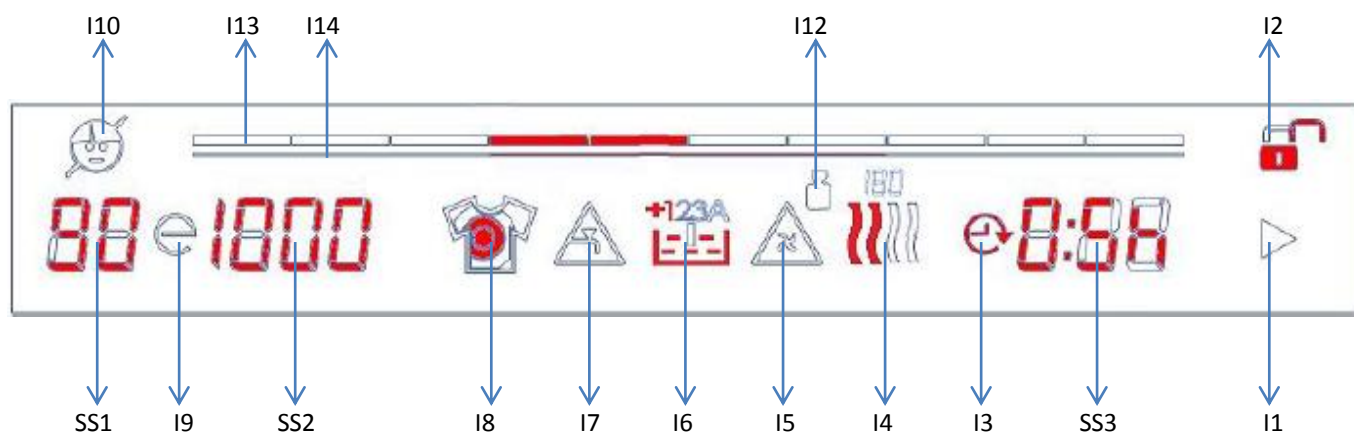
SS1	7 Segment LCD for Temperature Display	I8	Stain Level Symbol
SS2	7 Segment LCD for Spin Speed Display	I9	Eco Symbol
SS3	7 Segment LCD for Remaining Time	I10	Child Lock Symbol
I1	Start/Pause Symbol	I11*	Load Percentage Symbol
I2	Door Lock Symbol	I12*	Overload Symbol
I3	Delay Symbol	I13*	Program Proceeding Zone / Load Bar
I4	Drying Level Symbol	I14*	Program Proceeding / Load Line
I5	Pump Failure Symbol	Slow Blink	ON 0.5 sec, OFF 0.5 sec, ON 0.5 sec
I6	Extra Rinse/Allergy Safe & Prewash Symbol	Fast Blink	ON 0.10 sec, OFF 0.10 sec, ON 0.10 sec
I7	Lack of Water Symbol		

4. Test Mode

4.1. Autotest

Set PR to 3rd position

While pressing SW3 change position of the PR from third program to second, and release SW3.

Autotest starts.
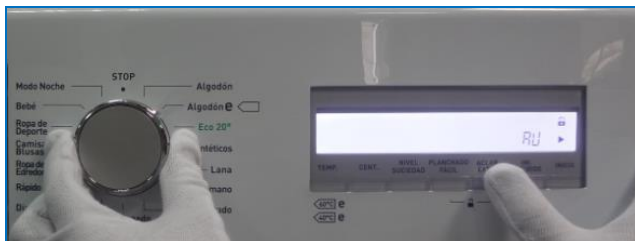
4.1.1. Autotest Steps

Autotest follows a predefined flowchart in order. Unlike service autotest, autotest automatically skips to next step upon completing one. The steps of the test are as follows:

Step1:
The drain pump is checked.
Step2:
Motor ramps to max spin speed while valves are activated in order.
Step3:
Motor stops, both valves are activated simultaneously.
Step4:
The motor turns to right. Also, dryer valve is activated.
Step5:
The motor turns to left.
Step6:
Both valves are activated. (Water intake for heating)
Step7:
Washer NTC is checked.
Step8:
Washer Heater is checked.
Step9:
Dryer resistance I and I&II are checked.
Step10:
Dryer NTC is checked for 2sec.
Step11:
Fan is checked.

In case of no failure test ends after this step and "End" is displayed. In case of an error detection EXX and error definition will pop up on display. (where XX is the error number 1 to 10)

Please see following autotest chart for details.

AUTOTEST																				
Time in seconds (to be adjusted)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Entering autotest	█																			
Changing power to 220 50Hz		█																		
Main Voltage 50 Hz			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Door Lock Powered (Depends on door lock)			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Pump			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
EPS measurement			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Motor Ramp to max spin (max. is **20** sec.)				█	█	█	█	█												
EV1 (flowrate dependent of washer)					█	█	█	█	█											
EV2 (flowrate dependent of washer)						█	█	█	█											
Dryer valve									█											
Time until motor is stopped (Depends on the motor stop time)								█	█	█										
Motor Preferred Run (Direction to Right)									█	█										
Motor Inverse Run (Direction to Left)										█	█									
EV1 + EV2 valves up to first level frequency (Depends on the water level)											█	█	█							
Washer NTC check													█							
Washer heater resistance														█						
Dryer resistance I															█					
Dryer resistance I + II																█				
Dryer NTC																	█			
Fan																		█		
End Visualization																			█	

Washer Ntc detection : Software will detect NTC's resistance value and will check if the temperature is between 5°C < Tdetected < 40°C. If it is inside the range, heating step will be done.

If temperature value is outside the range, then it means NTC is detecting the temperature in a wrong way and heating step will be skipped. Additionally if NTC connector disconnected it should shows NTC failure code(E05) on display.

EPS measurement: It checks the EPS and if it OK, it continues the autotest; if it is NOK then cancel the Autotest and go to the selection mode. Also if any frequency can not be detected, then it means there is problem with connecion or EPS, so it gives E10 which is EPS error and cancels the autotest & goes to the selection mode.

Dryer Ntc detection : Software will detect NTC's resistance value and will check if the temperature is between 0°C < Tdetected < 50°C. If it is inside the range, heating step will be done.

5. Service Mode

5.1. Service Autotest

1. Set PR to program 3 and press and hold SW2.
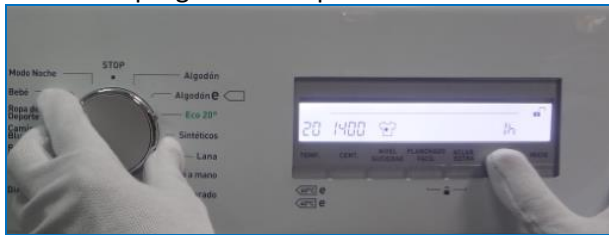
2. While pressing the SW2, change PR position from third to second, and release the SW2 button.
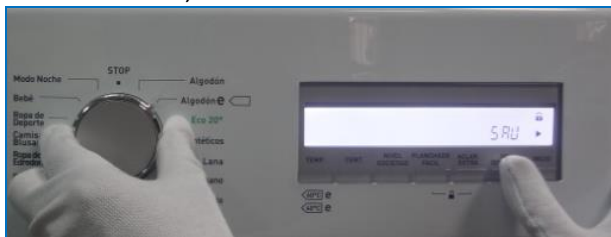
3. Bring PR to desired test step (1st, 2nd or 3rd program position) as soon as "SAU" is displayed on LCD.
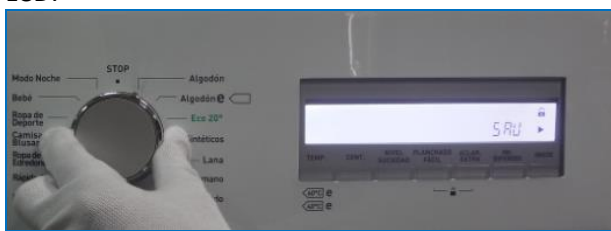
LCD Display status:
I1 -> Fixed On
I2 -> Fixed on
SS3 -> "SAU"

	Step1	Step 2	Step 3
	PR Position: Program 1	PR Position: Program 2	PR Position: Program 3
	HEATER ON	PUMP ON	TEST PROGRAM ON (Rapid 12'*/15')
Comments:	When entering in service test, door will be locked.		Test is over Door will be unlocked, machine will go to END state.

5.1.1. Service Autotest Steps

If you turn knob position to other program between 1st to 3rd it will skip current test and start the selected one. It is recommended not to skip any steps for a detailed checkup. Unlike autotest, service autotest starts next test step manually by rotating program selection knob.

Step1:
There will be a certain amount of water intake and then washer heater is activated for 8 minutes. Washer NTC values are checked in this period. In case of a washer heater/NTC failure, it pops up E05 error displaying "E05" on SW3.

At the end of heating, "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 2nd position to continue with step2.

*During this step if EPS detects high water level, overflow algorithm is applied and E04 is released.

Step2:
Drain pump is activated; in case of a pump failure it pops up E03 error.

At the end of pump activation, "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 3rd position to continue with step3.

Step3:
Dryer Heater I and fan is activated. After 3 mins if there will be no temperature change ($\Delta T < 10°C$), it will release E14 failure.

If temperature increases accordingly ($\Delta T > 10°C$), "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 4th position to continue with step4.

Step4:
Dryer Heater II and fan is activated. After 3 mins if there will be no temperature change ($\Delta T < 10°C$), it will release E14 failure.

If temperature increases accordingly ($\Delta T > 10°C$), "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 5th position to continue with step5.

Step5:
Rapid 12'*/ 15' program algorithms is run to test all washing components, the only difference is error codes are displayed which normally are not displayed to end user.

If no error found in test program "SAU" visualization should make slow blink to indicate that the step is over. You can turn program knob to 6th position to continue with step6.

Step6:
A 5 mins drying program is run to test all drying components.

In case of no error service autotest ends and "End" is displayed.

-If user changes the selector position, machine will do what is defined for the new selected position. It is recommended to run all programs in order to wholly check the appliance properly.

5.2. Failure Codes

Error Indication	Error Number	Indication in UI	Indication in SI
Door/Door Lock Failure	E01	A	A
Lack of water	E02	A	A
Pump failure	E03	A	A
Overflow	E04	A	A
NTC or Heater Failure	E05	NA	A
Motor Failure	E06	NA	A
Configuration Failure	E07	NA	A
Motor Triac Failure	E08	NA	A
Voltage Error	E09	A	A
Electronic Pressure Sensor	E10	NA	A
Dryer Board Connection Failure	E11	NA	A
Communication failure 3D Sensor	E12	NA	A
LCD card Failure	E13	NA	A
Dryer Thermostat Failure	E14	NA	A
Twinjet Failure	E15	NA	A
Dryer Overheated Failure	E16	NA	A
Flowmeter Failure	E17	NA	A
Dryer NTC Failure	E18	NA	A

6. Critical Torque Values

	Assembly Location	Bolt/Nut/Screw	Torque Min. (Nm)	Torque Nom. (Nm)	Torque Max. (Nm)	Air Pressure Wrench Speed (rpm)
*	Transport Screw Assembly	Transport Screws	6.50	6.50	7.00	1000
*	Motor Assembly	Motor Screws	6.00	6.50	7.50	800
*	Front Concrete Weight - Front Tub Assembly	Front Counterweight Screws	14.00	14.50	14.75	600
*	Upper Counter Weight Assembly	Upper Counterweight Screws	25.00	27.50	30.00	440
*	Pulley – Drive Shaft – Washing Group Assembly	Pulley – Drive Shaft Assembly Bolt	39.50	40.00	40.50	440
*	Washer Heater Assembly	Heater Assembly Nut	3.85	4.00	4.00	970

The bolts/nuts above are important for product safety purposes.   Please tighten screw, bolts and nuts according to the torque values given in table above.

9. Wiring Diagram*
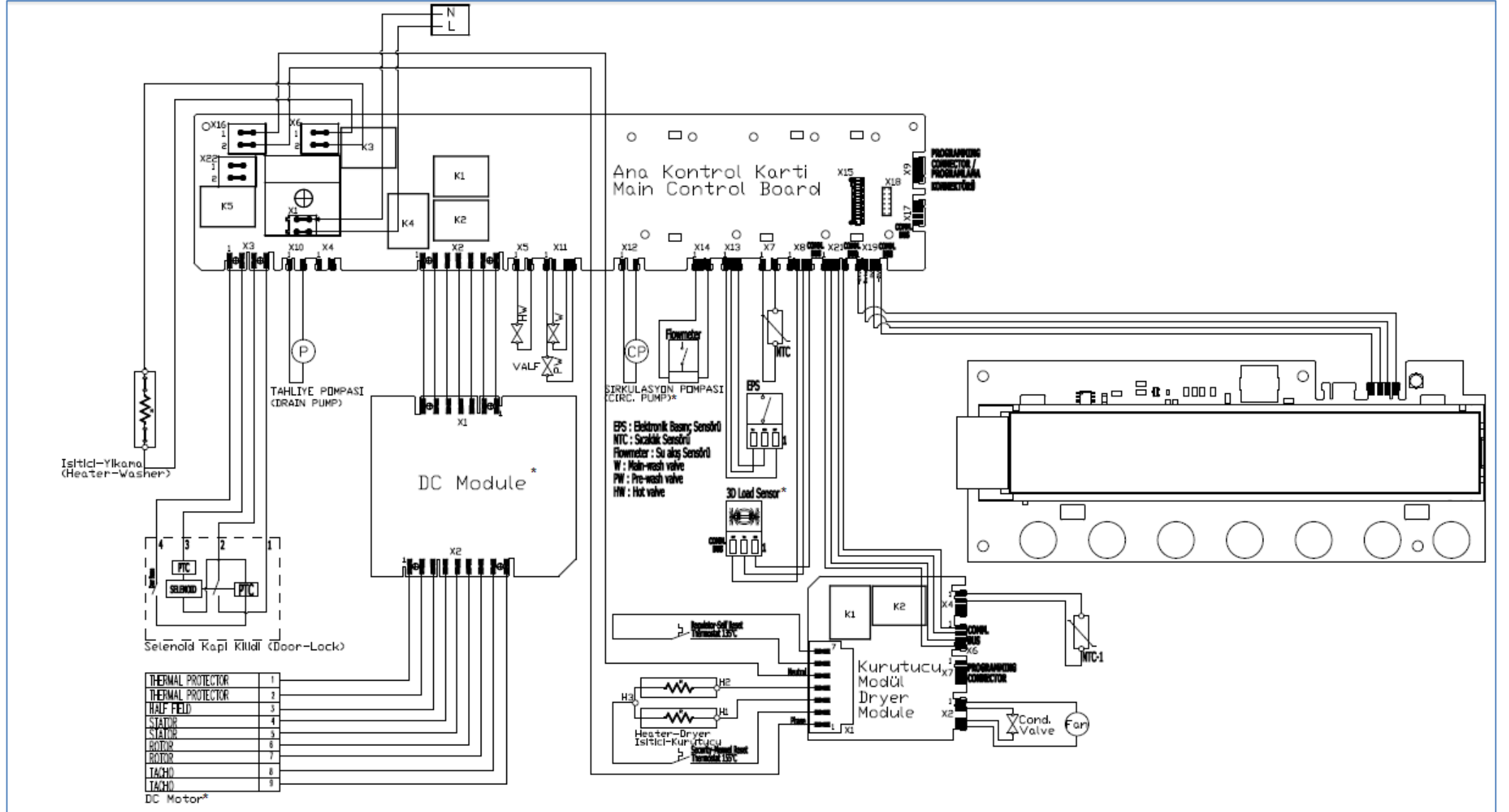
10. Troubleshooting

Please apply basic troubleshooting steps described in user manual. If you can not find a solution you should run service autotest and complete all steps. In case of an error encounter please follow the instructions through flowchart related with the error.

```
┌─────────────────────────────────────────────────────────────────────────────┐
│                          E01                                                  │
│                                                                               │
│                   Door Lock Failure                                           │
│                                                                               │
│        Is door closed  ──NO──▶   Close door properly. Make sure there are no  │
│          properly?               obstacles around gasket & door lock.         │
│             │YES                                                              │
│        Are environmental ─NO─▶   Do not run WM till enviromental              │
│        conditions are OK?        conditions are in product specification      │
│             │YES                                                              │
│    Check PCB socket connections. Is                                           │
│         thee any loose      ─YES─▶   Refit loose sockets/connectors, replace cable │
│      socket/connector? Similarly     group if connectors/sockets are worn     │
│    check door lock connector. Is it                                           │
│             loose?                                                            │
│             │NO                                                               │
│        Are there any                                                          │
│     burr/obstacle around   ─YES─▶   Clean obstacle, replace relevant          │
│    door hook, lock, handle          component if required                     │
│        mechanism?                                                             │
│             │NO                                                               │
│    Test door lock component                                                   │
│    as explained in service ─NO─▶   Replace door lock                          │
│      manual. Is door lock                                                     │
│      component OK?                                                            │
│             │YES                                                              │
│    Redo same door lock                                                        │
│    test by PCB sockets?    ─NO─▶   Replace cable group                        │
│      Is it still OK?                                                          │
│             │YES                                                              │
│        Replace PCB                                                            │
└─────────────────────────────────────────────────────────────────────────────┘
```

Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

──▶	NO
──▶	YES

```
┌──────────────────┐
│       E02        │
└──────────────────┘
         │
         ▼
┌──────────────────┐
│  Lack of Water   │
└──────────────────┘
         │
         ▼
┌──────────────────┐        ┌──────────────────┐
│ Is water inlet tap │─────▶│   Open the tap    │
│     opened?       │       └──────────────────┘
└──────────────────┘
         │
         ▼
┌──────────────────┐        ┌────────────────────────────────────┐
│ Are environmental │─────▶│ Do not run WM till enviromental        │
│ conditions are OK?│       │ conditions in product specifications   │
└──────────────────┘        │ are met                                │
         │                  └────────────────────────────────────┘
         ▼
┌──────────────────┐        ┌────────────────────────────────────┐
│ Check water       │─────▶│ Do not run WM till required plumping   │
│ pressure, is it   │       │ operations are done and water          │
│ between specified │       │ pressure is in required range.         │
│ range in          │       └────────────────────────────────────┘
│ instruction book? │
└──────────────────┘
         │
         ▼
┌──────────────────┐        ┌────────────────────────────────────┐
│ Check PCB socket  │─────▶│ Refit loose sockets/connectors,        │
│ connections. Is   │       │ replace cable group if                 │
│ thee any loose    │       │ connectors/sockets are worn            │
│ socket/connector? │       └────────────────────────────────────┘
│ Similarly check   │
│ valve connectors. │
│ Is it loose?      │
└──────────────────┘
         │
         ▼
┌──────────────────┐        ┌────────────────────────────────────┐
│ Check waster inlet│─────▶│ Clean cloggage, replace water inlet    │
│ hose & valve      │       │ hose/valve if required.                │
│ enterance. Are    │       └────────────────────────────────────┘
│ there any cloggage│
│ in hose and       │
│ around filters?   │
└──────────────────┘
         │
         ▼
┌──────────────────┐        ┌──────────────────┐
│ Test valve        │─────▶│  Replace valve    │
│ component as      │       └──────────────────┘
│ explained in      │
│ service manual.   │
│ Is valve          │
│ component OK?     │
└──────────────────┘
         │
         ▼
┌──────────────────┐        ┌──────────────────┐
│ Redo same valve   │─────▶│ Replace cable     │
│ test by PCB       │       │ group             │
│ sockets? Is it    │       └──────────────────┘
│ still OK?         │
└──────────────────┘
         │
         ▼
┌──────────────────┐
│   Replace PCB     │
└──────────────────┘
```

Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

| ───▶ | NO |
| ───▶ | YES |

```
┌──────────────────────────────────────────────────────────────────────────────────────────────────┐
│                                                                                                    │
│                    ┌───────────────┐                                                               │
│                    │      E03      │                                                               │
│                    └───────┬───────┘                                                               │
│                            │                                                                       │
│                    ┌───────▼───────┐                                                               │
│                    │  Drain Pump   │                                                               │
│                    │   Failure     │                                                               │
│                    └───────┬───────┘                                                               │
│                            │                                                                       │
│                ┌───────────▼──────────┐      ╭─────────────────────────────────────╮              │
│                │ Are environmental    ├─────►│ Do not run WM till enviromental      │              │
│                │ conditions are OK?   │      │ conditions in product specifications │              │
│                └───────────┬──────────┘      │ are met                              │              │
│                            │                 ╰─────────────────────────────────────╯              │
│                ┌───────────▼──────────┐                                                            │
│                │ Is pump filter       │      ╭─────────────────────────────────────╮              │
│                │ clogged or is there  ├─────►│ Clean pump filter/remove foreign    │              │
│                │ a foreign object     │      │ object                              │              │
│                │ around pump          │      ╰─────────────────────────────────────╯              │
│                │ propeller?           │                                                            │
│                └───────────┬──────────┘                                                            │
│                            │                                                                       │
│                ┌───────────▼──────────┐                                                            │
│                │ Check PCB socket     │      ╭─────────────────────────────────────╮              │
│                │ connections. Is thee ├─────►│ Refit loose sockets/connectors,     │              │
│                │ any loose socket/    │      │ replace cable group if connectors/  │              │
│                │ connector? Similarly │      │ sockets are worn                    │              │
│                │ check pump           │      ╰─────────────────────────────────────╯              │
│                │ connectors. Is it    │                                                            │
│                │ loose?               │                                                            │
│                └───────────┬──────────┘                                                            │
│                            │                                                                       │
│                ┌───────────▼──────────┐                                                            │
│                │ Check waster inlet   │      ╭─────────────────────────────────────╮              │
│                │ hose & valve         ├─────►│ Clean cloggage, replace water inlet │              │
│                │ enterance. Are there │      │ hose/valve if required.             │              │
│                │ any cloggage in hose │      ╰─────────────────────────────────────╯              │
│                │ and around filters?  │                                                            │
│                └───────────┬──────────┘                                                            │
│                            │                                                                       │
│                ┌───────────▼──────────┐                                                            │
│                │ Test pump component  │      ╭─────────────────────╮                              │
│                │ as explained in      ├─────►│ Replace pump        │                              │
│                │ service manual. Is   │      ╰─────────────────────╯                              │
│                │ pump component OK?   │                                                            │
│                └───────────┬──────────┘                                                            │
│                            │                                                                       │
│                ┌───────────▼──────────┐      ╭─────────────────────╮  ┌──────────────────────────┐│
│                │ Redo same pump test  ├─────►│ Replace cable group │  │ Environmental conditions:││
│                │ by PCB sockets? Is   │      ╰─────────────────────╯  │                          ││
│                │ it still OK?         │                               │ -Voltage range should be ││
│                └───────────┬──────────┘                               │ in as specified in       ││
│                            │                                          │ instruction book.        ││
│                    ╭───────▼───────╮                                  │ -Water pressure should   ││
│                    │ Replace PCB   │                                  │ be as specified in       ││
│                    ╰───────────────╯                                  │ instruction book.        ││
│                                                                       │ -WM should be grounded   ││
│                                                                       │ properly.                ││
│                                                                       │ -There should be enough  ││
│                                                                       │ ventilation space from   ││
│                                                                       │ ground.                  ││
│                                                                       │ -Other environmental     ││
│                                                                       │ specifications and       ││
│                                                                       │ requirements should be   ││
│                                                                       │ met which are mentioned  ││
│                                                                       │ in instruction book of   ││
│                                                                       │ WM.                      ││
│                                                                       └──────────────────────────┘│
│                                                                       ┌──────────────────────────┐│
│                                                                       │  ──────►      │   NO   │  ││
│                                                                       │  ──────►      │  YES   │  ││
│                                                                       └──────────────────────────┘│
│                                                                                                    │
└──────────────────────────────────────────────────────────────────────────────────────────────────┘
```

```
                    ┌─────────────────┐
                    │       E04       │
                    └────────┬────────┘
                             │
                    ┌────────▼────────┐
                    │    Overflow     │
                    └────────┬────────┘
                             │
        ┌──────────────────┐        ╭──────────────────────────────────╮
        │ Are environmental│───────▶│ Do not run WM till enviromental  │
        │ conditions are OK?│  NO    │ conditions in product            │
        └────────┬─────────┘         │ specifications are met           │
                 │ YES               ╰──────────────────────────────────╯
        ┌────────▼─────────┐
        │ Check PCB socket │
        │ connections. Is  │         ╭──────────────────────────────────╮
        │ thee any loose   │───────▶│ Refit loose sockets/connectors,   │
        │ socket/connector?│  YES    │ replace cable group if            │
        │ Similarly check  │         │ connectors/sockets  are worn      │
        │ pressure switch/ │         ╰──────────────────────────────────╯
        │ sensor and valve │
        │ connectors. Is it│
        │ loose?           │
        └────────┬─────────┘
                 │ NO
        ┌────────▼─────────┐         ╭─────────────────╮
        │ Does WM intake   │───────▶│ Replace valve    │
        │ water when power │  YES    ╰─────────────────╯
        │ is off?          │
        └────────┬─────────┘
                 │ NO
        ┌────────▼─────────┐         ╭─────────────────╮
        │ Is there any     │───────▶│ Replace pressure │
        │ deformation      │  NO     │ switch/sensor    │
        │ through pressure │         │ hose             │
        │ switch/sensor    │         ╰─────────────────╯
        │ hose?            │
        └────────┬─────────┘
                 │ YES
        ┌────────▼─────────┐         ╭─────────────────╮
        │ Test pressure    │───────▶│ Replace pressure │
        │ switch/sensor    │  NO     │ switch/sensor    │
        │ component as     │         ╰─────────────────╯
        │ explained in     │
        │ service manual.  │
        │ Is pressure      │
        │ switch/sensor    │
        │ component OK?    │
        └────────┬─────────┘
                 │ YES
        ╭────────▼─────────╮
        │   Replace PCB    │
        ╰──────────────────╯
```

Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

───────▶	NO
───────▶	YES

```
┌─────────────────────────────────────────────────────────────────────────────────────┐
│                                                                                       │
│           ┌──────────────┐                                                            │
│           │     E05      │                                                            │
│           └──────┬───────┘                                                            │
│           ┌──────┴───────────────┐                                                    │
│           │ Washer Heater or NTC │                                                    │
│           │      Failure         │                                                    │
│           └──────┬───────────────┘                                                    │
│           ┌──────┴───────────┐         ╭───────────────────────────────────╮          │
│           │ Are environmental│────────▶│ Do not run WM till enviromental    │         │
│           │ conditions are OK?│        │ conditions in product specifications│        │
│           └──────┬───────────┘         │ are met                            │         │
│                  │                      ╰───────────────────────────────────╯         │
│        ┌─────────┴──────────┐                                                         │
│        │ Check PCB socket   │            ╭─────────────────────────────────╮          │
│        │ connections. Is thee│           │ Refit loose sockets/connectors,  │         │
│        │ any loose socket/  │───────────▶│ replace cable group if           │         │
│        │ connector? Similarly│           │ connectors/sockets are worn      │         │
│        │ check resistance and│          ╰─────────────────────────────────╯          │
│        │ NTC connectors. Is it│                                                       │
│        │ loose?             │                                                         │
│        └─────────┬──────────┘                                                         │
│        ┌─────────┴──────────┐            ╭──────────────╮                             │
│        │ Test NTC component │            │ Replace NTC  │                             │
│        │ as explained in    │───────────▶╰──────────────╯                             │
│        │ service manual. Is │                                                         │
│        │ NTC component OK?  │                                                         │
│        └─────────┬──────────┘                                                         │
│        ┌─────────┴──────────┐            ╭──────────────────╮                         │
│        │ Redo same test by  │            │ Replace cable group│                       │
│        │ PCB sockets? Is it │───────────▶╰──────────────────╯                        │
│        │ still OK?          │                                                         │
│        └─────────┬──────────┘                                                         │
│        ┌─────────┴──────────┐            ╭──────────────────╮                         │
│        │ Test resistance    │            │ Replace resistance│                        │
│        │ component as       │───────────▶╰──────────────────╯                        │
│        │ explained in service│                                                        │
│        │ manual. Is resistance│                                                       │
│        │ component OK?      │                                                         │
│        └─────────┬──────────┘                                                         │
│        ┌─────────┴──────────┐            ╭──────────────────╮                         │
│        │ Redo same test by  │            │ Replace cable group│                       │
│        │ PCB sockets? Is it │───────────▶╰──────────────────╯                        │
│        │ still OK?          │                                                         │
│        └─────────┬──────────┘                                                         │
│        ┌─────────┴──────────┐            ╭──────────────────╮                         │
│        │ Disaasmble resistance│          │ Replace resistance│                        │
│        │ and check if the    │──────────▶╰──────────────────╯                        │
│        │ surface of the heater│                                                       │
│        │ is calcified. Is     │                                                       │
│        │ resistance surface  │                                                        │
│        │ heavyly calcified?  │                                                        │
│        └─────────┬──────────┘                                                         │
│           ╭──────┴───────╮                                                            │
│           │ Replace PCB  │                                                            │
│           ╰──────────────╯                                                            │
└─────────────────────────────────────────────────────────────────────────────────────┘
```
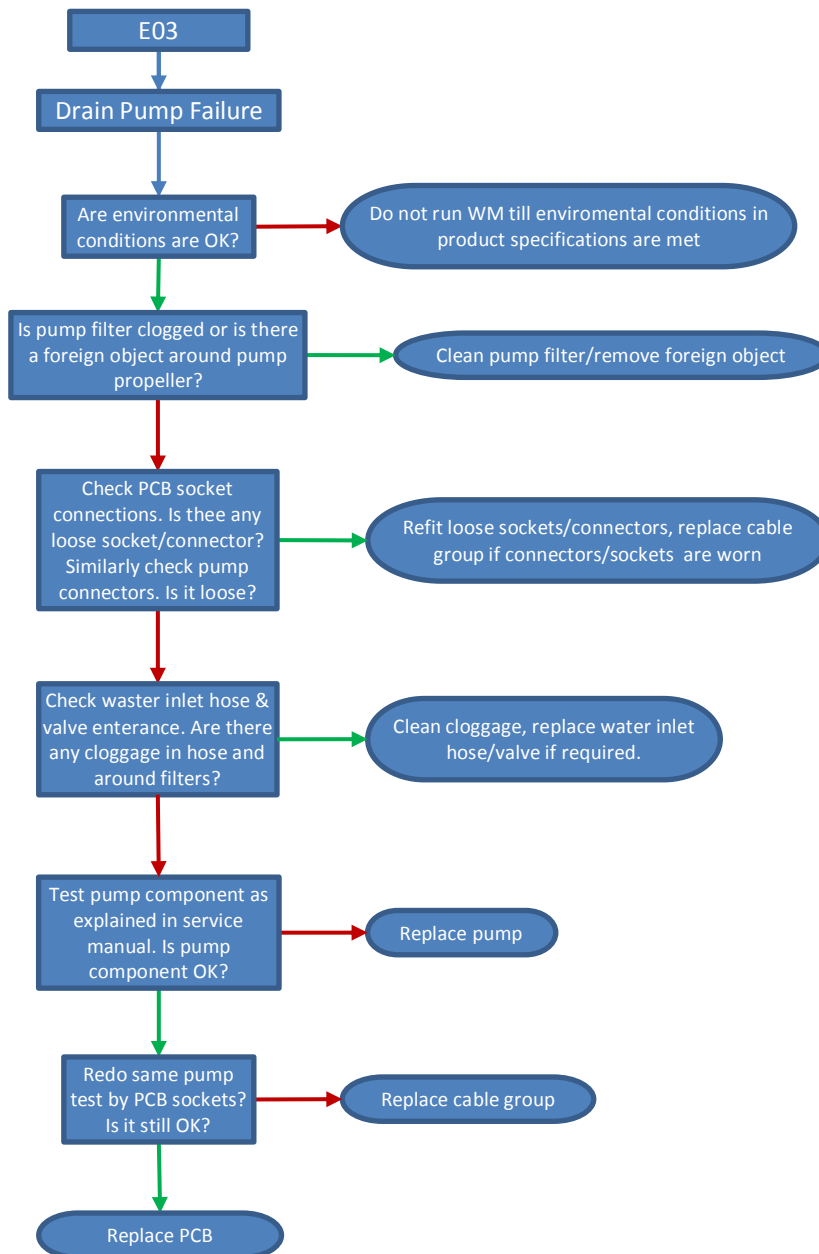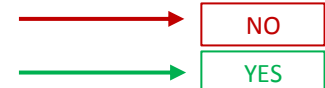
Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
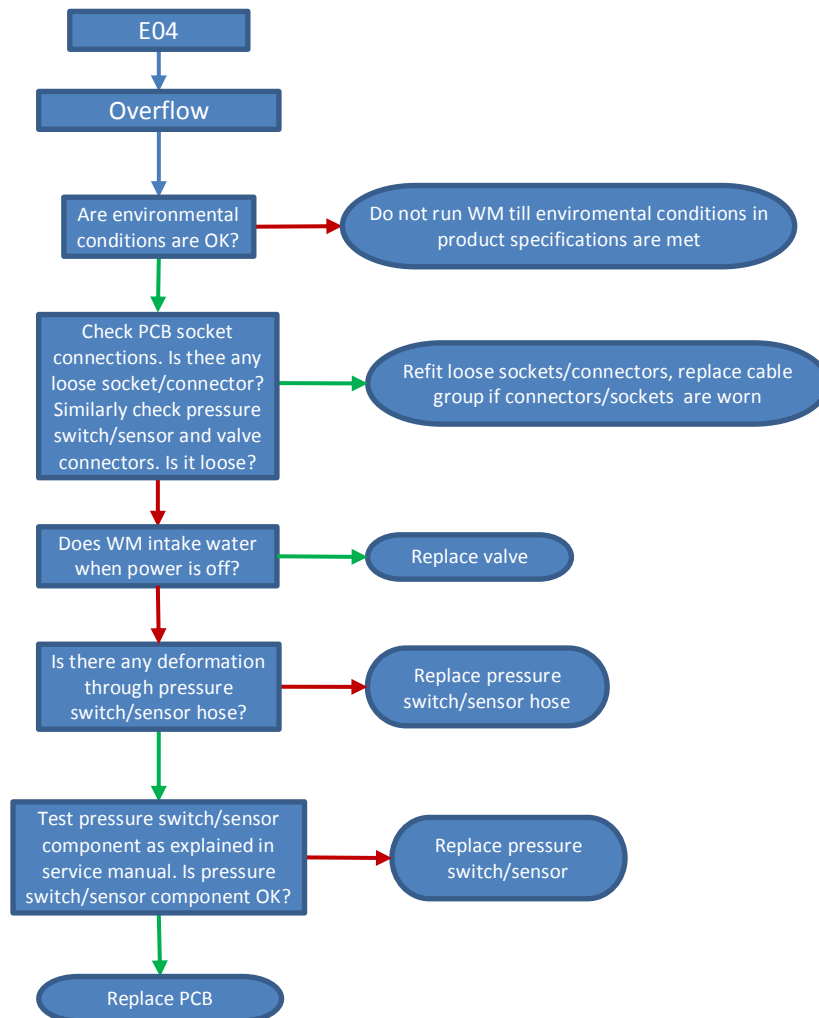-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

| ──────▶ | NO |
| ──────▶ | YES |

```
E06
 │
 ▼
Motor Error
 │
 ▼
Are environmental         NO      Do not run WM till enviromental conditions in
conditions are OK?    ────────▶   product specifications are met
 │ YES
 ▼
Check PCB socket
connections. Is thee any   YES     Refit loose sockets/connectors, replace cable
loose socket/connector?  ────────▶ group if connectors/sockets are worn
Similarly check motor
connectors. Is it loose?
 │ NO
 ▼
Test motor component as    NO
explained in service     ────────▶   Replace Motor
manual. Is motor
component OK?
 │ YES
 ▼
Redo same test by          NO
PCB sockets? Is it       ────────▶   Replace cable group
still OK?
 │ YES
 ▼
Replace PCB
```
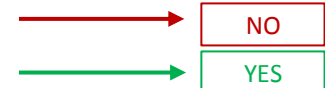
Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
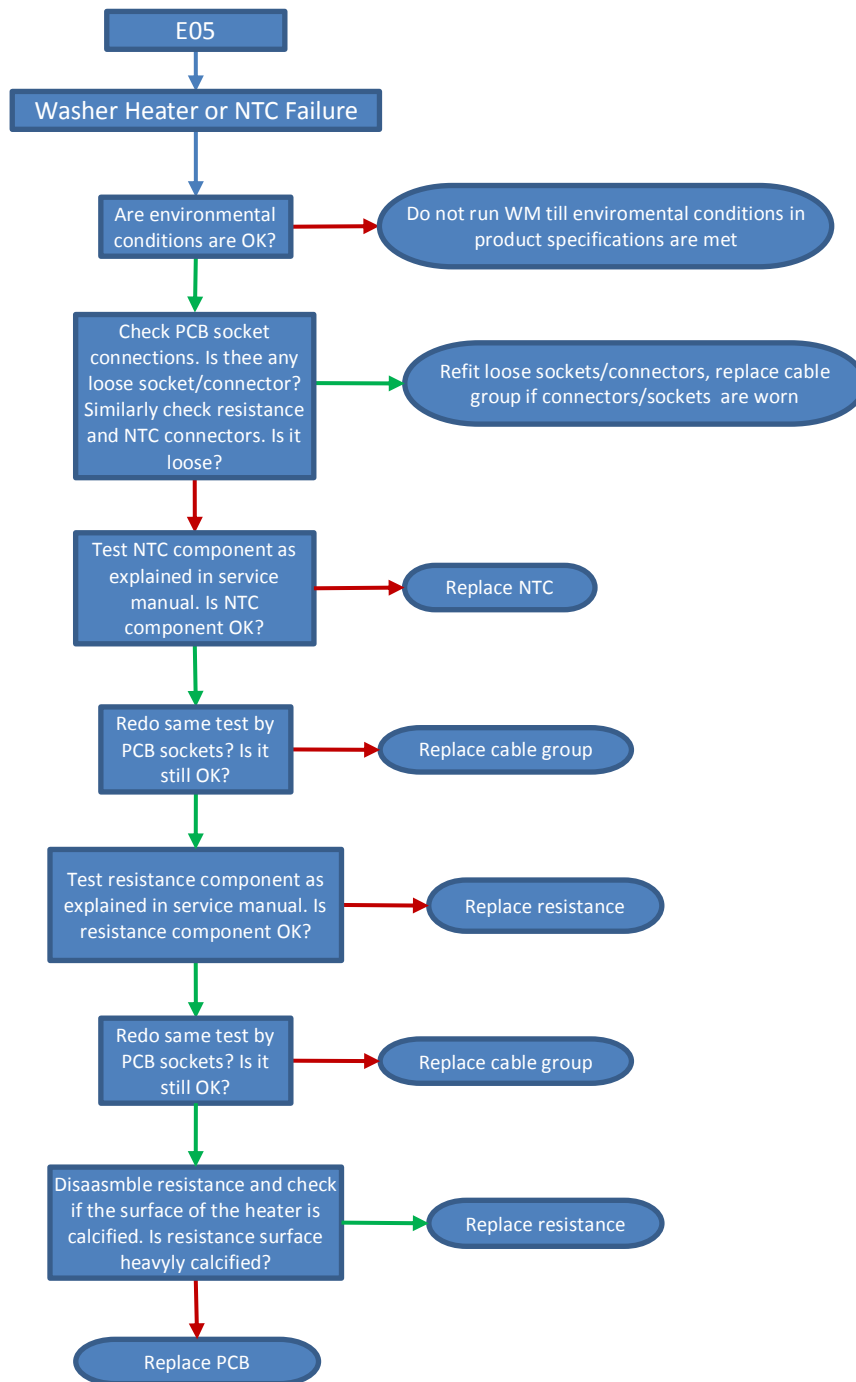-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

──────▶	NO
──────▶	YES

```
┌─────────────────────────────────────────────────────────────────────────────┐
│                                                                             │
│       ┌──────────────┐                                                      │
│       │     E10      │                                                      │
│       └──────┬───────┘                                                      │
│              │                                                              │
│       ┌──────┴───────┐                                                      │
│       │  EPS Error   │                                                      │
│       └──────┬───────┘                                                      │
│              │                                                              │
│   ┌──────────┴─────────┐        ╭──────────────────────────────────────╮   │
│   │ Are environmental  ├───────▶│ Do not run WM till enviromental       │   │
│   │ conditions are OK? │        │ conditions in product specifications  │   │
│   └──────────┬─────────┘        │ are met                               │   │
│              │                  ╰──────────────────────────────────────╯    │
│   ┌──────────┴─────────┐                                                    │
│   │ Check PCB socket   │        ╭──────────────────────────────────────╮   │
│   │ connections. Is thee│──────▶│ Refit loose sockets/connectors,       │   │
│   │ any loose socket/  │        │ replace cable group if connectors/    │   │
│   │ connector? Similarly│       │ sockets are worn                      │   │
│   │ check EPS connectors│       ╰──────────────────────────────────────╯    │
│   │ Is it loose?       │                                                    │
│   └──────────┬─────────┘                                                    │
│              │                                                              │
│   ┌──────────┴─────────┐        ╭──────────────────────╮                   │
│   │ Test EPS component │───────▶│    Replace Motor     │                   │
│   │ as explained in    │        ╰──────────────────────╯                   │
│   │ service manual. Is │                                                    │
│   │ EPS component OK?  │                                                    │
│   └──────────┬─────────┘                                                    │
│              │                                                              │
│   ┌──────────┴─────────┐        ╭──────────────────────╮                   │
│   │ Redo same test by  │───────▶│  Replace cable group │                   │
│   │ PCB sockets? Is it │        ╰──────────────────────╯                   │
│   │ still OK?          │                                                    │
│   └──────────┬─────────┘                                                    │
│              │                                                              │
│       ╭──────┴───────╮                                                      │
│       │ Replace PCB  │                                                      │
│       ╰──────────────╯                                                      │
└─────────────────────────────────────────────────────────────────────────────┘
```
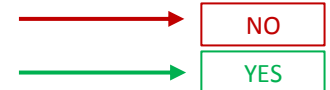
Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
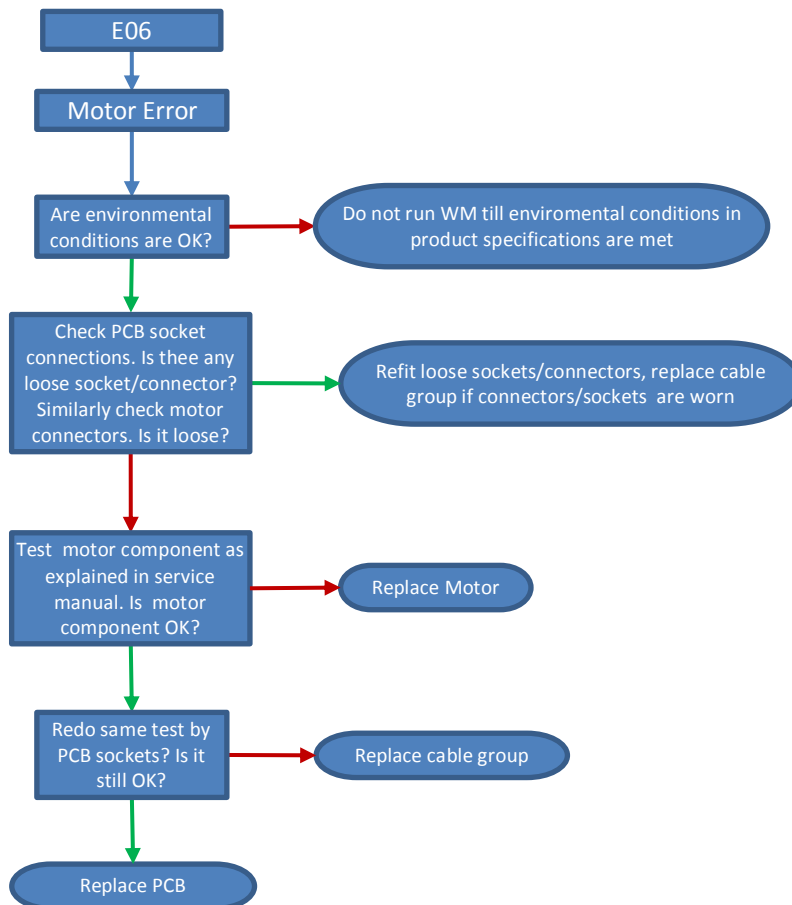-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

→ NO

→ YES

```
E11
  │
  ▼
Dryer Board Communication Error
  │
  ▼
Are environmental          ──NO──►   Do not run WM till enviromental conditions in
conditions are OK?                    product specifications are met
  │ YES
  ▼
Check PCB socket
connections. Is thee any
loose socket/connector?    ──YES──►  Refit loose sockets/connectors, replace cable
Similarly check dryer                 group if connectors/sockets are worn
board connectors. Is it
loose?
  │ NO
  ▼
Check the communication cable
ports? Are there any non-conductive  ──YES──►  Replace Cable Group
ports?
  │ NO
  ▼
Replace drying
board. Does it still
give E11 error?
  │ YES
  ▼
Replace PCB
```

Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
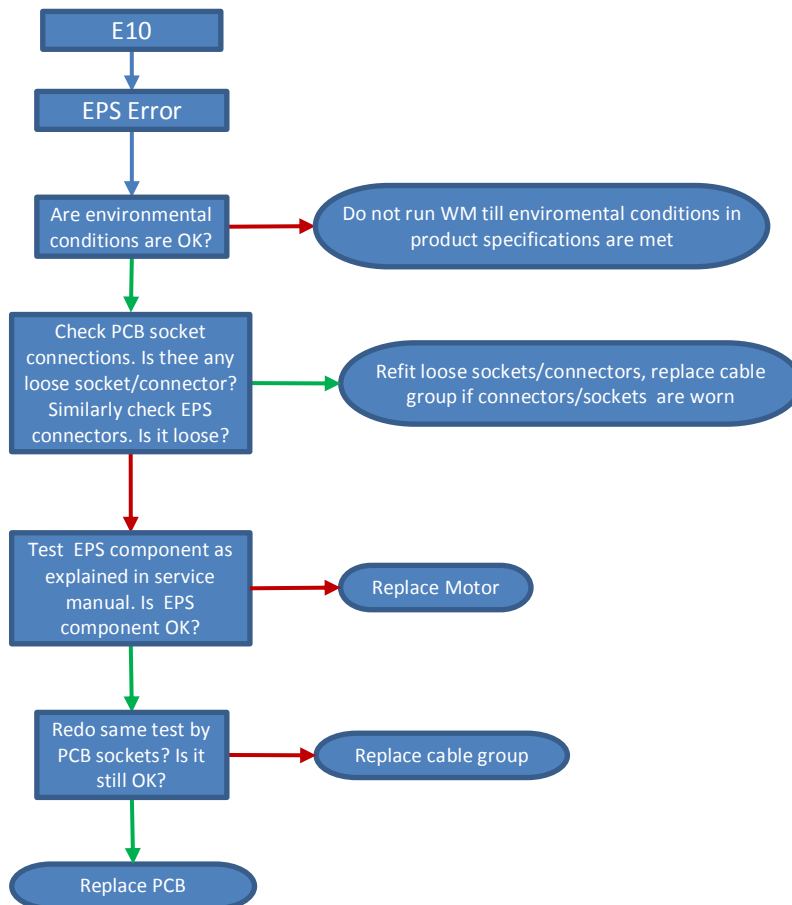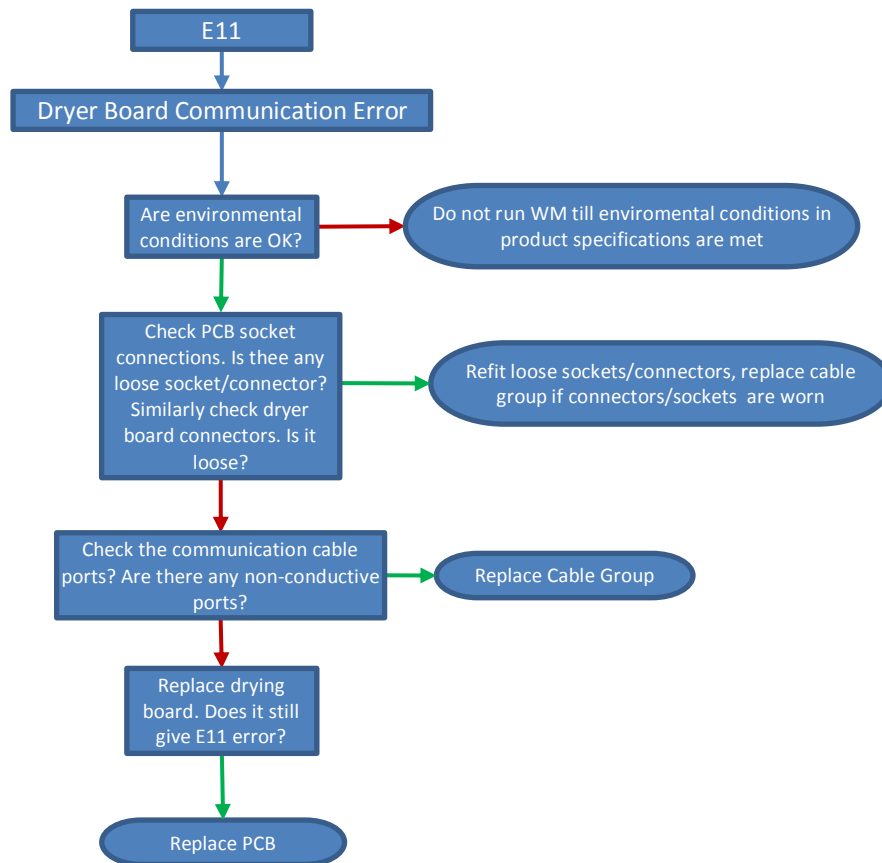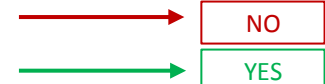-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

──────► NO
──────► YES

```
┌─────────────────────────────────────────────────────────────────────────────────────────────┐
│                                                                                               │
│              ┌──────────────────┐                                                             │
│              │       E14        │                                                             │
│              └──────────────────┘                                                             │
│                       │                                                                       │
│          ┌─────────────────────────────────┐                                                  │
│          │ Dryer Heater/Fan/Thermostat Error│                                                 │
│          └─────────────────────────────────┘                                                  │
│                       │                                                                        │
│          ┌──────────────────┐          ┌──────────────────────────────────────┐               │
│          │ Are environmental │────────▶│ Do not run WM till enviromental       │               │
│          │ conditions are OK?│         │ conditions in product specifications  │               │
│          └──────────────────┘         │ are met                                │               │
│                       │               └──────────────────────────────────────┘               │
│          ┌──────────────────────┐     ┌──────────────────────────────┐                        │
│          │ Check if manual reset │    │ Check dryer heater and       │     ┌──────────────────┐│
│          │ thermostat is triggered│──▶│ thermostat connectors &      │────▶│ Replace dryer    ││
│          │ by pressing reset button.│  │ cables. Also check          │     │ heater group     ││
│          │ Was it triggered?     │    │ connectors on dryer board.   │     └──────────────────┘│
│          └──────────────────────┘     │ All connectors OK?           │                        │
│                       │               └──────────────────────────────┘                        │
│          ┌──────────────────────┐              │                                              │
│          │ Check dryer fan       │     ┌──────────────────────┐                               │
│          │ connectors and cables?│────▶│ Replace Cable Group  │                               │
│          │ Also check connectors │     └──────────────────────┘                               │
│          │ on dryer board. All   │                                                            │
│          │ connectors OK?        │                                                            │
│          └──────────────────────┘                                                            │
│                       │                                                                       │
│          ┌──────────────────────┐     ┌──────────────────────┐                               │
│          │ Check dryer fan       │────▶│ Replace dryer fan    │                               │
│          │ referring to componrnt│     └──────────────────────┘                               │
│          │ control section 7.9?  │                                                            │
│          │ Is fan OK?            │                                                            │
│          └──────────────────────┘                                                            │
│                       │                                                                       │
│          ┌──────────────────────┐     ┌──────────────────────┐                               │
│          │ Check drying cycle    │────▶│ Clean/remove the     │                               │
│          │ components (condenser, │     │ obstacle             │                               │
│          │ fan, heater group,    │     └──────────────────────┘                               │
│          │ gasket, tub). Is the  │                                                            │
│          │ any obstacle blocking │     ┌──────────────────────────────┐                      │
│          │ the air flow?         │     │ This issue can happen during  │                      │
│          └──────────────────────┘     │ drying cycles in case the     │                      │
│                       │               │ appliance is overloaded or    │                      │
│          ┌──────────────────────┐     │ fabric type may not be        │                      │
│          │ Run an unloaded test  │────▶│ appropriate as explained in   │                      │
│          │ drying program        │     │ IB or there may be a          │                      │
│          │ inspecting the        │     │ momnetaryly blockage in air   │                      │
│          │ thermostats and check │     │ ventilation which may cause   │                      │
│          │ if the issue reoccurs.│     │ the issue                     │                      │
│          │ Did thermostat trigger│     └──────────────────────────────┘                      │
│          │ again?                │                                                            │
│          └──────────────────────┘                                                            │
│                       │                                                                       │
│          ┌──────────────────────┐                                                            │
│          │ Replace dryer card    │                                                            │
│          └──────────────────────┘                                                            │
│                                                                                               │
└─────────────────────────────────────────────────────────────────────────────────────────────┘
```

Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
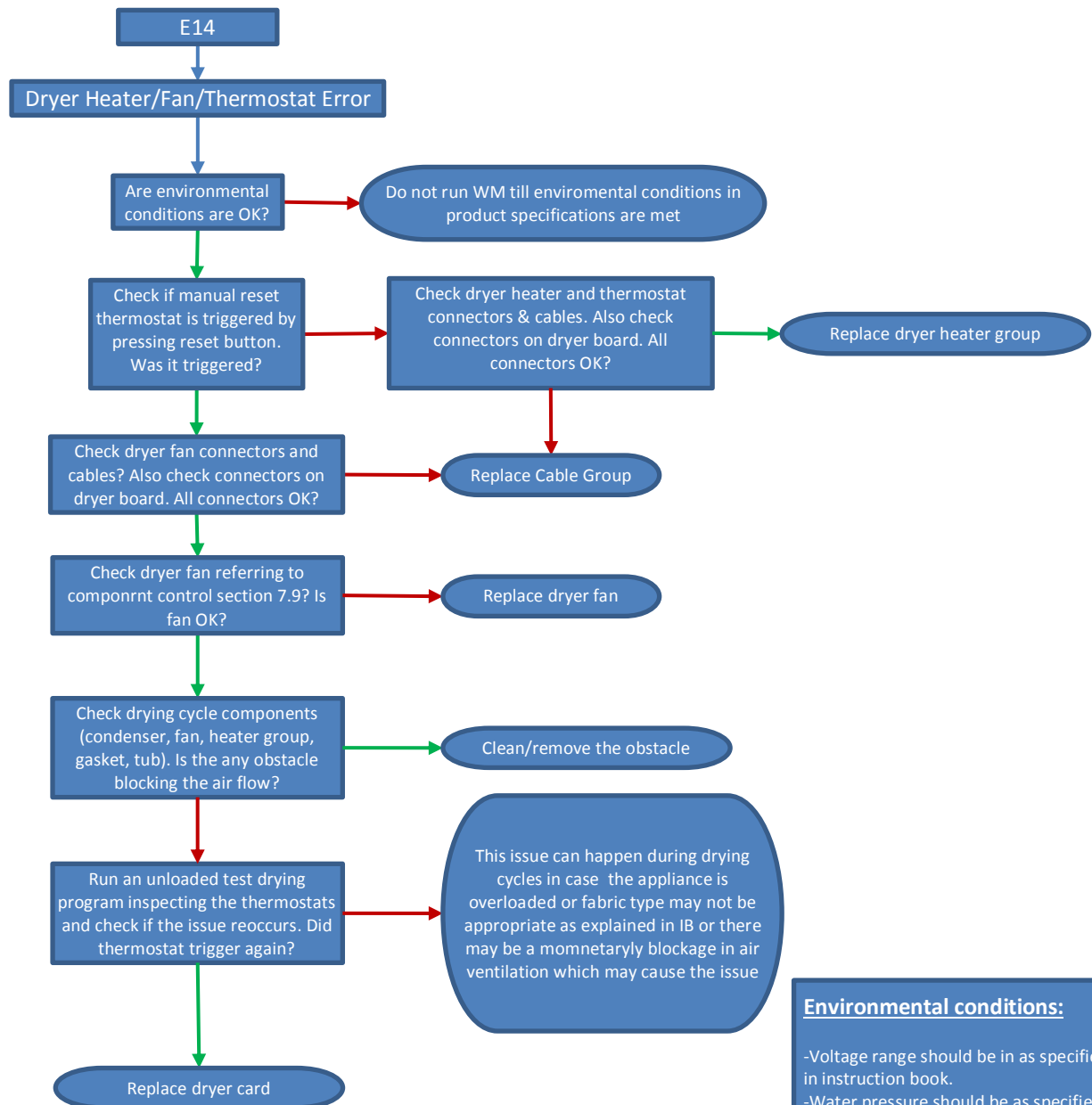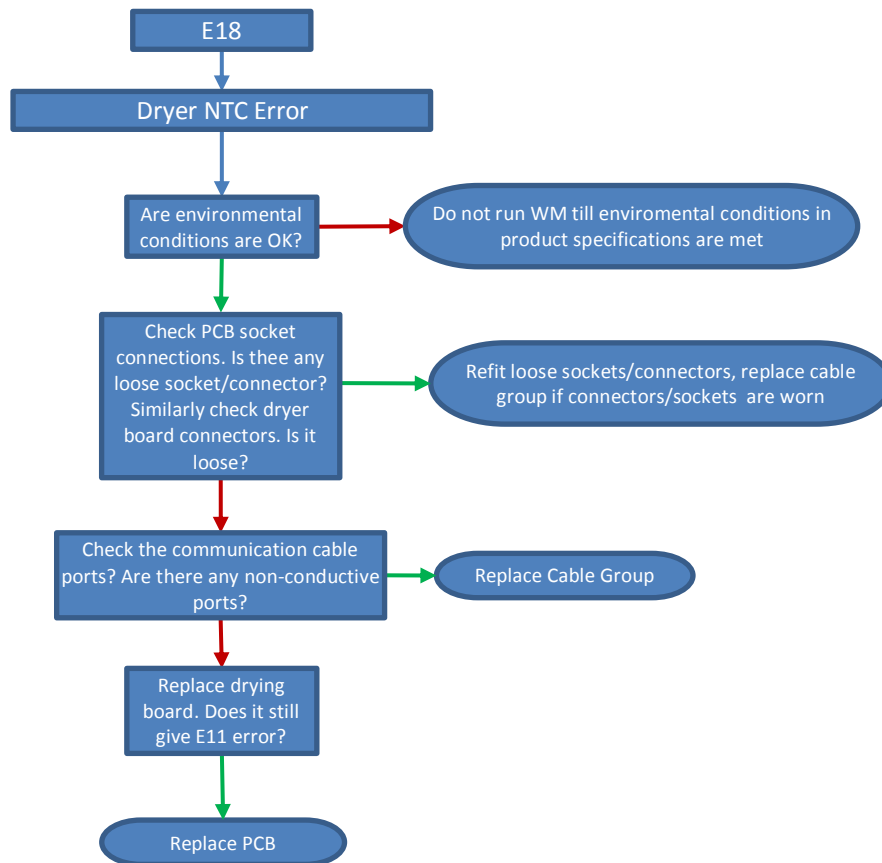-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

───▶	NO
───▶	YES

```
E18
  │
  ▼
Dryer NTC Error
  │
  ▼
Are environmental          NO      Do not run WM till enviromental conditions in
conditions are OK?       ────────▶  product specifications are met
  │
  │ YES
  ▼
Check PCB socket
connections. Is thee any    YES     Refit loose sockets/connectors, replace cable
loose socket/connector?   ────────▶  group if connectors/sockets are worn
Similarly check dryer
board connectors. Is it
loose?
  │
  │ NO
  ▼
Check the communication cable   YES
ports? Are there any non-conductive ────▶  Replace Cable Group
ports?
  │
  │ NO
  ▼
Replace drying
board. Does it still
give E11 error?
  │
  │ YES
  ▼
Replace PCB
```

Environmental conditions:

-Voltage range should be in as specified in instruction book.
-Water pressure should be as specified in instruction book.
-WM should be grounded properly.
-There should be enough ventilation space from ground.
-Other environmental specifications and requirements should be met which are mentioned in instruction book of WM.

───────▶	NO
───────▶	YES