



Service Manual

Tumble dryer

Air Vent

TRA 4350 WS-EU

Model Version		Page
TRA4350WS-EU 8560 435 01000		
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Technical data

Dimensions

Height	85,0	cm
Width	59,5	cm
Depth	60,0	cm

Weight

Gross weight	34,5	kg
Net weight	32,5	kg

Surroundings temperature

Max. room temperature	35	°C
Min. room temperature	5	°C

Humidity

Max. relative humidity	95	%
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Power connection

Voltage	230	V
Frequency	50	Hz
Connected load	2,8	kW
Fuse	16	A

Drum data

Volume	112	l
Drum speed (empty)	57 ± 2	rpm
Airflow	120 - 160	m ³ /h

Maximum loading capacity		
Cotton	5	kg
Easy care	2,5	kg
Exhaust hose		
Inner diameter	10	cm
Maximum allowable (with 2 bows)	4	m

Electrical components

Heating

Type	Aluminium mass heating	
Nominal voltage	230	V
Nominal power	2500	W ± 5%
Resistor R 20	19,5 -23	Ω

Thermostats

Safety thermostat (in heater) TL

Switching point (off temp.)	270 ± 10	°C
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Fluff thermostat (in heater) TH 1.2

Switching point (on temp.)	180 ± 7,5	°C
Switching point (off temp.)	205 ± 7,5	°C

Exhausting thermostat (in bottom) TH 1.1

Switching point (on temp.)	40 ± 4	°C
Switching point (off temp.)	55 ± 3	°C

Timer

Type	Electronic Timer Eaton ref. SL49WR2 3203	
Nominal voltage	230 ± 10%	V
Frequency	47 - 63	Hz
External loads		
Motor current max.	6	A
Heater current max.	16	A
Drumlight current max.	0.1	A
Ambient temperature	0 to 50	°C
Storage temperature	-25 to 85	°C

Main- and blower motor

Type	1-phase asynchronous	
Nominal voltage	230	V
Frequency	50	Hz
Power consumption	295	W ± 7%
Resistances of coils		
Main coil (2-3)	21,5	Ω ± 7%
Auxiliary coil (2-1)	21,5	Ω ± 7%

Rated speed with 5 kg laundry and 100% rest humidity	2750	rpm
Capacitor	10 μF ± 10% / 400V	

Technical data

Display

BK display module Low-5

No. of LEDs

Buttons

Program selector

EATON MV19BT1R 2916

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START, GENTLE, PLUS, RAPID, BUZZER

ANTICREASING EXTENDED

16 positions

integrated ON / OFF contact 24 V AC

Radio interference filter

Typ

Nominal voltage

Nominal capacity

Eichhoff BV 16.250/109

230 V

0,1 μ F + 2 x 0,015 μ F X1Y

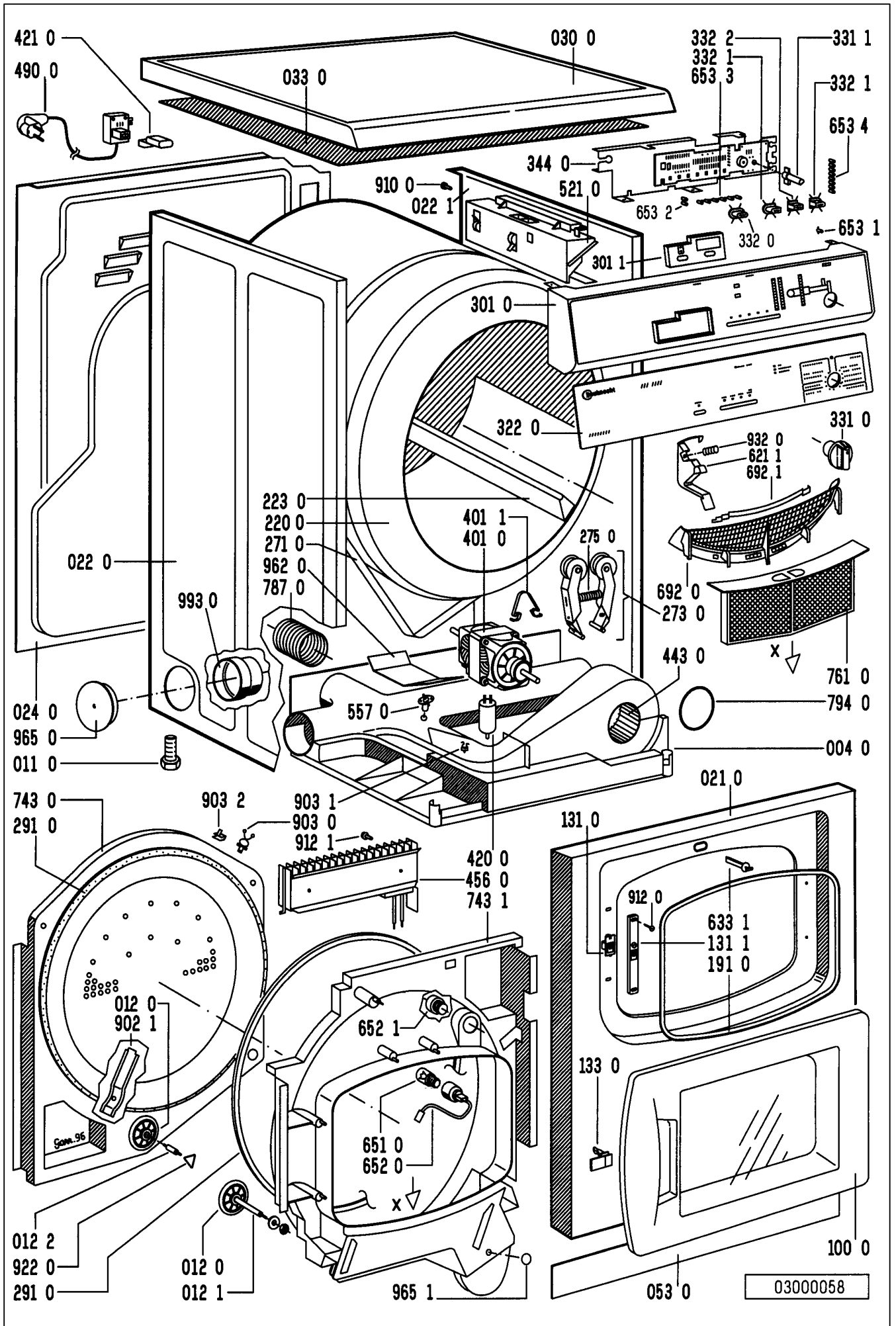
Spare part list

Model TRA 4350 WS-EU
Service No. 856043501000
Version 856043501000

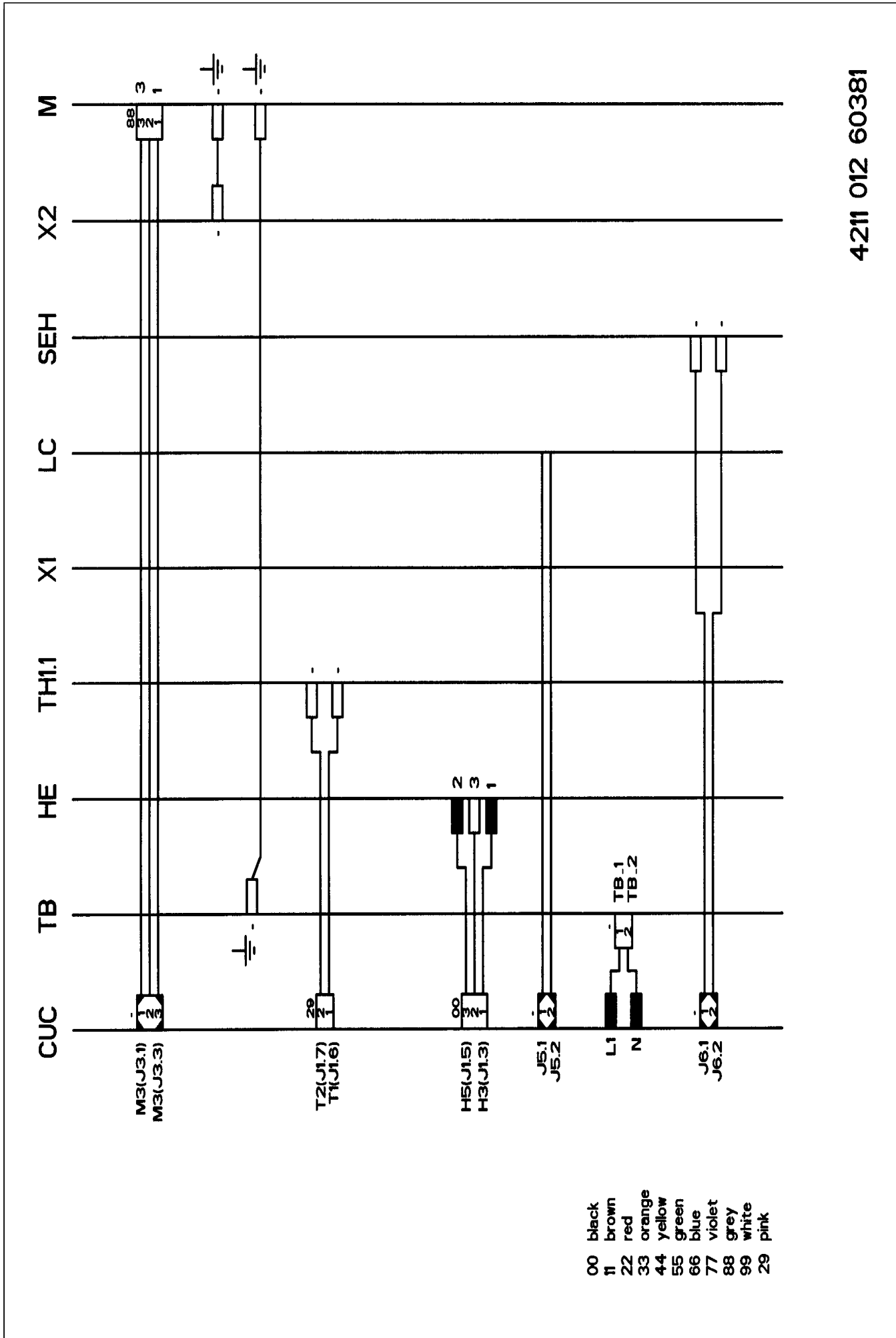
Pos. No.	12NC Code	Description
004 0	4812 530 48112	Bottom air vent.
011 0	4812 500 18054	Foot adjustable
012 0	4812 528 78033	Roll
012 1	4812 520 28039	Shaft front
012 2	4812 520 28041	Shaft rear
021 0	4812 452 18948	Front
022 0	4812 440 18931	Panel,side left
022 1	4812 440 18932	Panel,side right
024 0	4812 440 18928	Panel, rear
030 0	4812 440 19399	Table top
033 0	4812 440 18568	Plate
053 0	4812 459 38009	Plinth
100 0	4812 417 38015	Door
131 0	4812 271 38362	Door lock
131 1	4812 417 18797	Cover plate
133 0	4812 417 28054	Pin door
191 0	4812 466 68461	Gasket, door
220 0	4812 418 18177	Drum CPL.
223 0	4812 418 88017	Drum lifter
271 0	4812 358 18051	Belt
273 0	4812 358 18055	Pulley jokey
275 0	4812 492 68129	Spring
291 0	4812 466 68544	Gasket Drum
301 0	4812 452 19315	Control panel
301 1	4812 452 19367	Frame
322 0	4812 452 19375	Insert panel TRA 4350 EU
331 0	4812 413 48222	Knob
331 1	4812 413 48239	Adapter
332 0	4812 276 18259	Button start
332 1	4812 276 18262	Button
332 2	4812 276 18263	Button
344 0	4812 214 78163	Display board
401 0	4812 361 58074	Motor
401 1	4812 401 18226	Clamp Motor
420 0	4812 121 18144	Capacitor 10ÜF

Pos. No.	12NC Code	Description
421 0	4812 121 18121	Interf.filter
443 0	4812 515 48005	Fan wheel
456 0	4812 259 38167	Heating element 2500 W
490 0	4812 321 18019	Cable,mains 5m (without plug)
490 0	4812 321 18026	Cable,mains 3m
521 0	4812 310 18361	Power Card-Kit
557 0	4812 282 48164	Thermostat
621 1	4812 270 18001	Lever for Doorswitch
633 1	4812 276 18223	Pin
651 0	4819 134 88106	Lamp E14-220V 15W
652 0	4812 134 28056	Holder,lamp
652 1	4812 134 28057	Glas cover
653 1	4812 134 48213	Light guide on/off
653 2	4812 134 48209	Light guide
653 3	4812 134 48211	Light guide vertical
653 4	4812 134 48212	Light guide horizontal
692 0	4812 480 58067	Grille with humidity sensor
692 1	4812 278 58001	Sensor
743 0	4812 530 48151	Conveyor
743 1	4812 530 48121	Air guide with hole
761 0	4812 480 58071	Filter FLUFF
787 0	4812 530 28836	Hose,deaeration
794 0	4812 466 28105	O-Ring
902 1	4812 256 38002	Bracket Roller
903 0	4812 532 28028	Clip,fix
903 1	4812 290 88053	Clip
903 2	4812 401 18195	Clip
910 0	4812 502 38057	Screw Torx 4,2 x 13
912 0	4812 502 48015	Screw
912 1	4812 502 38142	Screw M5 x 10
922 0	4812 532 58005	Ring,circlip Triring
932 0	4812 278 18001	Spring
962 0	4812 466 38012	Protection Motor
965 0	4812 530 48113	Cover vent exhaust
965 1	4812 466 68465	Sticker thermostat
993 0	4812 263 78014	Adapter

Exploded view

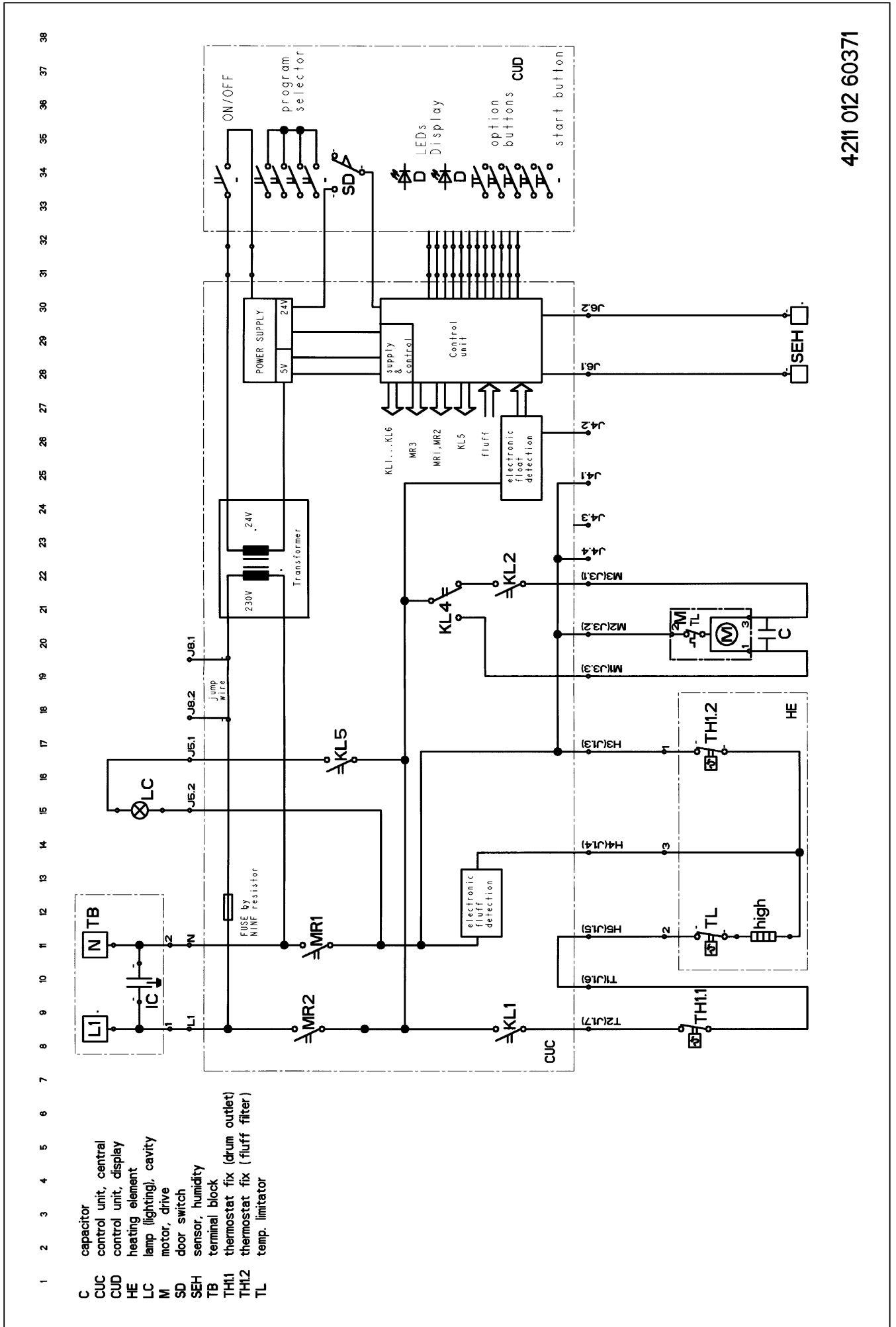


Wiring diagram



4211 012 60381

Circuit diagram



4211 012 60371

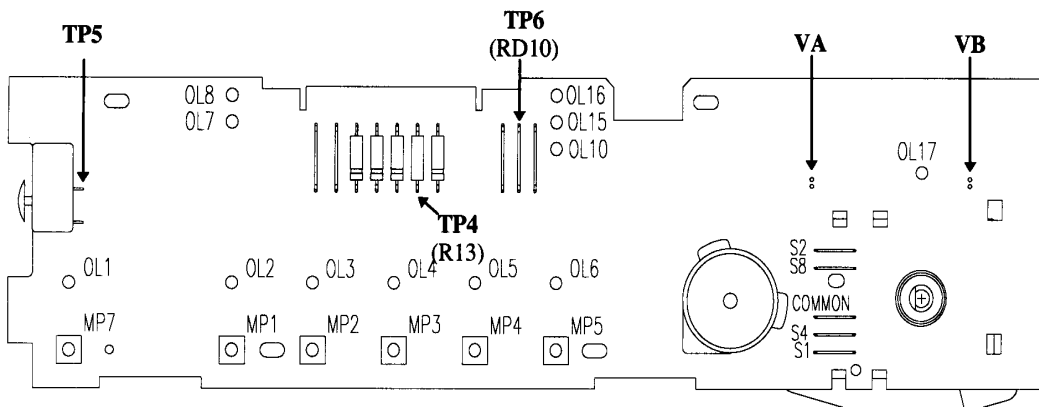
Text/Legend

Testpoints at display boards

4619 710 25671

Module No.: 12NC 4619 710 25671 and 12NC 4619 710 23601

All names are printed at the PCB!



Testvoltages: TP6 (at RD19) = GND
 TP4 (at RD27) = +5V to GND
 TP5 (at RD23) = +24V to GND

Program selector TP VA <=> VB:
 Position OFF 24V AC
 Position ON 0V

Function of buttons

Functions when button available:

- MP7 Start button
- MP1 Gentle option
- MP2 Plus option
- MP3 Rapid option
- MP4 Buzzer option
- MP5 Anticreasing extendedoption(ACX)

Function of LEDs

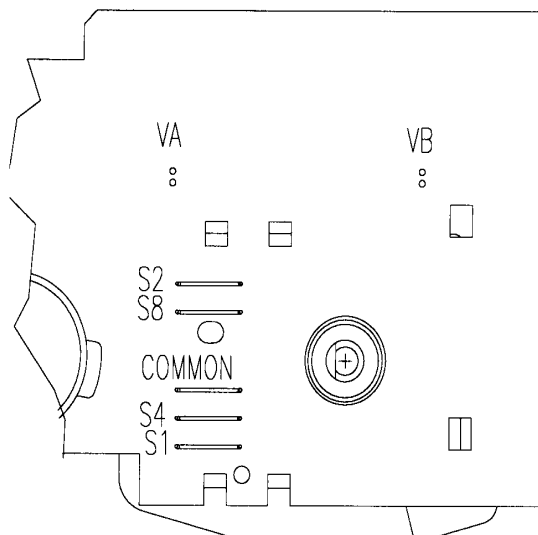
Functions when LEDs available:

- Options:**
 - OL2 Gentle LED
 - OL3 Plus LED
 - OL4 Rapid LED
 - OL5 Buzzer LED
 - OL6 ACX LED
- Faults:**
 - OL8 Fluff-filter failure LED
 - OL7 Water container LED
- Program flow:**
 - OL1 Start LED
 - OL10 Drying LED
 - OL15 Cool Down LED
 - OL16 End LED
 - OL17 ON LED

Text/Legend

Program selector

4619 710 25671



Coding of Bauknecht selector (16 positions)

Contact to common: ○ = no contact
● = contact

Position	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
S1	○	●	●	○	○	●	●	○	○	●	●	○	○	●	●	○
S2	○	○	●	●	●	●	○	○	○	○	●	●	●	●	○	○
S4	○	○	○	○	●	●	●	●	●	●	●	●	○	○	○	○
S8	○	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●

Text/Legend

12NC 4619 710 23541

Program Flow for Airvented Dryer Module 12NC 4619 710 23541

Program phase	Options influencing program phase	Motor movement		Heater cycles				Humidity measurement	Duration	Conditions to go in the next phase
		R2	R0	Cotton	Easy care	Delicate	Time drying			
Programming										push start switch
Start delay	ACX	rev-1	rev-1	-	-	-	-		1 ... 9 h	user IO actions OR delay time over
	other options	no rev.	no rev.	-	-	-	-		1 ... 9 h	
Drying I	GENTLE	rev-2	rev-3	100%	100%	-	-	on	till RH = airvented dryer HT1	airvented dryer HT 1 OR duration OR timeout 140'
	RAPID	rev-2	rev-3	100%	-	-	-	on	till RH = airvented dryer HT1	
	other options	rev-2	rev-3	100%	100%	DHT	DHT	on	till RH = airvented dryer HT1	
Drying II	GENTLE	rev-2	rev-3	GHT	GHT	-	-	on	till RH = airvented dryer HT2	airvented dryer HT 2
	RAPID	rev-2	rev-3	100%	-	-	-	on	till RH = airvented dryer HT2	
	other options	rev-2	rev-3	100%	100%	DHT	DHT	on	till RH = airvented dryer HT2	
Drying III	GENTLE	rev-2	rev-3	DHT	DHT	-	-	on	till RH target	selected humidity OR duration OR timeout 90' (DRII + DRIII together)
	RAPID	rev-2	rev-3	100%	-	-	-	on	till RH target	
	other options	rev-2	rev-3	DHT	DHT	DHT	DHT	on	till RH target	
Drying III	PLUS	rev-2	rev-3	DHT	DHT	-	-	on	6 min for cotton 3 min for all others	duration
Cool down		rev-2	rev-3	-	-	-	-		6 min	
Anticreasing I	Buzzer	rev-4	rev-4						10 min	duration
	other options	rev-4	rev-4						10 min	
Anticreasing II	other options	rev-5	rev-5						1 h	duration OR deselection of ANTICREASING
	ACX	rev-5	rev-5						1 h	
		rev-1	rev-1						3 h	
		rev-6	rev-6						8 h	
Drying end								unlimited		

GHT(Gentle Heating Time) = 81" ON / 9" OFF DHT (Dynamic Heating Time) = 67" ON / 23" OFF

HT1 = 22% RH

HT2 = 14% RH

RH = relative humidity

Reversing type	cw	off	ccw	off
rev-1	10	350	10	350
rev-2	88	2	88	2
rev-3	80	2	6	2

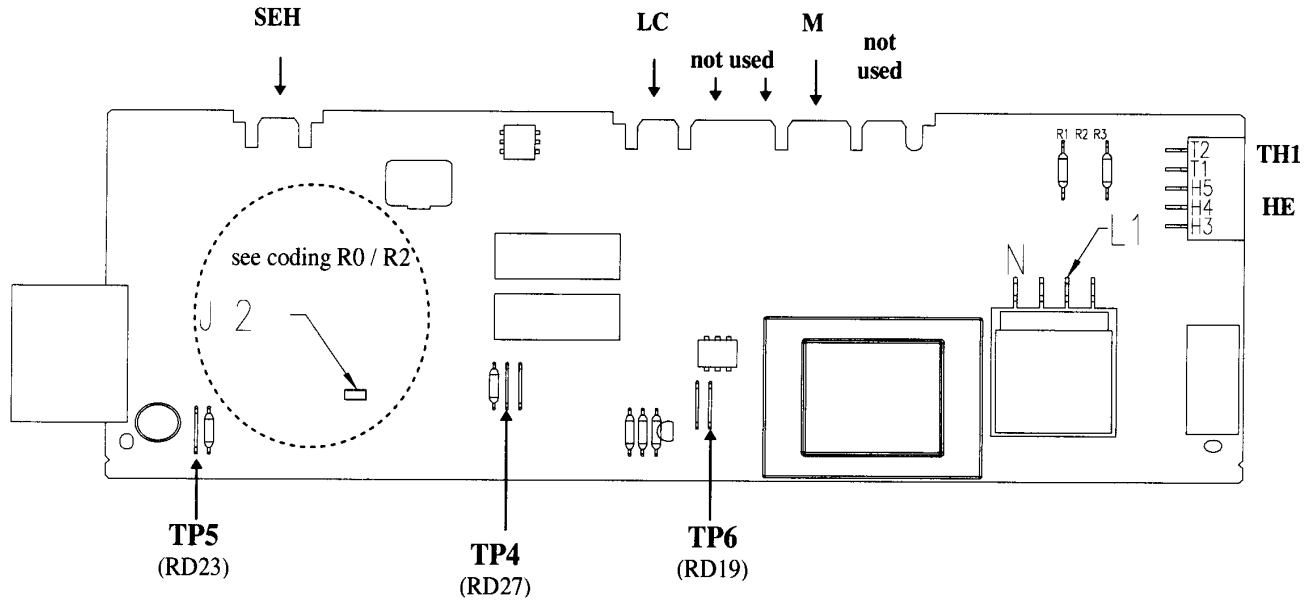
Reversing type	cw	off	ccw	off
rev-4	45	45	45	45
rev-5	10	80	10	80
rev-6	10	710	10	710

All times in seconds

Text/Legend

12NC 4619 710 23541

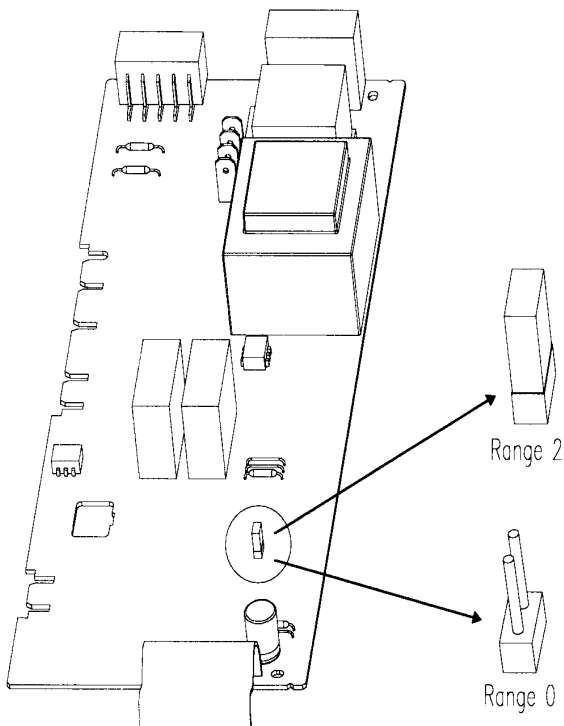
Testpoints at central board



All names are printed at the PCB!

Testvoltages: TP6 (at RD19) = GND
 TP4 (at RD27) = +5V to GND
 TP5 (at RD23) = +24V to GND

Coding R0 / R2 for airvented dryers



⚡ The use of Range2 instead of Range0 might cause damage ⚡

Range2 valid for
 Appliance No.: Bauknecht TRA 4xxx
 Whirlpool AWZ 5xx

Range0 valid for
 Appliance No.: Whirlpool AWZ 1xx
 Ignis AWL 2xx
 Laden EC xx
 Radiola SL xxx
 Bauknecht TRA 5xxx

Text/Legend

12NC 4619 710 23541

Entering the Test Mode

- a) Rotate program selector clockwise to position 1
- b) Push the START switch.
- c) Press option button 'GENTLE' and hold till **d)** is ready.
- d) ① Rotate program selector clockwise to position 2 and counterclockwise back to position 1,
② Rotate program selector clockwise to position 2 and counterclockwise back to position 1,
Actions ① & ② have to be done within **5 sec.** (limit controlled by software).
- e) Release GENTLE button.

If the sequence a) - e) is correct the following signal is displayed:

LED group:	Behaviour:
Alarm LEDs	Flashing alternating
Program sequence LEDs	Flashing alternating to 'Humidity LEDs'
Humidity LEDs	Flashing alternating to 'Program Sequence LEDs'
Option LEDs	OFF
Display (7-segment)	OFF
Buzzer signal	3x BEEP

General: during test program, when the fluff filter thermostat is open, the fluff fault LED is switched ON and keeps being ON after thermostat closing till the end of the test program.

Start the Service Test Program

1. Turn the program selector clockwise into **position 4**
2. Press 'GENTLE' option button.

Leaving the Test Mode / Stop the Service Test Program

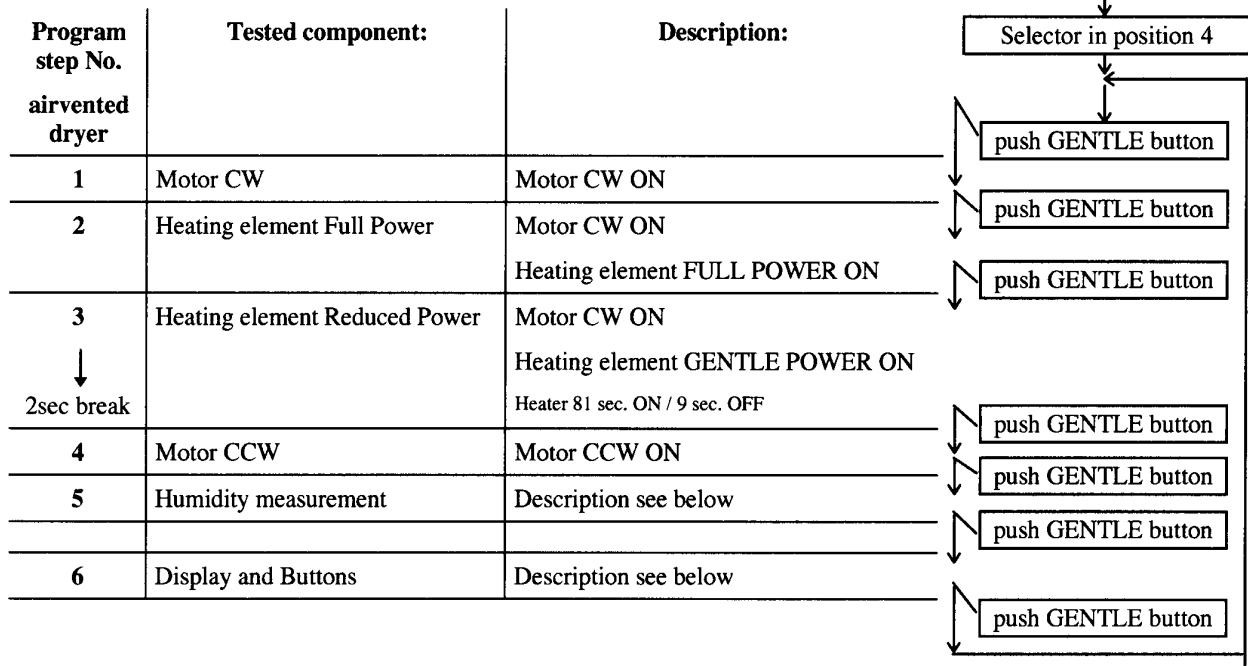
The TEST MODE is terminated by pushing the startbutton or interrupt the mains supply for more than 60 sec.
Turn the program selector out of its current position will stop the testprogram.

After Sales Service Test Program

The test program works sequential, that means the change from one program step to the next has to be done only by request of pushing the 'GENTLE' button!
Every push is receipt by a 'BEEP' of the buzzer

Text/Legend

12NC 4619 710 23541



Humidity Measurement Test (Step 5 of test program)

Before test please remove SEH and plug in test cable set part No . 4812 321 28156 and RWE-Tester part No. 4812 069 52922

- Max. duration: **no limit**
 Description:
 - Resistors have to be connected at the humidity sensor.
 - The electronic control measures the value at the humidity sensor within some seconds.
 - LEDs indicate the measured humidity level due to the following table.

Measured level (% RH)	GENTLE LED	Fluff Filter LED	END-LED	Resistances	for RH
< 22% ... > 21% RH	ON	OFF	OFF		
< 21% ... > 20% RH	ON	OFF	ON	360 kOhm	20.5 %
< 20% ... > 19% RH	ON	OFF	OFF		
< 19% ... > 12% RH	OFF	OFF	OFF		
< 12% ... > 11% RH	OFF	ON	OFF		
< 11% ... > 10% RH	ON	ON	OFF	3700 kOhm	10.5 %
< 10% ... > 9% RH	OFF	ON	OFF		
9% > RH	OFF	OFF	OFF		
sensor short circuit	OFF	OFF	OFF		

Test OK

Display and Button test (Step 6 of test program)

- Max. duration: 10 min
 Description: check of start delay and options buttons and according LED function
- Check of start delay:
 1. push start delay button 3 times (=> '0' => '1' => '2') to check segments
 2.all LEDs / segments according this button are ON
- Check of option buttons:
 1. push any option button
 2. Corresponding LED is on, all other option LEDs keep their status.