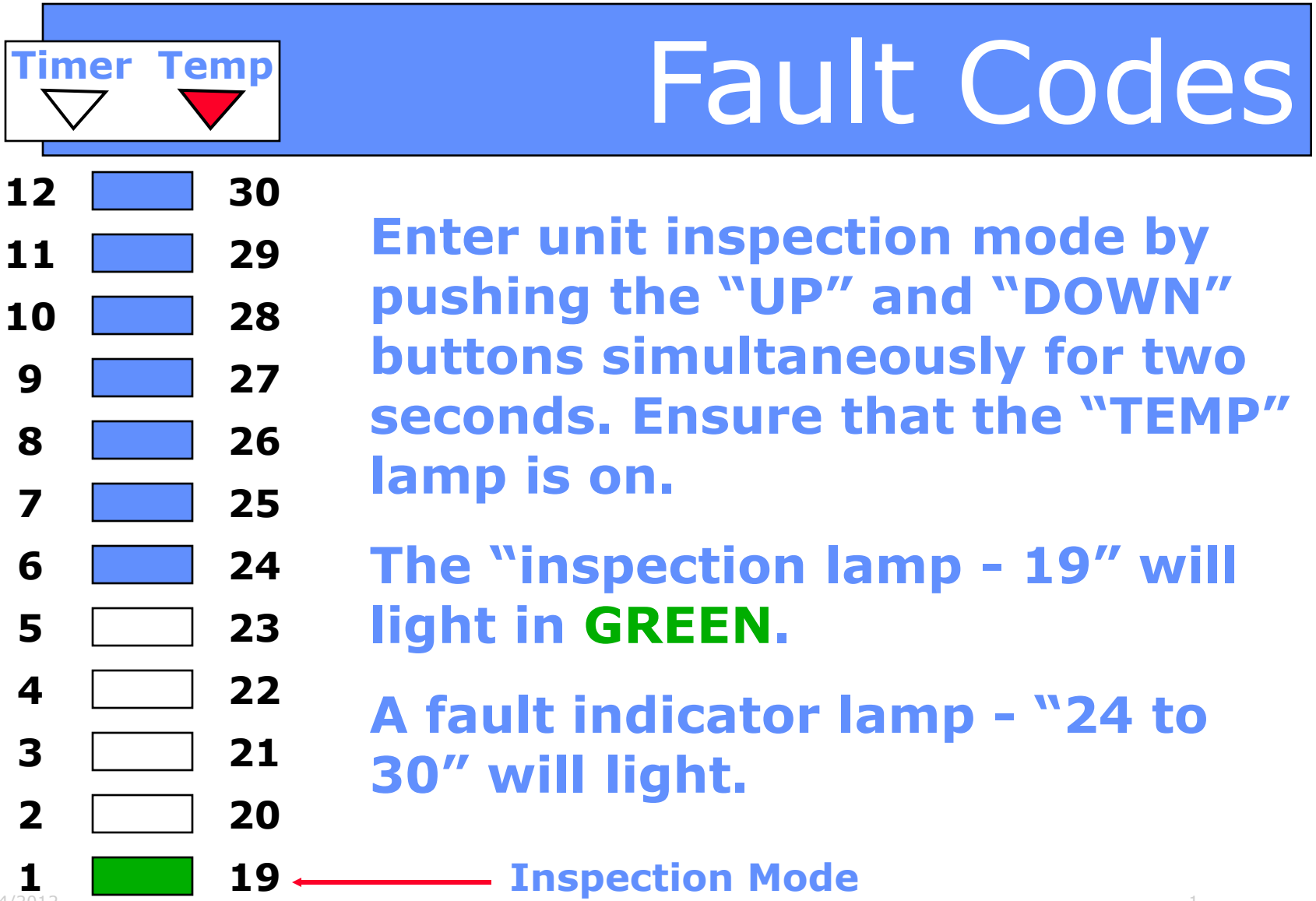
LOGICOOL

Fault Codes



Enter unit inspection mode by pushing the "UP" and "DOWN" buttons simultaneously for two seconds. Ensure that the "TEMP" lamp is on.

The "inspection lamp - 19" will light in GREEN.

A fault indicator lamp - "24 to 30" will light.

J control

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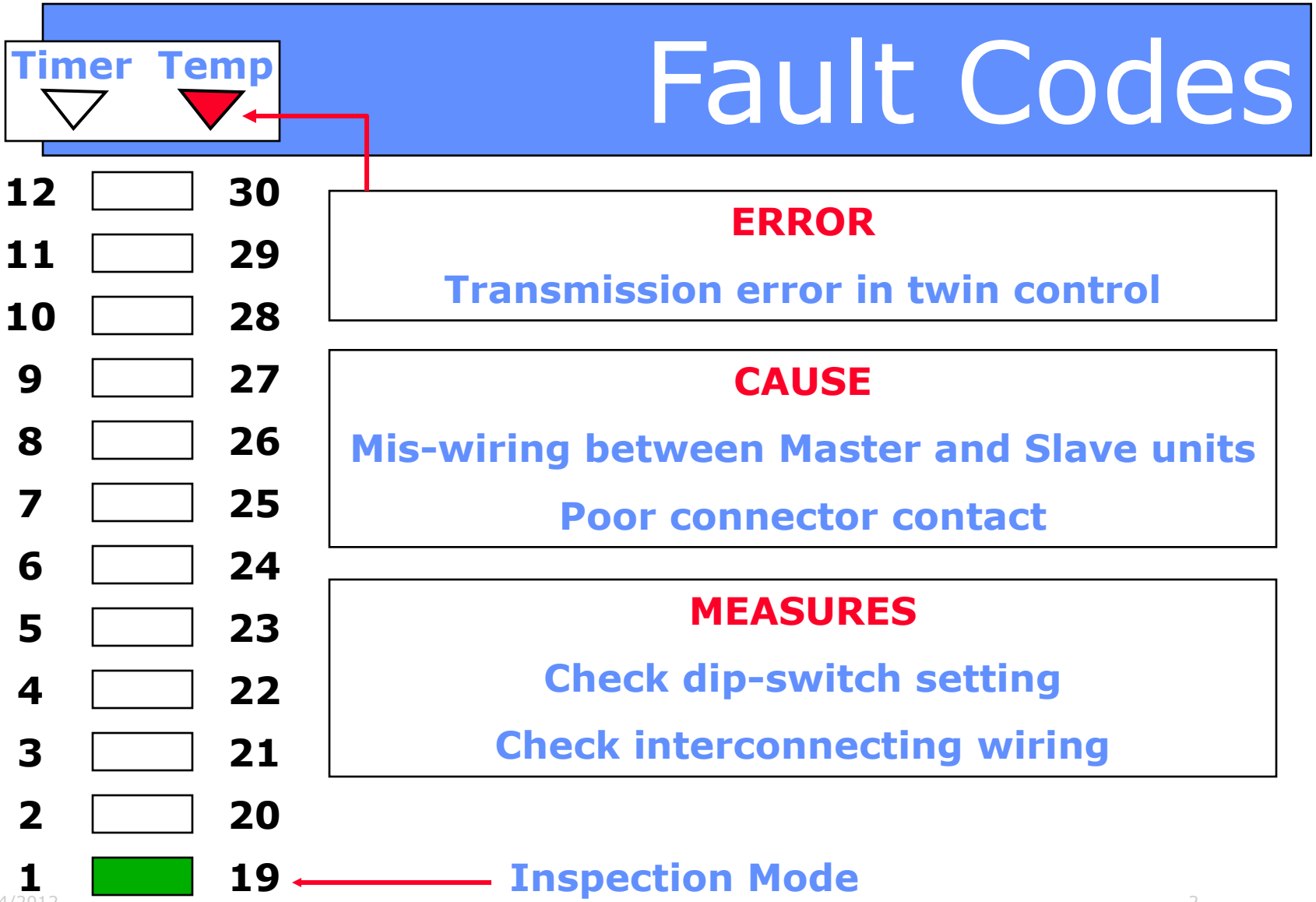
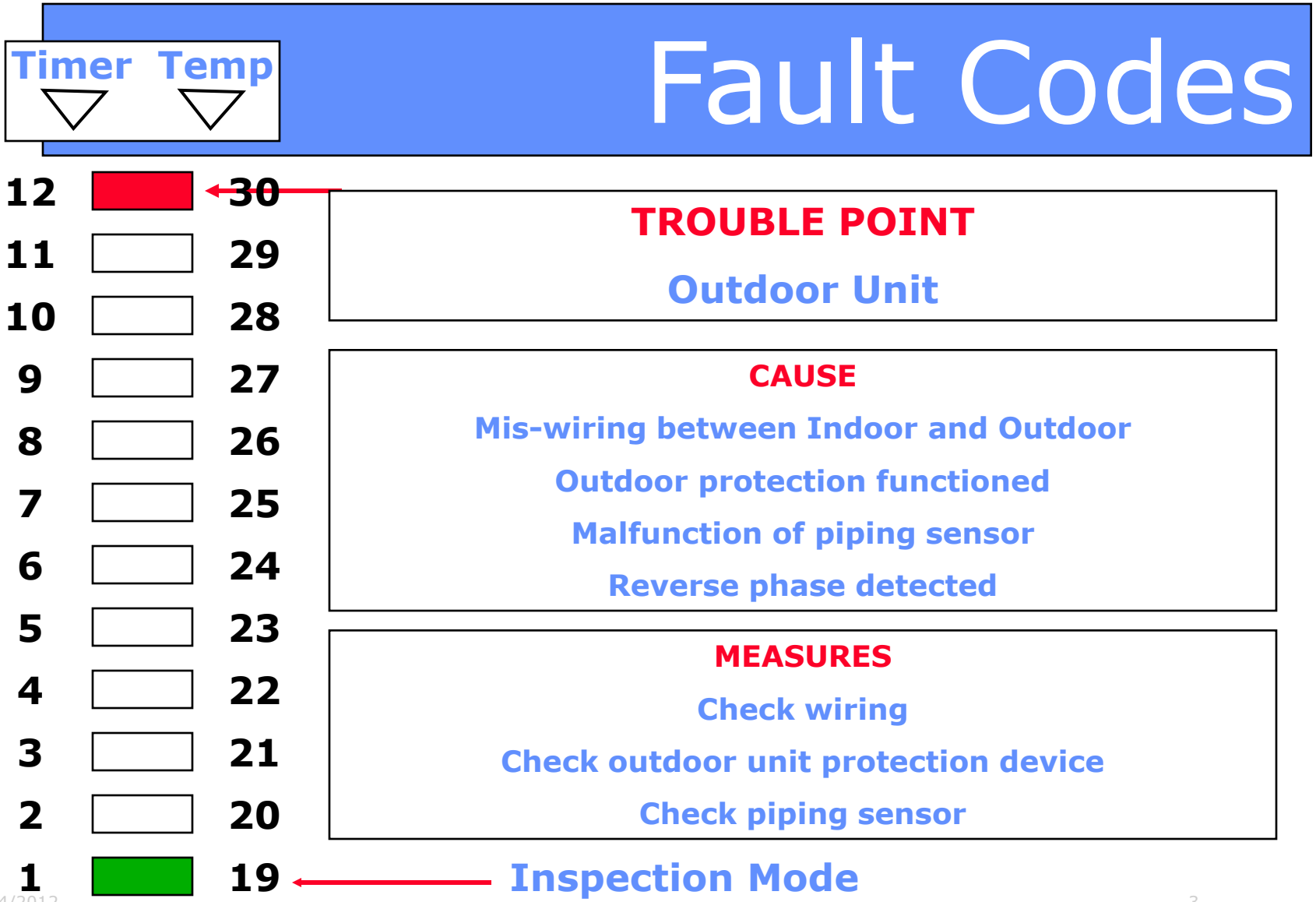


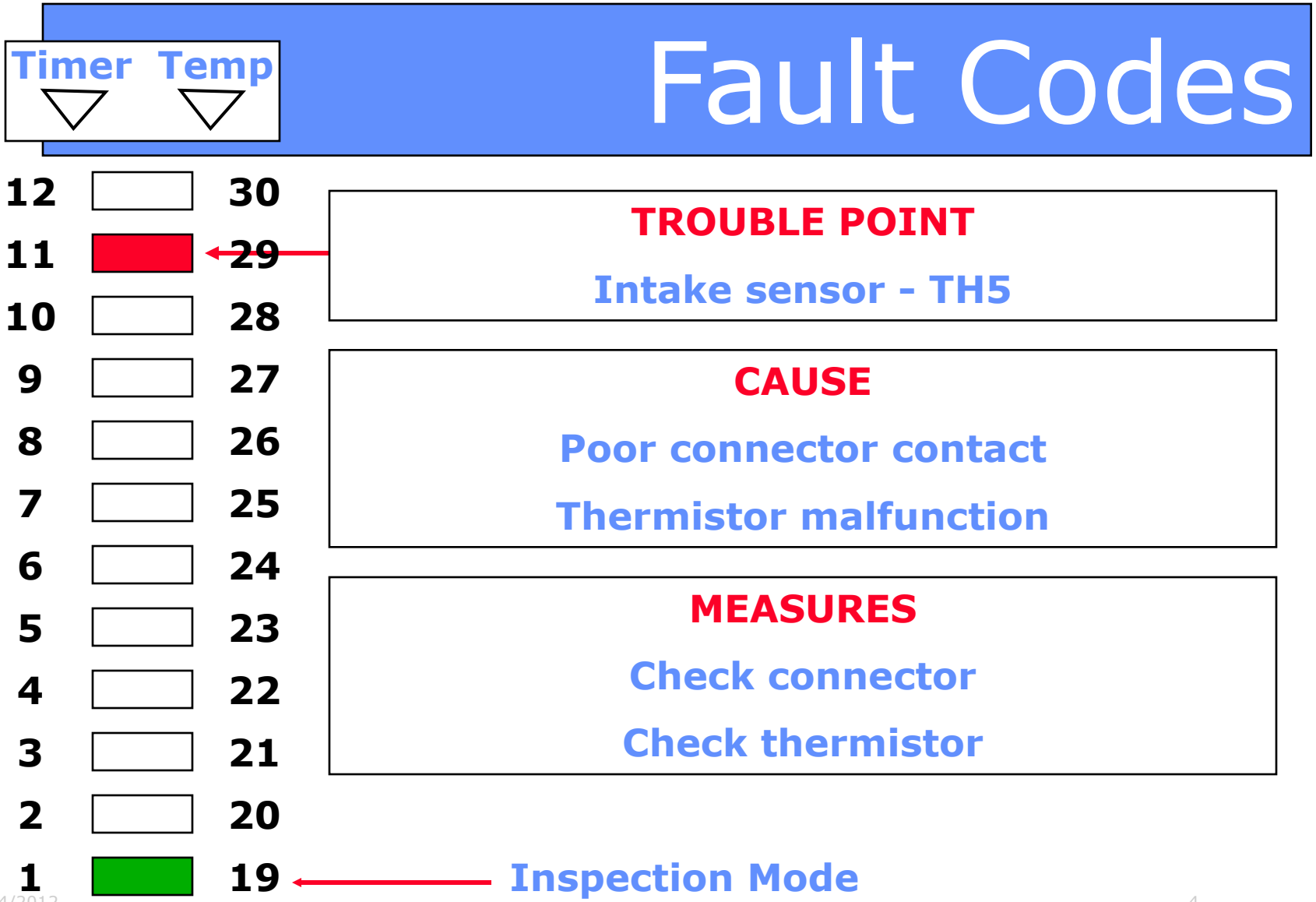
J control

LOGICOOL



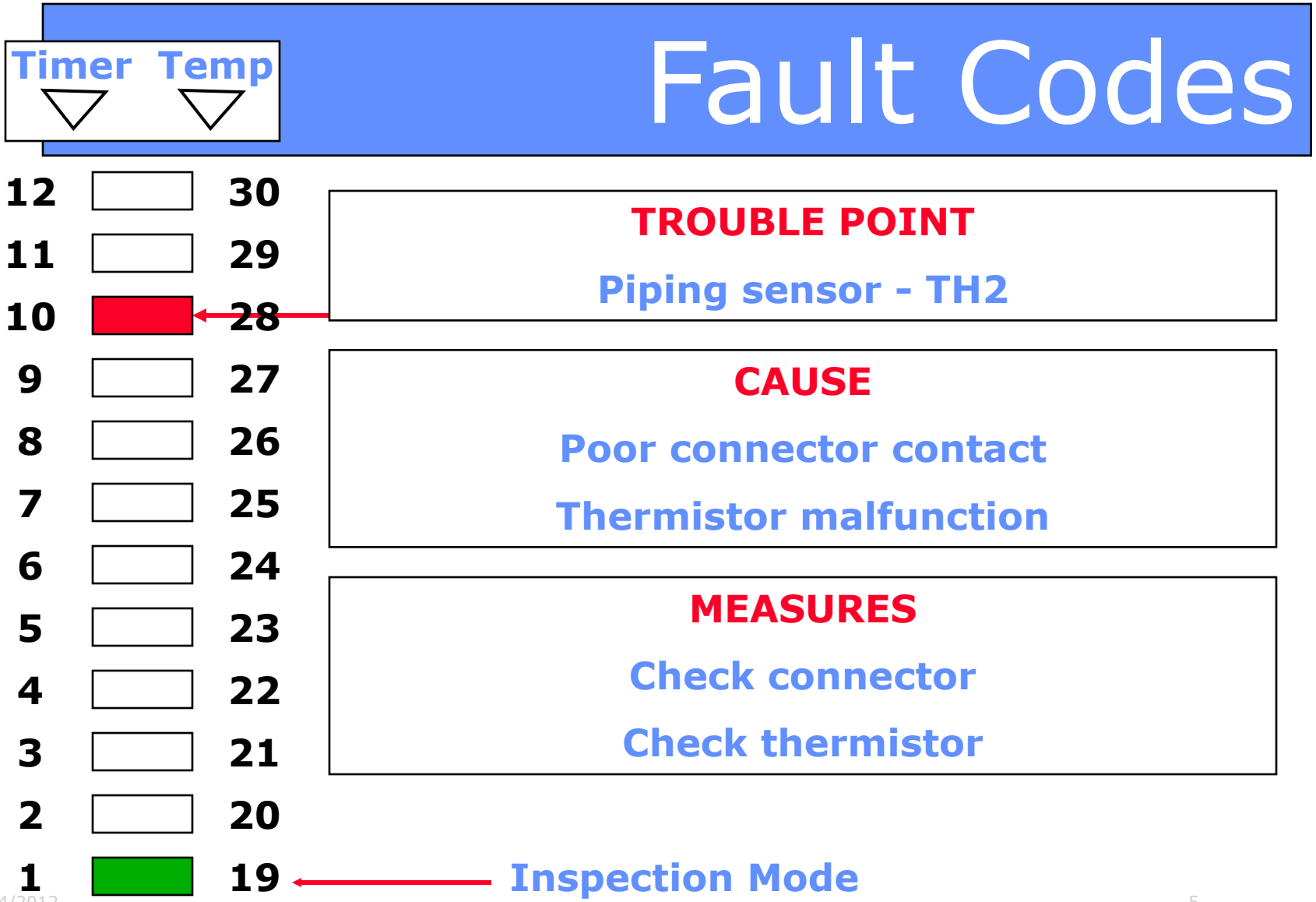
J control

LOGICOOL



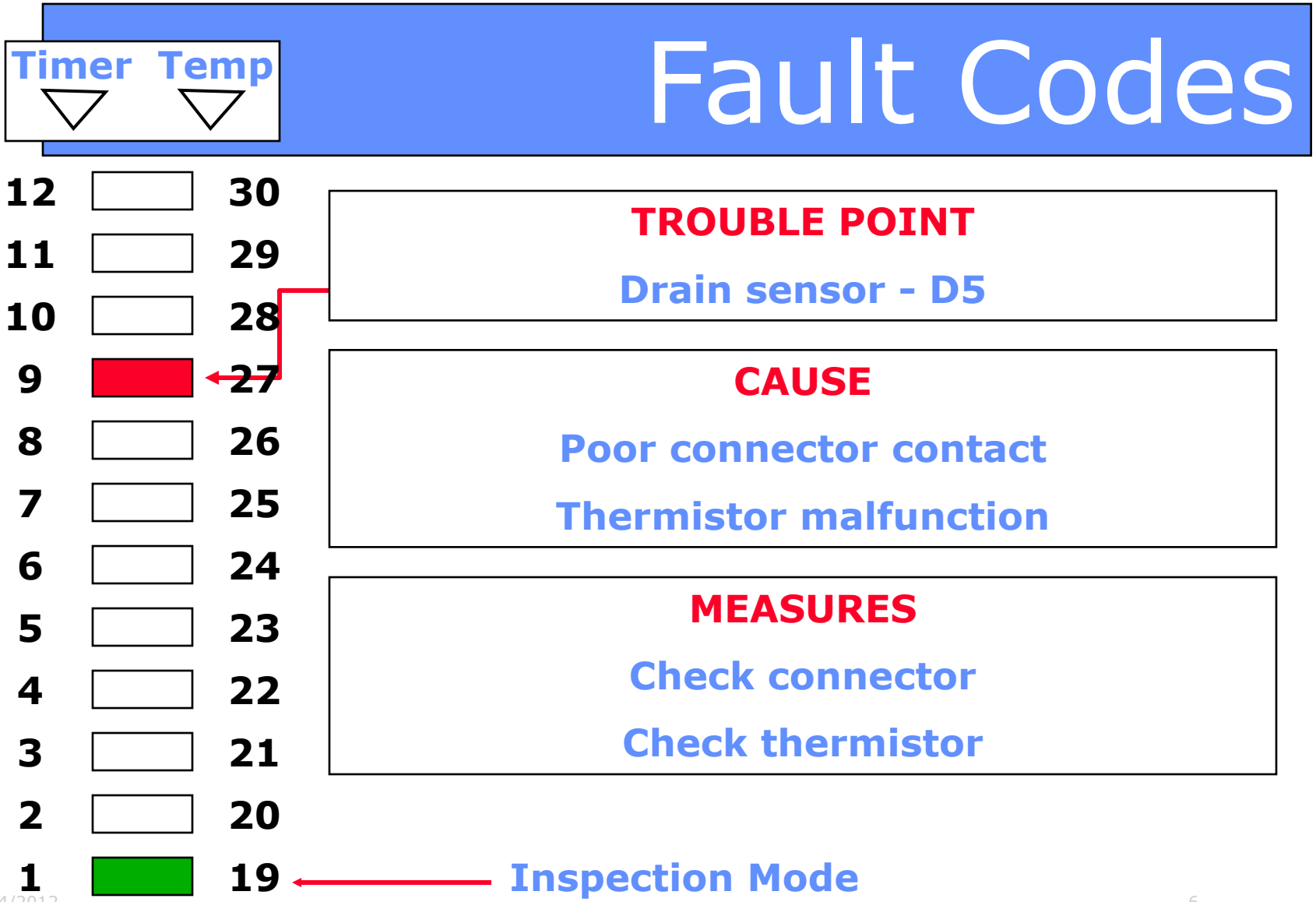
J control

LOGICOOL



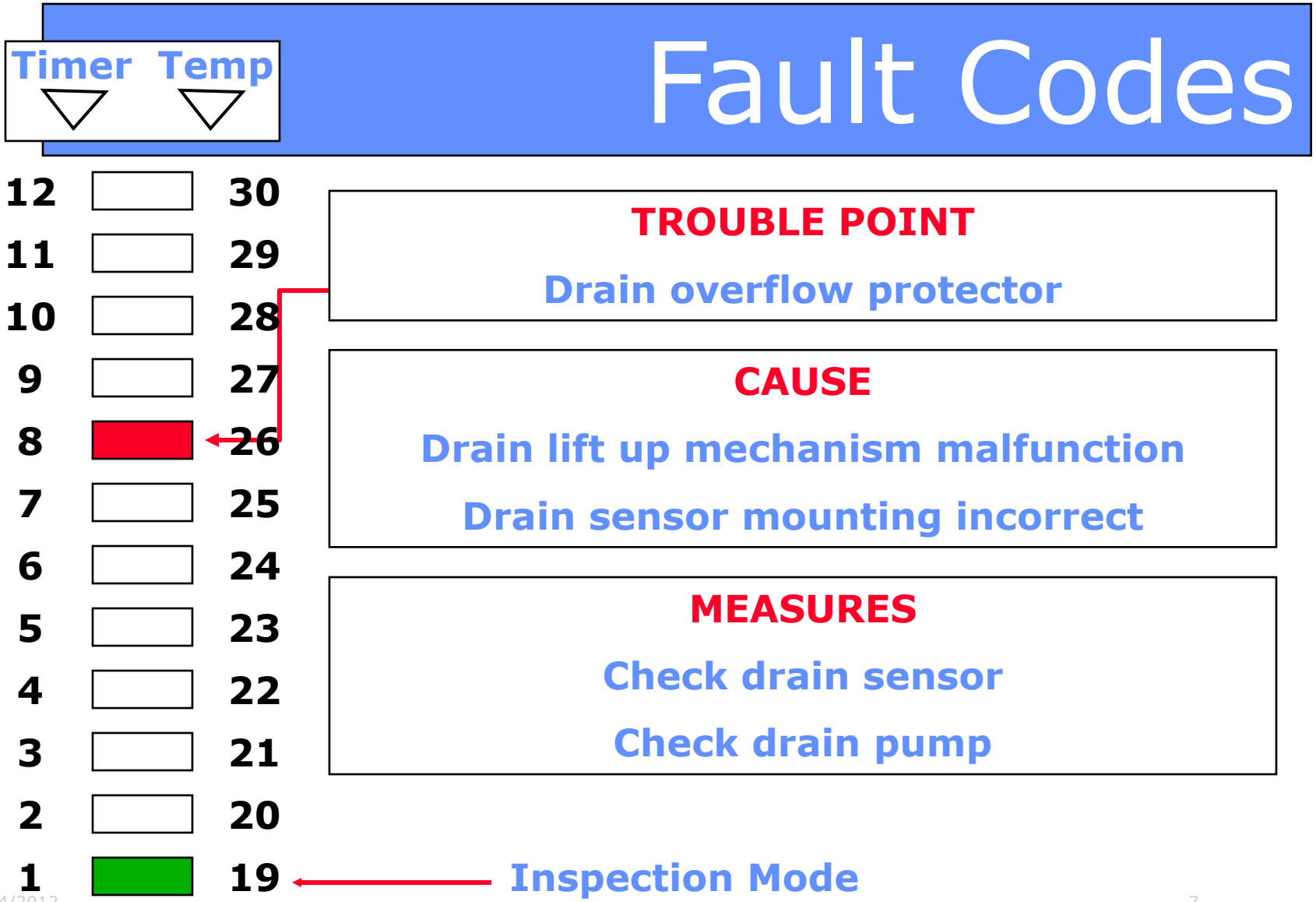
J control

LOGICOOL



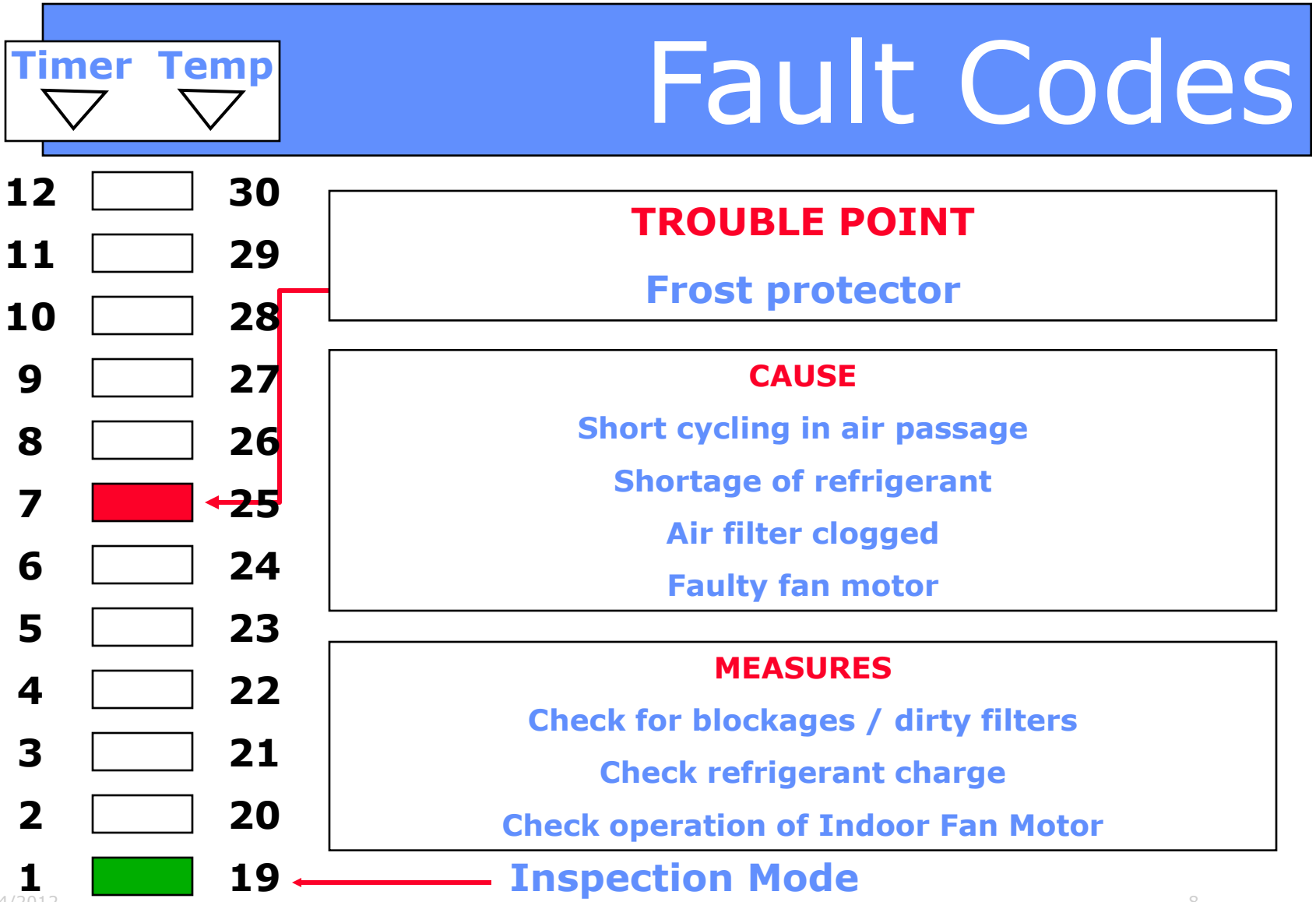
J control

LOGICOOL

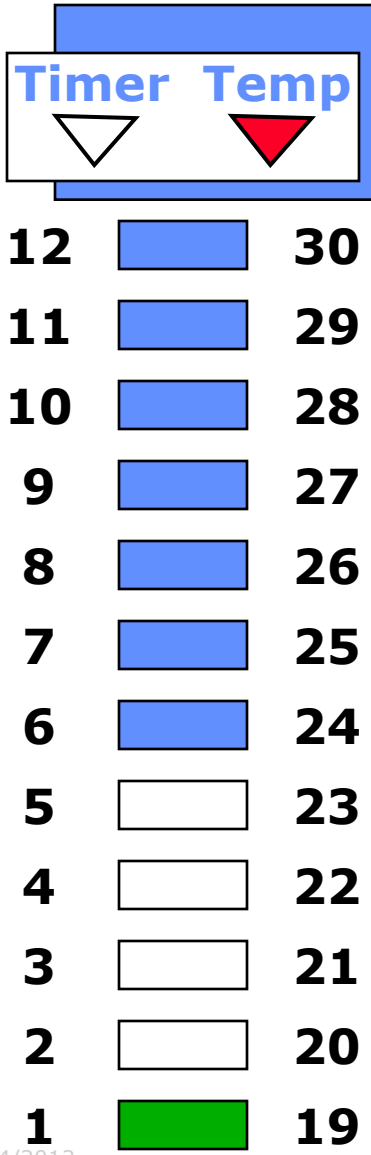


J control

LOGICOOL



Fault Codes

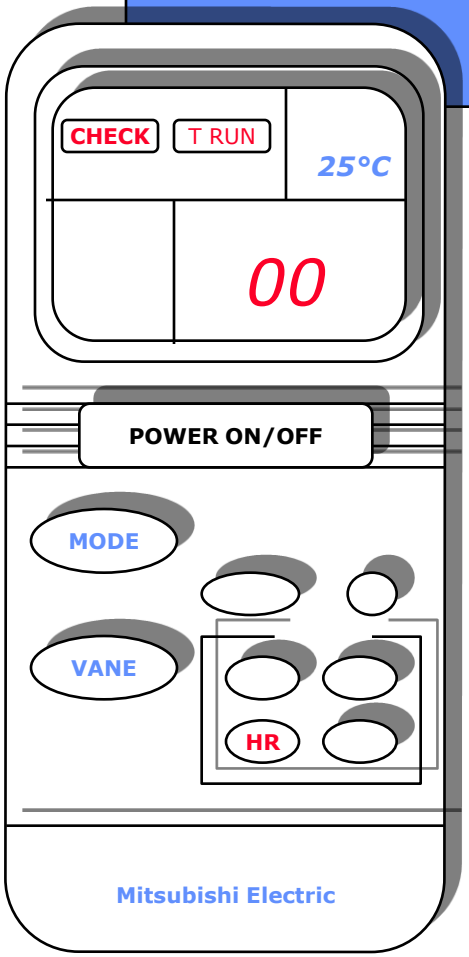


To exit diagnostic mode turn controller "OFF" and "ON".

NOTE: The Remote Controller will memorise the last fault even when the breaker has been switched off.

To clear the memory, press the "UP" and "DOWN" buttons for two seconds

RC Diagnostics



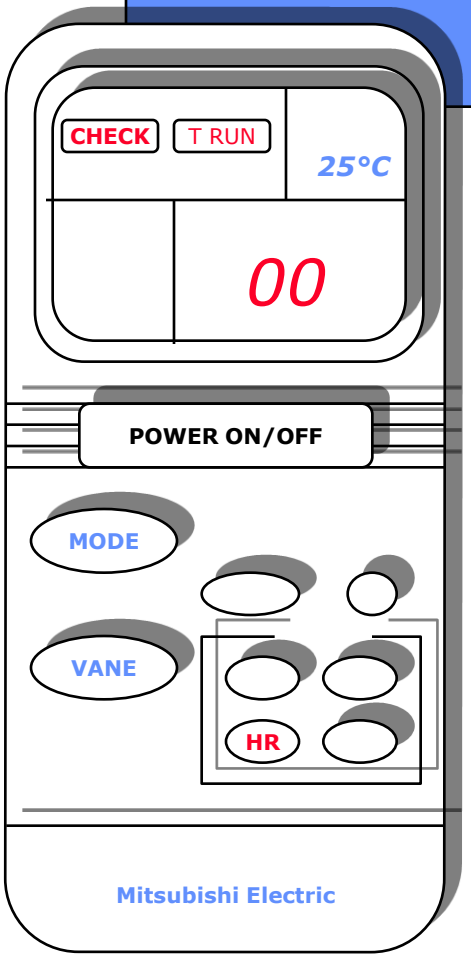
Turn on the main power of the unit.

Turn the switch on the back of the Remote Controller from "NRM" to "SET"

"CHECK" and "TEST RUN" will start flashing

Press the "HR" button. "OO" will start flashing

RC Diagnostics



Point the controller at the Indoor Unit and press the "HR" button again

An intermittent buzzer will sound

A one-second blip will then sound

The amount of blips indicates the fault

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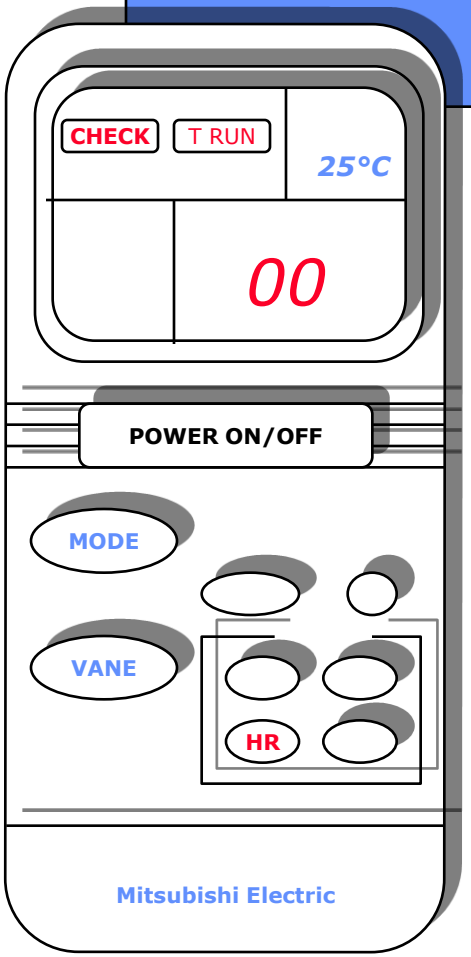
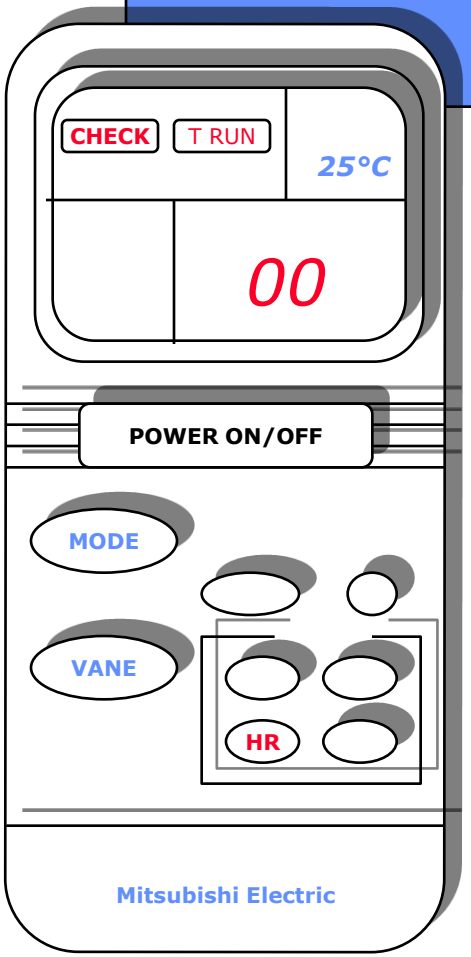
RC Diagnostics



1	Irregular intake sensor
2	Irregular piping sensor
4	Irregular drain sensor
5	Irregular drain pump
6	Frost protection
8	Outdoor Unit fault
9	No fault

RC Diagnostics



Push the "POWER ON/OFF" button to exit fault diagnosis mode

Return the switch on back of controller to "NRM"

P1 Fault Diagnostics

Abnormality of Return Air Sensor - Short or Open Circuit

Run system in Test Run. This will bypass all thermistors

Check thermistor is positioned correctly.

NO → **Replace in holder**

Remove thermistor from PCB and check resistance. 6.4kΩ at 20°C (Room Temp).

NO → **Replace thermistor**

YES

Replace Indoor PCB.

P2 Fault Diagnostics

Abnormality of Indoor Coil Sensor - Short or Open Circuit

Run system in Test Run. This will bypass all thermistors

Check thermistor is positioned correctly.

NO → **Replace in holder**

Remove thermistor from PCB and check resistance. 6.4kΩ at 20°C (Room Temp).

NO → **Replace thermistor**

YES

Replace Indoor PCB.

P4 Fault Diagnostics

Abnormality of Drain Sensor - Short or Open Circuit

Run system in Test Run. This will bypass all thermistors

Check thermistor is positioned correctly.

NO → **Replace in holder**

Remove thermistor from PCB and check resistance. 6.4kΩ at 20°C (Room Temp).

NO → **Replace thermistor**

YES

Replace Indoor PCB.

P5 Fault Diagnostics

Malfunction of Drain Sensor and / or Drain Pump

Check drain fall / rise. Rise must not exceed 500mm.

Measure resistance of drain sensor heater. Remove from PCB and test for 82Ω.

NO → **Replace Drain Sensor / Heater**

Is there 240 volts at PCB on Drain Pump connector "CNP"

YES → **Replace Drain Sensor / Heater**

NO → **Replace Indoor PCB.**

P6 Fault Diagnostics

Coil Frost Prevention / Short Cycling

Remove thermistor from PCB and check resistance. 6.4kΩ at 20°C (Room Temp).	NO →	Replace Thermistor
Check for dryer or sight glass	YES →	Remove component as is expansion line and may be the cause of previous overcharging
Check for Short Cycling of air around evaporator	YES →	Correct Air Flow
Check for Dirty Filter, obstructions at Outdoor Unit or damaged fan motor	→	If "NO" to any of these then the system is likely to have an incorrect refrigerant charge.

P7 Fault Diagnostics

System Addressing Error

Error on dipswitch setting of Indoor Unit or Remote Controller.

↓

Check SW2 and SW6 setting.
SW2 - Group Control.
SW6 - Twin/Triple Split

↓ NO

Check SW17 1-6 on RC. These should be OFF unless controlled from third party.

NO →

Malfunction of the transmitting receiving circuit. The Remote Controller power supply is faulty

↓

Check for 12 volts DC at terminals of Remote Controller. Try with different controller!

↓

Replace Indoor Controller Board

Fault Codes - P8

Explanation of system logic

The Indoor Unit will detect an abnormality in the Outdoor Unit when the difference in temperature between the coil sensor and the return air sensor does not exceed 5°C after a running period of eight minutes.

Further interrogation of the Outdoor Unit

When The Indoor Unit detects a fault at the Outdoor Unit "P8" will flash on the Remote Controller.

The Outdoor Unit LED diagnostics need to be interrogated.

Blinking LED - Fault

Static LED - Output state

Fault Codes

To erase Fault Codes from the RC

Press "Test Run" twice

Press "Check" twice

RC will the display factory setting "U8"

This will not erase memory from the Outdoor Unit

LED Diagnostics

SW1

Erase past check code contents

SW2

Display existing / last reported check code contents

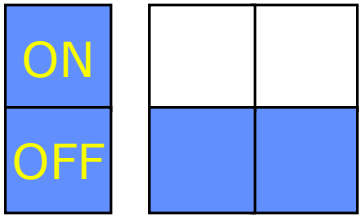
LED Diagnostics

SW2

With SW3 - 1+2 off will alternate between fault and operation status output

SW2

With SW3 - 1 off +2 on will initiate compulsory defrost



SW3

LED 1 Diagnostics

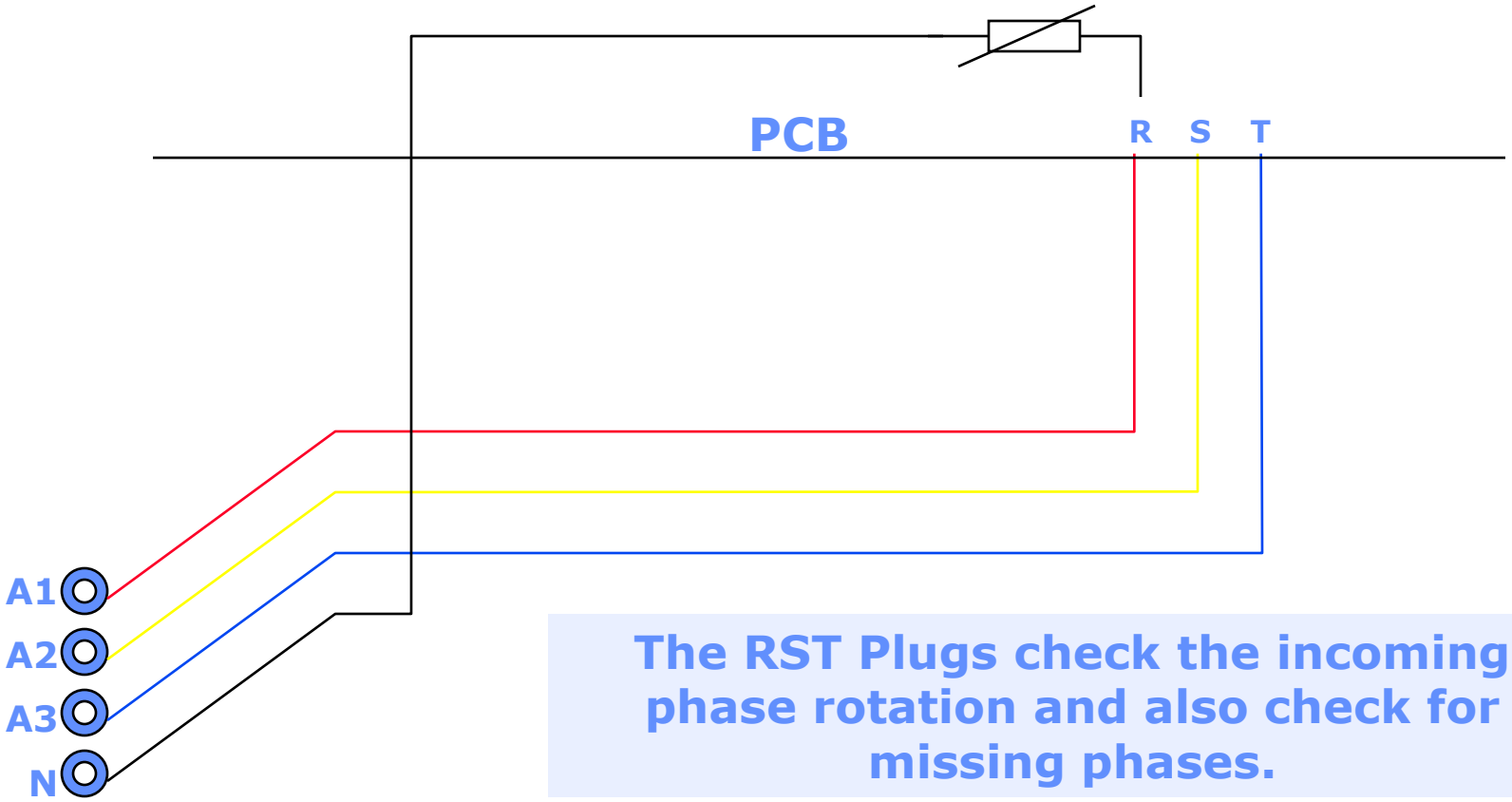
Reverse Phase Protection Activated

Check Phase of power supply → **Exchange any two of the Red, Yellow and Blue phases**

↓

Check RST Plugs.

RST Plugs



The RST Plugs check the incoming phase rotation and also check for missing phases.

LED 2 Diagnostics

Open Phase Detected

Check for 415 volts between Red, Yellow and Blue Phases

OK

Protector may be open circuit when power switched on

Check the following for Open Circuit.

63H1 (HP Control)

63H2 (HP Protect)

26C (Thermal Switch)

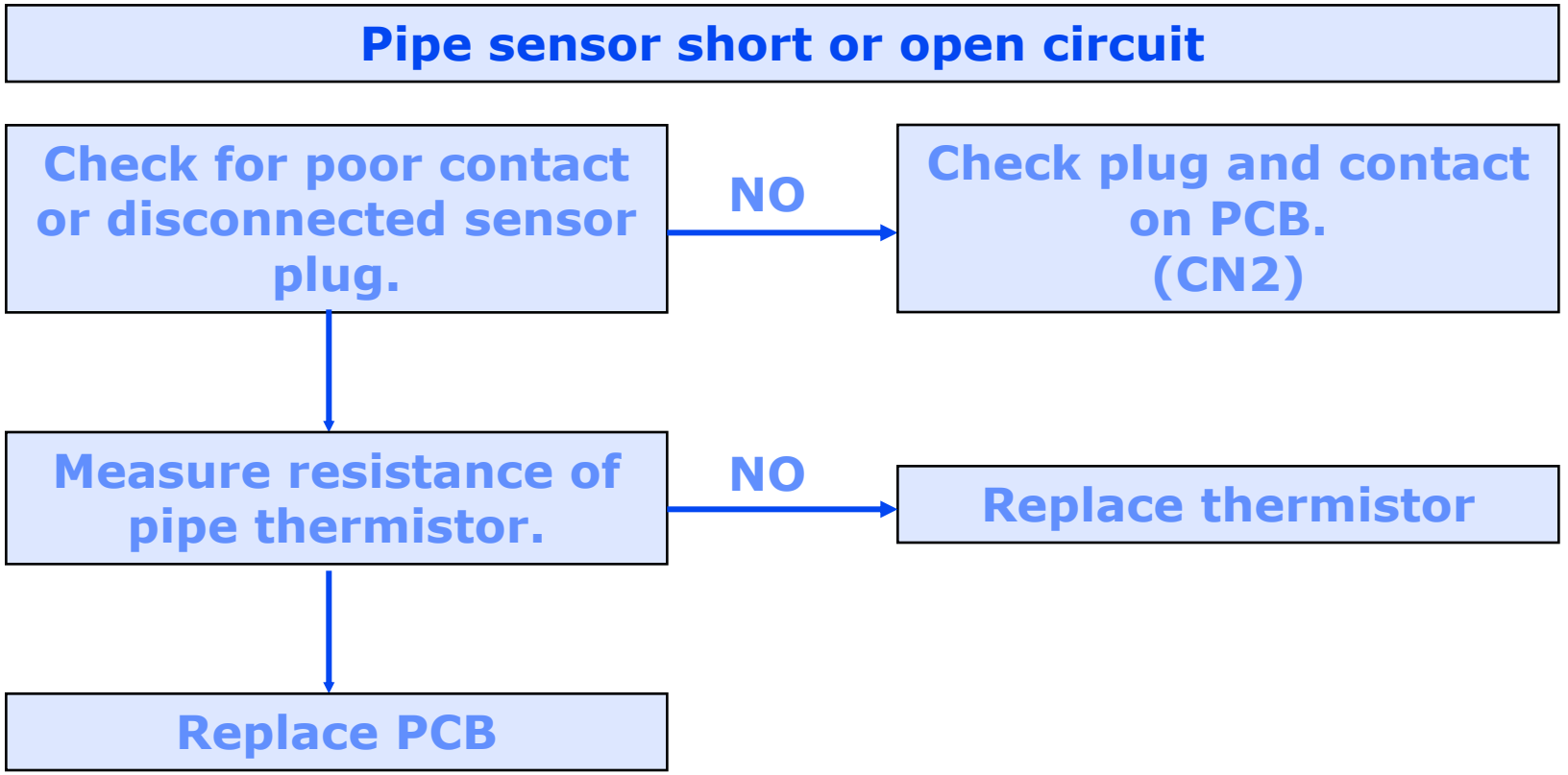
Check RST Plugs.

Check for 240 volts between each Phase and Neutral

NO

Reconnect missing phase. Check fuses, wiring etc.

LED 3 Diagnostics



LED 4 Diagnostics

High Pressure Switch Fault

Check with HP Gauge. Does this read over 300 psi?

NO

- Check to see if 63H2 Plug is connected. This should only be connected if the compressor is a Copeland.
- Check connection of 63H2
- Check for open circuit of 63H2
- Replace HP Switch

YES

- Check Airflow of Condenser and clean coils if required
- Link pins on CN22 at Outdoor to run fans at full speed

Fan Motor runs fast

- Replace Motor

Fan Motor runs slow

- Check resistance of thermistor

- Replace PCB

Thermistor Readings

Actual temp	Resistance
1	14.32
2	13.67
3	13.06
4	12.48
5	11.93
6	11.40
7	10.91
8	10.43
9	9.99
10	9.56
11	9.16
12	8.77
13	8.40
14	8.05
15	7.72

Actual temp	Resistance
16	7.41
17	7.10
18	6.82
19	6.54
20	6.28
21	6.03
22	5.80
23	5.57
24	5.35
25	5.15
26	4.95
27	4.76
28	4.58
29	4.41
30	4.25

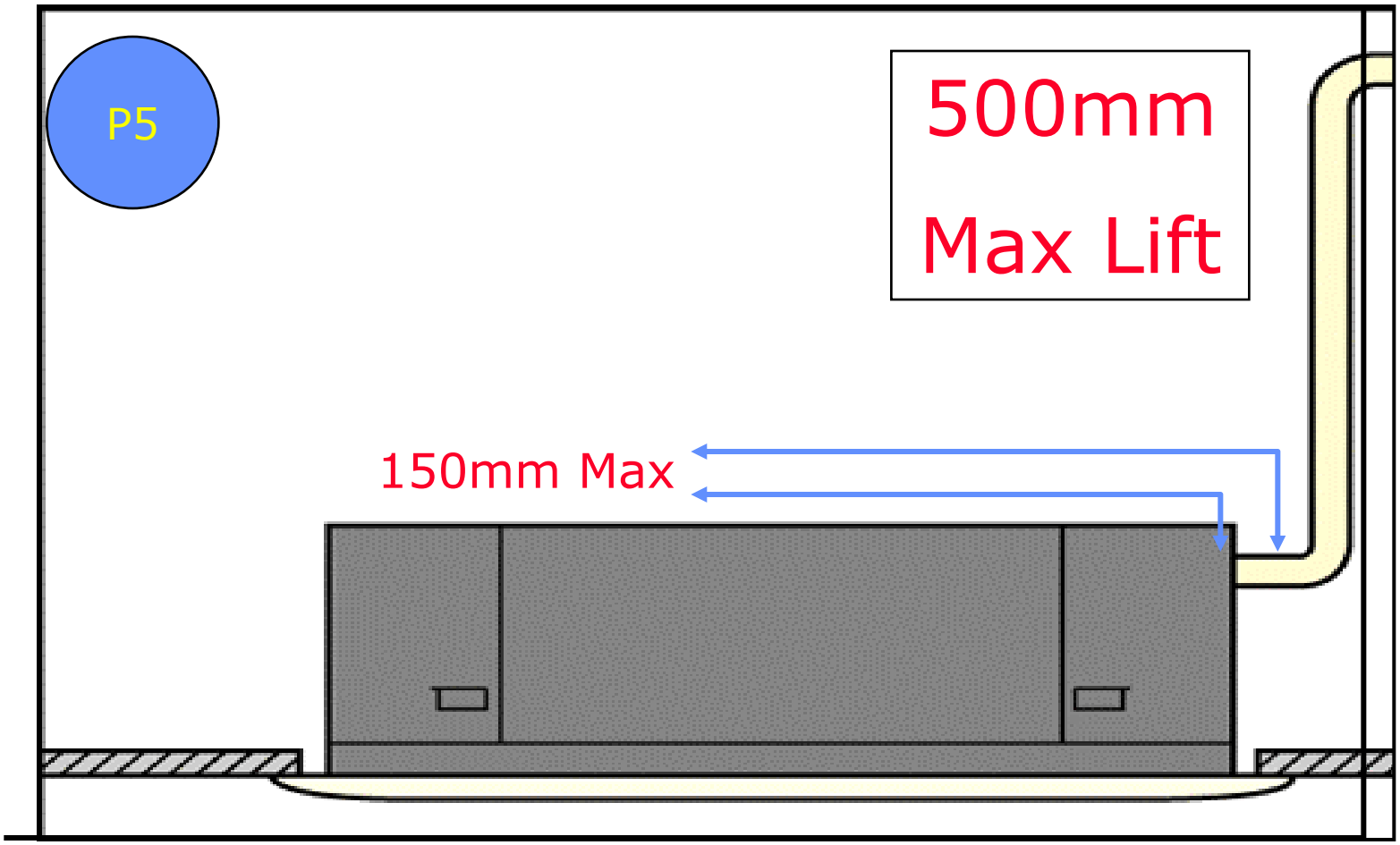
Actual temp	Resistance
31	4.09
32	3.94
33	3.79
34	3.66
35	3.52
36	3.40
37	3.28
38	3.16
39	3.05
40	2.94
41	2.84
42	2.74
43	2.65
44	2.56
45	2.47

Refrigerant Charge

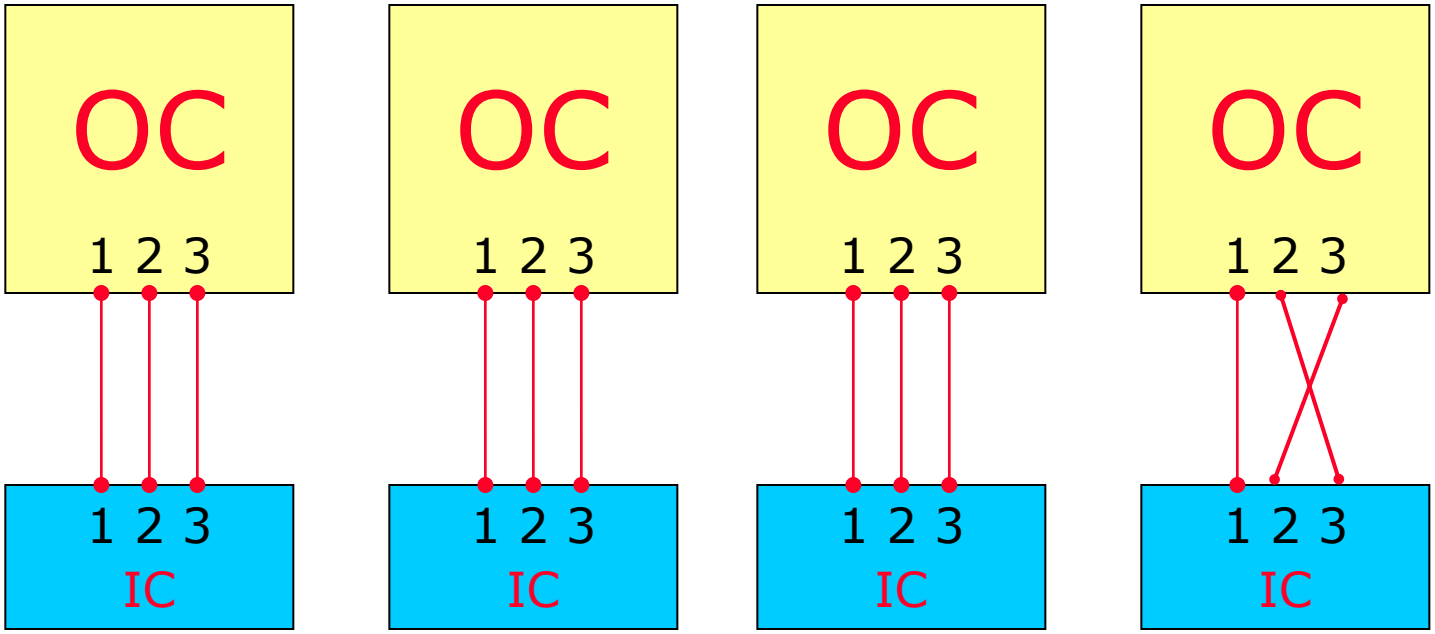
Models	30m	35m	40m	45m	50m
PUH 1.6 VKA (uk)	2.2	2.3	2.4		
PUH 2 VKA (uk)	2.2	2.3	2.4		
PUH 2.5 VKA (uk)	2.8	2.9	3.0	3.1	3.3
PUH 3 VKA (uk)	3.2	3.3	3.4	3.6	3.7
PUH 3 YKA (uk)	3.2	3.3	3.4	3.6	3.7
PUH 4 YKSA (uk)	4.2	4.4	4.5	4.6	4.8
PUH 5 YKSA (uk)	5.4	5.6	5.7	5.9	6.0
PUH 6 YKSA (uk)	5.0	5.2	5.3	5.5	5.6

Refrigerant charge (Heat Pump) - all units pre charged to 30 m

Service notes



Service notes



P8

Service notes