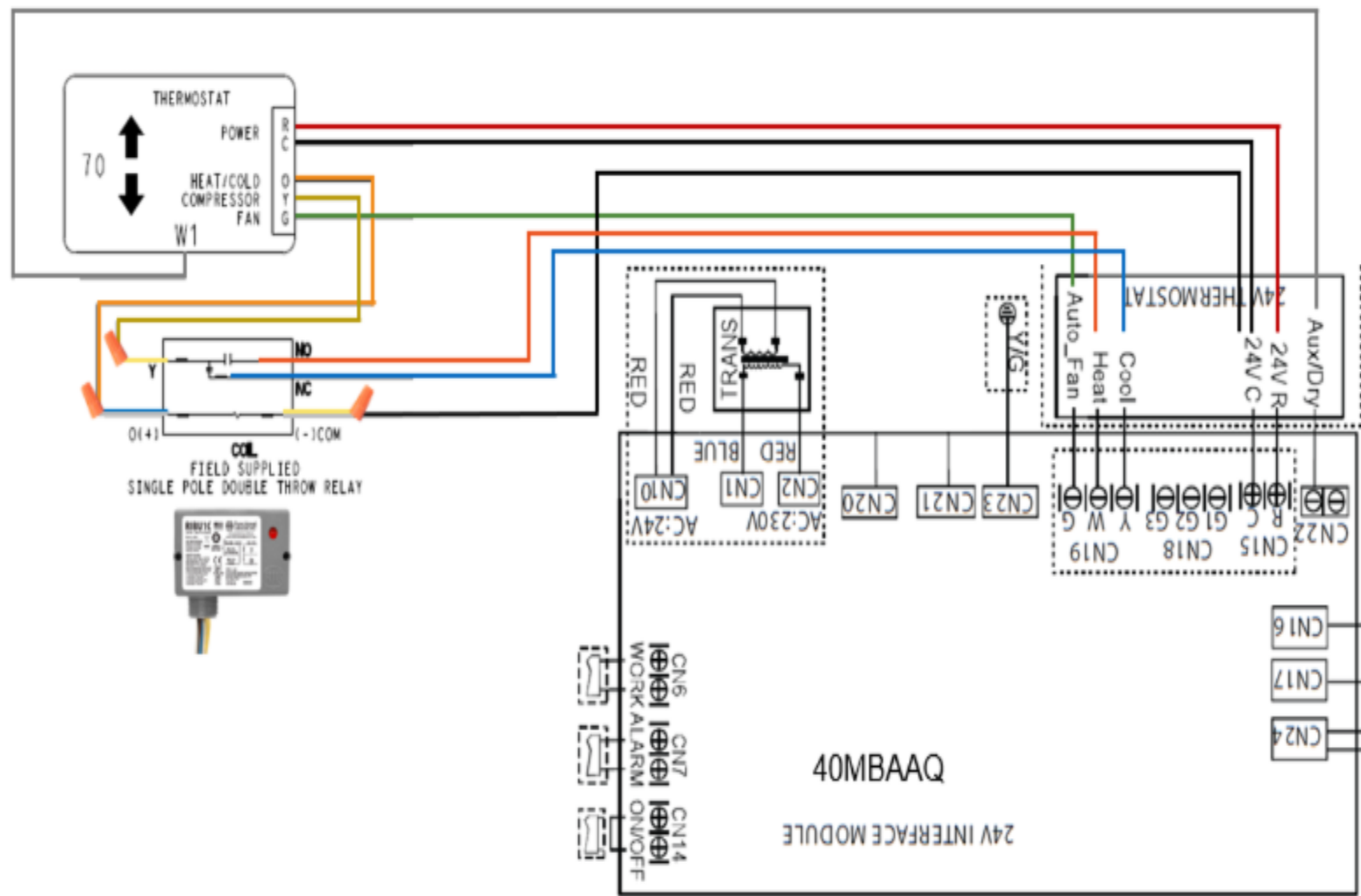
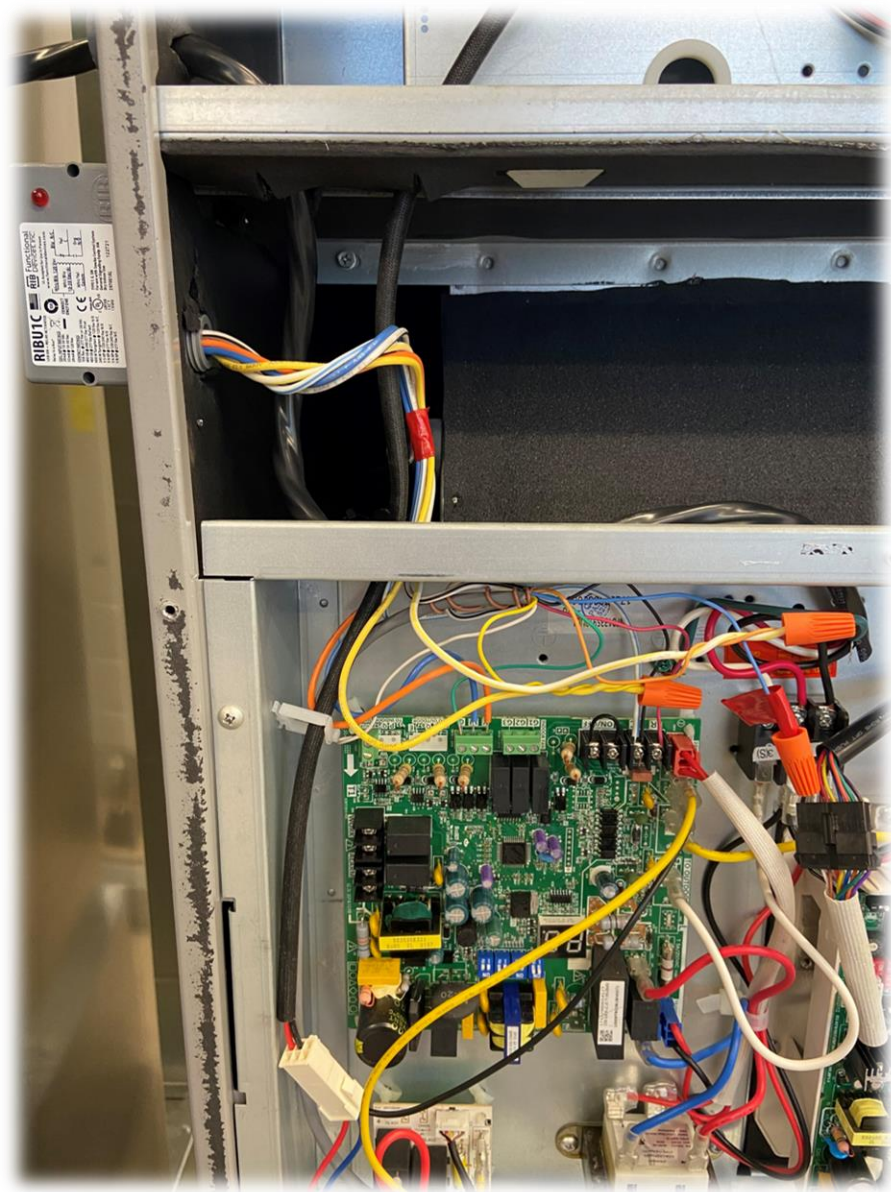


Hybrid System

Electronic Board display

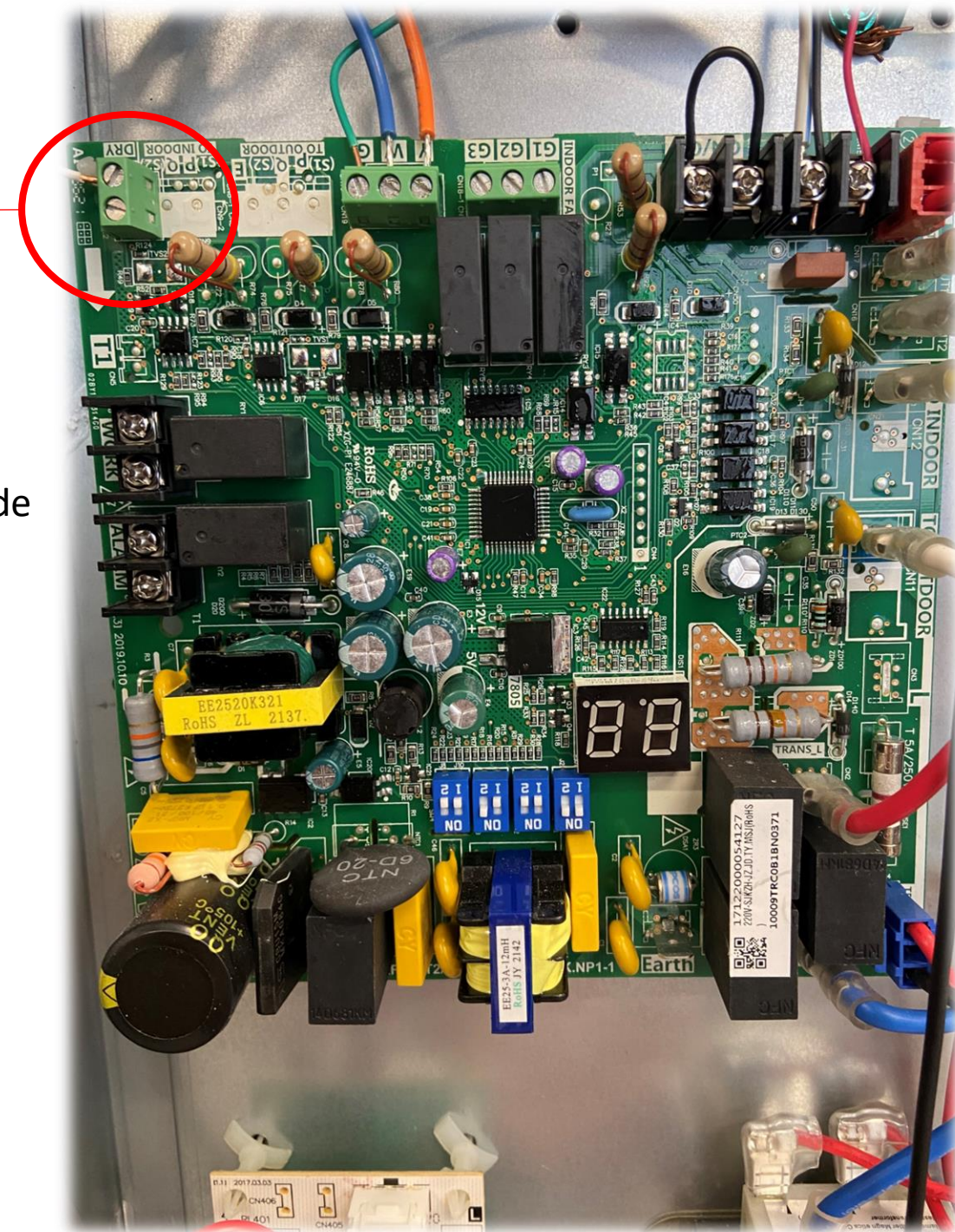
40MBAAQ24AX3



40MBAAQ24XA3

AUX/DRY terminal

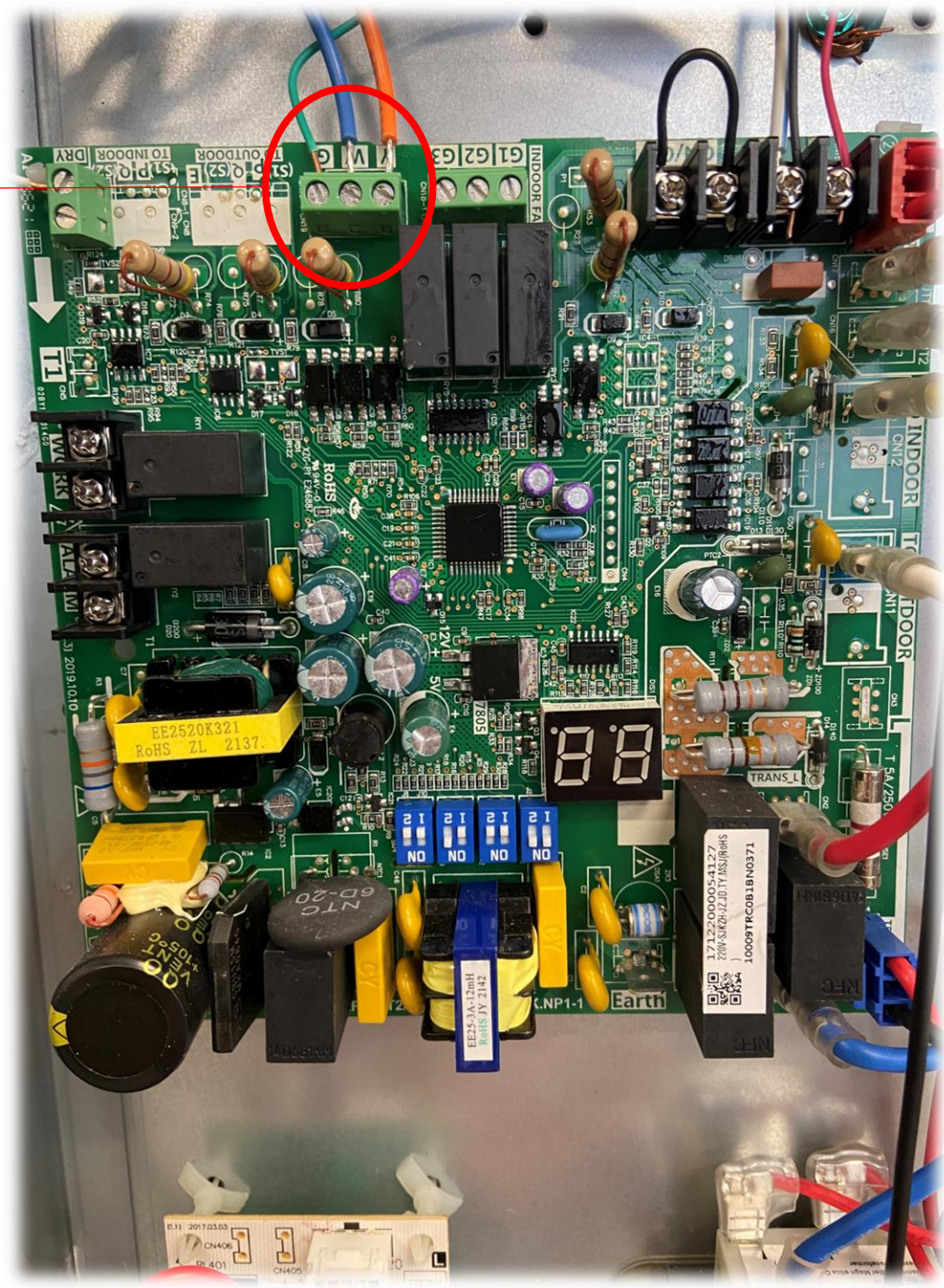
- Can use one or the other connection without problem.
- If the heat pump is ON and call for AUX heat, there will be a time delay for 30 min till the duct heater will be energize. (operation mode 05)
- **If T2 is cold, the delay will be reduced at 3 min (operation mode 05)**
- If the AUX heat only is activated, there will be 3 min time delay before engaging the duct heater. (operation mode 06)



40MBAAQ24XA3

G/W/Y terminal

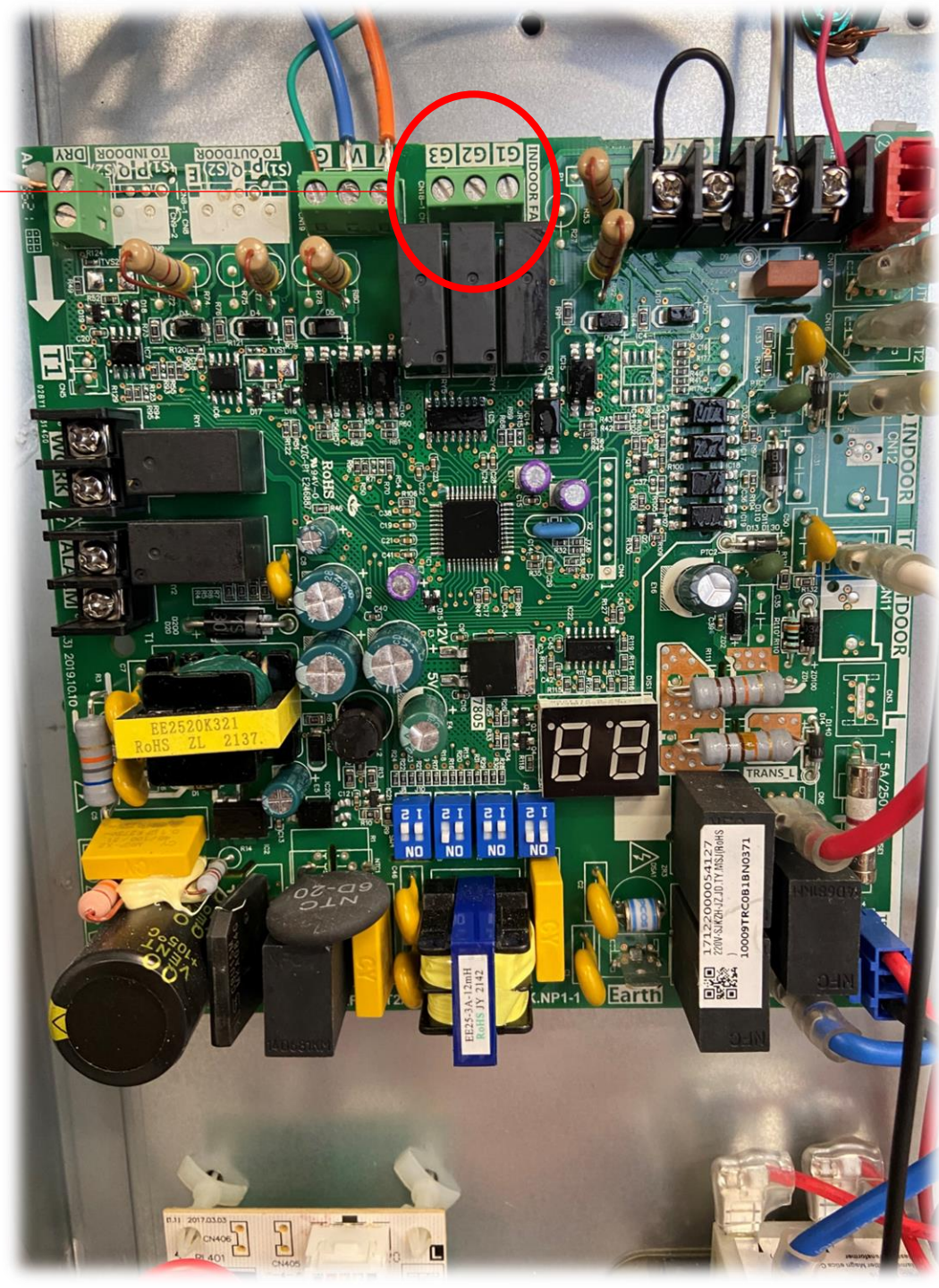
- G = fan demand (operation 03)
- W = heating demand (operation 02)
- Y = cooling demand (operation 01)



40MBAAQ24XA3

G1/G2/G3 terminal

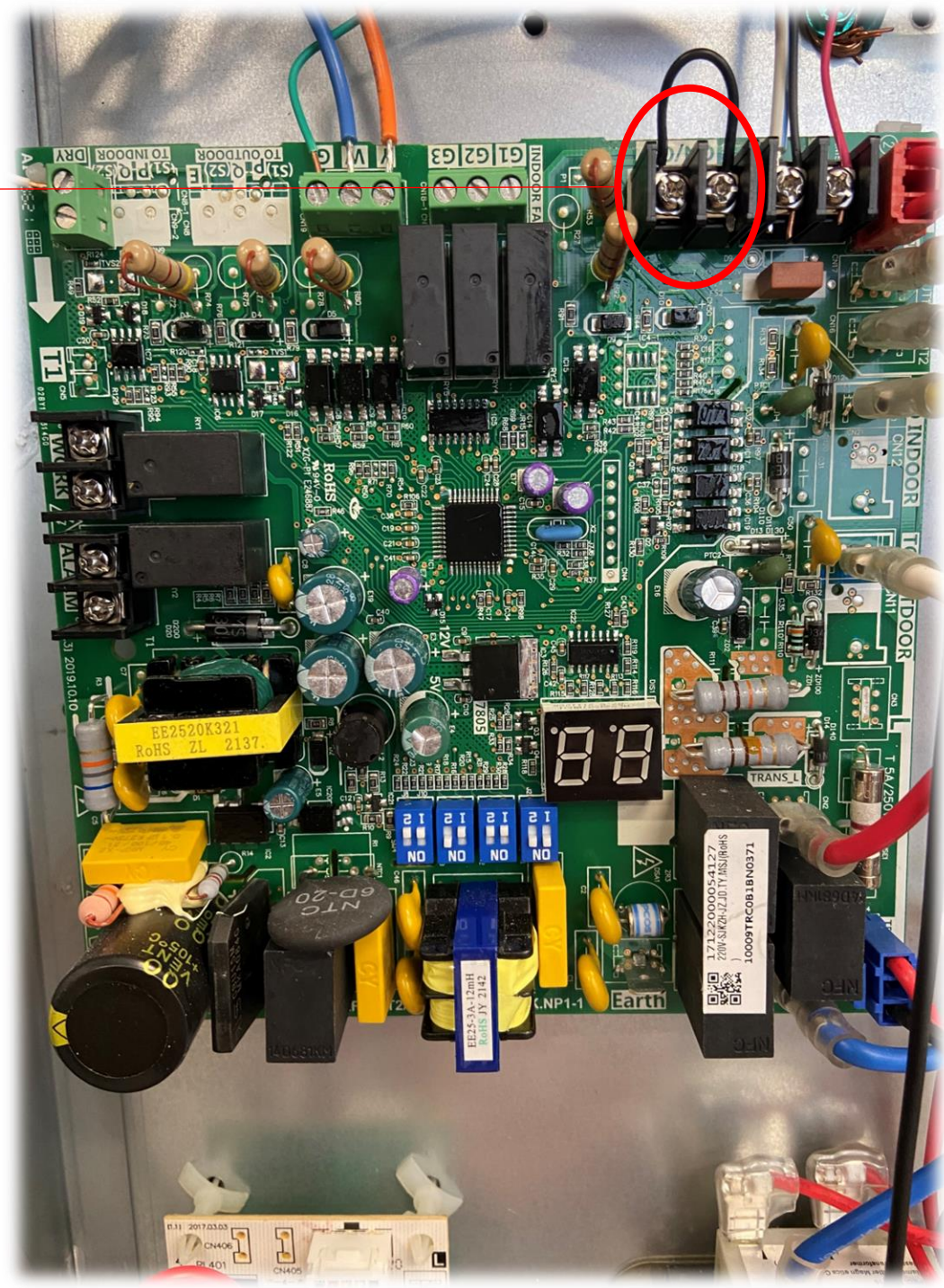
- Not in use for this application



40MBAAQ24XA3

On/Off terminal screw

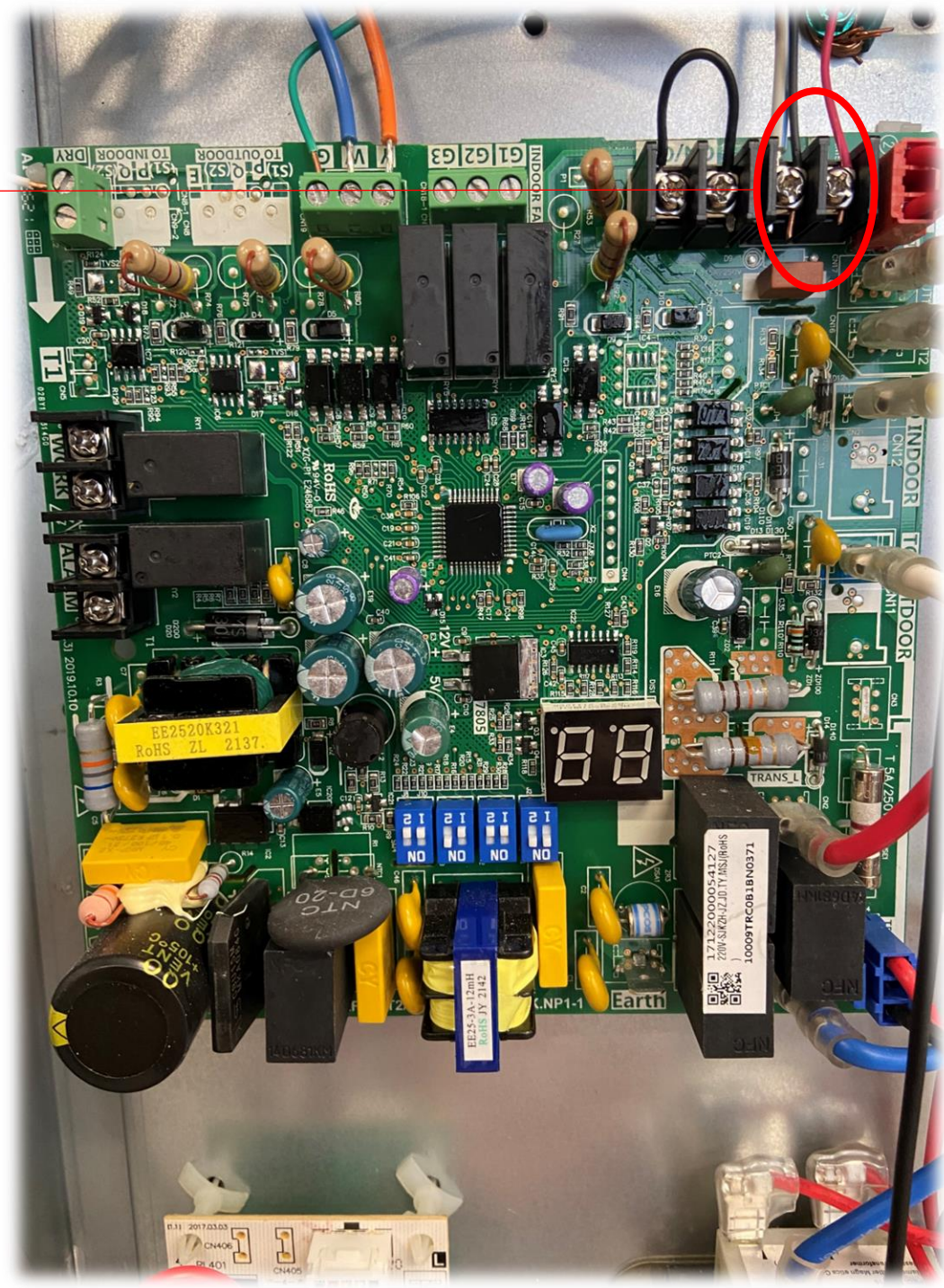
- Jumper **must** be in place, elsewhere the system will stay in standby. (operation 00)
- If the board is replaced, remember to replace the jumper.



40MBAAQ24XA3

C/R terminal screw

- C = common
- R = 24 volt



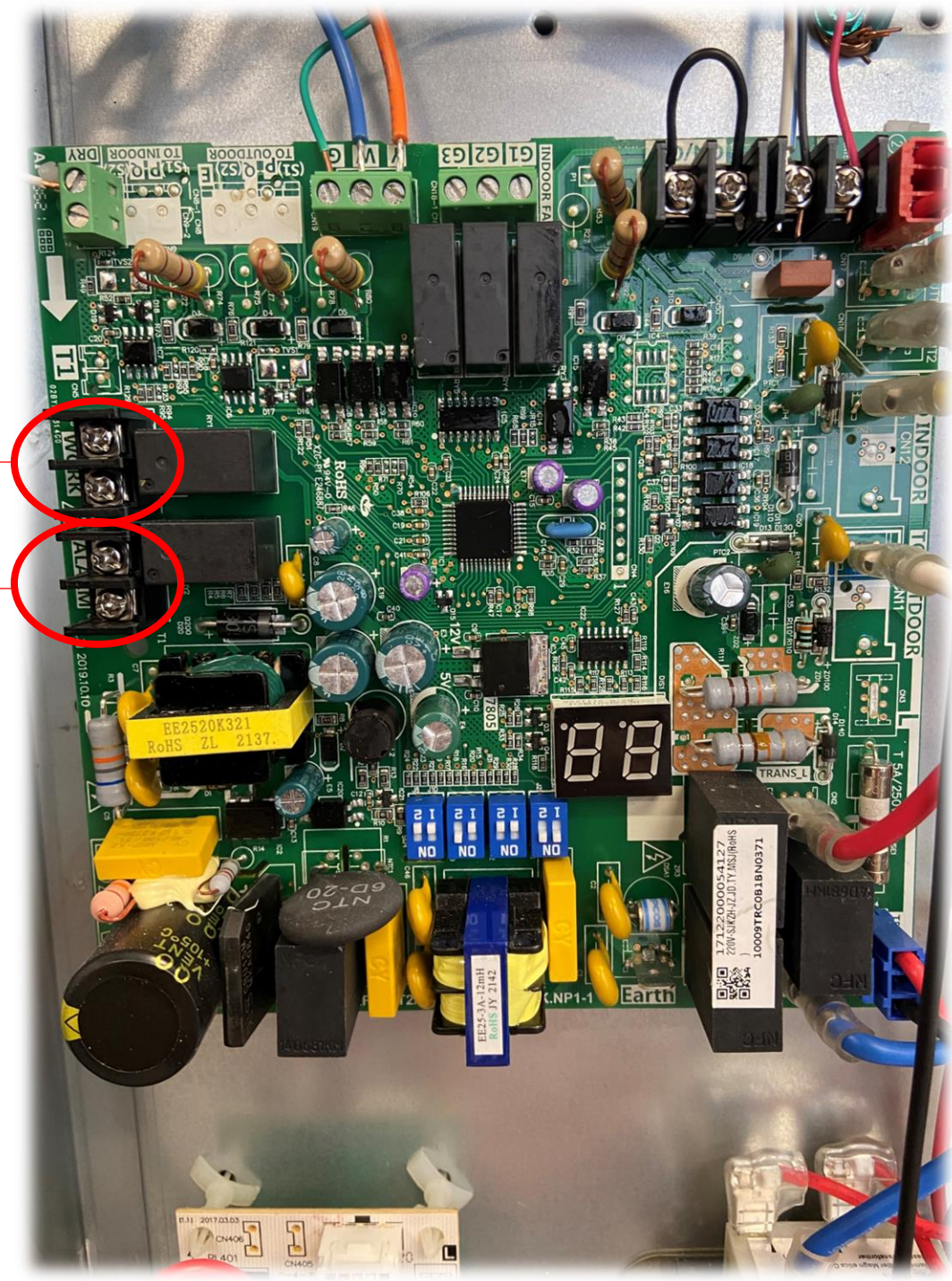
40MBAAQ24XA3

Work terminal screw

- Dry contact
- Will close when fan on

Alarm terminal screw



- Dry contact
- Will close when Error code show





40MBAAQ24XA3

Warning ! The DIP switch is up side down

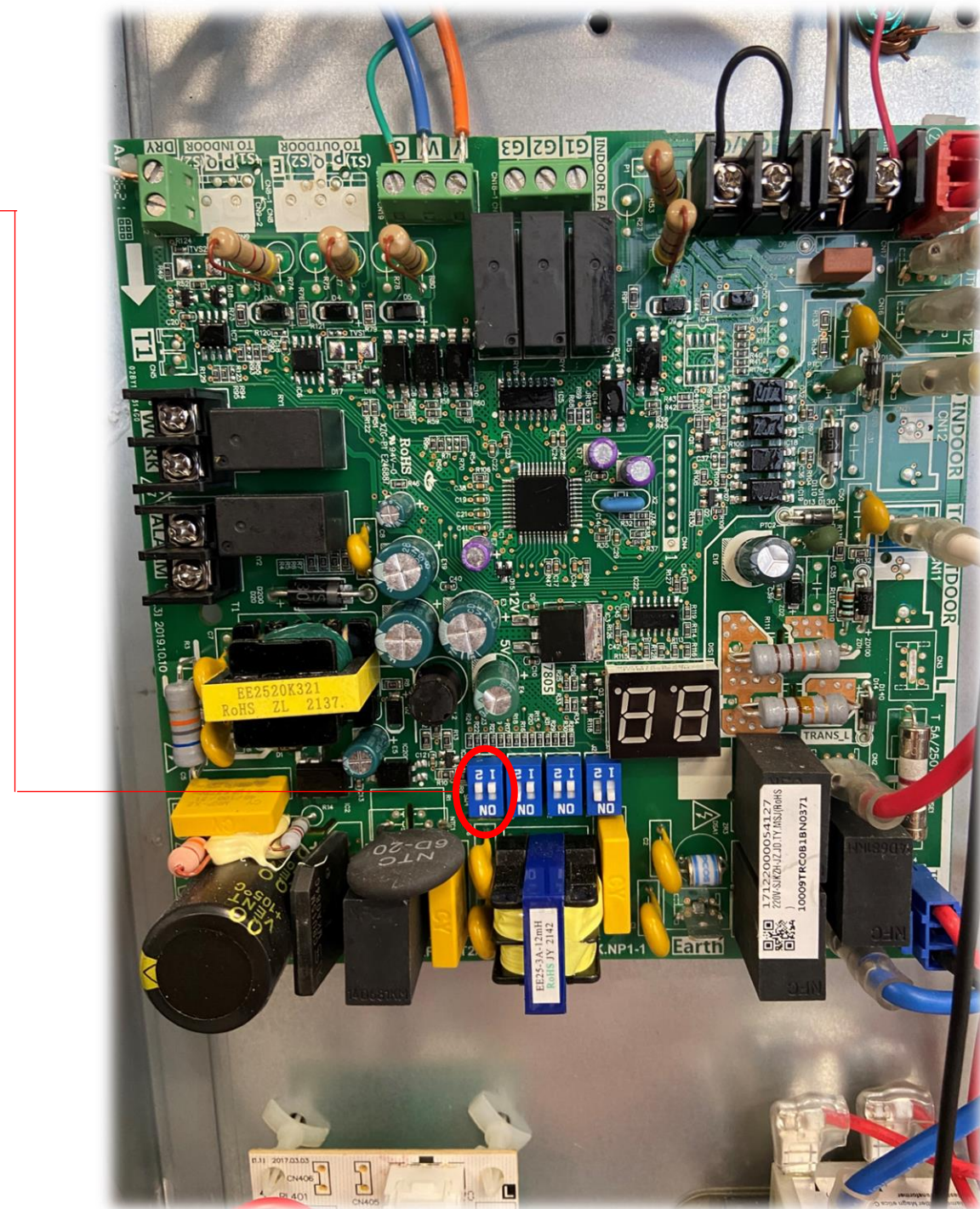
SW4 dip switch

Set/indoor only		
SW4-1		
Mode	Set/outdoor only	Indoor only
Factory default	✓	

Enable communication with the outdoor board.
Must be on Set/outdoor only

Indoor control		
SW4-2		
Mode	Fan High	Fan Middle
Factory default	✓	



Not in use for this unit type





40MBAAQ24XA3

Warning ! The DIP switch is upside down

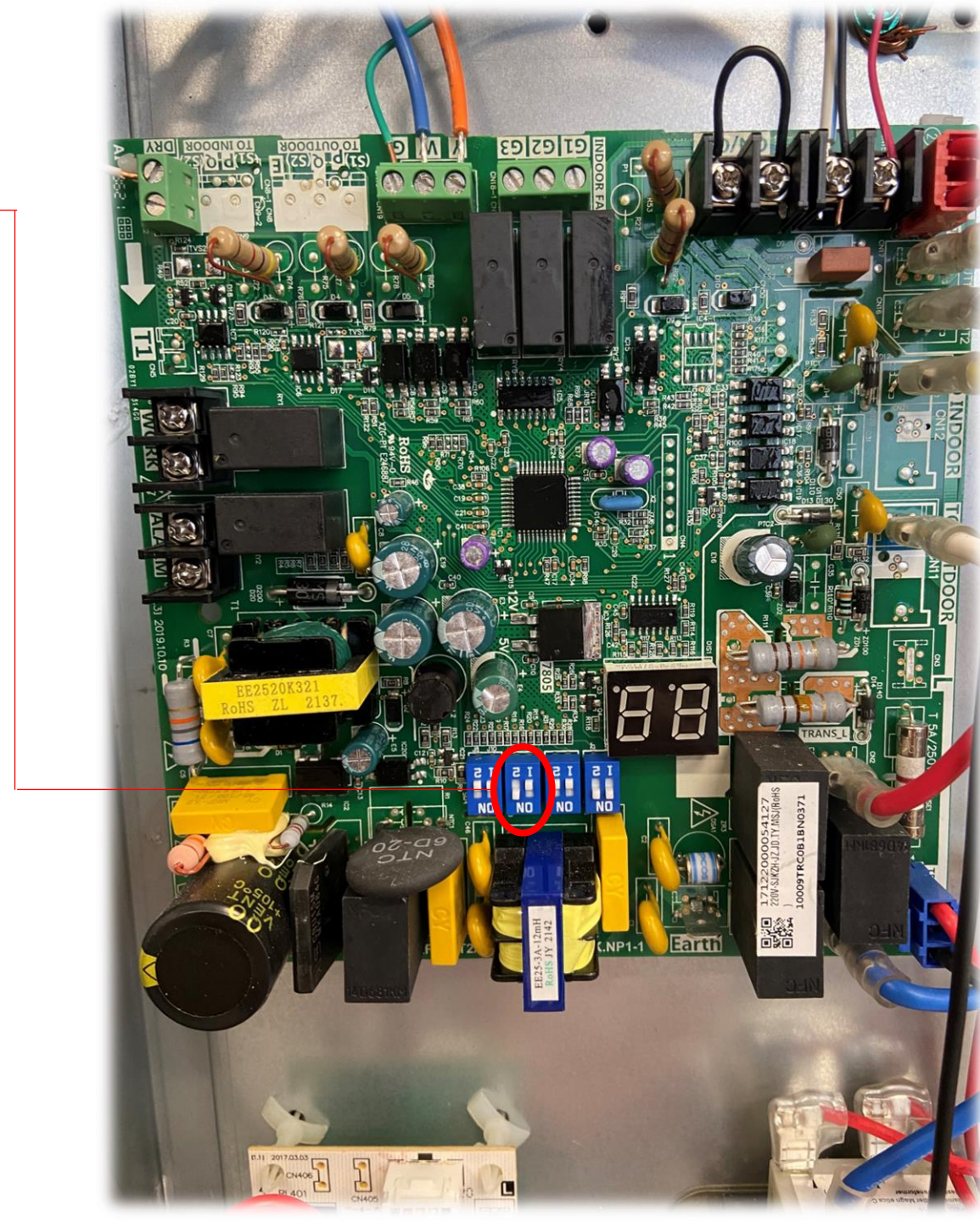
SW3 dip switch

Aux-heat/dry		
SW3-1		
Mode	Aux-heat	Set
Factory default	✓	

Choose from AUX Heat enable or DRY mode.
Can't do both.

Frequency Time		
SW3-2		
Mode	3H	1H
Factory default	✓	



After this period of time,
compressor will be going into max
frequency to reach the set point.





40MBAAQ24XA3

Warning ! The DIP switch is upside down

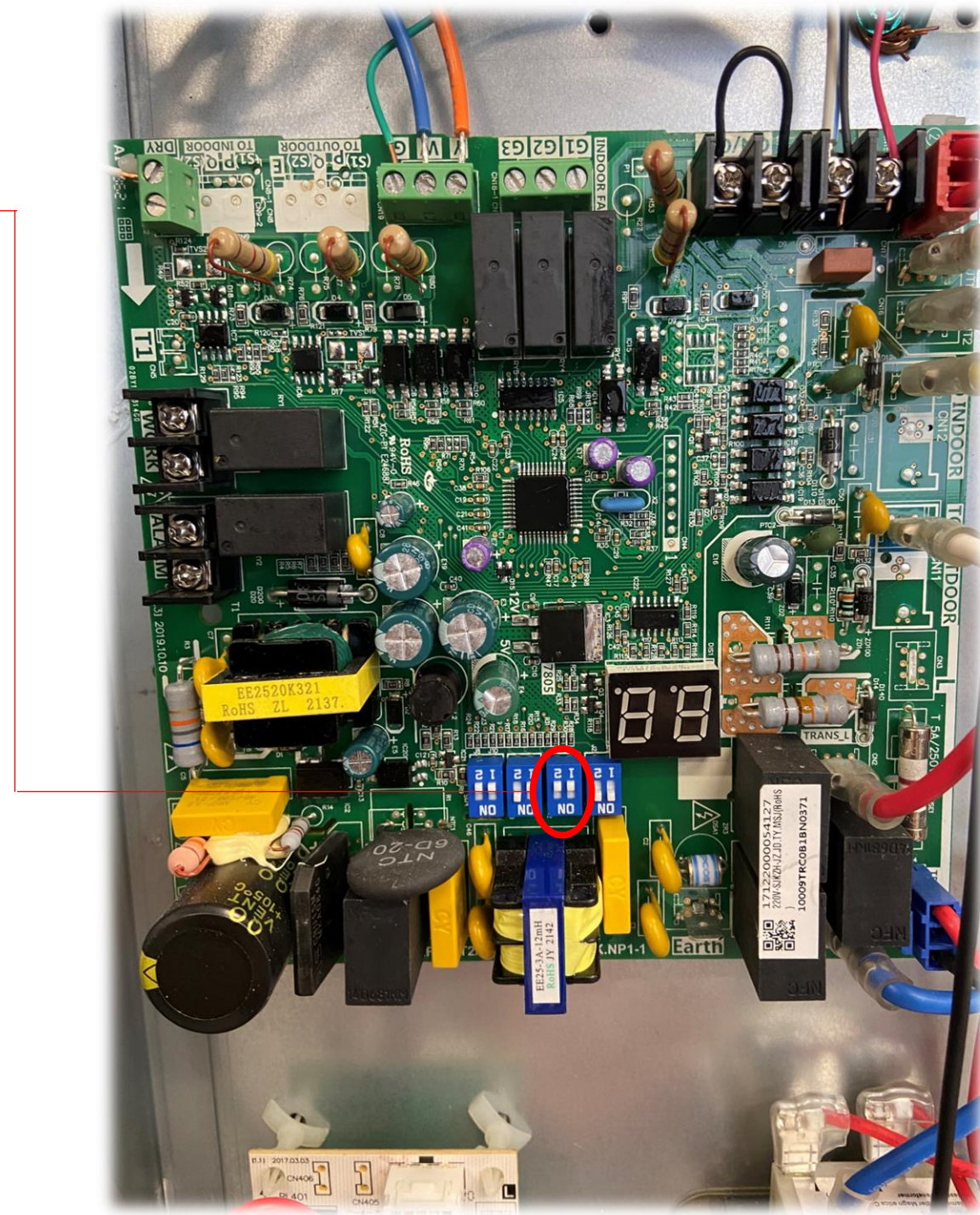
SW2 dip switch

Unit type		
SW2-1		
Mode	Heat pump	Cooling only
Factory default	✓	

Anti-cold		
SW2-2		
Mode	YES	NO
Factory default	✓	

Always use heatpump setting.



Prevent from getting cold air during defrost cycle.





40MBAAQ24XA3

Warning ! The DIP switch is up side down

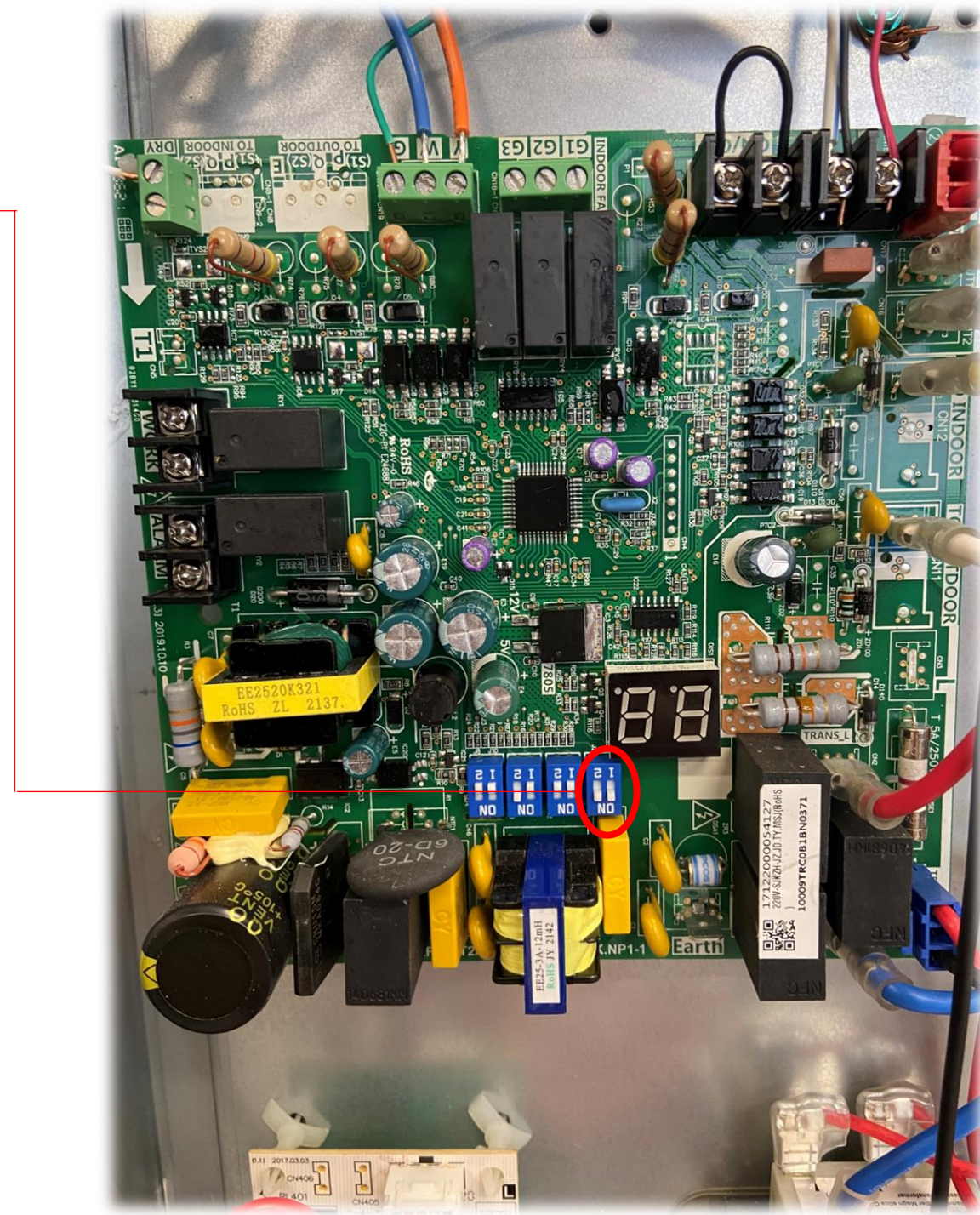
SW1 dip switch

Display tube		
SW1-1		
Mode	OFF	ON
Factory default		✓

Activate DEL from the 2-digit display

Set/outdoor only		
SW 1-2		
Mode	Outdoor only	Set
Factory default		✓

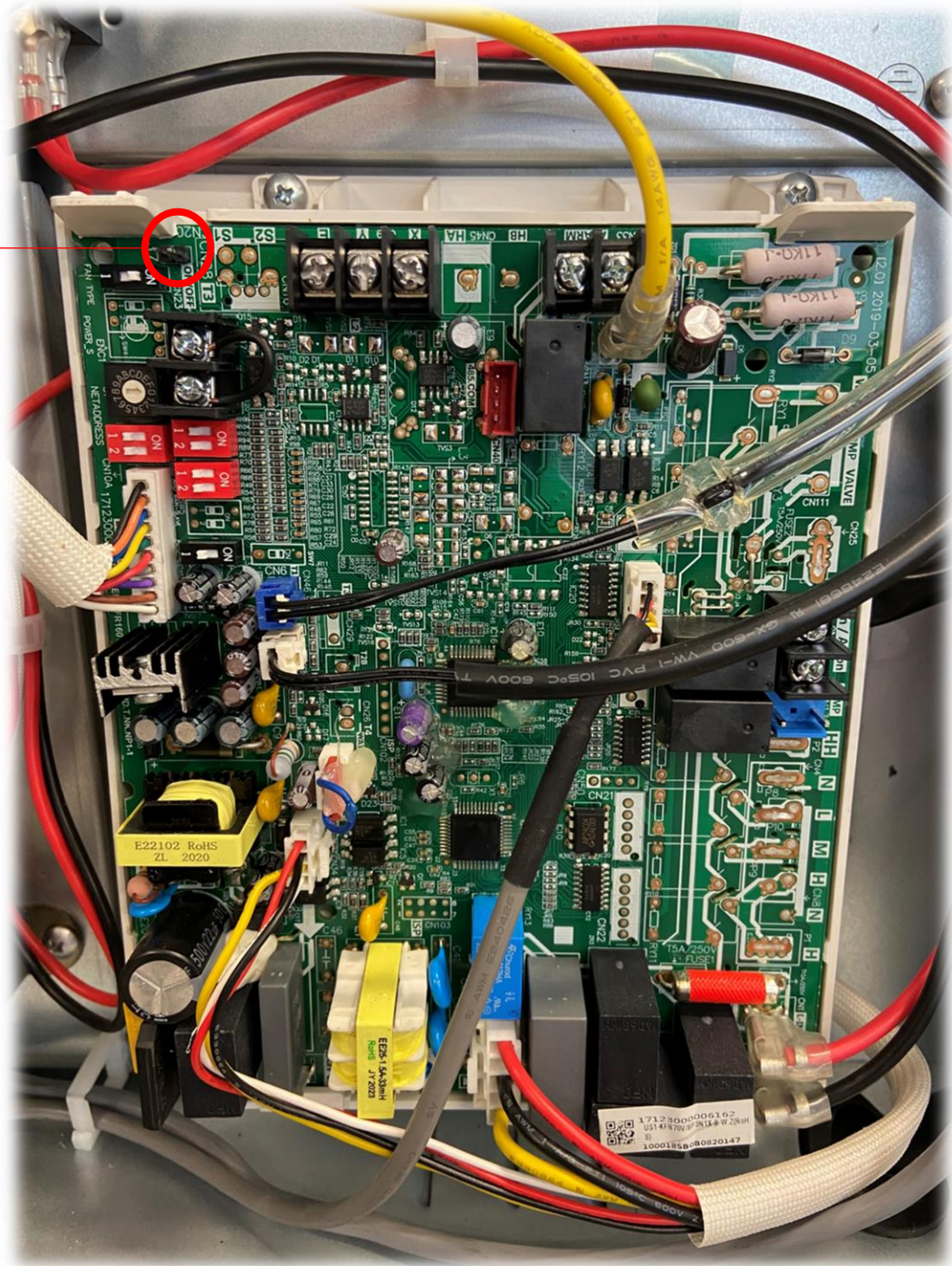
Enable communication with the interface board.
Must be on Set



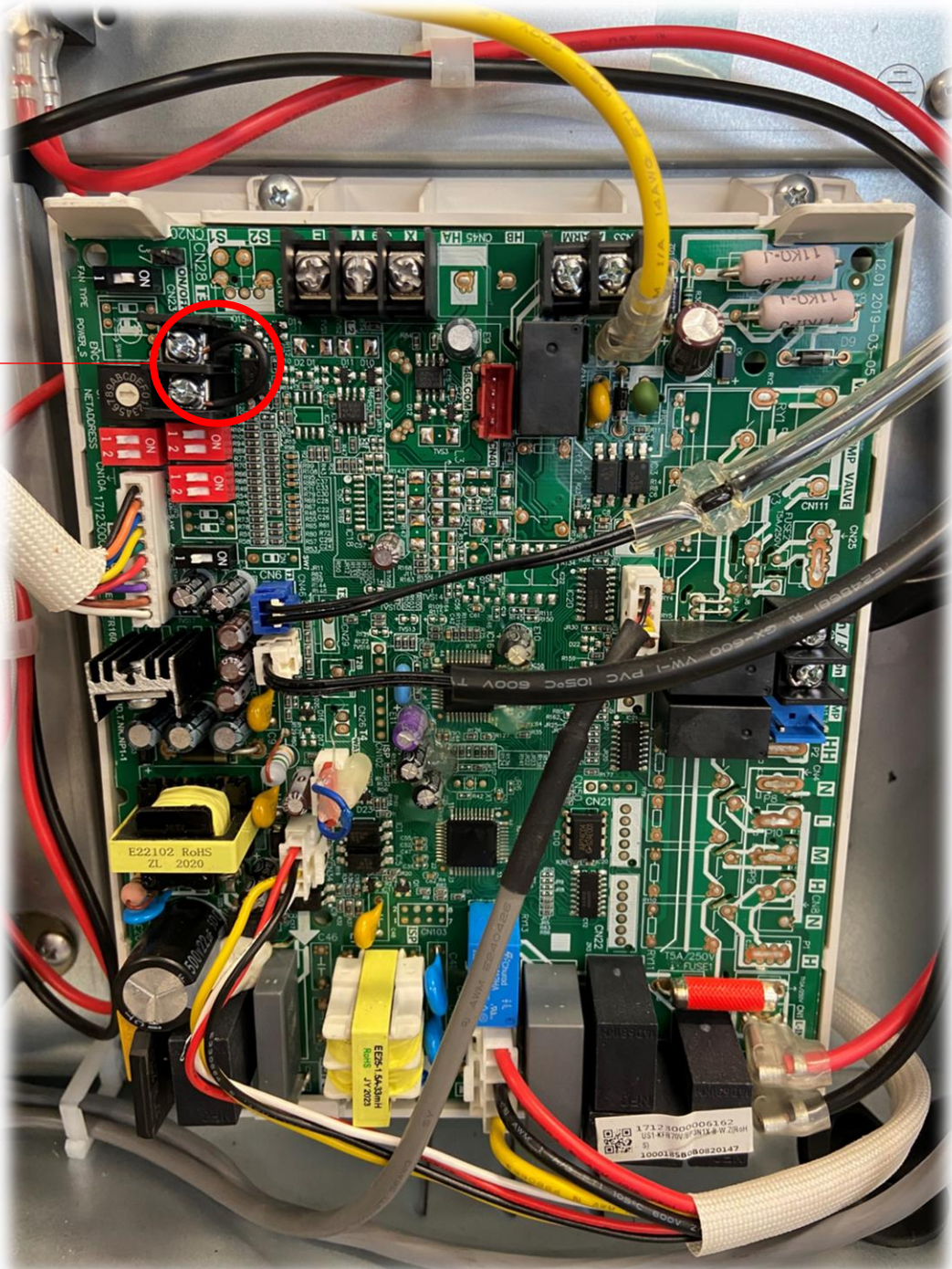
40MBAAQ24XA3

Jumper J7

Must be in place
Having glue dot in it
If you replace the board, replace it too.



40MBAAQ24XA3





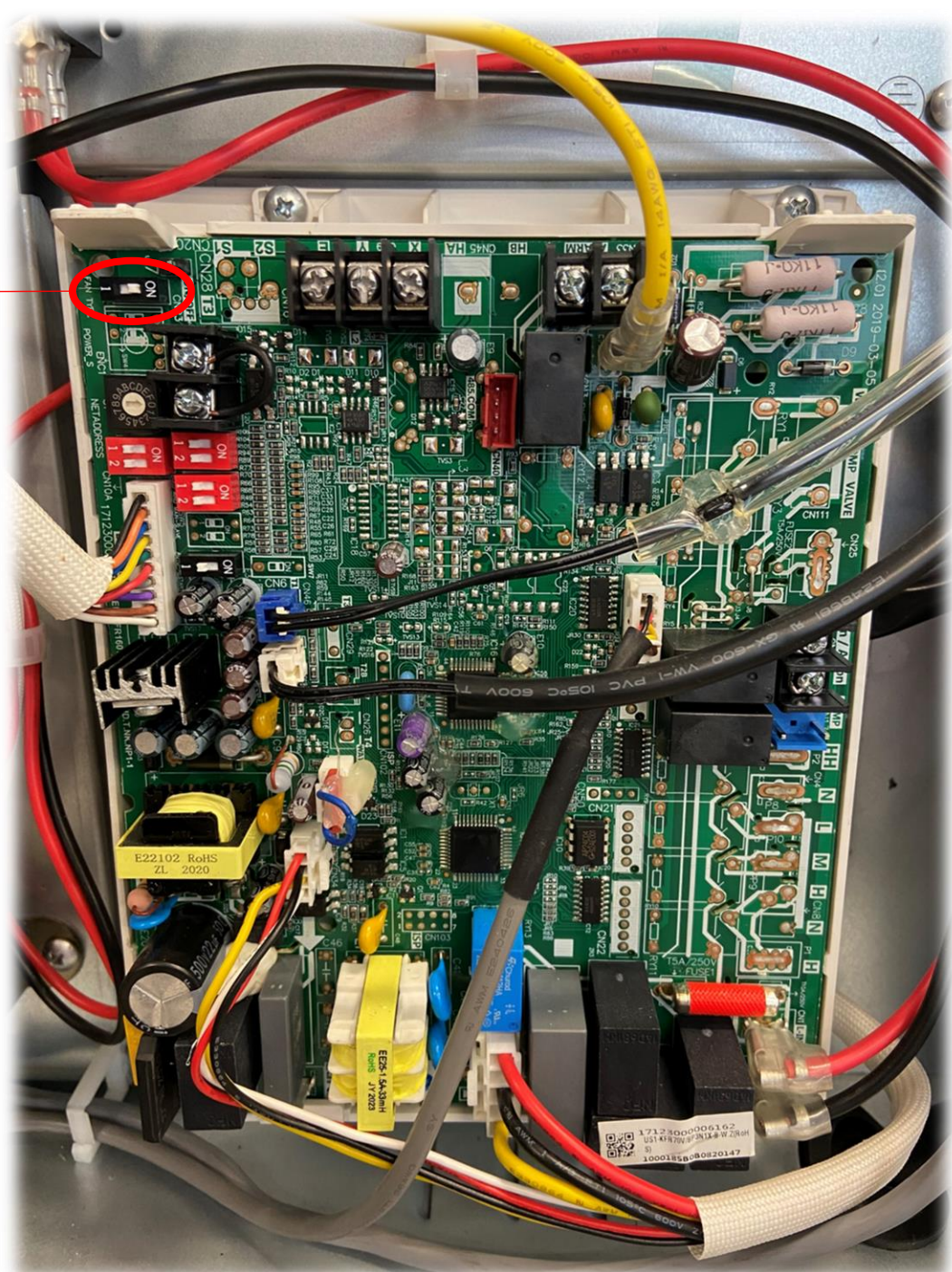
On/Off terminal screw

If the Jumper J7 is not present, you can add a little jumper wire to close this contact. Elsewhere the system you stay in stand by mode.

40MBAAQ24XA3

Dip switch SW2









FOR SETTING FAN MOTOR CONTROL WHEN THERE IS NO DEMAND		
SW2		
MODE	FAN OFF	FAN ON
FACTORY SETTING		✓

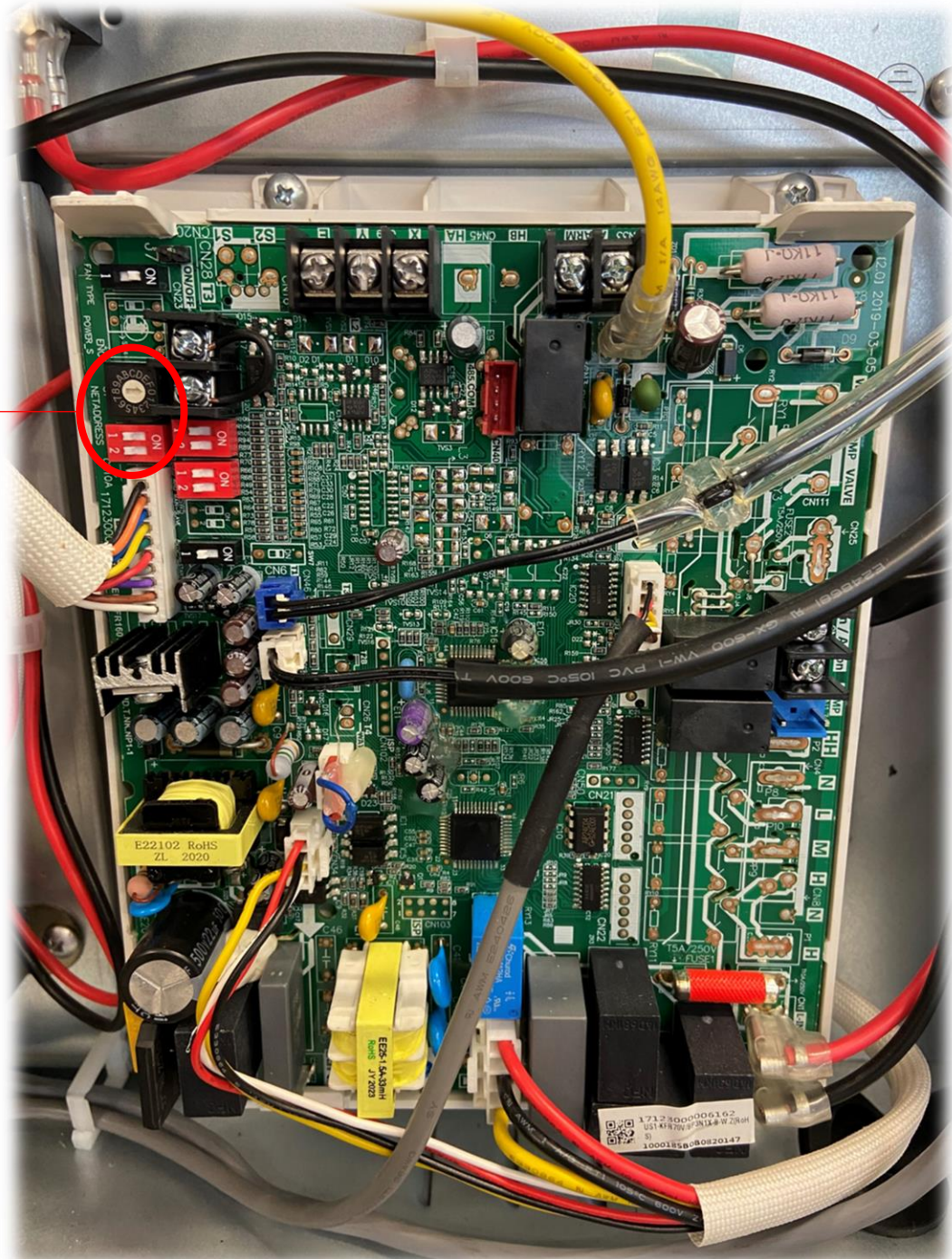


40MBAAQ24XA3

Rotary switch + Dip switch S1/S2

- Netaddress for communication

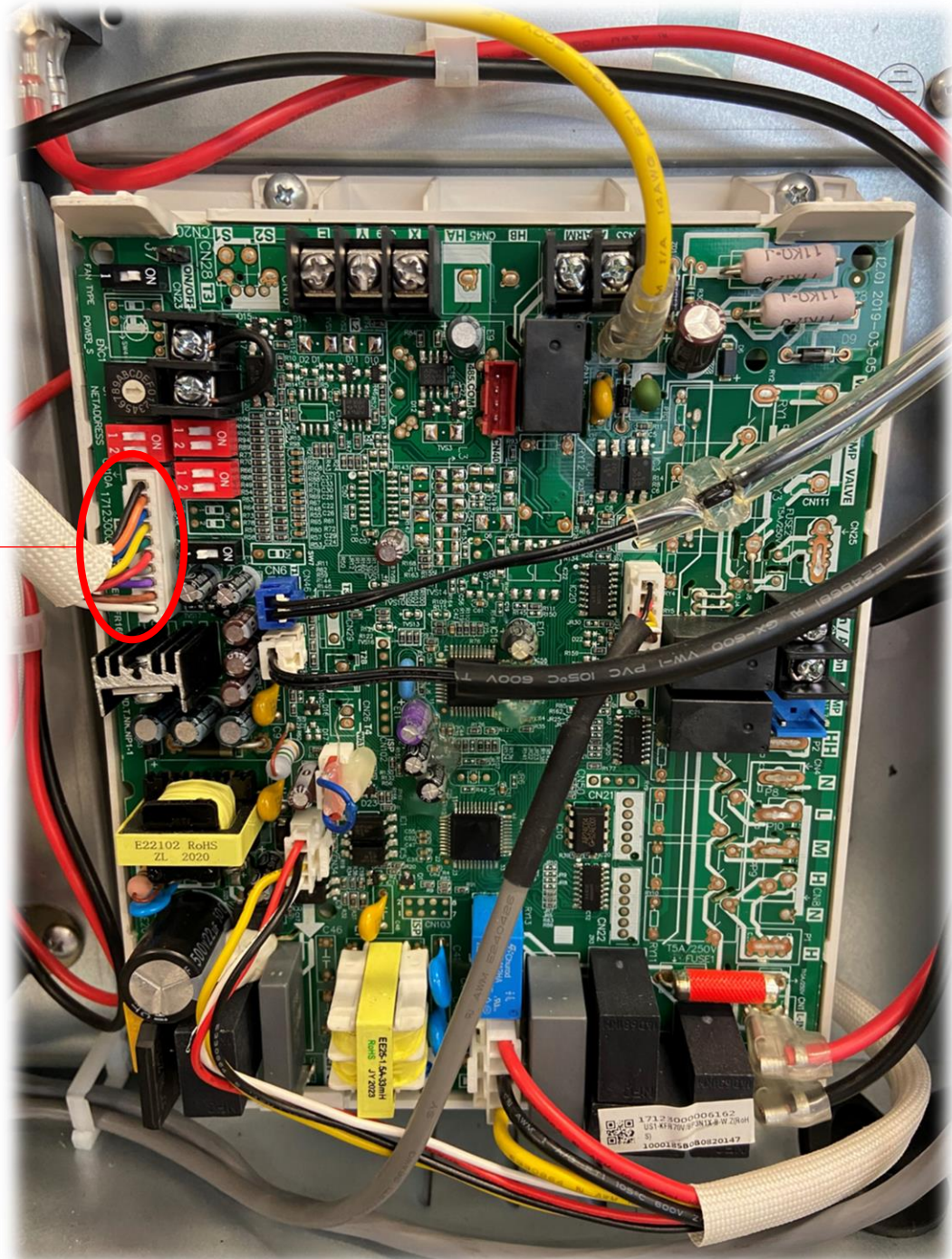
FOR SETTING NETADDRESS								
S1+S2								
CODE	0~F		0~F		0~F		0~F	
NETADDRESS	0~15		16~31		32~47		48~63	
FACTORY BETTING	✓							



40MBAAQ24XA3

Connector for the display board





- To be use when you want to change the static pressure of the air handler.

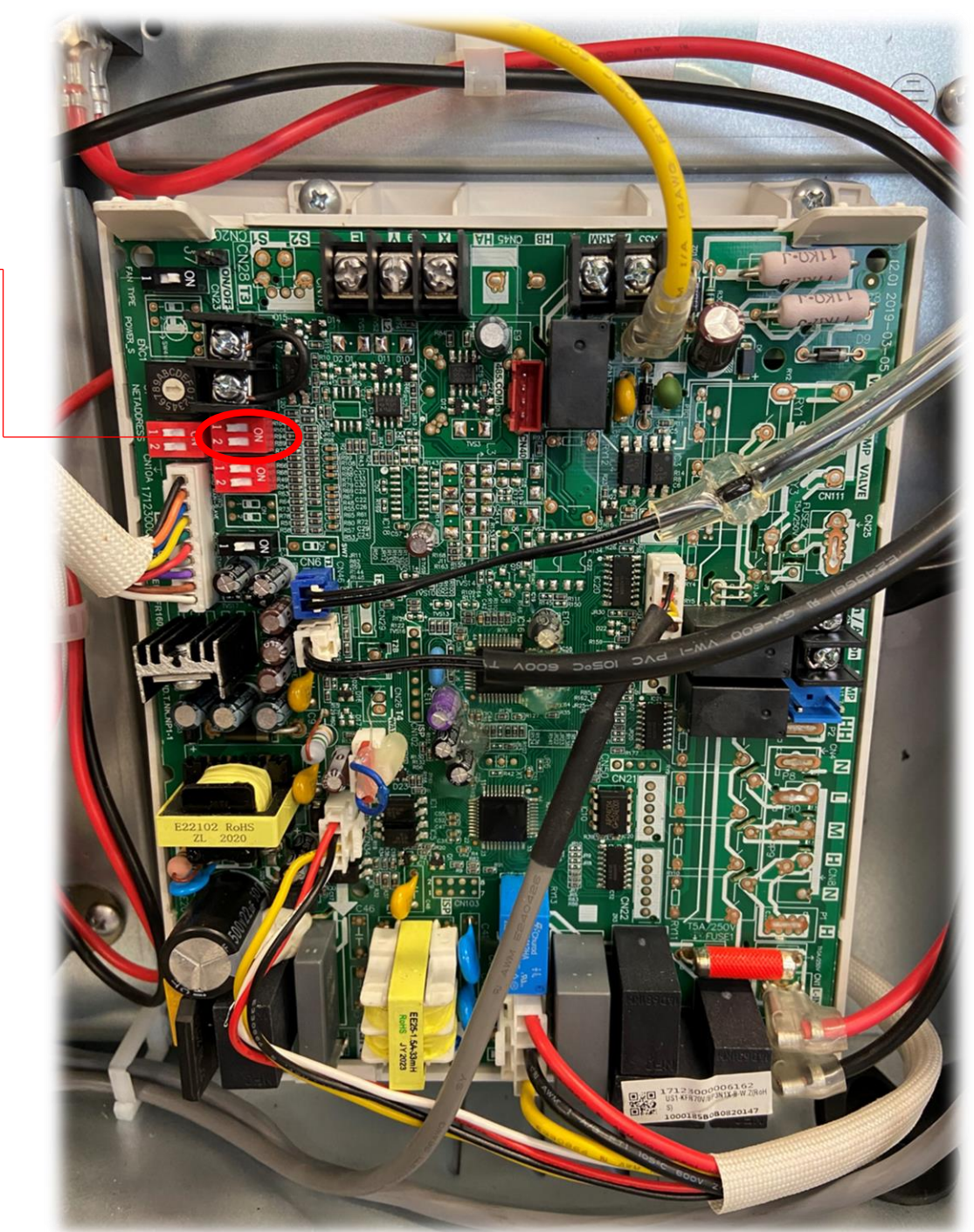


40MBAAQ24XA3

Dip switch SW6

- Adjustment of the T1 sensor compensation





FOR TEMP. COMPENSATION(HEATING)				
SW6				
CODE	6☒	2☒	4☒	EEPROM DEFAULT
FACTORY SETTING	✓			



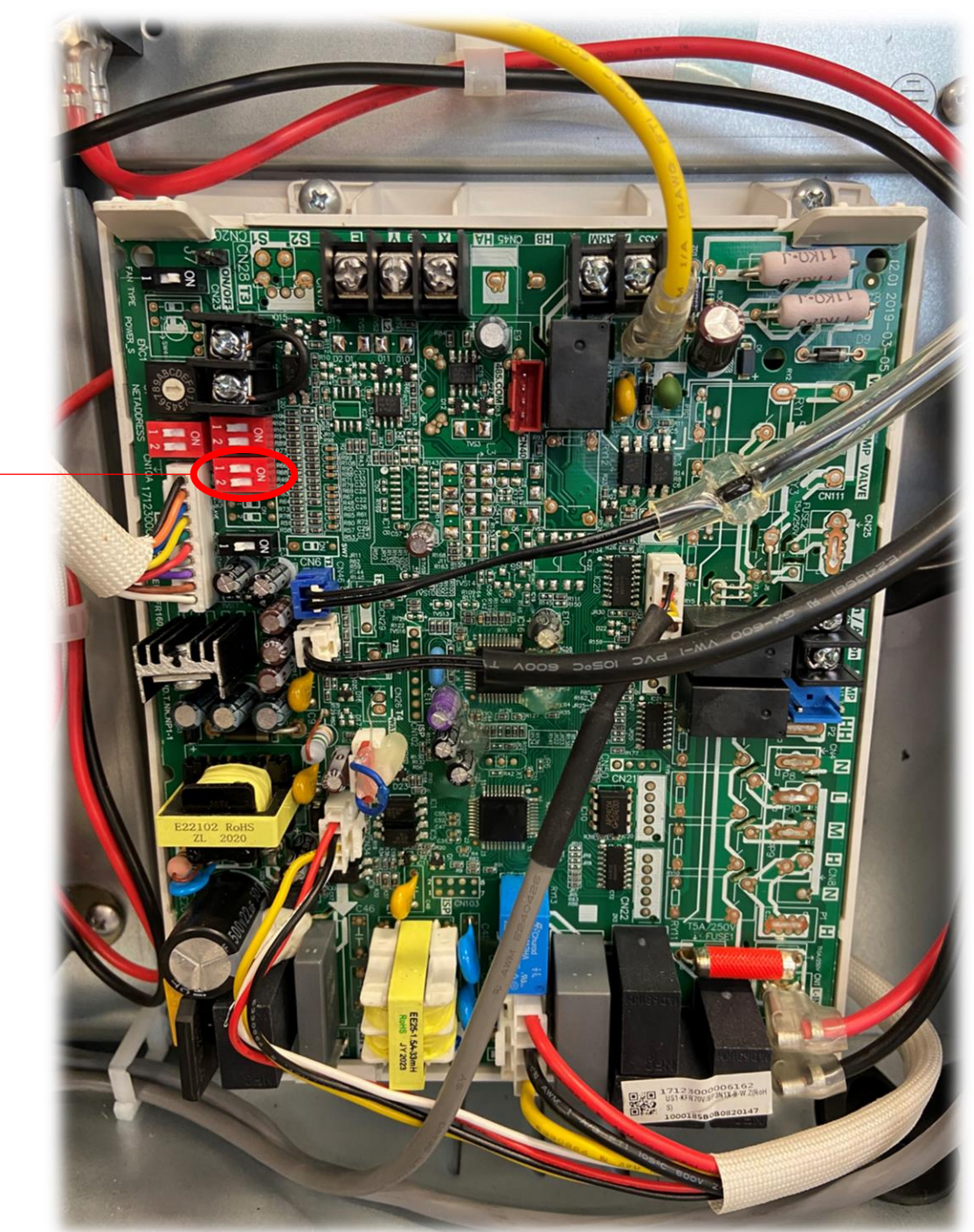
40MBAAQ24XA3

Dip switch SW1

- Prevent to start the fan before T2 reach the desire temperature.

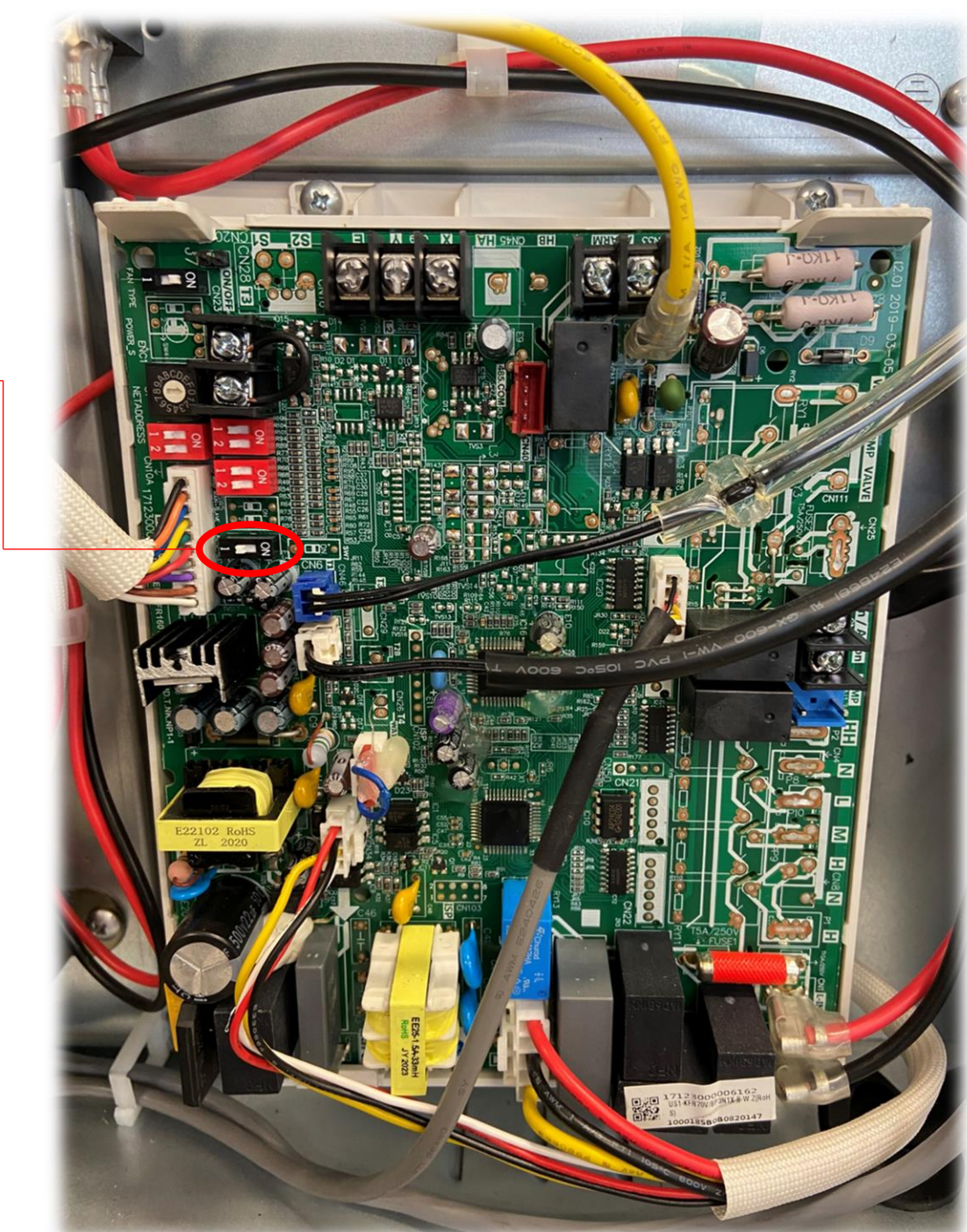
FOR ANTI-COLD WIND				
SW1				
TELO	24	15	8	EEPROM DEFAULT
FACTORY SETTING	✓			



- If 24C is not reach on T2, the blower will not start.
- You can change it to 15C if you need quick start of the fan.



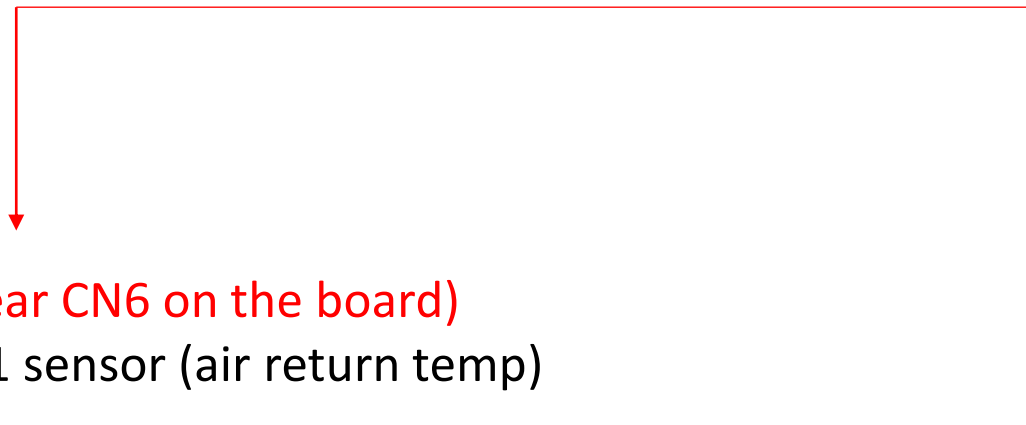
40MBAAQ24XA3

Dip switch SW3



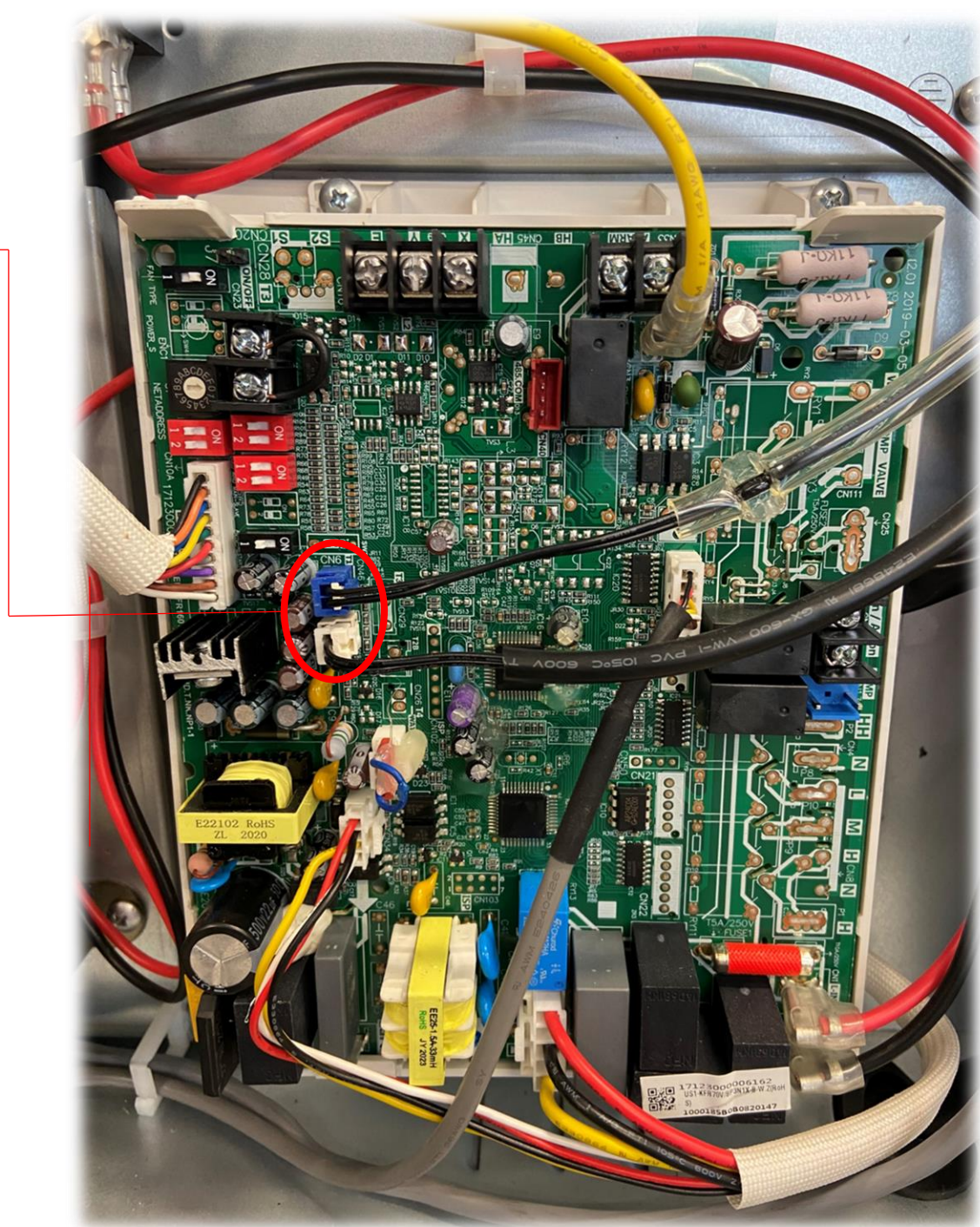
FOR SETTING AUTO-RESTART		
SW3		
MODE	AUTO-RESTART	NOT AUTO-RESTART
FACTORY SETTING	✓	

40MBAAQ24XA3



CN 46 (appear CN6 on the board)
• Blue = T1 sensor (air return temp)

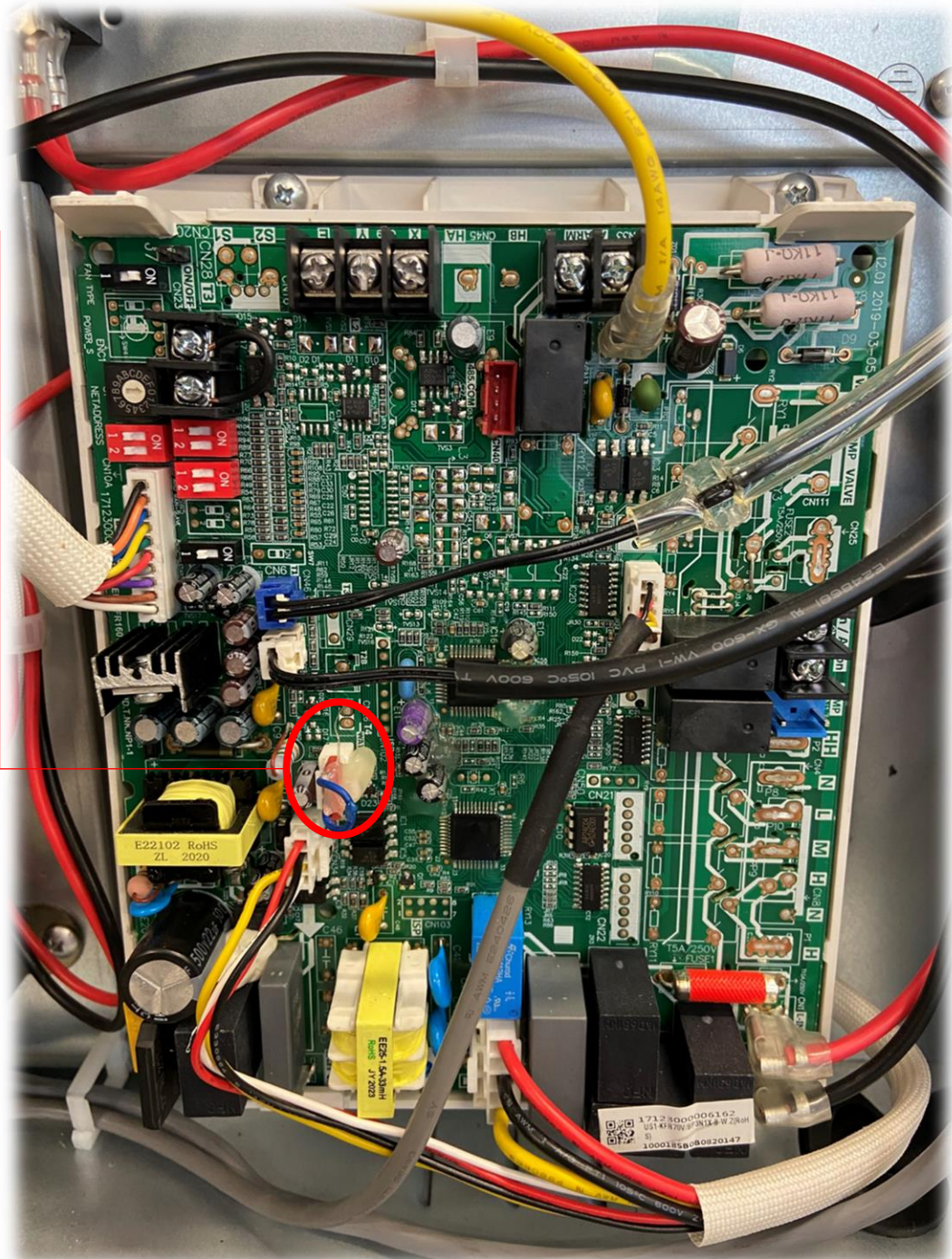
CN47
• White = T2 sensor (coil temp)



40MBAAQ24XA3

CN5 Jumper for water level switch

- **Must be connected**, elsewhere you will have « EE » error code on the display
- **If you replace the board, remember to replace to jumper.**

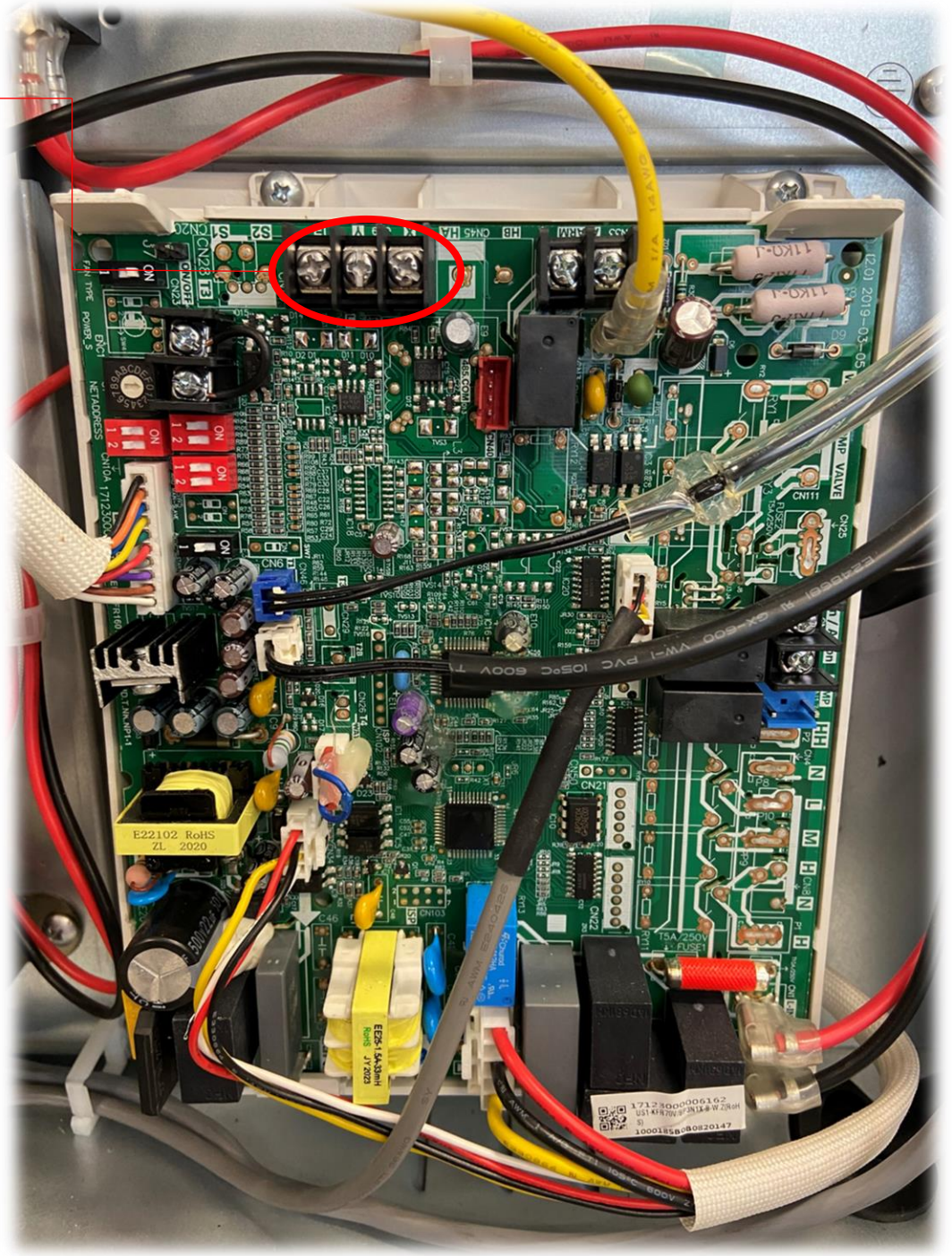


40MBAAQ24XA3



E/Y/X terminal screw

- Not in use
- RS485 communication

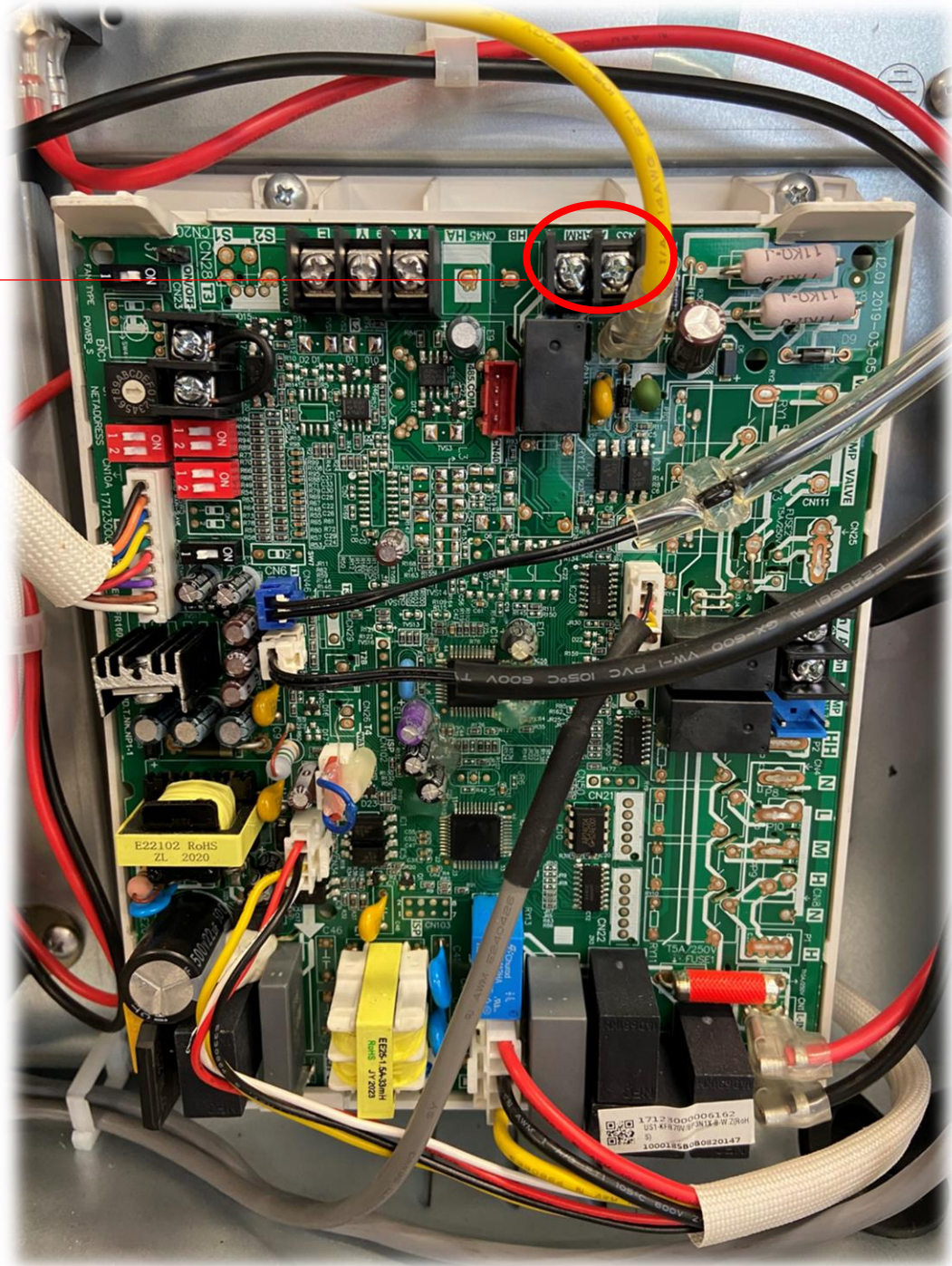


40MBAAQ24XA3



Alarm terminal screw

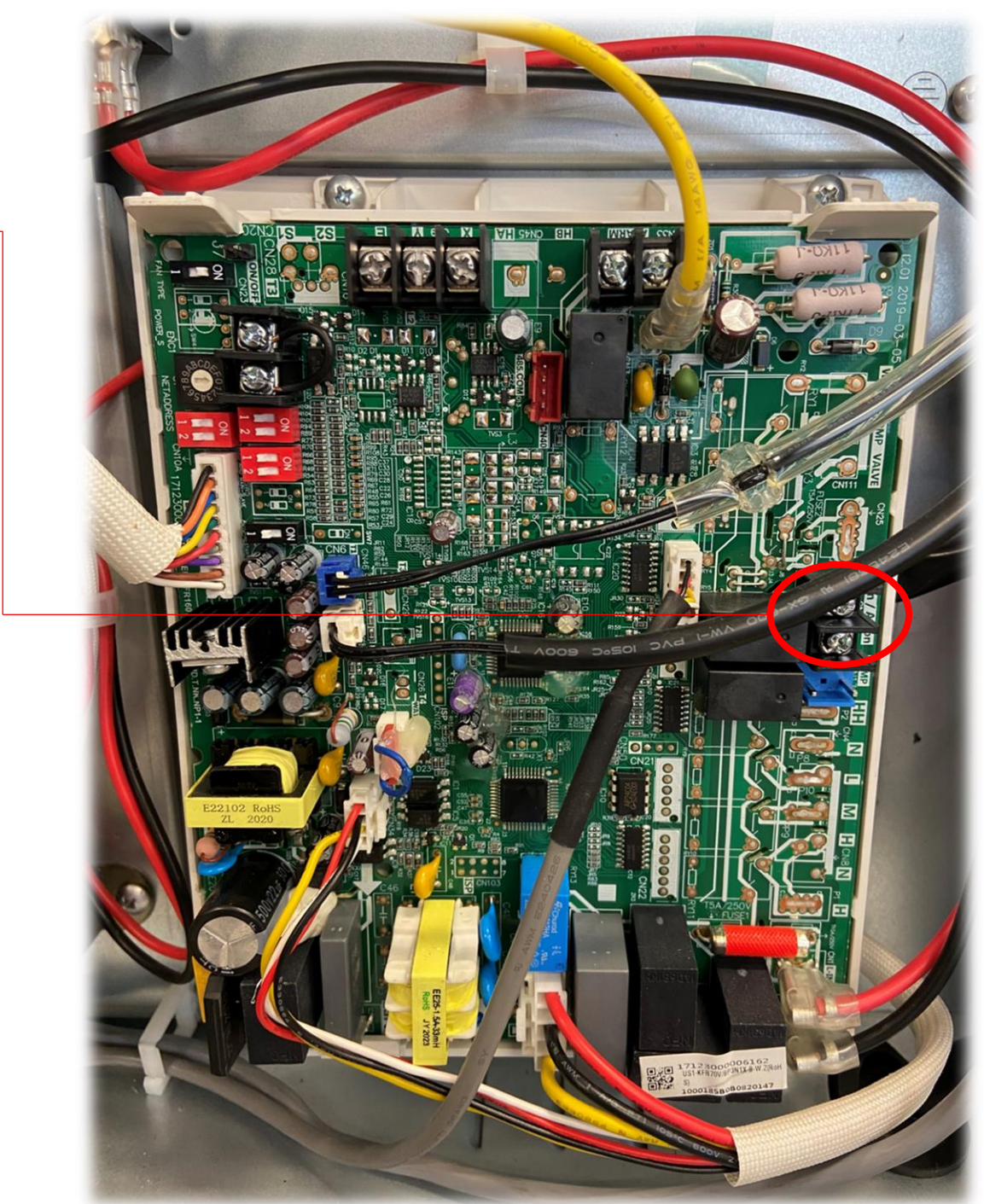
- Dry contact
- Will close when an error occur



40MBAAQ24XA3

Fan/Anion terminal screw

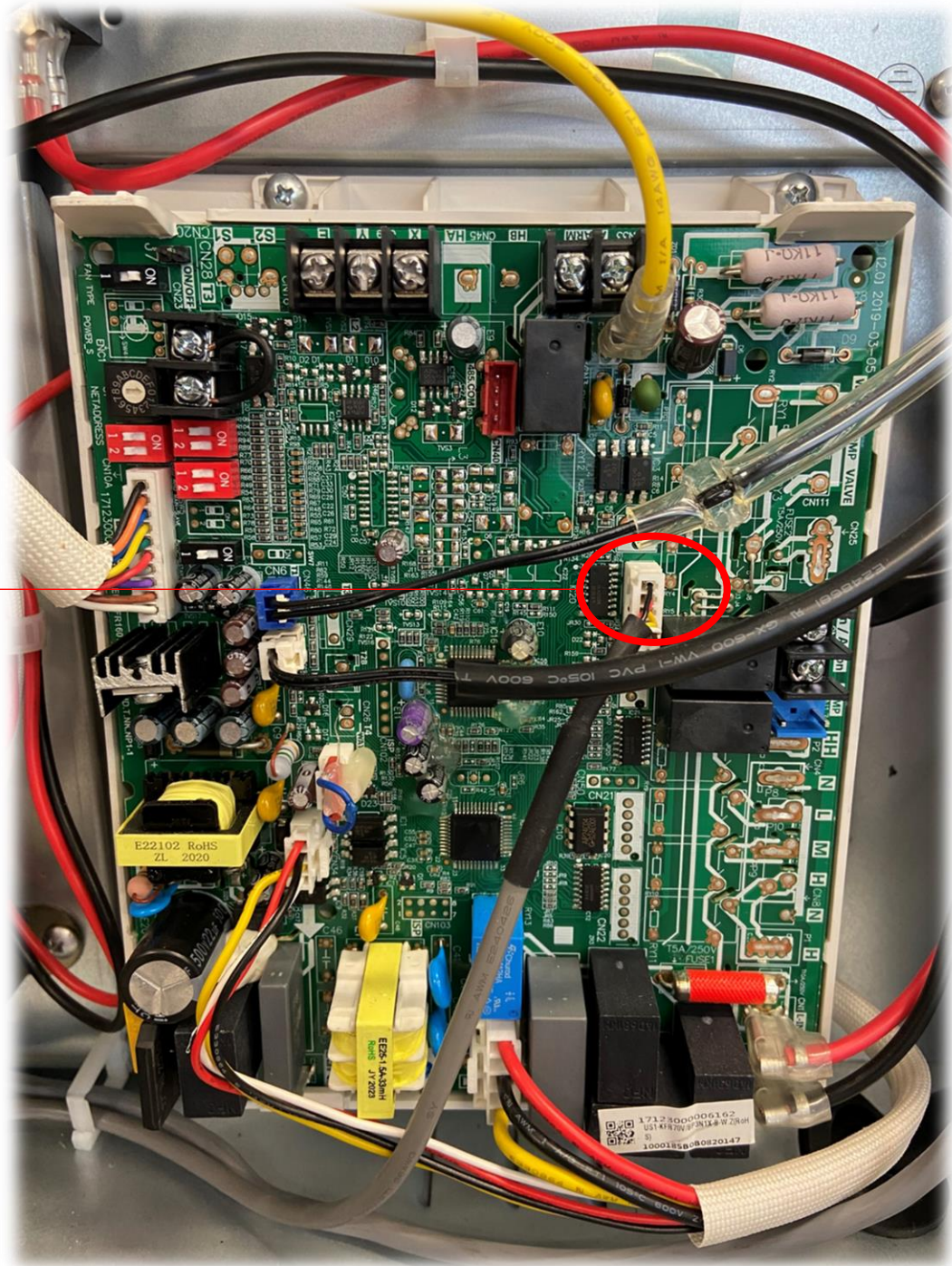
- Output high voltage 240 volt
- Will activate when fan on



40MBAAQ24XA3

Connector CN24

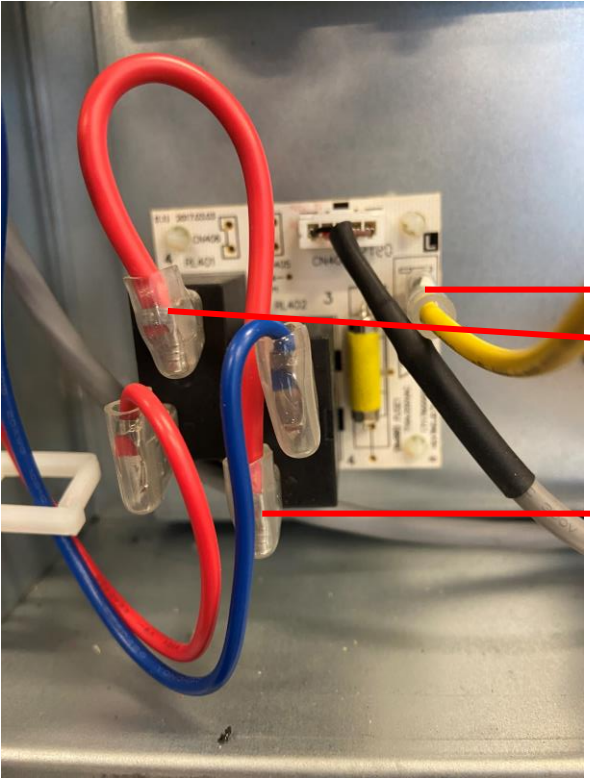
- Communicate with the Aux heat board



40MBAAQ24XA3

Connector CN24

- Communicate with the Aux heat board

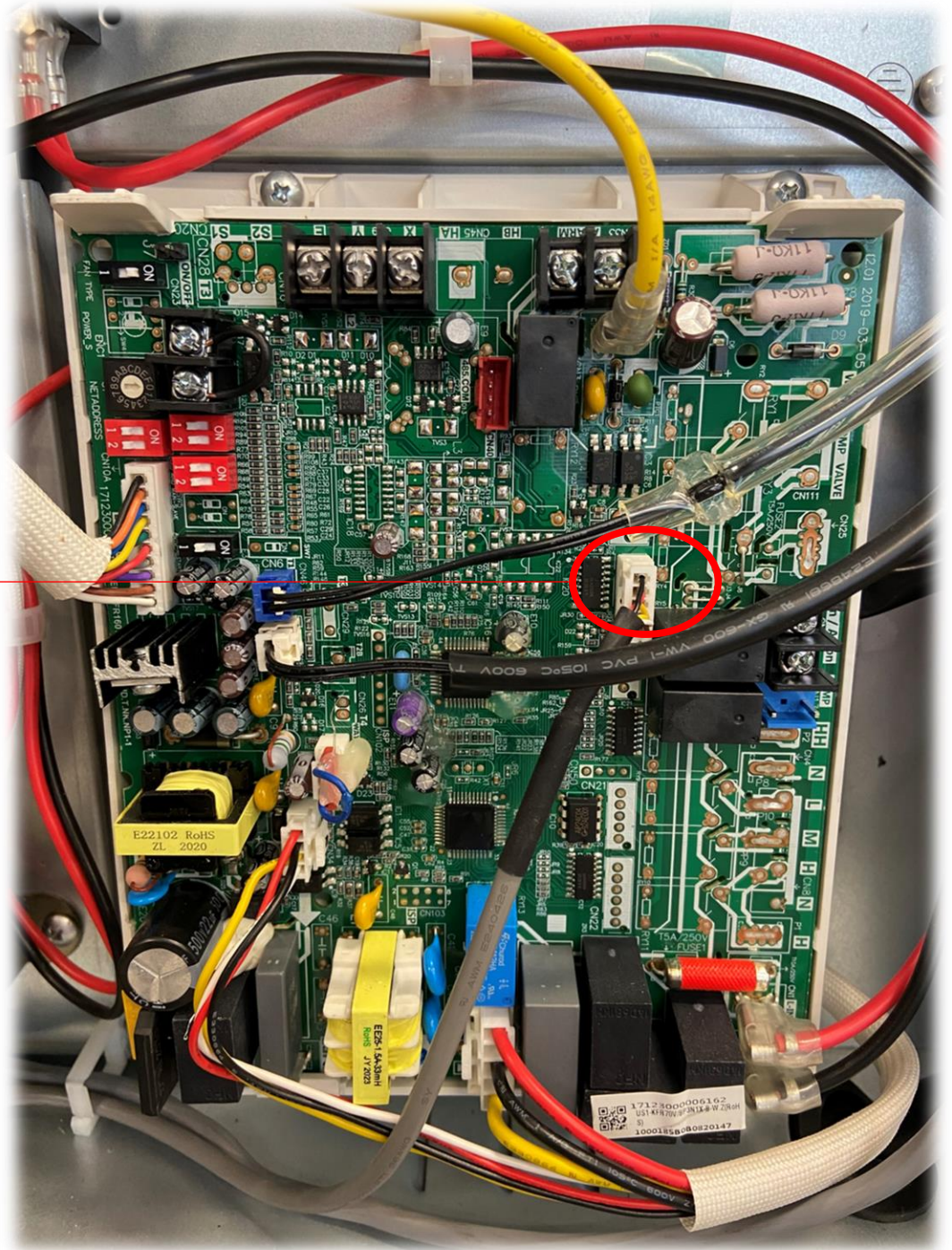


→ 24 volt always present

→ 24 volt always present

→ 24 volt always present

When Aux demand call, contact will close, bringing 24V to the duct heater relay



40MBAAQ24XA3

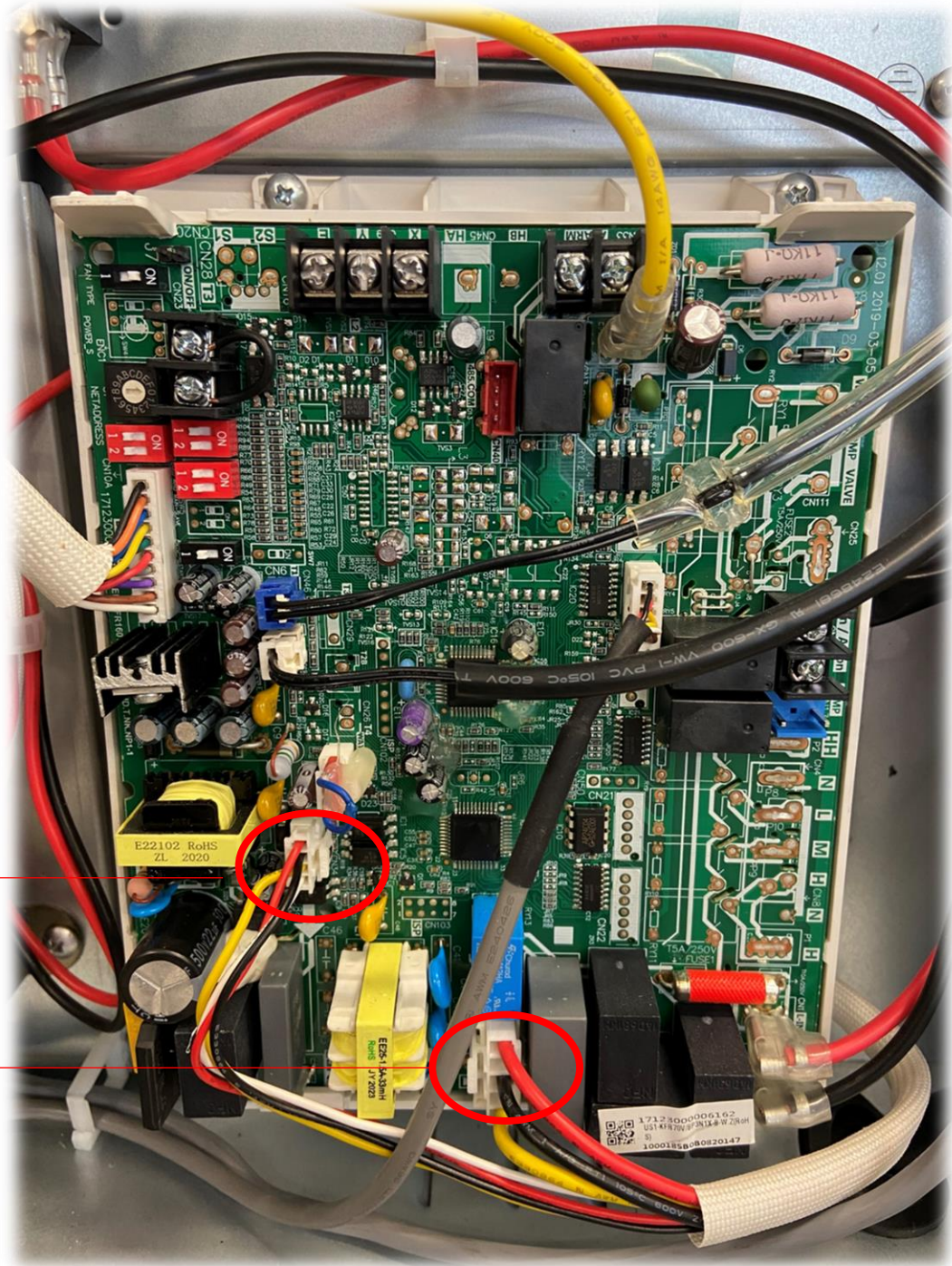
Connector CN15

- High voltage (208/240 V) apply on the DC motor drive module

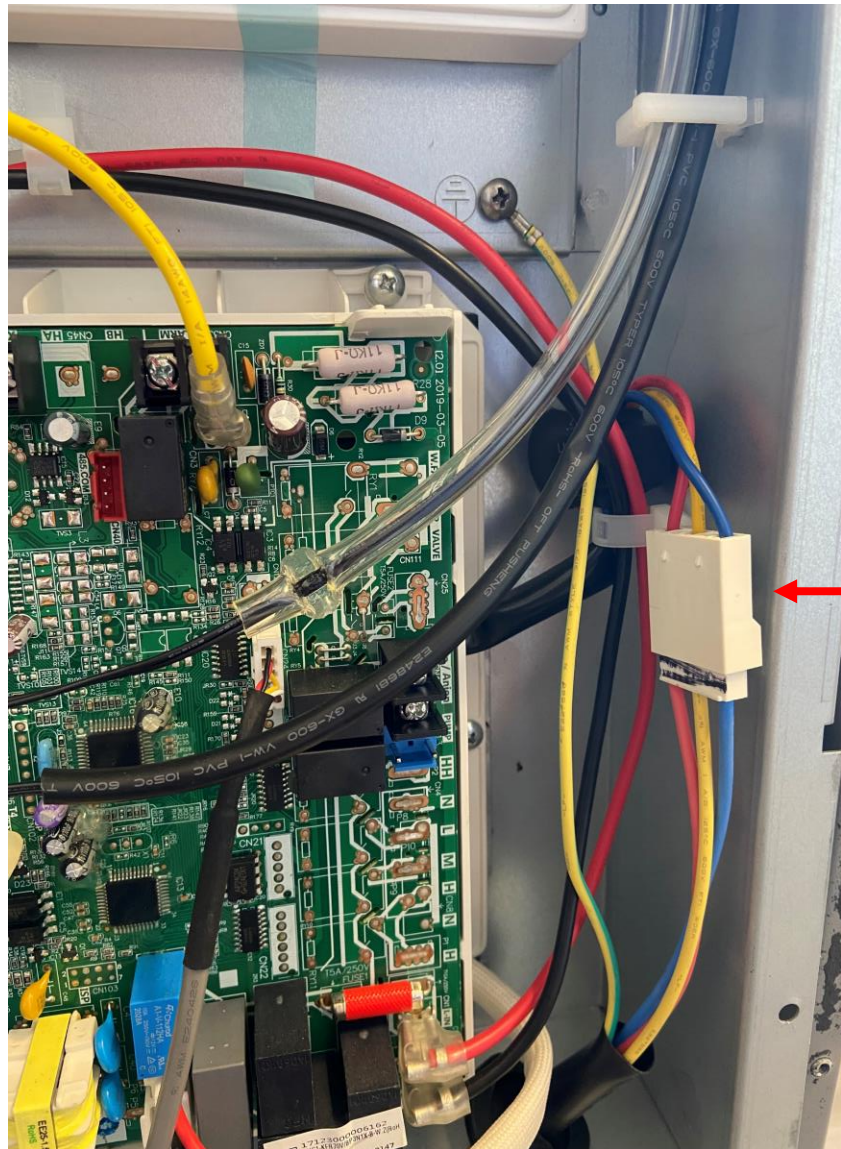
Connector CN34

- Low voltage feed back from the DC motor drive module.
- If is it not present, error code E3 will appear.

DC motor drive module is located behind the main board !

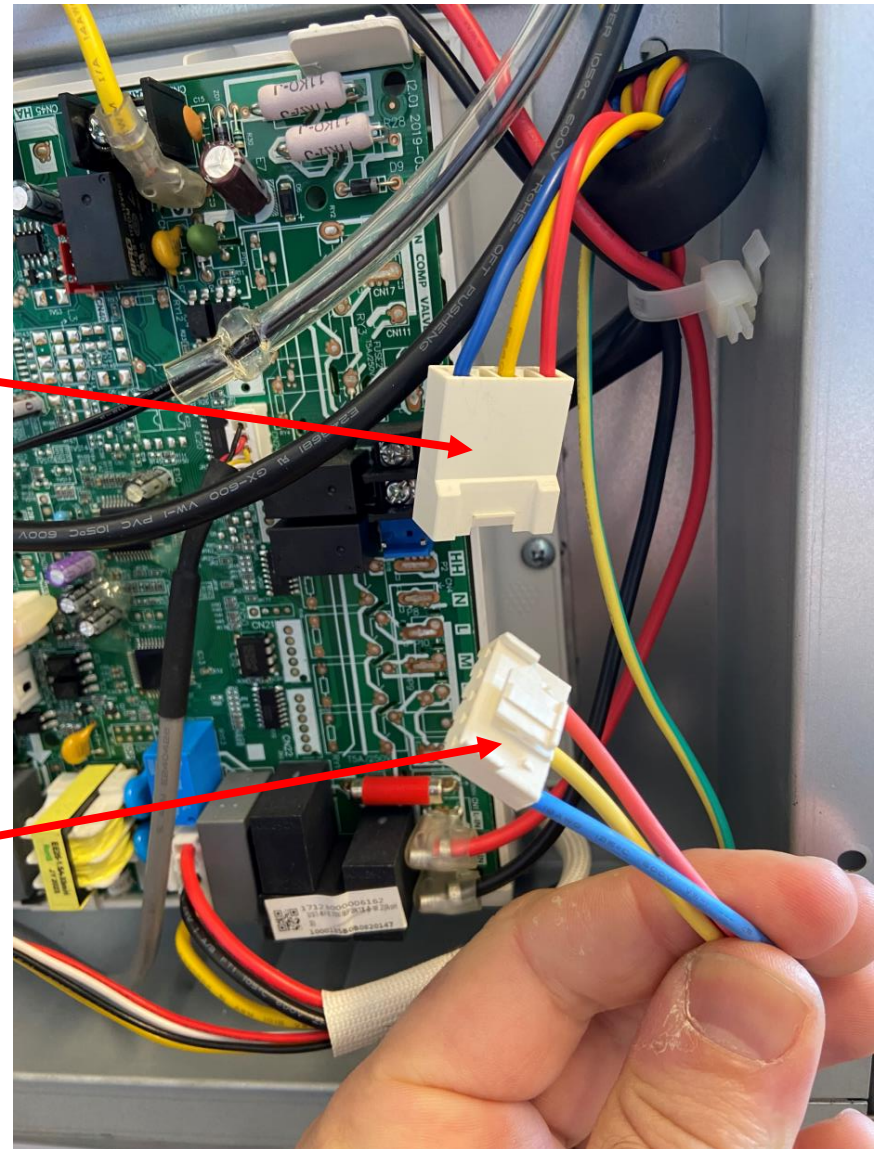


40MBAAQ24XA3



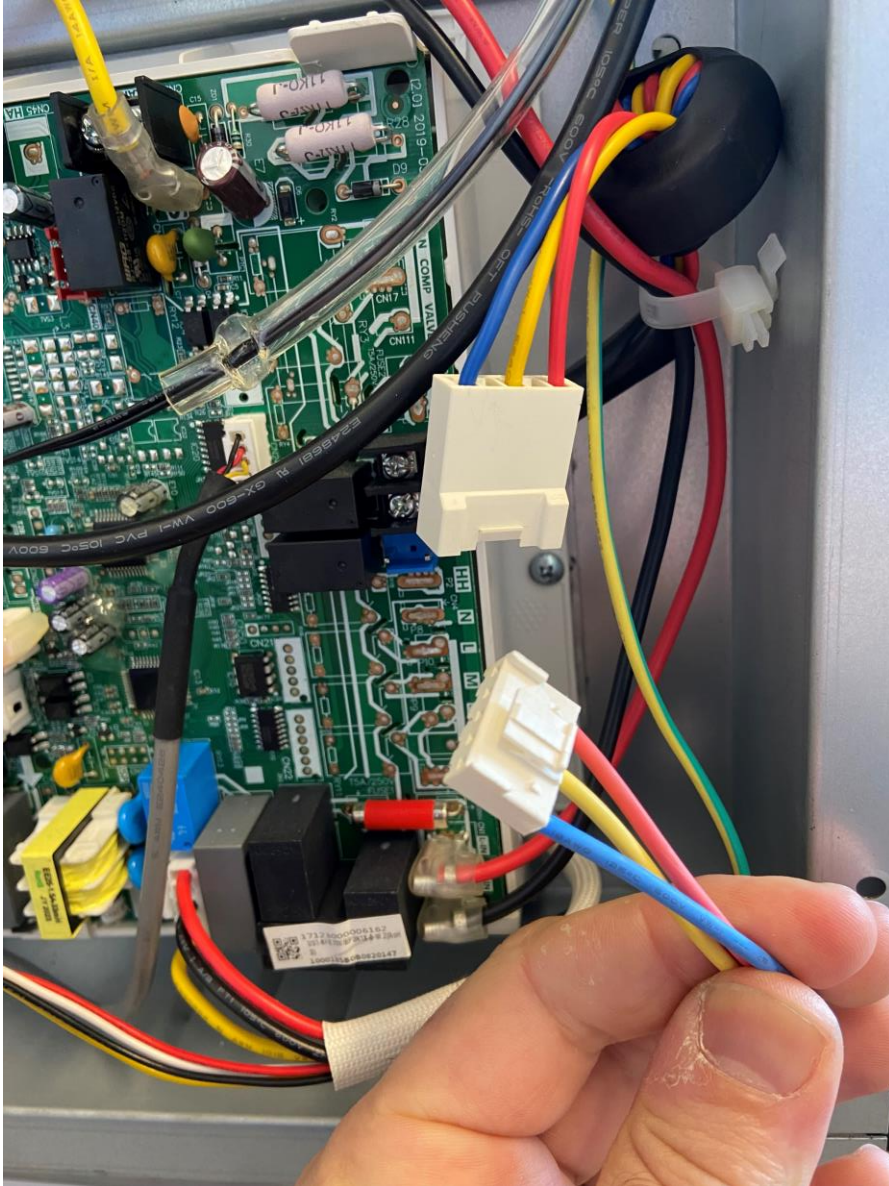
Fan plug DC volt

From the drive module



To the fan motor

40MBAAQ24XA3



Power OFF

You can check the resistance of the fan motor
Resistance must be equal to each

Blue – Red : 4.0 ohms
Yellow – Red : 4.0 ohms
Yellow – Blue : 4.0 ohms

Replacement board

Carrier	Bryant
KSAIC0301230	KSAIC0301230
40MBAAQ24XA3	40MBAAQ24XA3
40MBAAQ36XA3	40MBAAQ36XA3
40MBAAQ48XA3	40MBAAQ48XA3

Serial numbers:

All KSAIC0301230 - Prior to SN- 1121V19024 (No Green Dot)
40MBAAQ24XA3 - Prior to SN- 1121V14975
40MBAAQ36XA3 - Prior to SN- 1221V38350
40MBAAQ48XA3 - Prior to SN- 1121V18452

Replacement Components

Carrier/Bryant Model	Replacement Board Number
40MBAAQ24XA3	17122000054127
40MBAAQ36XA3	17122000054124
40MBAAQ48XA3	17122000054124
KSAIC0301230	17122000054129

Thank you !

