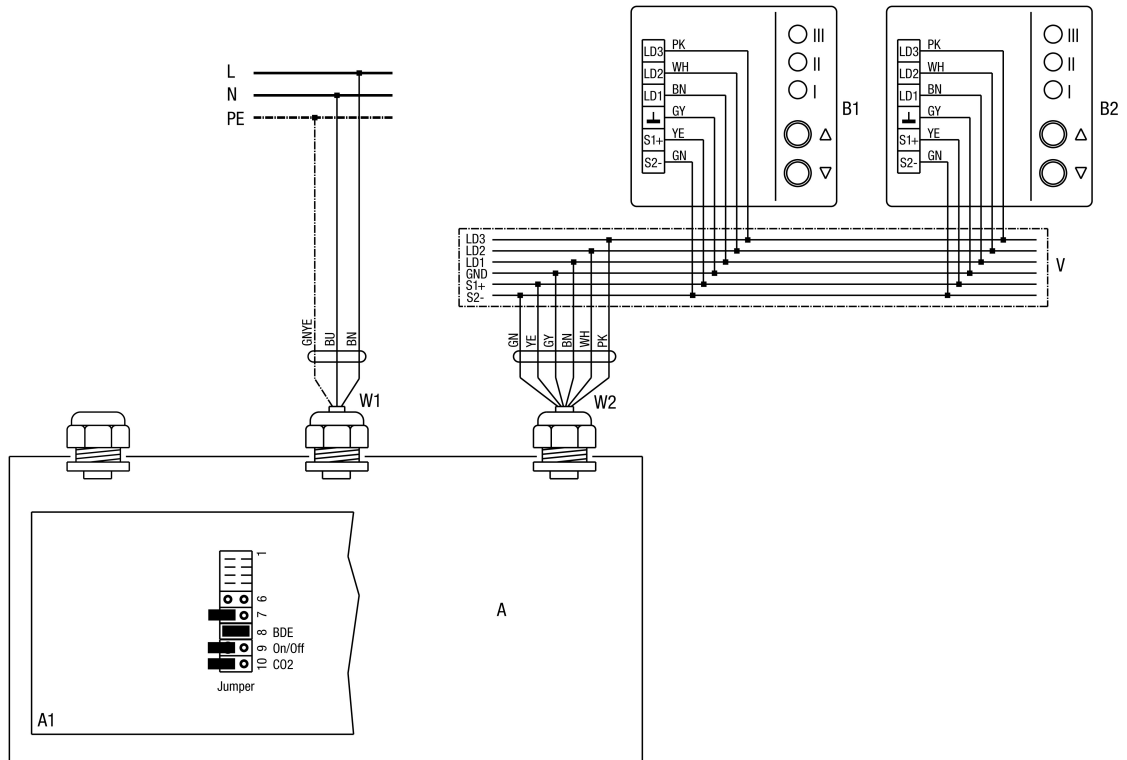


# WIRING DIAGRAM

## WR 400



### WR 300, WR 400 ventilation unit with several RLS 1 WR room air controls



A - WR 300, WR 400 ventilation unit

A1 - control circuit board

B1 - operator unit (1) RLS 1 WR

B2 - operator unit (2) RLS 1 WR

Up to 5 RLS 1 WR operator units can be connected to the ventilation unit. (Only if there is no CO2 sensor connected).

The ventilation unit is prepared in the factory for connection to the RLS 1 WR operator unit, i.e. jumper 8 is bridged on control circuit board A1.

W1 - 230 V AC connecting cable

W2 - control cable for operator unit

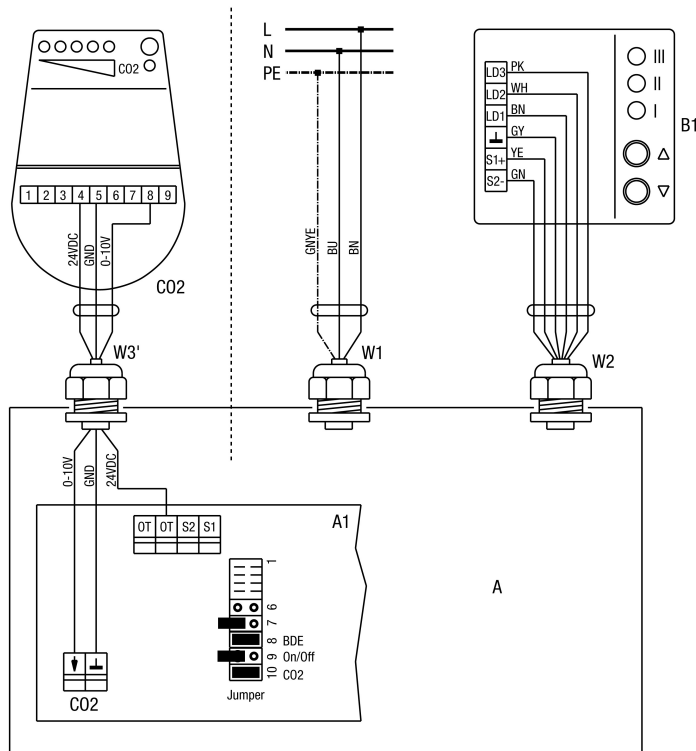
V - distributor (supplied by the customer)

# WIRING DIAGRAM

## WR 400



### WR 300, WR 400 ventilation unit with RLS 1 WR room air control and CO2 sensor



A - WR 300, WR 400 ventilation unit

A1 - control circuit board

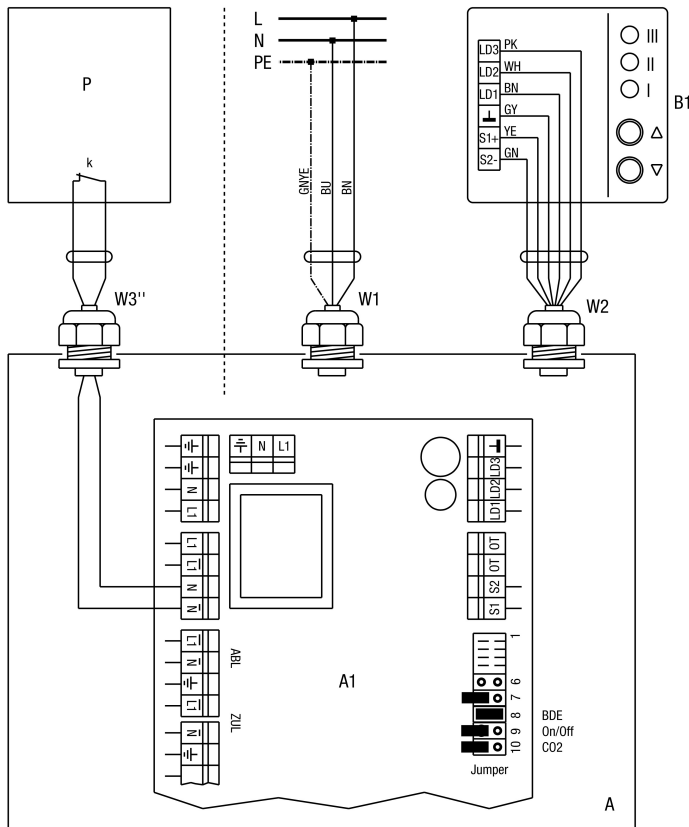
CO2 - CO2 sensor SKD (accessories)

W1 - 230 V AC connecting cable

W2 - control cable for room air control

W3' - connecting cable for an external CO2 sensor (to be supplied by the customer) Connection in the ventilation unit to the "CO2" and "OT" terminals of the control circuit board A1. The CO2 sensor must be activated in the ventilation unit. To do this, bridge jumper 10 (CO2) on control circuit board A1.

### WR 300, WR 400 ventilation unit with RLS 1 WR room air control and differential pressure controller



The differential pressure controller P is a safety device which allows a ventilation system to be operated at the same time as an air-ventilated fireplace. The differential pressure controller prevents a ventilation unit connected to this safety device from being operated if the air pressure in the room falls below the outside pressure level. In the event of insufficient pressure, the potential-free relay contact (N/C contact) in the differential pressure controller opens. The fans in the ventilation unit stop and the RLS1WR operator unit is blocked until the relay contact in the pressure controller closes again and the fans start back up again.

Relay contact k is connected in series to the fans' supply voltage for this purpose.

When selecting the differential pressure controller, note the technical data of the switching output (potential-free relay contact k). Minimum switching capacity: 230V AC, 2A.

A - WR 300, WR 400 ventilation unit

A1 - control circuit board

B1 - room air control RLS 1 WR

P - differential pressure controller with potential-free relay contact k (provided by customer)

k - switching output, potential-free relay contact

W3'' - connecting cable for differential pressure controller (provided by customer)

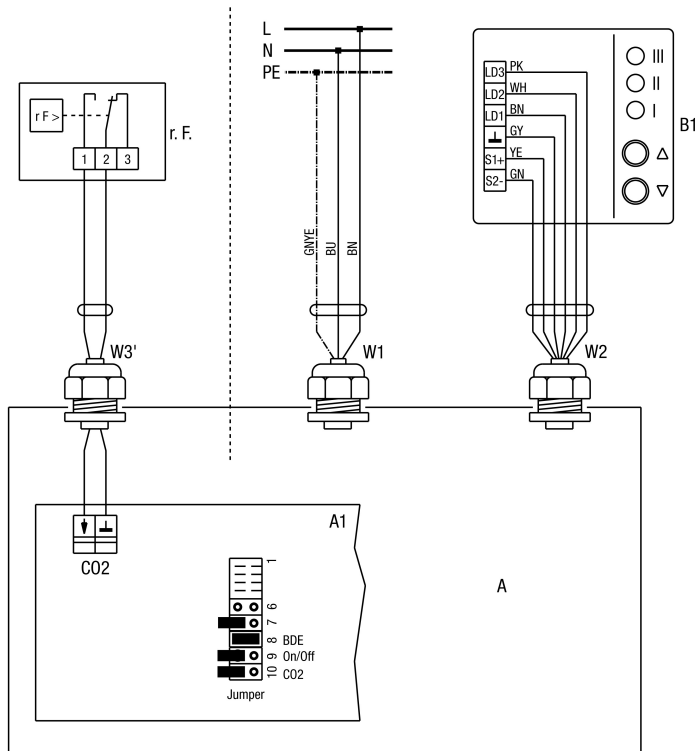
The connection between the differential pressure controller and ventilation unit is made with a W3'' connecting cable. The potential-free relay contact k of the differential pressure controller P is connected to control circuit board A2 at terminals "N" and "N". The jumper on terminals "N" and "N" of control circuit board A2 must be removed first.

# WIRING DIAGRAM

## WR 400



### WR 300, WR 400 ventilation unit with RLS 1 WR room air control and hygromat



Connection of hygromat with potential-free contact. If the potential-free contact in the hygromat closes due to room dampness, the ventilation unit is set to LS3 regardless of the ventilation level set. Once the dampness has been removed from the room (contact in hygromat opens), the ventilation unit switches back to the ventilation level previously set.

A - WR 300, WR 400 ventilation unit

A1 - control circuit board: Jumper 10 (CO2) open

B1 - room air control RLS 1 WR

r.F. (relative humidity) - HY5 or HY5I hygromat, see accessories

The ventilation unit is prepared in the factory for connection to a hygromat with a potential-free contact, jumper 10 on control circuit board A2 is open.

W3' - connecting cable for an external hygromat (to be supplied by the customer).

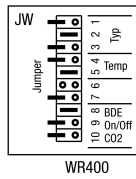
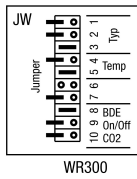
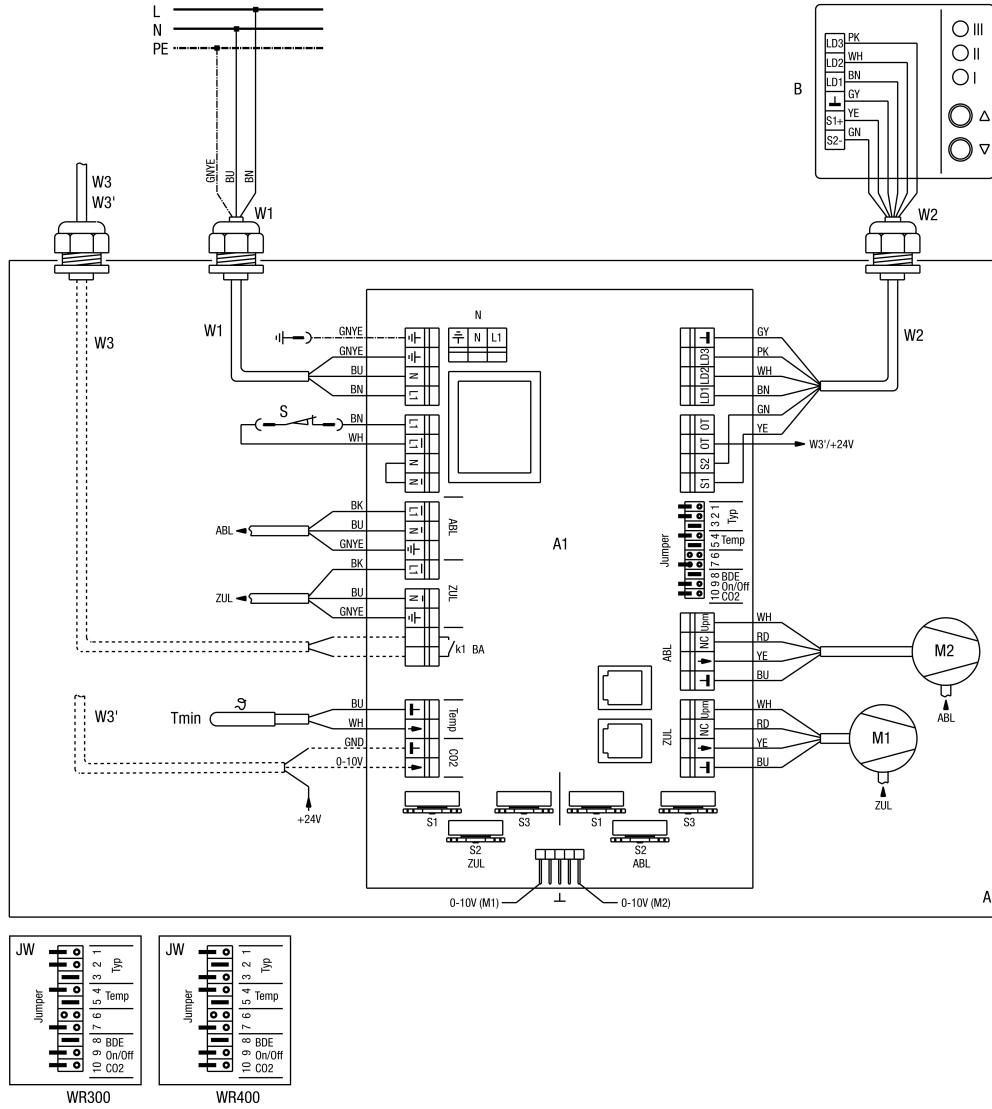
Connection to control circuit board A2 at "CO2" terminals  
see diagram

# WIRING DIAGRAM

## WR 400



### WR 300, WR 400 ventilation unit with RLS 1 WR room air control



# WIRING DIAGRAM



## WR 400

A - WR 300, WR 400 ventilation unit

ABL - exhaust air

A1 - control circuit board

B - operator unit RLS 1 WR

BA - operating display

M1 - supply air fan

M2 - exhaust air fan

N - mains

S - door contact switch/activated via front plate

S1 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 1

S2 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 2

S3 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 3

S1 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 1

S2 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 2

S3 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 3

Tmin - frost protection temperature sensor

W1 - 230V AC connecting cable

W2 - control cable for operator unit

ZUL - supply air

Jumper settings:

J 1-3 - unit type, 001=WR 300 / 010=WR 400

J 4-5 - frost protection temperature

J 6 - no function

J 7 - time limitation (60 minutes) LS 3 is activated

J 8 - operator unit RLS 1 WR is selected

J 9 - off function is approved on RLS 1 WR operator unit

J 10 - 0 - 10 V input for CO<sub>2</sub>-sensor blocked

Further connection options:

W3/W3' Connecting cable (to be supplied by the customer) for external CO<sub>2</sub>-sensor, hygrostat or external operation display.

CO<sub>2</sub>-sensor: SKD Hygrostat:HY5 / HY5I

k1 - potential-free relay contact (max.3A / 250V, 2A / 30 V DC). The contact is closed when the ventilation unit is running.



## WR 400

A - WR 300, WR 400 ventilation unit

ABL - exhaust air

A1 - control circuit board

B - operator unit RLS 1 WR

BA - operating display

M1 - supply air fan

M2 - exhaust air fan

N - mains

S - door contact switch/activated via front plate

S1 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 1

S2 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 2

S3 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 3

S1 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 1

S2 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 2

S3 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 3

Tmin - frost protection temperature sensor

W1 - 230 V AC connecting cable

W2 - control cable for operator unit

ZUL - supply air

\* - Brown and white cable cores are not required. Insulate them.

Jumper settings:

J 1-3 - unit type, 001=WR 300 / 010=WR 400

J 4-5 - frost protection temperature

J 6 - no function

J 7 - no function when using the RLS 2 F operator unit

J 8 - operator unit RLS 1 WR is selected

J 9 - no function when using the RLS 2 F operator unit

J 10 - 0 - 10 V input for CO<sub>2</sub>-sensor blocked

Further connection options:

W3/W3' Connecting cable (to be supplied by the customer) for external CO<sub>2</sub>-sensor, hygrostat or external operation display.

CO<sub>2</sub>-sensor: SKD Hygrostat: HY 5 / HY 5 I

k1 - potential-free relay contact (max.3A / 250V, 2A / 30 V DC). The contact is closed when the ventilation unit is running.

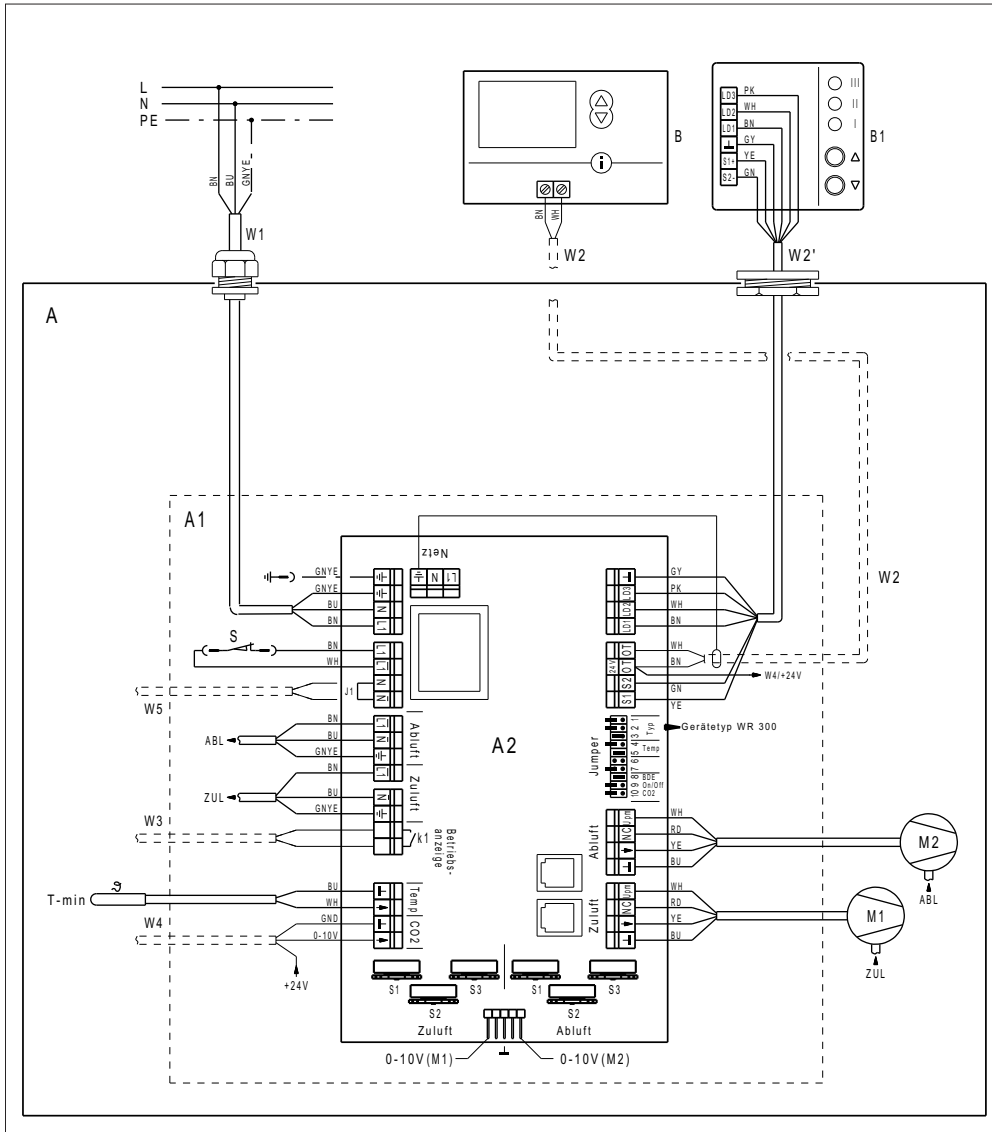


# WIRING DIAGRAM

## WR 400



### WR 300 / WR 400 wiring diagram with RLS D1 WR room air control (plus function)



## WR 400

A - WR 300 / WR 400 or RB 300 / RB 400 ventilation unit

A1 - Electronic slide-in module

A2 - Control circuit board

B1 - RLS 1 WR or RB-ZF4 room air control

B - RLS D1 WR or RB-D1-ZF4 room air control

W1 -230 VAC connecting cable

W2 - Shielded control cable (to be supplied by customer) for RLS D1 WR / RB-D1-ZF4 room air control. Room air control B (RLS D1 WR / RB-D1-ZF4) can also be connected instead of room air control B1 (RLS 1 WR / RB-D1-ZF4). External diameter of the shielded cable 3.2...6.5 mm, e.g. LIYCY 2 x 0.75 mm<sup>2</sup>.

W2' - Control cable (to be supplied by customer) for RLS 1 WR / RB-ZF4 room air control. External diameter of the control cable 3.2...6.5 mm, e.g. LIYY 6 x 0.34 mm<sup>2</sup>

S1 - Unit switch

M1 - Supply air fan

M2 - Exhaust air fan

S - Door contact switch/activated via front plate

T-min - Frost protection temperature sensor

S1 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 1

S2 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 2

S3 [blue] - setting potentiometer for supply air volumetric flow, ventilation level 3

S1 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 1

S2 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 2

S3 [red] - setting potentiometer for exhaust air volumetric flow, ventilation level 3

### **Jumper settings**

J 1-3 - WR 300 (0,0,1) / WR 400 (0,1,0) unit type

J 4-5 - Frost protection temperature

J 6 - No function

J 7 - Time limitation (60 minutes) LS3 is activated

J 8 - RLS 1 WR or RLS D1 WR control unit is selected

J 9 - Humidity protection is blocked at switch position OFF Control unit: Switch setting OFF (standby) is released

J 10 - 0 - 10V input for CO2 sensor blocked

### **Further connection options**

W3 - Connecting cable (provided by customer) for external operating display.

k1- Potential-free relay contact k1 (max. 3 A / 250 VAC, 2 A / 30 VDC). Contact k1 is closed when the ventilation unit is running.

W4 - Connecting cable (to be supplied by customer) for external CO2/VOC sensor or external hygrostat. Hygrostat with potential-free contact.

W5 -Connecting cable (provided by customer) for external differential pressure controller. Differential pressure controller with potential-free relay contact. Minimum switching capacity of relay contact: 230 VAC / 2A. Remove J1 bridge on A2 control circuit board.