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AUTOMATISATION JRT INC.
CONCEPTION ET FABRICATION DE CONTRÔLES D'ASCENSEURS
DESIGN AND MANUFACTURING OF ELEVATORS CONTROLLERS

Bulletin-1102 Information Bulletin

April 11, 2012

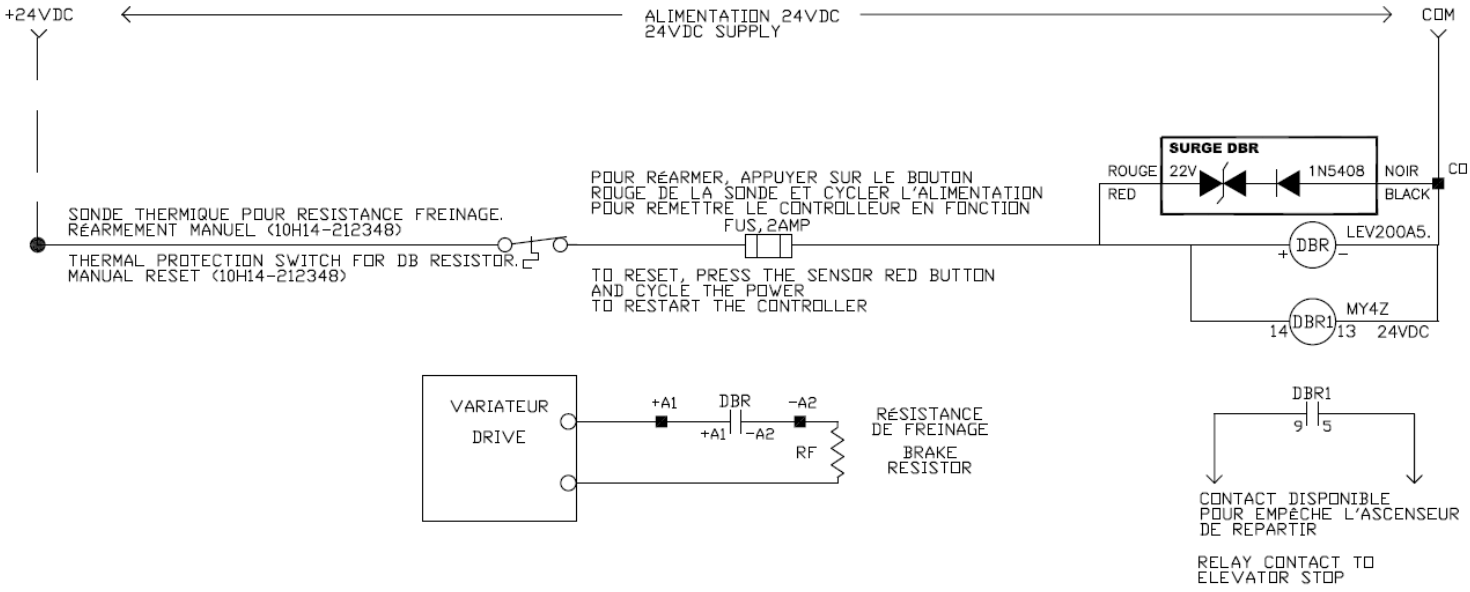
ATT: For elevator maintenance companies and elevator owners.

SUBJECT: Elevator controller JVF series equipped with dynamic braking resistor.

For several years, the elevator controller JVF series from Automation JRT INC. are equipped with detection of overheating on the dynamic braking system. In some cases of failure, the heat generated by the dynamic braking resistor may cause damage. If your controller does not have this protection, we suggest a solution for protection. Automation JRT Inc. offers you a ready to install kit, including a circuit relay that open when the brake resistor overheat is detected by the temperature sensor. This part can be installed on all models of VVVF controllers from Automation JRT Inc. or other companies.

Part number: JRT-DBR.

Electrical drawing of the JRT-DBR:



How to install the thermal protection DBR:

This procedure consists to install a relay in series with the dynamic braking resistor (DBR) and a temperature sensor with a manual reset. So in the case of an overheating of the dynamic braking resistor, the new relay will open the DC supply circuit of the resistor to eliminate the risk of overheating.

Here is the procedure to update the controller. Please follow carefully to the end.

1. REMOVE POWER FROM THE CONTROLLER:

Before making any changes, turn the power off and wait 2 to 5 minutes so that the drive is completely discharged.

2. INSTALLATION OF THE THERMAL PLATE:

If a thermal plate is not already present, you must install one under the dynamic braking resistors. This plate prevents the heat from the resistor from transmitting it in the controller. Automatisation JRT INC. supplies 4 bolts of 3/8, 7/16 or 1/2 inch.

Place the bolts on the top of the controller, under the dynamic braking resistor, and place the thermal plate on the bolts. See Figures # 7, # 8 and # 9.

Do not place the thermal plate directly on top of the controller. Air space must be created between the thermal plate and the controller.

Figure 7

Figure 8

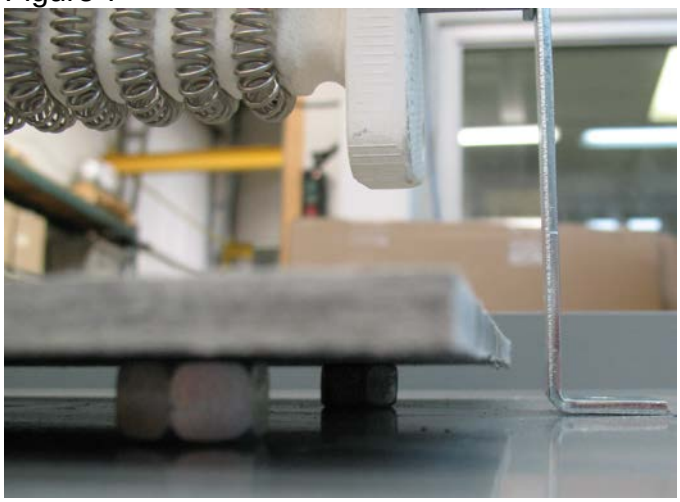


Figure 9

3. INSTALLING THE TEMPERATURE SENSOR:

The temperature sensor detects overheating coming from the dynamic braking resistor and cut the power from the drive (Figure 13). This sensor is manually reset so if the sensor activate it must be reset by pressing the red button on the sensor. Install the sensor inside the panel by performing the following steps:

Handle the sensor carefully to avoid damaging it.

- Drill 3 holes of about 13/64 inch. The first 2 holes should be located at a distance of about 1 ⅝ inches on center. Place the 3rd hole in the middle of the first 2 (Figure 11).
- Fix the temperature sensor (the button of the sensor should be inside the panel).
- Place the stem on top of the controller, along the thermal plate (Figure 12). **Make sure it does not and cannot touch the braking resistor**.
- Do not put back the resistor cage immediately; a function test of the temperature sensor is required.

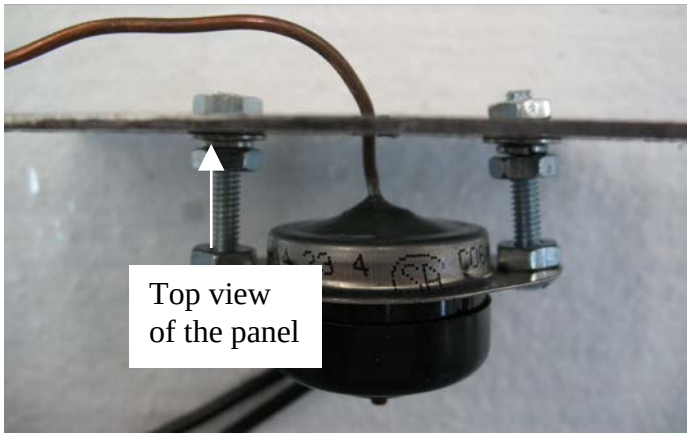
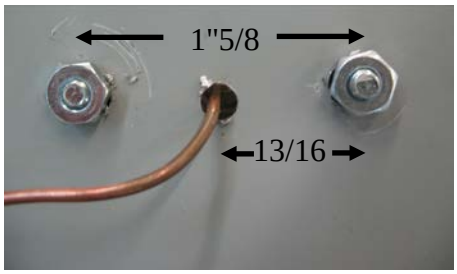


Figure 10



Top view of the panel.
Figure 11

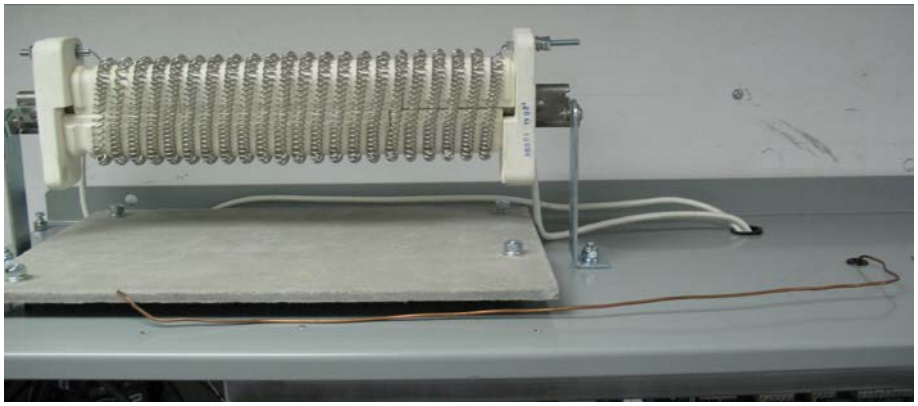


Figure 12


Reset button.
Figure 13

4. CONNECT THE JRT-DBR KIT TO THE DYNAMIC BRAKING RESISTOR:

Connect the JRT-DBR kit to the dynamic braking resistor. **See the revised drawing of the project for the electrical connections.** There are six steps to connect the relay:

- Insert the JRT-DBR kit in the top right of the controller near the wire of the dynamic braking resistor.
- Connect one wire of the temperature sensor to terminal + A of your controller.
- Connect the other wire of the temperature sensor on the terminal fuse FUS.
- Connect the COM terminal of the kit to the terminal COM of your control.
- Connect the auxiliary DBR1 (screw 9 and 5) in the security line in series with the relay DRY from the drive (see the revised drawing).
- Cut one wire of the dynamic braking resistor (DBR) and connect the two wires to +A1 and -A2 of the kit.

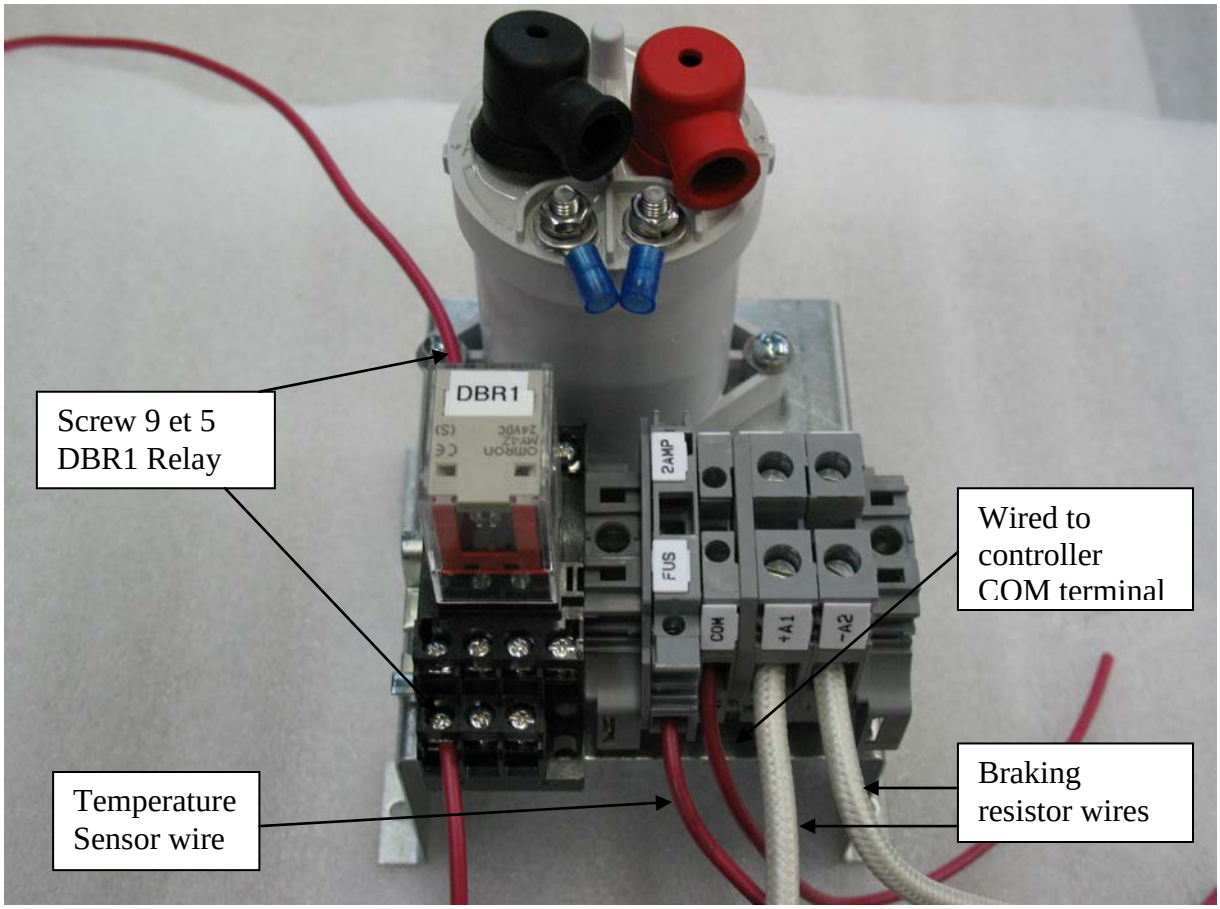


Figure 14

4.1. TEST THE TEMPERATURE SENSOR:

To verify the operation of the temperature sensor, follow these steps:

- Use a lighter to heat the rod of the sensor. If the DBR relay is not activated, reset the temperature sensor by pressing the red button or verify the connections + and - terminals of the relay DBR.
- Heats the sensor back and forth motion with the lighter on a distance of 2 inches for 30 to 90 seconds.
- The DBR relay should open.
- After opening the DBR relay, the controller will be in fault condition.
- If everything works, turn off the power; put back the resistor cage and reset the temperature sensor by pressing the red button. Finally, put back the power.
- Communicate with Automatisation JRT Inc. at 1-877-871-6016 for more information.