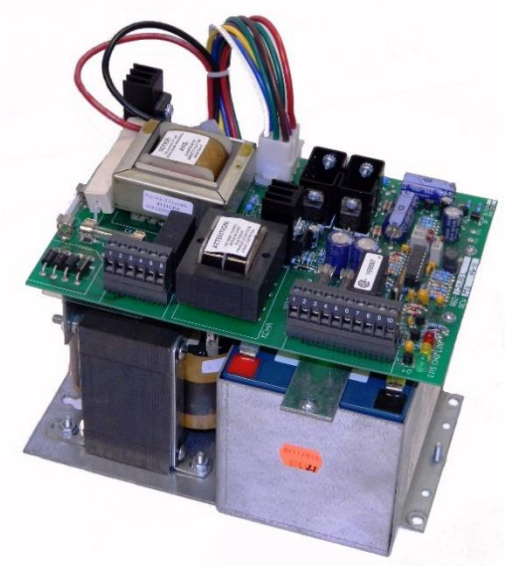
SMARTRISE

MADE STRONG

INSTALLATION MANUAL

for

Battery Lowering Device
Installation / Testing / Troubleshooting



www.smartrise.us | 2601 Fair Oaks Blvd., Sacramento, CA 95864 | 916.457.5129

BATTERY LOWERING DEVICE – "BLD"

OVERVIEW

The Reynolds & Reynolds RB2-120 (120vac) and the RB2-240 (240vac) is the battery lowering device Smartrise uses for both their Hydraulic and traction controllers.

When the controller cabinet arrives, the BLD will have 3 jumpers installed to operate the controller without the BLD being activated.

1. The jumpers between PWR3 & PWR4 and PWR5 & PWR6 are in place to bypass the power at the BLD. When these jumpers are removed and the BLD wiring is properly connected the batteries will start to charge.
2. The jumper between T-CTRL6 & T-CTRL8 is to bypass the Battery Lowering input on the controller. It will need to be removed for the controller to go into Battery Lowering operation.

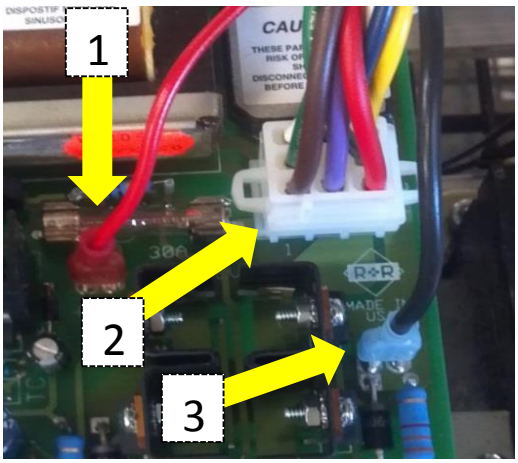
CAUTION – You must remove the bypass jumpers between the input and output lines (PWR3-PWR4 & PWR5-PWR6) BEFORE attaching the wires and turning on the BLD. Otherwise, damage could occur to the input/output terminals.

INSTALLATION

When the controller arrives the BLD will not have its control wires connected. This is to prevent the batteries from discharging fully during shipping. The technician must plug these wires in before the BLD is fully functional. ** **(SEE CAUTION NOTE ABOVE)** **

The three items that need to be plugged in are:

1. The RED wire to the +B terminal
2. The 9-pin wire harness to the molex plug (MTC) on the control board
3. The BLACK wire to the ⏚ terminal



TESTING

To test the BLD perform the following steps:

1. Make sure the BLD is properly connected, all bypass jumpers removed and the batteries have been fully charged (min 24hours).
2. Install a jumper between ML1 & ML2 (see prints for location). This will activate the BLD input.
3. Verify that the Battery Lowering input is active.
4. Turn off main disconnect.
5. Verify that the output voltages match job specifications.
6. The car should lower to the bottom floor and open the doors. The doors will open and then close. The DOB inside the car will function but the hall call button should not.

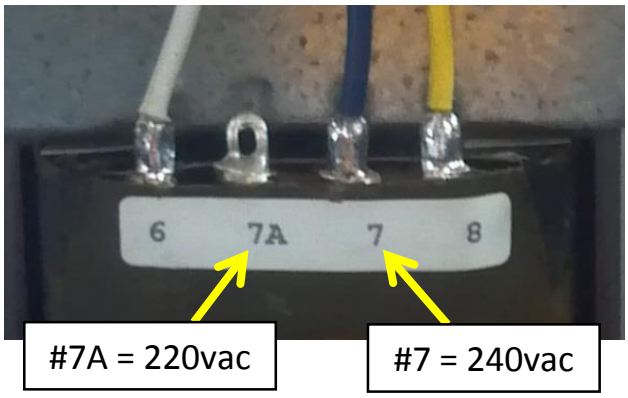
TROUBLESHOOTING

If the input voltages on the BLD are incorrect, follow the section “CHANGING BLD VOLTAGES”.

If the MOVFR door operator doesn’t’ open, follow the section “MOVFR DOOR OPERATOR VOLTAGE ISSUES”.

CHANGING BLD OUTPUT VOLTAGES

The RB2-240 can operate at voltages from 200vac to 240vac. The tap on the main transformer is factory set for 240vac (#7). The output voltage will be 240vac or greater. If the voltage required is less than 240vac then the blue wire from terminal #7 needs to be moved to the 208vac terminal (7A). This will allow the output voltages to range from 208vac to 220vac.



MOVFR DOOR OPERATOR VOLTAGE ISSUES

Occasionally a GAL MOVFR door operator will not operate because the output voltage from the BLD going into the secondary transformer is too high. This causes the output voltage to exceed the door operator voltage range and the door operator to fault out. In this case, trimpot "TR" will need to be adjusted to lower the voltage to the secondary transformer which in turn lowers the output voltage to the door operator.

The following procedure will allow you to compensate for the voltage differences in case the voltage cannot be lowered enough using the TR potentiometer.

1. Determine the voltage output requirement for your job and connect the tap accordingly. To adjust, see "**CHANGING BLD OUTPUT VOLTAGES":**
   a. Tap 7 – 240vac
   b. Tap 7A – 208vac-220vac

Note: When blue wire is on #7 you <u>cannot lower the voltage down</u> below 240vac. You must move the blue wire to terminal #7A and <u>adjust the voltage up</u> from 208vac to 220vac (See **CHANGING BLD OUTPUT VOLTAGES** in **TROUBLESHOOTING** section).

2. Turn off main disconnect and start battery lowering.
3. Measure the output of the BLD from Terminal T-PWR Line 3 or 6 to neutral (N).
4. Adjust the output voltage to the proper range the door operator can run at by adjusting trimpot "TR" (See picture below).