

# P/N 290519 NCWS Circuit Board

## Automated Equipment, LLC

5140 Moundview Drive  
Red Wing, Minnesota 55066  
Phone: 1-800-248-2724  
1-651-385-2273  
Fax: 1-651-385-2172  
<http://www.autoequiplc.com>



## NCWS Circuit Board P/N 290519 Replacement and Calibration

### RAM-GDF14

#### Tools Required

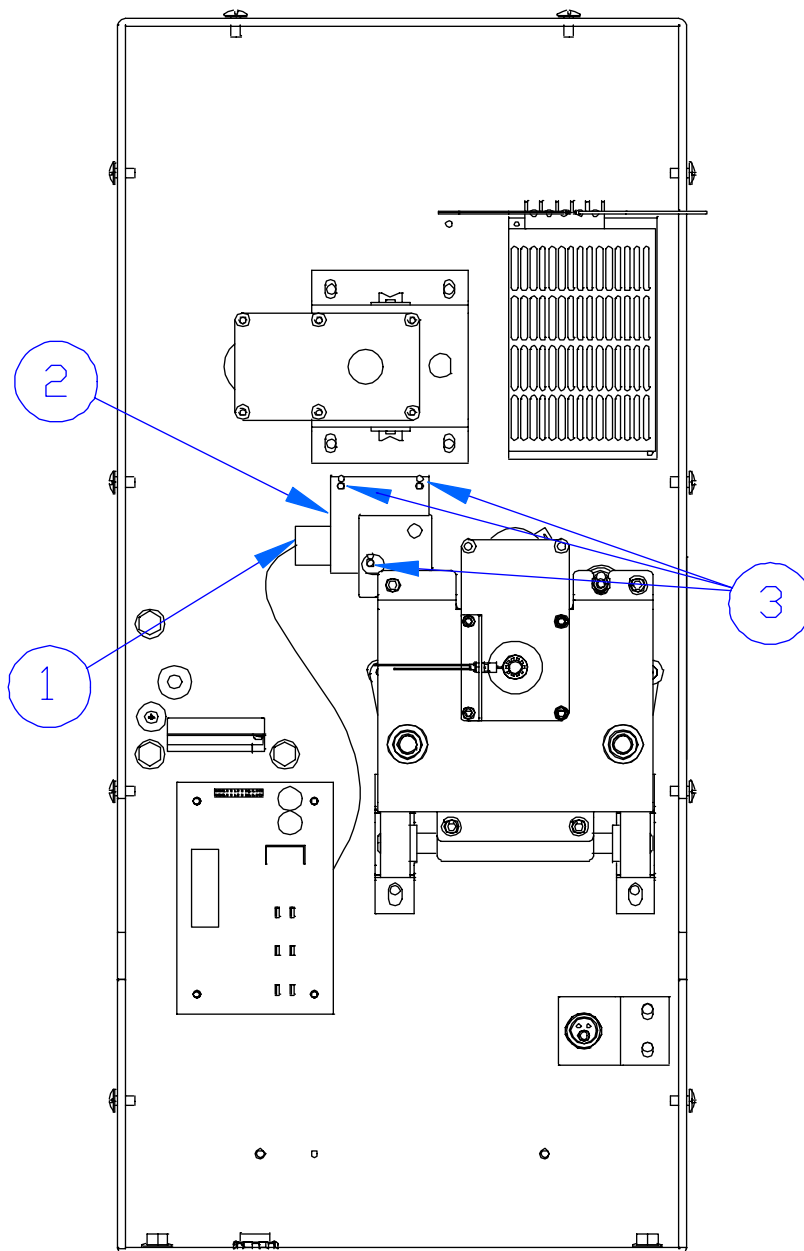
- Flat blade screwdriver
- 11/32" nut driver

#### Removal

1. Turn the power off and unplug the power cord.
2. Remove the ten back cover mounting screws.
3. Remove the back cover.
4. Remove the NCWS connector (item #1) from the NCWS circuit board (item #2).
5. With an 11/32" nut driver remove the three nuts and washers (item #3) holding the NCWS circuit board in place (item #2).
6. Remove the NCWS circuit board (item #2).

#### Installation

1. Install the NCWS circuit board (item #2).
2. Install the nuts and washers (item #3) holding the NCWS circuit board (item #2) in place and tighten with an 11/32" nut driver.
3. Connect the NCWS connector (item #1) to the NCWS circuit board (item #2).
4. Calibrate the weighing system.
5. Replace the back cover and cover screws.



# P/N 290519 NCWS Circuit Board

## Automated Equipment, LLC

5140 Moundview Drive  
Red Wing, Minnesota 55066  
Phone: 1-800-248-2724  
1-651-385-2273  
Fax: 1-651-385-2172  
<http://www.autoequiplc.com>








## CALIBRATE MODE

**This Mode is used to calibrate the Dispenser weighing system.**

**Note:** Remove the Hopper and any product from the Accumulator Doors prior to performing this function. DO NOT remove the Accumulator Tray.

**Program the Dispenser for the CALIBRATE Mode using the following procedure:**

1. Press and hold the MENU/ ENTER  button and, at the same time, press the Scroll Down  button to access the MENU programs.
2. Scroll through the MENU by pressing the Scroll Down  button until the CALIBRATE Mode is found.
3. Press the MENU/ENTER  button once to ENTER the CALIBRATE Mode. Pressing the MENU/ENTER  button will start the calibration process and instructions will be prompted by the display.
4. The message “Zeroing Scale” will appear on the display screen. The Accumulator Doors will open and shut.
5. Then the Dispenser will automatically advance to the “PLACE 1.0 LB” mode. At this point the Operator is to place a 1.0 lb./0,5 kg (4 - 1/4 lb. Hamburger patties or equivalent) weight on the Accumulator Doors. **Note:** Make sure the weight is placed in the center of the Accumulator Doors, front to back.
6. The Dispenser will advance to the “PLACE 2.0 LB” mode. At this point the Operator is to place an additional 1.0 lbs./0,5 kg, for a total of 2.0 lbs./1,0 kg (8 - 1/4 lb. Hamburger patties or equivalent), of weight on the Accumulator Doors. Note: Make sure the weight is placed in the center of the Accumulator Doors, front to back.
7. After the calibration weight is detected, the Dispenser will prompt the operator to “REMOVE WEIGHT,” remove any weight from the Accumulator Doors. The Dispenser will automatically return to the NORMAL OPERATING Mode.

Calibrate  
1.0 lbs ready

Calibrate  
Zeroing scale

Calibrate  
Place 1.0 lb

Calibrate  
Place 2.0 lb

Calibrate  
Remove weight

# P/N 290519 NCWS Circuit Board

## Automated Equipment, LLC

5140 Moundview Drive  
Red Wing, Minnesota 55066  
Phone: 1-800-248-2724  
1-651-385-2273  
Fax: 1-651-385-2172  
<http://www.autoequiplc.com>



### AFD-280E Dispensers

#### Tools Required

Phillips screwdriver  
3/16" allen wrench  
9/64" allen wrench

#### Removal

1. Turn the power off and unplug the power cord.
2. Remove the back panel.
3. Remove the NCWS connector (item #1) from the NCWS circuit board (item #2).
4. Lift the accumulator housing (item #3) up while pulling down at the top of the NCWS spring (item #4) to remove it.
5. Remove the two bracket mounting bolts (item #5) and remove the bracket (item #6) and NCWS circuit board (item #2).
6. Remove the three NCWS circuit board mounting bolts (item #7), NCWS circuit board (item #2) and spacers (item #8).

#### Installation

1. Assemble the NCWS circuit board (item #2) with spacers (item #8) and tighten the NCWS circuit board mounting bolts (item #7).
2. Install the bracket (item #6) and NCWS circuit board (item #2) and tighten the bracket mounting bolts (item #5).
3. Lift the accumulator housing (item #3) up and install the NCWS spring (item #4).
4. Reconnect the NCWS connector (item #1) to the NCWS circuit board (item #2).
5. Calibrate the weighing system.
  - Remove the hopper from the dispenser.
  - Turn the power switch to the ON position.
  - Select Function 17 (to restore defaults) on the controller board and press the Enter Button.
  - *Note: For International units of measure: Select Function 25. "US" on display. Press Enter again to change to "IN".*
  - Select Function 5 (Calibration Function) on the controller board and press the Enter Button. "CAL" on the display.
  - Verify that the accumulator doors are empty. Wait 10 seconds then press the Enter Button. "C1.0" on the display.
  - Place a 1.0 pound (500 gm) weight on the accumulator doors (four ¼ pound patties is fine).
  - Wait 10 seconds then press the Enter Button. "C2.0" on the display.
  - Place 2.0 pounds (1000 gm) total weight on the accumulator doors (eight ¼ pound patties is fine).
  - Wait 10 seconds then press the Enter Button. "---" will appear on the display.
  - Select Function 31 to increase lift height or select Function 30 to decrease lift height. Adjust as needed by pressing the enter button. When finished press the select button to save the change.
  - Turn the power switch to the OFF position.
6. Replace the back panel.

