

Installation and Service Instructions for Series 9000 Rectifier

Important

Please read these instructions carefully before installing, operating, or servicing your Stearns 9000 Series Rectifier. Failure to comply with these instructions could cause injury to personnel and/or damage to property if the rectifier is installed or operated incorrectly. For definition of limited warranty/liability, contact Rexnord Industries, Inc. Stearns Division, 5150 S. International Dr. Cudahy, Wisconsin 53110 (414) 272-1100 Fax: (414) 277-4364

OEM's and subsystem suppliers, please forward these instructions with your components to the final user.

Caution

1. Servicing shall be in compliance with applicable local safety codes including Occupational Safety and Health Act (OSHA). All wiring and electrical connections must comply with the National Electric Code (NEC) and local electric codes in effect.
2. To prevent an electrical hazard, disconnect power source before working on the 9000 Series Rectifier. If power disconnect point is out of sight, lock disconnect in the off position and tag to prevent accidental application of power.

General Information

9000 Series Rectifier converts 115 Vac 50-60 Hz to a DC voltage that is adjustable from 15-100 Vdc.

9000 Series Rectifier can operate a clutch or brake, or both, one at a time, with independently adjustable voltages on both units.

The two 15-100 volt adjustable outputs allow reduced torque starts and stops for soft cushioning engagement.

Specifications

Input voltage: 115 Vac 50-60 Hz

Output voltage: 15-100 Vdc

Output current: 1 amp maximum

Output wattage: 100 watts maximum

Installation and Operating Instructions

Caution:

1. Make sure that power is locked off when wiring a rectifier installation, or replacing fuse.
2. Make sure that metal chassis of 9000 Series Rectifier is properly grounded to electrical service ground.
3. The neutral or grounded side of the 115 Vac line must be connected to terminal number 2 of the terminal strip.

9000 Series Rectifier Used with CLUTCH ONLY

Connection:

1. See Figure 1.
2. Connect clutch to terminals 8 and 9.
3. Connect a single-pole single-throw switch to terminals 5 and 6.
4. Connect 115 Vac 50-60 Hz to terminals 1 and 2. The neutral or grounded side must be connected to terminal 2.

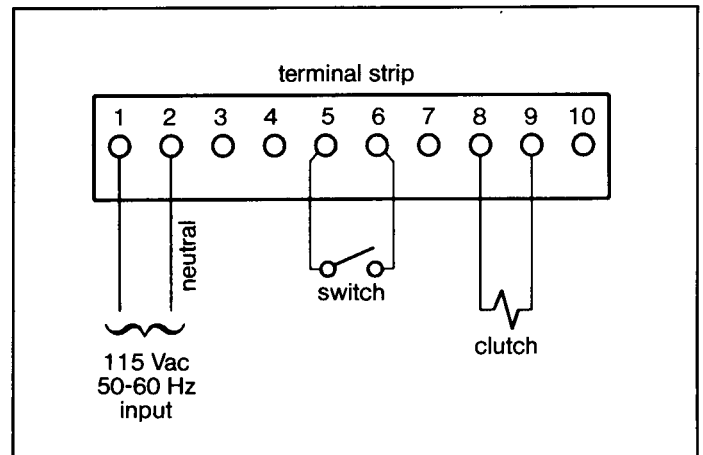


Figure 1: CLUTCH ONLY

Operation:

1. Turn on power source.
2. With switch in closed position, clutch is energized.
3. Adjust output voltage by turning knob labeled "Clutch". Turning knob clockwise increases output voltage. Turning knob counterclockwise decreases output voltage.

9000 Series Rectifier Used with BRAKE ONLY

Connection:

1. See Figure 2.
2. Connect brake to terminals 7 and 8.
3. Connect a single-pole single-throw switch to terminals 5 and 6.
4. Connect 115 Vac 50-60 Hz to terminals 1 and 2. The neutral or grounded side must be connected to terminal 2.

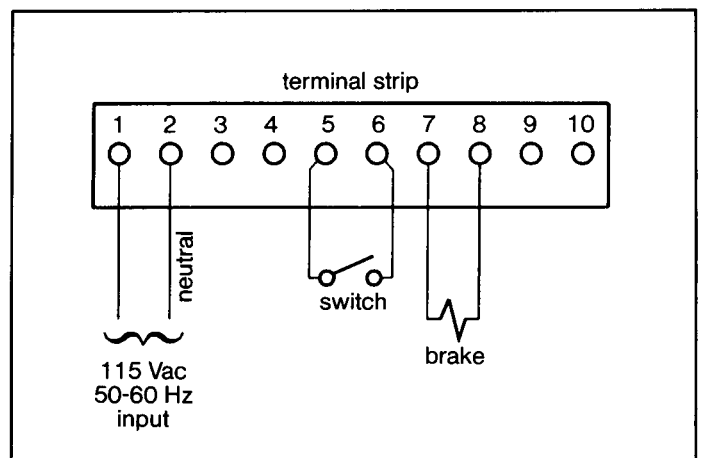


Figure 2: BRAKE ONLY

Operation:

1. Turn on power source.
2. With switch in open position, brake is energized.
3. Adjust output voltage by turning knob labeled "Brake". Turning knob clockwise increases output voltage. Turning knob counterclockwise decreases output voltage.

9000 Series Rectifier Used with CLUTCH AND BRAKE

Connection:

1. See Figure 3.
2. Connect clutch to terminals 8 and 9.
3. Connect brake to terminals 7 and 8.
4. Connect a single-pole single-throw switch to terminals 5 and 6.
5. Connect 115 Vac 50-60 Hz to terminals 1 and 2. The neutral or grounded side must be connected to terminal 2.

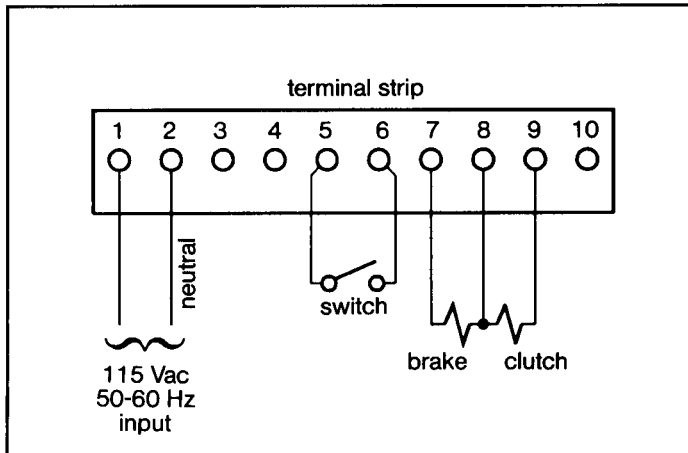


Figure 3: CLUTCH AND BRAKE

Operation:

1. Turn on power source.
2. With switch in closed position, clutch is energized.
3. Adjust output voltage for clutch by turning knob labeled "Clutch". Turning knob clockwise increases output voltage. Turning knob counterclockwise decreases output voltage.
4. With switch in open position, brake is energized.
5. Adjust output voltage for brake by turning knob labeled "Brake". Turning knob clockwise increases output voltage. Turning knob counterclockwise decreases output voltage.

Maintenance

Fuse Location:

1. Fuse can be accessed by turning knob labeled "1¼ amp" counterclockwise until knob and fuse can be pulled out.
2. Inspect fuse. If blown then replace with type 3AG 1.25 amp 250 V fuse, Stearns part number 9-60-1315-00.
3. Install fuse by inserting fuse into knob and inserting knob and fuse back into control panel and turning clockwise until hand tight.

Troubleshooting

If the 900 Series Rectifier fails to operate or operates in an improper manner, use the following procedure to locate and correct the problem. See applicable *Cautions* at *Installation and Operating Instructions*.

1. Check the power source (115 Vac 50-60 Hz line voltage). Is it turned on? Using an AC volt meter, check the voltage between terminals 1 and 2. The voltage should be between 103 and 127 Vac.
2. Check actual wiring against the wiring diagram.
3. Check to see if output voltage adjustment is turned up high enough to operate clutch or brake.
4. Check fuse. If the fuse is blown replace it with one of the same type and rating. Review entire troubleshooting procedure to identify reason for blown fuse.
5. Disconnect clutch and brake from rectifier. Check resistance of clutch and brake coils. If coil is shorted or open, unit should be replaced.
6. Check the connections between the rectifier and the clutch and brake to be operated. If the connections are loose or the wires damaged or grounded, correct the problem.
7. If the above corrective actions do not restore normal performance, the rectifier should be replaced with a new one.