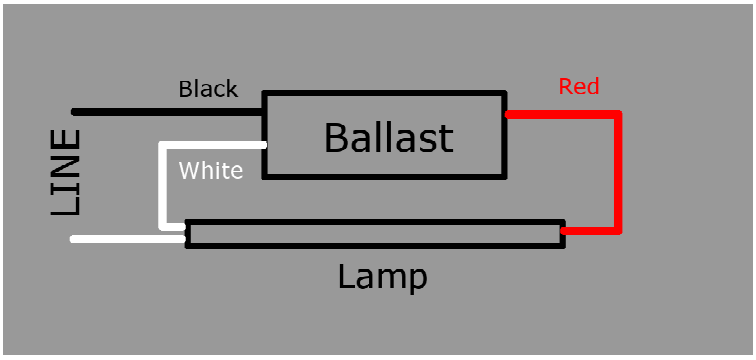
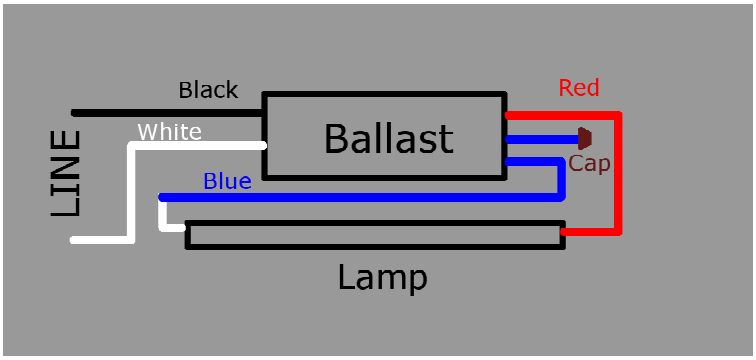


Slimline Original Wiring

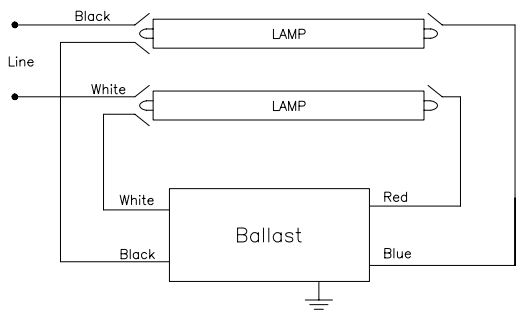


Slimline replacement wiring

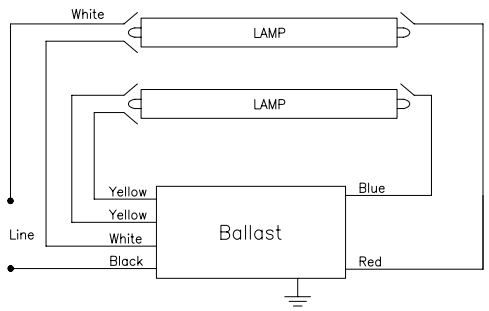
Replace magnetic slimline ballasts with Howard Industries Electronic Ballast by following these directions carefully:

1. These procedures should be carried out by a qualified electrician.
2. Turn off the power to fixture.
3. Remove lamps end ballast channel cover.
4. Cut all lead wires about 2" from the magnetic ballast and strip them about ½". This is necessary to have enough lead length for installation of the new electronic ballast.
5. Remove the magnetic ballast and replace it with electronic ballast. In some cases the electronic ballast is considerably smaller than the magnetic ballast, if this is the case, use a self-tapping screw at one end to mount the electronic ballast.
6. Identify the power leads into the fixture and disconnect the white neutral wire from the lamp holder.
7. Connect the Red ballast lead to the Red (sometimes Blue depending on the manufacturer) lead from the lamp holder.
8. Connect the Blue ballast lead to the White lead from the lamp holder. Cap the other Blue ballast lead.
9. Confirm that the new wiring matches the diagram above.
10. Connect the power wires directly to the input (Black & White) leads of the ballast. The power wires coming into the fixture should no longer be connected to any socket in any way.
11. Replace the ballast channel cover and install the lamp.
12. Turn on the power to fixture.

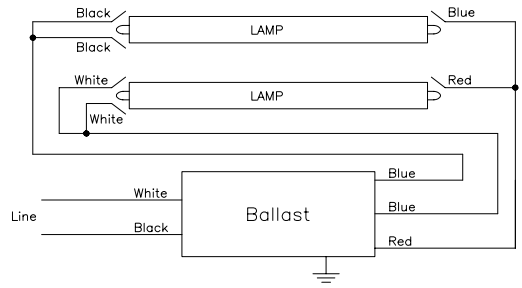
Installation Instructions for Slimline Magnetic retrofit to Electronic 8/3/07



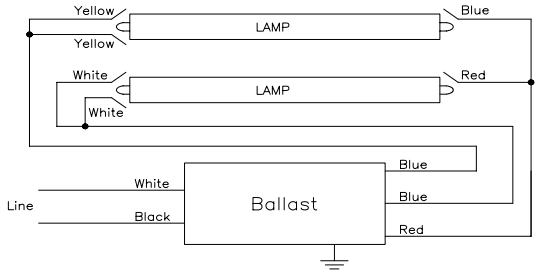
120V Slimline Original Wiring



277V Slimline Original Wiring



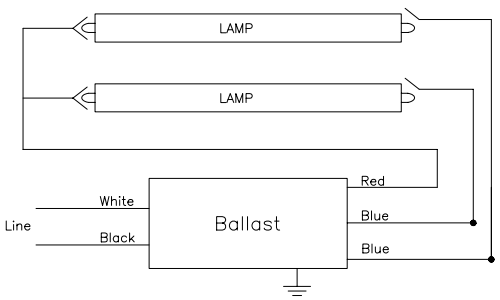
120V Replacement Wiring



277V Replacement Wiring

Replace magnetic slimline ballasts with Howard Industries Electronic Ballast by following these directions carefully:

1. These procedures should be carried out by a qualified electrician.
2. Turn off the power to the fixture.
3. Remove lamps end ballast channel cover.
4. Cut All lead wires about 2" from the magnetic ballast and strip them about 1/2". This is necessary to have enough lead length for installation of the new electronic ballast.
5. Remove the magnetic ballast and replace it with the electronic ballast. In some cases the electronic ballast is considerably smaller than the magnetic ballast, if this is the case, use a self-tapping screw at one end to mount the electronic ballast.
6. Identify the power leads into the fixture and disconnect them from the lamp holders.
7. Connect the Red ballast lead to both the Red and Blue leads from the lamp holders.
8. Connect one of the Blue ballast leads to both White leads from one of the lamp holders.
9. Connect the other Blue ballast leads to both Black or Yellow (sometimes brown depending on the manufacturer) leads from the other lamp holder.
10. Confirm that the new wiring matches the new fixture wiring diagram shown below.
11. Connect the power wires directly to the input (Black & White) leads of the ballast. The power wires coming into the fixture should no longer be connected to any socket in any way.
12. Replace the ballast channel cover and install the lamps.
13. Turn on the power to the fixture.



New Fixture Wiring

With electronic ballasts, the input voltage leads connect directly to the ballast. This is different than magnetic ballasts where the input voltage leads are connected to the lamps. The difference is due to a fundamental difference in cirucit topology. The electronic ballast has many benefits over the magnetic and is well worth the extra effort that it takes to learn how to connect it.