



## **INSTALLATION INSTRUCTIONS**

The solid state lamp shall utilize light emitting diodes (LEDs) and is intended as a replacement of the F20T12 and F17T12 fluorescent lamps used in the following MIL-DTL-16377 fixtures:



Product Detail Specification can be found in MIL-DTL-16377/86A(SH) for ballast removal and rewiring of fixture. The starter must be removed from fixture if using the LED tube with a ballast-M16377/44 and /72. Power should be in the off position before changing lamps. All other fixtures require that the ballast and starter be removed by disconnecting power to the fixture, removing the fixture lens cover and existing fluorescent tubes, removing starter. Replace flourescent tubes with LED Smart tubes , return lens cover and reconnect power.

# **STARTER REMOVAL**

### Wiring diagram-before

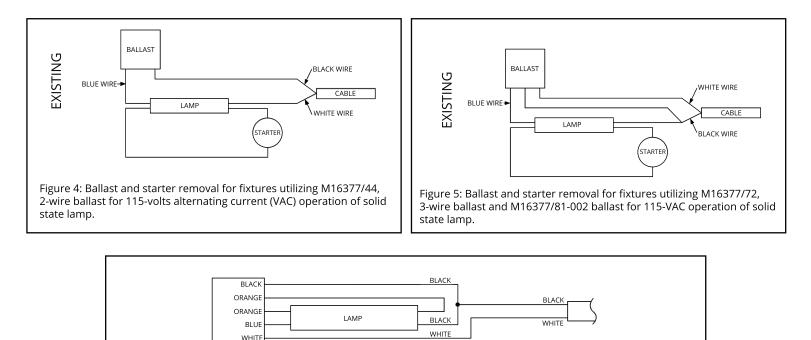
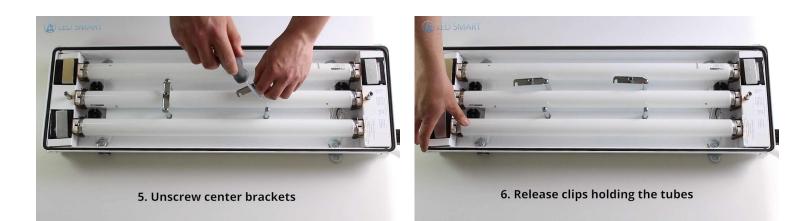


Figure 6: Ballast removal for fixtures utilizing M16377/81-001, 5-wire ballast for 115-VAC operation of solid state lamp.

1. Disconnect the light fixture from the power source











8. Replace old tubes with the new LED tubes

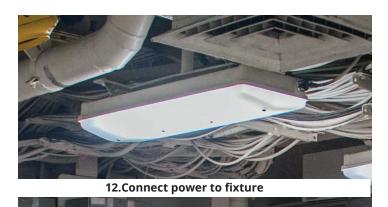




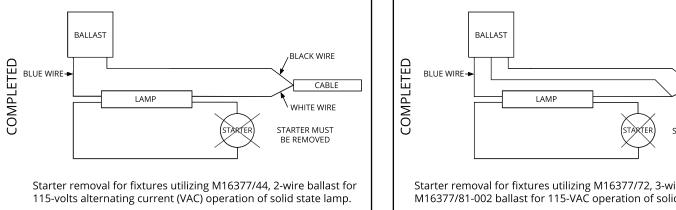
10.Move the center brackets into position and secure with screws

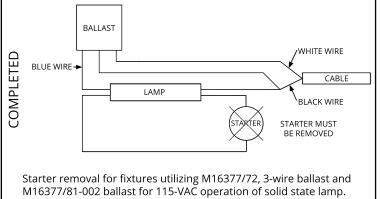


11.Put lens back on fixture and tighten screws to secure lens



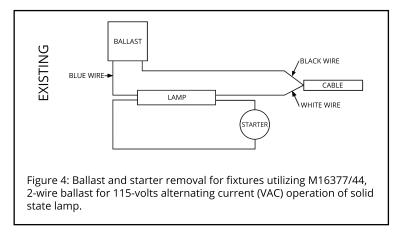
Wiring diagram-after





# Ballast removal (2 wire ballast)

## Wiring diagram-before



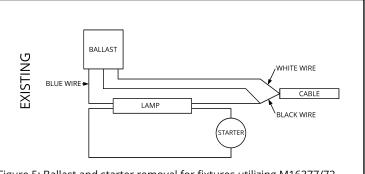
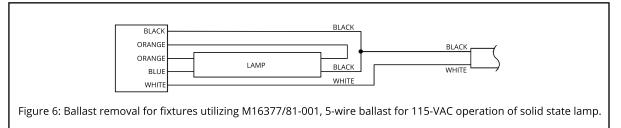
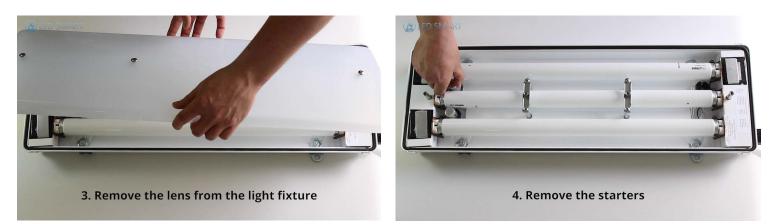


Figure 5: Ballast and starter removal for fixtures utilizing M16377/72, 3-wire ballast and M16377/81-002 ballast for 115-VAC operation of solid state lamp.







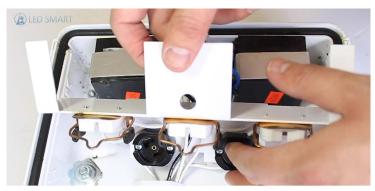








8. Remove nuts from lamp holder support bracket



9. Remove lamp holder support bracket



10. Cut all 4 wires that are coming out of the bottom of the lamp holder support bracket



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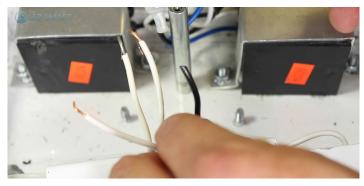
11. Remove the nuts from the ballast cases and remove the ballasts



11. Remove the nuts from the ballast cases and remove the ballasts



12. Strip remaining wires 1/2"-combine all white wires



12. Strip remaining wires 1/2"-combine all white wires



13. Put wire nuts on exposed wires



14. Put the lamp holder support bracket back into place



15. Put nuts back into place on the lamp holder support bracket

#### LED SMART

Repeat steps 8 to 15 for the ballast on the other side of the light fixture







18. Move the center brackets into position and secure with screws



19.Put lens back on fixture and tighten screws to secure lens



20.Connect power to fixture

### Wiring diagram-after

