AddressPro®: 2,000 Watt Incandescent & Halogen Load Capabilities

Large incandescent and magnetic low-voltage lamp loads can now be incorporated into AddressPro® lighting control systems using power booster modules from Lehigh Electric Products.

Component Configuration Instructions

The following table, figures and paragraphs describe how to extend AddressPro® control capabilities to lighting projects and installations having large incandescent or magnetically driven, low-voltage loads. Figures 1 and 2 show connections for 120VAC and 277VAC systems respectively. The table below identifies required components. All materials not explicitly identified as Universal Lighting Technologies or Lehigh Electric Products parts are to be furnished by others.

By using a power booster (PBX) module from Lehigh Electric Products as a power amplifier, and Universal's ES5733HT LVM module as a control signal generator, the ES5733HT can control loads well in excess of its 150W rating. One power booster can drive up to 2000 watts at 120VAC, or up to 4000 watts at 277VAC.

The Addressing Load allows for assignment of an AddressPro® zone number. The Addressing Load must be no more than 100W to stay within the rating of the ES5733HT. Please refer to the Universal Lighting Technologies web site for instructions on assigning a zone number to the ES5733HT.

The ES5733HT receives digital commands from other control devices (such as wall stations or hand-held remote control units) on the AddressPro® control loop, and provides a corresponding dim-level signal to the Lehigh PBX module. The entire PBX load operates as a single AddressPro® control point, driven by the ES5733HT module.

Available control functions include On/Off/Up/Down dimming control, scene definition (including fade time) and scene recall. Please refer to descriptions of the AddressPro® digital dimming system in the Dimming & Controls section of the Universal Lighting Technologies web site, www.universalballast.com, for further information on zone assignments, scene definitions and other features of the AddressPro® digital dimming system.

System Voltage	AddressPro® DRIVER MODULE		Lehigh Power Booster		Figure No.
	P/N	Description	P/N	Description	
120VAC	ES5733HT	ES-LVM-UNV-HT-DIM-D	H1456	PBX-AC-120-I	1
277VAC	ES5733HT	ES-LVM-UNV-HT-DIM-D	H1457	PBX-AC-277-I	2

Control Wiring – Shielded Twisted Pair

Routed in same conduit as the output power of the Lehigh Power Module
To avoid coupling of electrical "noise" generated by output of the Lehigh Power Module into the control cable, shielded twisted pair similar to Belden 8760 or equivalent should be used. The shielding should be bonded (grounded) on one end ONLY, not at multiple locations. The shielded twisted pair cable must also be rated for the appropriate voltage. It is imperative that proper wiring polarity throughout the system be maintained independent of wire color.

Routed as Class 2 wiring (not in conduit)
Control wiring that is run outside of the conduit for these applications should also be shielded twisted pair similar to Belden xxxx and rated for plenum applications if applicable. Again, it is imperative that proper wiring polarity throughout the system be maintained independent of wire color.

NOTES

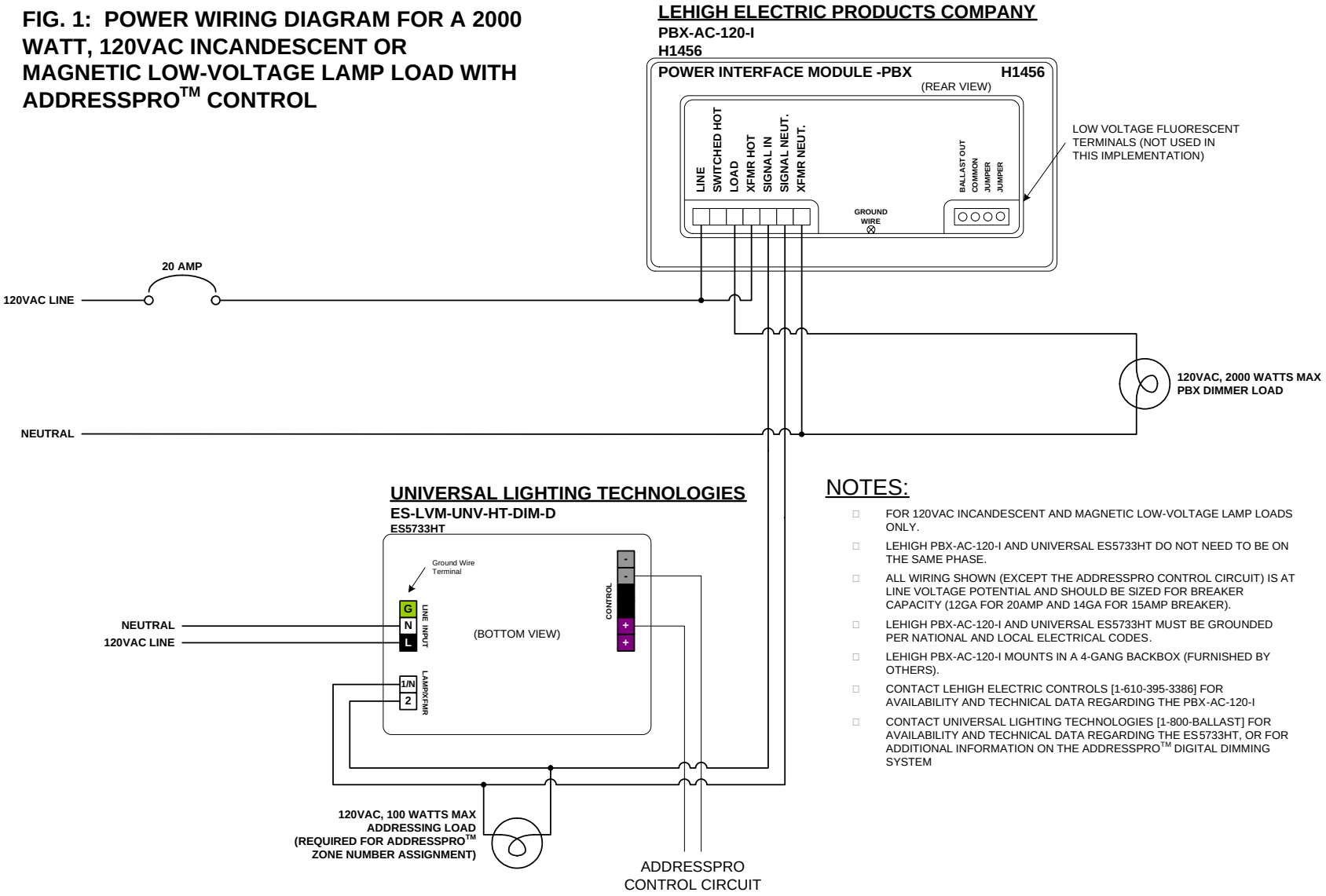
All wiring must be completed in compliance with national and local electric codes.

Both the ES5733HT and the selected Lehigh PBX unit must be grounded in accordance with national and local electrical codes.

Please contact Lehigh Electric Products at 610-395-3386 for component availability and technical information on the Lehigh PBX components.

Please contact Universal Lighting Technologies at 1-800-BALLAST for technical information on this application, and other AddressPro® related questions.

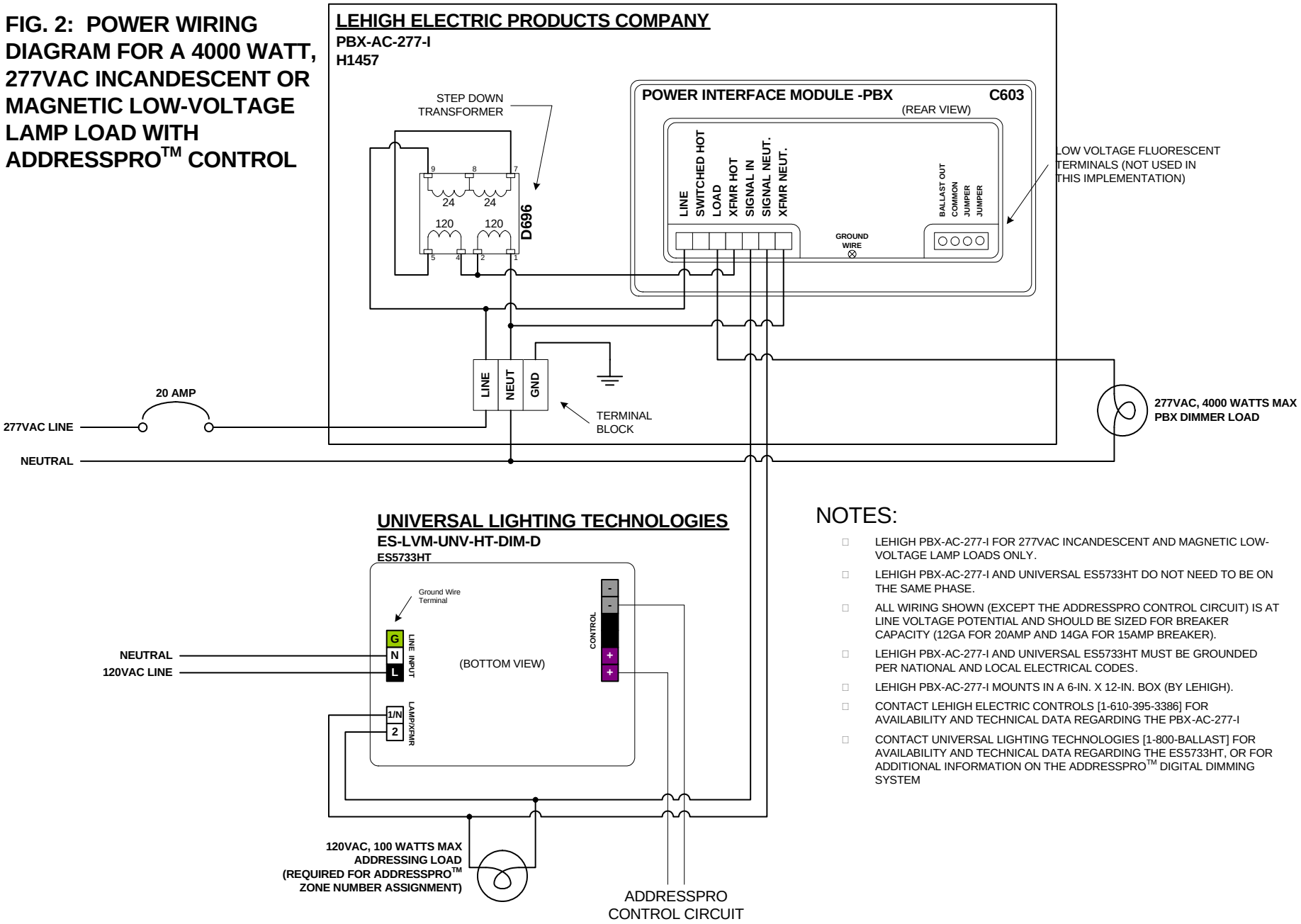
FIG. 1: POWER WIRING DIAGRAM FOR A 2000 WATT, 120VAC INCANDESCENT OR MAGNETIC LOW-VOLTAGE LAMP LOAD WITH ADDRESSPRO™ CONTROL



NOTES:

- FOR 120VAC INCANDESCENT AND MAGNETIC LOW-VOLTAGE LAMP LOADS ONLY.
- LEHIGH PBX-AC-120-I AND UNIVERSAL ES5733HT DO NOT NEED TO BE ON THE SAME PHASE.
- ALL WIRING SHOWN (EXCEPT THE ADDRESSPRO CONTROL CIRCUIT) IS AT LINE VOLTAGE POTENTIAL AND SHOULD BE SIZED FOR BREAKER CAPACITY (12GA FOR 20AMP AND 14GA FOR 15AMP BREAKER).
- LEHIGH PBX-AC-120-I AND UNIVERSAL ES5733HT MUST BE GROUNDED PER NATIONAL AND LOCAL ELECTRICAL CODES.
- LEHIGH PBX-AC-120-I MOUNTS IN A 4-GANG BACKBOX (FURNISHED BY OTHERS).
- CONTACT LEHIGH ELECTRIC CONTROLS [1-610-395-3386] FOR AVAILABILITY AND TECHNICAL DATA REGARDING THE PBX-AC-120-I
- CONTACT UNIVERSAL LIGHTING TECHNOLOGIES [1-800-BALLAST] FOR AVAILABILITY AND TECHNICAL DATA REGARDING THE ES5733HT, OR FOR ADDITIONAL INFORMATION ON THE ADDRESSPRO™ DIGITAL DIMMING SYSTEM

FIG. 2: POWER WIRING DIAGRAM FOR A 4000 WATT, 277VAC INCANDESCENT OR MAGNETIC LOW-VOLTAGE LAMP LOAD WITH ADDRESSPRO™ CONTROL



NOTES:

- LEHIGH PBX-AC-277-I FOR 277VAC INCANDESCENT AND MAGNETIC LOW-VOLTAGE LAMP LOADS ONLY.
- LEHIGH PBX-AC-277-I AND UNIVERSAL ES5733HT DO NOT NEED TO BE ON THE SAME PHASE.
- ALL WIRING SHOWN (EXCEPT THE ADDRESSPRO CONTROL CIRCUIT) IS AT LINE VOLTAGE POTENTIAL AND SHOULD BE SIZED FOR BREAKER CAPACITY (12GA FOR 20AMP AND 14GA FOR 15AMP BREAKER).
- LEHIGH PBX-AC-277-I AND UNIVERSAL ES5733HT MUST BE GROUNDED PER NATIONAL AND LOCAL ELECTRICAL CODES.
- LEHIGH PBX-AC-277-I MOUNTS IN A 6-IN. X 12-IN. BOX (BY LEHIGH).
- CONTACT LEHIGH ELECTRIC CONTROLS [1-610-395-3386] FOR AVAILABILITY AND TECHNICAL DATA REGARDING THE PBX-AC-277-I
- CONTACT UNIVERSAL LIGHTING TECHNOLOGIES [1-800-BALLAST] FOR AVAILABILITY AND TECHNICAL DATA REGARDING THE ES5733HT, OR FOR ADDITIONAL INFORMATION ON THE ADDRESSPRO™ DIGITAL DIMMING SYSTEM