## KT-631<sup>™</sup> LAMP EXTENDER

- 1. GENERAL
- DESIGN FEATURES
- 3. INSTALLATION
- 4. MAINTENANCE
- 5. SPECIFICATIONS
- ORDERING GUIDE
- 7. CONNECTIONS
- 8. APPLICATION SCHEMATIC
- 9. FUNCTIONAL SCHEMATIC

#### GENERAL

- 1.01 This Practice describes the KT-631 Lamp Extender and provides instructions on its installation and maintenance.
- 1.02 The KT-631 provides auxiliary power for key telephone lamps. It is used where long lamp leads from line cards to stations require booster lamp voltage and when the number of lamps exceeds the capacity of the power supply.

## 2. DESIGN FEATURES

- 2.01 The solid state circuit requires no adjustments or maintenance.
- 2.02 The KT-631 can be located anywhere near a 117 volt source.
- 2.03 Mounting holes and slots allow placement in an equipment cabinet, relay rack, or on a wall.
- 2.04 The KT-631 provides lamp power for 6 key telephone lamp circuits and can be expanded to 12 or 18 circuits with the addition of Melco KT-63 Lamp Extenders. An additional 120 lamps can be added beyond the capacity of the key system power supply.

- 2.05 The transformer has a capacity of 120 lamps total. Each circuit has a capacity of 20 lamps. If a KT-63 is added to the KT-631, the capacity of each circuit is reduced. If all 6 circuits of the KT-63 are used then only 10 lamps per circuit can be powered.
- 2.06 Each of the power amplifier circuits in the KT-631 turns on fully when the LC lead current exceeds 20 ma.
- 2.07 All connections are made with a standard A25B or equivalent 25 pair connector cable.
- 2.08 A circuit breaker limits input current to the transformer.
- 2.09 A phase reversal indicator on the front panel lights when the lamp extender power is out of phase with the lamp voltage from the KTU line-card. The indicator is associated only with lamp circuit 1.
- 2.10 A phase reversing switch is provided to conserve power.



FIGURE 1

REGISTERED U.S. PATENT OFFICE TM TRADEMARK OF MELCO LABS

#### 3. INSTALLATION

- 3.01 No special installation tools are required.
  Instructions are provided on each unit.
  Locate and secure the housing in an apparatus mounting, relay rack or on plywood backboard.
- 3.02 Fasten the connector-ended 25-pair cable to the KT-631 plug. Secure the connector with the clamp provided.
- 3.03 Terminate the cable on a type 66 connecting block.
- 3.04 Cross connect as shown in Figure 2.
- 3.05 If the L.E.D. lights, the commercial 117 Vac to the KT-631 is out of phase with the line card power supply. Change phase reversal switch from NORMAL to REVERSE. On single-phase power, the lamp will go out. On 3-phase power, the lamp may not go out but should glow dimmer or brighter. Leave switch in position where the L.E.D. is dimmest.
- 3.06 If a fuse should blow, test for shorts by placing on ohmeter from L lead to LG1. Resistance must exceed 5 ohms.
- 3.07 The primary circuit breaker limits the current drawn by the transformer. If all circuits should fail, reset circuit breaker. If the circuit breaker operates again, replace the unit. Do not attempt to bypass the circuit breaker.
- 3.08 Test all lamps with all lines in use.

# 4. MAINTENANCE

- 4.01 No provision is made for field adjustments. The unit can be tested by substitution with another KT-631 or by changing lines on the quick connect block.
- 4.02 Check voltages as follows:

Ground to L 10 Vac rms
Ground to LP 10 Vac rms ± .5V

- 4.03 If fuse blows check lamp circuits per section 3.06.
- 4.04 Return defective unit to supplier for servicing.

### 5. SPECIFICATIONS

5.01 Size

7" x 5" x 3.5"

Weight

5-1/4 pounds 10 Vac ± .5V.

Output Current

2 amps per circuit

5 amps total

Circuit bkr.

1 amp

## 6. ORDERING GUIDE

6.01 Order as follows:

(QTY) LAMP EXTENDER KT-631

from the local supplier or from:

**MELCO** 

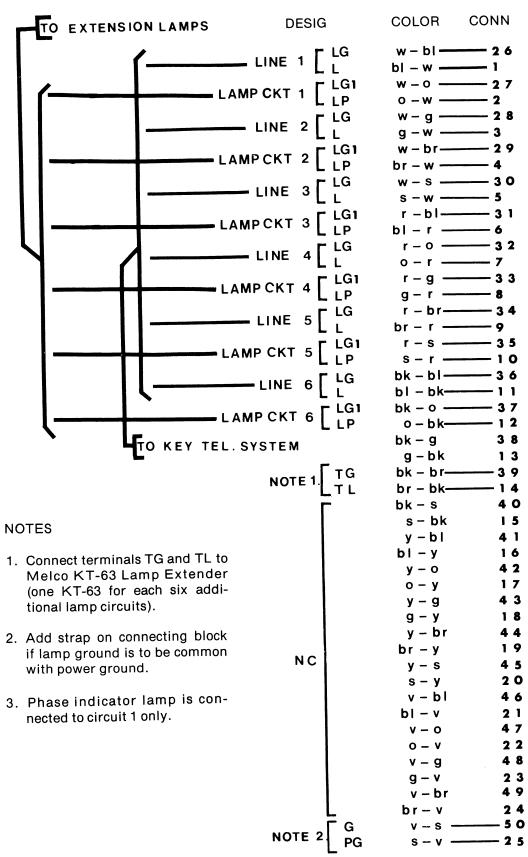
P.O. Box 4026

Bellevue, Washington 98009

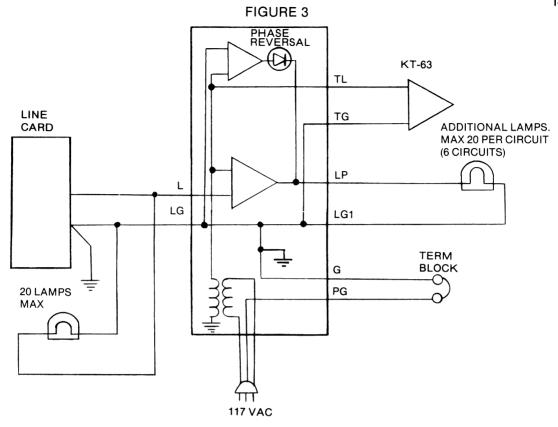
(206) 455-5661

## 7. CONNECTIONS

FIGURE 2



## 8. APPLICATION SCHEMATIC



## 9. FUNCTIONAL SCHEMATIC

