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Thank you for using our products. INSTALLATION INSTRUCTIONS TONE GENERATOR - TG-100

Use this product according to this instruction manual. Please keep this instruction manual for future reference.

APPLICATION INFORMATION:

NOTE: All CAUTIONS and WARNINGS are identified by the symbol \triangle . All warnings are printed in bold capital letters.

⚠ WARNING: READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO COMPLY WITH ANY OF THE FOLLOWING INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

Wheelock Inc. manufactures high quality telephone products. The installation of this product must conform to the following instructions. IF ANY WORDS OR LETTERS APPEAR ON THE PRODUCT INDICATING A PARTICULAR USE, THE PRODUCT MUST BE USED ONLY IN THE MANNER SO INDICATED. THE INSTALLATION OF THIS EQUIPMENT SHOULD ONLY BE UNDERTAKEN BY QUALIFIED PERSONNEL. FIELD ADJUSTMENT, REPAIR OR MODIFICATION OF THESE SIGNALS SHOULD NOT BE ATTEMPTED. Malfunctioning units should be returned for factory repair or replacement in accordance with Wheelock Inc.'s published terms and conditions. Contact Wheelock Inc., 273 Branchport Ave., Long Branch, NJ, 07740.

FCC REGULATIONS:

- This equipment complies with Part 68 of the FCC Rules. The label affixed to this product contains, among other information, the FCC Registration Number and the Ringer Equivalence Number (REN) for this product. This information must be provided to the telephone company if requested.
- The REN is used to determine the quantity of devices which you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices that you may connect to your line, contact your local telephone company.
- This equipment should not be used on coin telephone lines. Connection to party line service is subject to state tariffs.
- If trouble is experienced, disconnect this equipment from the telephone line to determine if it is causing the malfunction. If the equipment is determined to be malfunctioning, its use shall be discontinued until the problem has been corrected.
- Should the equipment cause harm to the telephone network, the telephone company shall, if possible, notify the customer that temporary discontinuance of service may be required; however, where prior written notice is not possible, the telephone company may temporarily discontinue service without notice, if such action is necessary under the circumstances. The telephone company may make changes in its communication facilities, equipment and operations procedures, where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations of the Federal Communications Commission.

DOC REGULATIONS:

NOTICE: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

- Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.
- Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.
- Make sure that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together.
- \triangle **CAUTION:** The installation of this equipment should only be undertaken by qualified personnel.
- The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

Load Number for TG-100 = 20

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GENERAL INFORMATION:

The Telephone Signal Generator provides a pleasant chime signal when used with existing or newly installed paging amplifiers. It was designed for use on the public telephone network or behind PBX and key systems that use interrupted or continuous ringing voltages from 70-130VAC, 15-68Hz. It is also designed for use with telephone communications systems whose ringing voltages are from 18 to 30 Volts AC/DC.

TG-100 is also designed to use with the Common Audible, CA-622 or CA-312. It can also be interfaced with the dry contact in the EKSU with the power supply EPS-2401. Telephone Signal Generator produces a single chime sound during each cycle of interrupted ringing voltage. For continuous ringing voltage, it chimes once every second. Both the tone and the sound level are adjustable. It's solid stated design produces low current drain. Model TG-100 is intended for indoor use only. It is attractively packaged for convenient mounting.

SPECIFICATIONS:

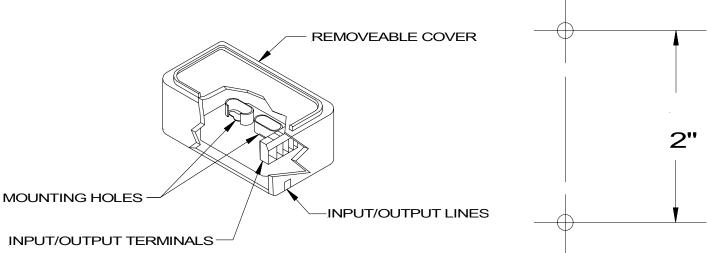
Table 1.		
Nominal Input Voltage	90VRMS, 20Hz	24VAC/DC
Input Voltage Range	*70-130VRMS, 15-68Hz	18-30VAC/DC
Max. Input Current	N/A	20mA
Ringer Equivalence	0.9A	
Minimum Ring Cycle:	90VRMS, 20Hz	24VAC/DC
ON Time	0.8 Seconds	0.5 Seconds
OFF Time	2.0 Seconds	0.5 Seconds
Minimum Chime Frequency	700Hz	
Maximum Chime Frequency	1200Hz	
Output Impedance (T&R)	1000 Ohms	
Output Level (T&R)	-15dBm (0.1VRMS) TO 10dBm (2.4VRMS)	

^{*} Will operate at 40VRMS, 20Hz with 2 seconds minimum on ring cycle.

INSTALLATION INFORMATION:

The TG-100 Telephone Signal Generator is designed for mounting near the PBX or the Telephone Key System. To mount unit, space the 2 mounting screws (provided) vertically 2" apart (See Figure 1.)

Figure 1.

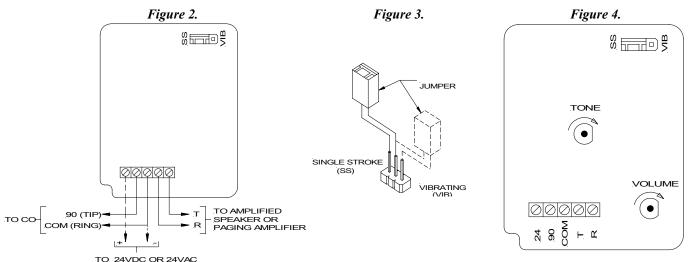


Wiring (See Figures 2 and 3):

ACAUTION: Use class 2 power source only.

- For interrupting ringing voltage, leave the setting at SS (single stroke). See Figure 4.
- For continuous ringing voltage, change the setting to VIB (vibrating mode). See Figure 4.
- Connect CO Tip and Ring to the terminals marked 90 and COM or Connect 24VDC/DC to the terminals marked 24 and COM. (Use one or the other, not both).
- Connect T and R output terminals of TG-100 to:
 - 1) <u>Amplified Speaker or Horn</u>: T and R input terminals.
 - 2) Paging Amplifier:
 - (A) 600 OHM input (transformer isolated and balanced)
 - (B) High impedance (HI-Z) auxiliary input. If hum is experienced, reverse the T and R connections at the TG-100. If hum is still experienced, then connect a 600 OHM 1 to 1 transformer between the TG-100 output and the amplifier's input. Use shielded cable to minimize noise pick-up. Connect the shield to the R terminal on the TG-100.
- Ring the phone and adjust the volume control to the proper level for minimum distortion.
- Adjust frequency for desired sound.
- Adjust the amplifier's volume control for desired output.
- Replace the cover.

CAUTION: These devices are not intended for use in hazardous locations as defined by the National Electrical Code (NEC) and by the National Fire Protection Association (NFPA).



TROUBLE SHOOTING CHART:

CONDITION CHECK

No Sound to Speaker

- 1) Check for proper voltage presence at the input terminals.
- 2) Check for audio signal presence at T and R output.
- 3) Check for audio presence at input of speaker amplifier or paging amplifier. If yes then go to 4.
- 4) Check for proper DC voltage presence at the speaker amplifier or check the paging amplifier instruction manual.

Low Volume to Speaker

- 1) Check that volume control is turned up (clockwise).
- 2) Check that volume control at speaker amplifiers or paging amplifier is turned up.

Overdrives Amplifiers

1) Turn the volume control counter clockwise until obtaining the proper chime sound. If necessary check the volume control at the amplifiers.

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