

273 Branchport Avenue Long Branch, NJ 07740 (800) 631-2148 www.wheelockinc.com

Thank you for using our products. INSTALLATION INSTRUCTIONS PREAMPLIFIER MODULE

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

MODEL NUMBER: PRM-150

FCC REGULATIONS:

This equipment complies with Part 68 of the FCC Rules. On the back of this equipment is a label that contains, among other information, the FCC Registration Number and the Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

The REN is also useful to determine the quantity of devices that 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, you may want to contact your local telephone company.

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.

Do not attempt to repair or modify this equipment. Repairs to this product will be performed by Wheelock Inc., 273 Branchport Ave., Long Branch, NJ 07740, in accordance with Wheelock's Inc. published Terms and Conditions of Sale. 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.

GENERAL:

READ THESE INSTRUCTIONS CAREFULLY BEFORE USING THIS PRODUCT.

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

The PRM-150 is designed to amplify levels from an audio source and provide the output to drive up to 150 speaker amplifiers. It is also designed to boost audio levels to compensate for signal lost on long cable runs. When the volume control knob is set at 5 the output signal level is equal to the input signal level.

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).

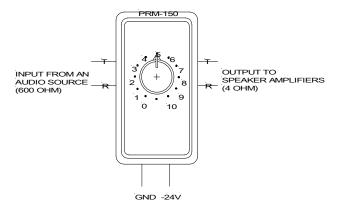
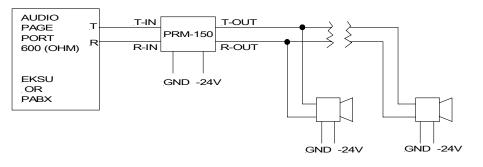


Figure 1: Simplified Connections

Copyright 2002 Wheelock, Inc. All rights reserved.



UP TO 150 SPEAKER AMPLIFIERS

Figure 2.

One-way paging with a PRM-150 connected directly to a 600 OHM CO or page port. If the telephone system provides one or more 600 OHM page ports, then a PRM-150 is required for each port.

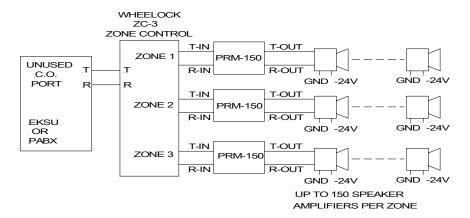


Figure 3.

One-way paging with a Wheelock ZC-3 Zone Control. When connecting over 10 amplified speakers to the ZC-3, it may be necessary to connect Wheelock PRM-150 line preamplifiers to the zone outputs. Depending upon system configuration (i.e., quantity of speakers, length of wire runs, and audio output level of the host telephone system), it may also be necessary to use PRM-150's with less than 10 amplified speakers. 24VDC connection (not shown) is required for each PRM-150, and the ZC-3.

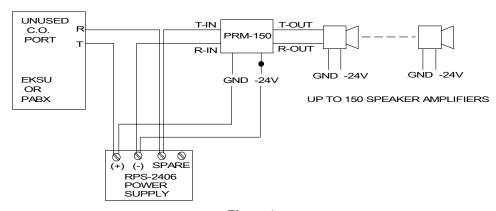


Figure 4.

One-way single zone paging from an unused CO port. This application is used only when external talk battery is required, otherwise, use Figure 2.

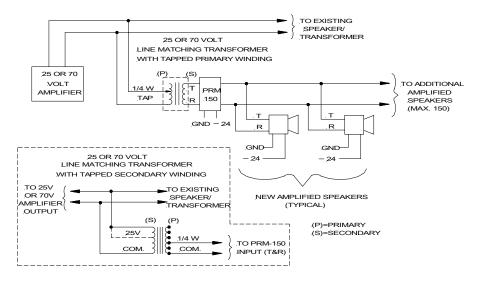


Figure 5.

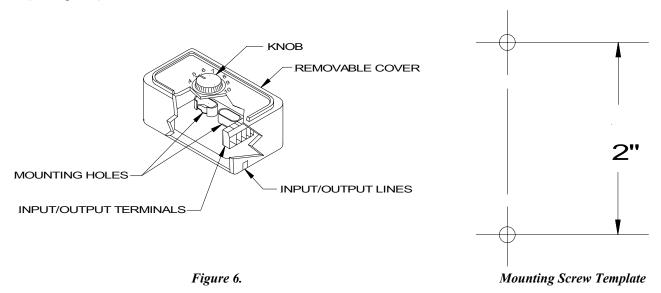
PRM-150 as a central (master) volume control for a group of speaker amplifiers used to expand 25V and 70V central amplifier systems.

SPECIFICATIONS:

	Table 1.
Nominal Input Voltage	-24VDC
Input Voltage Range	-18VDC to -28VDC
Maximum Input Current at 24VDC	35mA
Audio Input Level (T-IN and R-IN)	-15dBM (0.1V RMS) TO +10dBM (2.4V RMS)
Input Impedance	600 Ohms
Output Impedance	4 Ohms
Output Gain (T-OUT and R-OUT)	0 to +15dBM Maximum into 4 Ohm Load
Output Drive Capability	150 Speaker Amplifiers - Maximum
Frequency Response	70Hz to 14kHz

INSTALLATION INFORMATION:

The PRM-150 Preamplifier Module is designed for wall mounting. First remove the knob, by loosening the knob set screw. Next remove the housing by removing the screw on the top of the housing. Mount the base using the mounting screws (provided) as per template (See Figure 6).



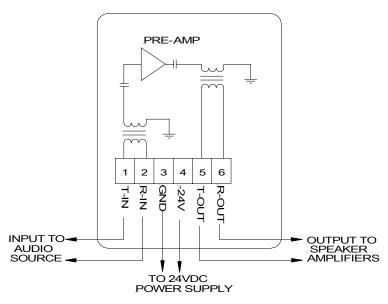


Figure 7: Simplified Schematic And Connection Diagram

OPERATION:

- 1. Set PRM-150 volume control to position #5.
- 2. Adjust each Speaker Amplifier's volume control to the desired volume level.
- 3. If the desired volume level cannot be obtained at any or all speaker-amplifiers, then:
 - (A) Increase the PRM-150 volume control setting until the desired volume level is obtained at the speaker-amplifier(s) which had the least volume.
 - (B) Readjust the other Speaker Amplifier volume controls, as required.

TROUBLE SHOOTING:

CONDITION

1. No audio output to Speaker Amplifiers.

CHECK

- 1. Volume control turned up (clockwise).
- 2. Check presence and polarity of -24VDC and GND.
- 3. Check audio presence and level on T-OUT and R-OUT at PRM-150, and if necessary also at the Speaker Amplifiers.
- 4. Check audio presence and level on T-IN and R-IN at PRM-150, and if necessary at the audio source.
- 5. Defective unit Replace.

ANY MATERIAL EXTRAPOLATED FROM THIS DOCUMENT OR FROM WHEELOCK MANUALS OR OTHER DOCUMENTS DESCRIBING THE PRODUCT FOR USE IN PROMOTIONAL OR ADVERTISING CLAIMS, OR FOR ANY OTHER USE, INCLUDING DESCRIPTION OF THE PRODUCT'S APPLICATION, OPERATION, INSTALLATION AND TESTING IS USED AT THE SOLE RISK OF THE USER AND WHEELOCK WILL NOT HAVE ANY LIABILITY FOR SUCH USE.

Limited Warranty

Wheelock products must be used within their published specifications and must be PROPERLY specified, applied, installed, operated, maintained and operationally tested in accordance with these instructions at the time of installation and at least twice a year or more often and in accordance with local, state and federal codes, regulations and laws. Specification, application, installation, operation, maintenance and testing must be performed by qualified personnel for proper operation in accordance with all of the latest National Fire Protection Association (NFPA), Underwriters' Laboratories (UL), National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), local, state, county, province, district, federal and other applicable building and fire standards, guidelines, regulations, laws and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ). Wheelock products when properly specified, applied, installed, operated, maintained and operationally tested as provided above are warranted against mechanical and electrical defects for a period of one year from date of installation or 18 months from date of manufacture (as determined by date code), whichever first occurs. Correction of defects by repair or replacement shall be at Wheelock's sole discretion and shall constitute fulfillment of all obligations under this warranty. THE FOREGOING LIMITED WARRANTY SHALL IMMEDIATELY TERMINATE IN THE EVENT ANY PART NOT FURNISHED BY WHEELOCK IS INSTALLED IN THE PRODUCT. THE FOREGOING LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY SOFTWARE REQUIRED FOR THE OPERATION OF OR INCLUDED IN A PRODUCT. WHEELOCK MAKES NO REPRESENTATION OR WARRANTY OF ANY OTHER KIND, EXPRESS, IMPLIED OR STATUTORY WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER.

USERS ARE SOLELY RESPONSIBLE FOR DETERMINING WHETHER A PRODUCT IS SUITABLE FOR THE USER'S PURPOSES, OR WHETHER IT WILL ACHIEVE THE USER'S INTENDED RESULTS. THERE IS NO WARRANTY AGAINST DAMAGE RESULTING FROM MISAPPLICATION, IMPROPER SPECIFICATION, ABUSE, ACCIDENT OR OTHER OPERATING CONDITIONS BEYOND WHEELOCK'S CONTROL.

WHEELOCK DOES NOT WARRANT THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE OR THAT THE SOFTWARE WILL MEET ANY OTHER STANDARD OF PERFORMANCE, OR THAT THE FUNCTIONS OR PERFORMANCE OF THE SOFTWARE WILL MEET THE USER'S REQUIREMENTS. WHEELOCK SHALL NOT BE LIABLE FOR ANY DELAYS, BREAKDOWNS, INTERRUPTIONS, LOSS, DESTRUCTION, ALTERATION, OR OTHER PROBLEMS IN THE USE OF A PRODUCT ARISING OUT OF OR CAUSED BY THE SOFTWARE.

THE LIABILITY OF WHEELOCK ARISING OUT OF THE SUPPLYING OF A PRODUCT, OR ITS USE, WHETHER ON WARRANTIES, NEGLIGENCE, OR OTHERWISE, SHALL NOT IN ANY CASE EXCEED THE COST OF CORRECTING DEFECTS AS STATED IN THE LIMITED WARRANTY AND UPON EXPIRATION OF THE WARRANTY PERIOD ALL SUCH LIABILITY SHALL TERMINATE. WHEELOCK IS NOT LIABLE FOR LABOR COSTS INCURRED IN REMOVAL, REINSTALLATION OR REPAIR OF THE PRODUCT BY ANYONE OTHER THAN WHEELOCK OR FOR DAMAGE OF ANY TYPE WHATSOEVER, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFIT OR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE FOREGOING SHALL CONSTITUTE THE SOLE REMEDY OF THE PURCHASER AND THE EXCLUSIVE LIABILITY OF WHEELOCK.

IN NO CASE WILL WHEELOCK'S LIABILITY EXCEED THE PURCHASE PRICE PAID FOR A PRODUCT.

Limitation of Liability

WHEELOCK'S LIABILITY ON ANY CLAIM OF ANY KIND, INCLUDING NEGLIGENCE AND BREACH OF WARRANTY, FOR ANY LOSS OR DAMAGE RESULTING FROM, ARISING OUT OF, OR CONNECTED WITH THIS CONTRACT, OR FROM THE MANUFACTURE, SALE, DELIVERY, RESALE, REPAIR OR USE OF ANY PRODUCT COVERED BY THIS ORDER SHALL BE LIMITED TO THE PRICE APPLICABLE TO THE PRODUCT OR PART THEREOF WHICH GIVES RISE TO THE CLAIM. WHEELOCK'S LIABILITY ON ANY CLAIM OF ANY KIND SHALL CEASE IMMEDIATELY UPON THE INSTALLATION IN THE PRODUCT OF ANY PART NOT FURNISHED BY WHEELOCK. IN NO EVENT SHALL WHEELOCK BE LIABLE FOR ANY CLAIM OF ANY KIND UNLESS IT IS PROVEN THAT OUR PRODUCT WAS A DIRECT CAUSE OF SUCH CLAIM. FURTHER, IN NO EVENT, INCLUDING IN THE CASE OF A CLAIM OF NEGLIGENCE, SHALL WHEELOCK BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE PRECEDING LIMITATION MAY NOT APPLY TO ALL PURCHASERS.