

University Sound, Inc.

a Mark IV company

MODEL TAP

OPERATING INSTRUCTIONS



DESCRIPTION

The University Sound Model TAP is a telephone interface device which provides access to a paging system from a telephone loop circuit such as a central office trunk (Centrex), PABX, PBX, or rotary or tone telephone instruments. This adaptor includes a built-in power supply to supply "talk battery", a two pole relay to indicate loop current, and an audio isolation transformer to couple the signal to a paging amplifier.

Phone line input to the unit is made by means of a standard modular jack. Two audio outputs are provided: 600 ohms balanced at a fixed level and a high impedance unbalanced output with an adjustable level control.

Connection to the 600 ohm output is made by means of screw terminals and the high impedance output by means of a standard RCA phono jack. The relay circuit connections are made by means of six screw terminals.

The Model TAP operates from 120 Volts AC 50/60Hz. The entire unit is housed in a sturdy cadmium plated steel box only 1-1/4" x 3" X 6-1/8" which can be mounted to most surfaces by means of #6 screws through the holes provided in the mounting flanges.

UNPACKING

The unit should be removed carefully from the carton and inspected for any possible damage in transit. If there is any evidence of damage which might have occurred in shipment, immediately notify your supplier or the transportation company which delivered it. Claims for damage sustained in transit must be made upon the carrier. Save all packing-material for the claim agent who will supply you with the proper forms and give you the necessary instructions for filling out a claim.

SPECIFICATIONS

FCC REGISTRATION NO.: ERP5XN-15433-PX-N
RINGER EQUIVALENCE: 0.0B

Phone Line Connector: RJ-11 **Talk Battery Voltage:** 48V. or 24V. D.C. **Loop Current:** 18 to 30 ma. **Loop Start Relay:** D.P.D.T. 1 Amp. Contacts. **Connectors:** Relay, Screw Terminals - 600 ohm output, Screw Terminals - Hi-Z Output, phono jack **High Impedance Output:** 47K ohms **600 OHM Output:** with internal termination, -5db • without internal termination, -0.5b. **Frequency Response:** 100 Hz-20KHz. **Power Consumption:** 120 V. AC. 50/60 Hz, 0.02A **Size:** 1-1/4" x 3" 6-1/8". **Shipping Weight:** 2 lbs.

MAINTENANCE

The TAP contains no user serviceable parts. All maintenance, service, or repairs must be performed by the factory in order to insure continued compliance with Part 68 of the FCC Rules. Units requiring service should be shipped freight prepaid to:

University Sound
13278 Ralston Ave.
Sylmar, CA 91342

WARRANTY

This unit has been very carefully inspected and is warranted to be free from defects in material and workmanship under normal use and service for a period of one year from date of sale to the original purchaser. This Warranty does not extend to any unit which has been subject to abuse, misuse, neglect, accident, improper installation, or alterations. The obligation of University Sound under this Warranty is limited to the repair of any defect in material or workmanship and/or the replacement of any defective part, provided the unit is returned to University Sound transportation paid within the year.

It is recommended that any unit on which service is required be processed, through your distributor or installation company wherever possible.

This warranty is expressly in lieu of all other Warranties, expressed or implied, and of all other obligations or liabilities on our part. We neither assume nor authorize any other person to assume for us any other liability in connection with the products manufactured by University Sound.

INFORMATION REQUIRED BY PART 68 OF THE F.C.C. RULES TO BE SUPPLIED TO CUSTOMERS WHEN PURCHASING REGISTERED EQUIPMENT.

THIS DEVICE HAS BEEN GRANTED A REGISTRATION NUMBER BY THE FEDERAL COMMUNICATIONS COMMISSION UNDER 68 RULES AND REGULATIONS FOR DIRECT CONNECTION TO THE TELEPHONE LINES. IN ORDER TO COMPLY WITH THESE FCC RULES, THE FOLLOWING INSTRUCTIONS MUST BE CAREFULLY READ AND APPLICABLE PORTIONS FOLLOWED COMPLETELY:

1. Direct connection to the telephone lines may be made only through the standard plug-ended cord furnished to the utility-installed jack. No connection may be made to part or coin phone lines. Prior to connecting the device to the telephone lines, you must:
2. Call your telephone company and inform them you have an FCC registered device you desire to connect to their telephone lines. Give them the number(s) of the line(s) to be used, the make and model of the device, the FCC registration number and ringer equivalence. This information will be found on the device or enclosed with instructions as well as the jack suitable for your device.
3. After the telephone company has been advised of the above you may connect your device if the jack is available, or after the telephone company has made the installation.
4. Repairs may be made only by the manufacturer or his authorized service agency. Unauthorized repairs void registration and warranty. Contact seller or manufacturer for details of permissible user performed routine repairs.
5. If, through abnormal circumstances, harm to the telephone lines is caused, it should be unplugged until it can be determined if your device or the telephone line is the source. If your device is the source, it should not be reconnected until necessary repairs are effected.
6. Should the telephone company notify you that your device is causing harm, the device should be unplugged. The telephone company will, where practicable, notify you, that temporary discontinuance of service may be required. However, where prior notice is not practicable, the telephone company may temporarily discontinue service. If such action is reasonably necessary. In such cases the telephone company must (a) promptly notify you of such temporary discontinuance, (b) afford you the opportunity to correct the condition and (c) inform you of your rights to bring a complaint to the FCC under their rules.
7. The telephone company may make changes in its communications facilities, equipment, operations or procedures, where such action is reasonably required in the operation of its business and is not inconsistent with FCC rules. If such changes can be reasonably expected to render any customer's devices incompatible with telephone company facilities, or require modification or alteration, or otherwise materially affect its performance, written notification must be given to the user, to allow uninterrupted service.

ABNORMAL OPERATION

If trouble is experienced with the telephone system after the TAP unit has been connected, you must disconnect the TAP from the system to determine if it is malfunctioning. If the trouble continues, the TAP must remain disconnected from the system until such time that the telephone company has been notified and proper repairs made.

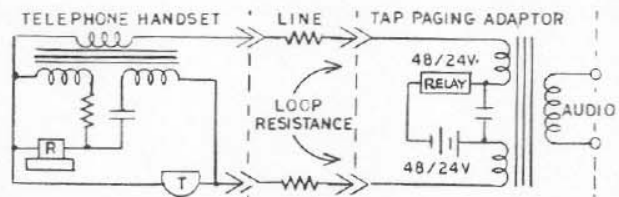


FIGURE 1: SIMPLIFIED CIRCUIT SHOWING TALK PATH WITH TAP.

CONNECTION

Before attempting to connect to a PBX or other telephone circuit, first verify that it is compatible with the unit. The Model TAP is designed to operate with a telephone loop circuit only. Do not connect to a line or circuit which has talk battery or ringing voltage. Connection to the telephone loop is made on pins No. 3 and 4 of a standard modular jack which is an RJ-11 connecting arrangement. This supplies 48 volts "talk battery" to the phone circuit. The relay in the Model TAP is a "loop start", and is activated by a loop current of 18 to 30 milliamperes.

Two output options are available: high impedance unbalanced and 600 ohms balanced. Connection to this High-Z output is made by means of a standard RCA type phono jack. The audio cable between this jack and the amplifier input **MUST** be a shielded cable. A Level Adjust control is provided to make the signal level of this output adaptable to any available high impedance input sensitivity. A "buildout" resistance is also included in this circuit to allow bridging an existing input circuit when no other input is available. As an example, this output may be directly connected to the PREAMP INPUT/OUTPUT jack on any University Sound amplifier or receiver.

UNIVERSITY AMPLIFIER OR RECEIVER

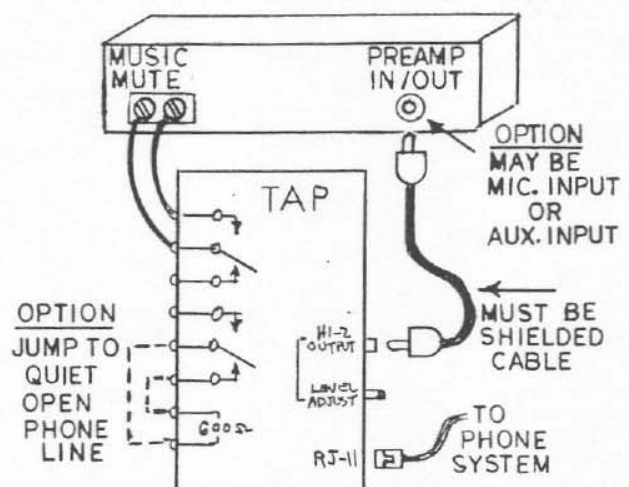


FIGURE 2: EXAMPLE OF CONNECTION TO PAGING AMPLIFIER OR RECEIVER WITH BACKGROUND MUSIC

Connection to the 600 ohm output is made by means of screw terminals. This output is at the same level as the phone line and is not adjustable. This output may be used to match a 600 ohm input of an amplifier or the 600 ohm port of registered 2-way equipment.

Two sets of relay contacts are made by means of 6 screw terminals. The maximum current rating of these contacts is 1 ampere.

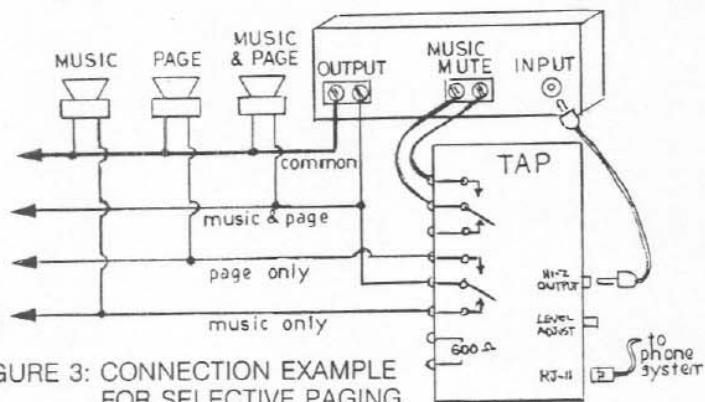


FIGURE 3: CONNECTION EXAMPLE FOR SELECTIVE PAGING.

CAUTION — DO NOT CONNECT BOTH THE INPUT AND OUTPUT CIRCUITS OF AN AMPLIFIER TO THE TWO SWITCHED CONNECTIONS OF THE RELAY. THE FEEDBACK THROUGH THE CAPACITY IN THIS CIRCUIT WILL CAUSE THE AMPLIFIER TO GO INTO OSCILLATION

To switch higher current loads such as speaker lines, or to activate circuits which require isolation, use the Model RSP-1 self-powered relay to repeat the function of one set of these contacts.

INSTALLATION OPTIONS

The University Sound MODEL TAP has provisions to operate with either 24 volt or 48 volt "talk battery." Two internal pre-set switches select the power supply voltage and the relay voltage. These switches are set at the factory in the 48 volt position. These switches may be reset to fit the installation requirements as follows:

Relay Switch	Battery Switch	Total Loop Resistance
24V	24V	0 - 350 ohms
48V	48V	0 - 700 ohms
24V	48V	400 - 1700 ohms

CAUTION — THE REMOVAL OF THE COVER FOR CHANGING THESE SWITCHES MUST BE DONE BY A QUALIFIED TECHNICIAN. BE SURE THE POWER CORD IS DISCONNECTED BEFORE REMOVING THE COVER.

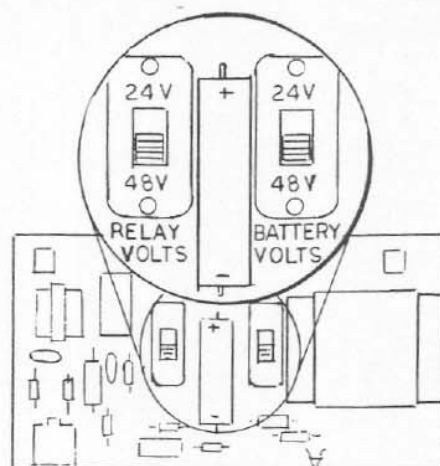


FIGURE 4: INTERNAL LOCATION OF THE VOLTAGE SELECTOR SWITCHES.

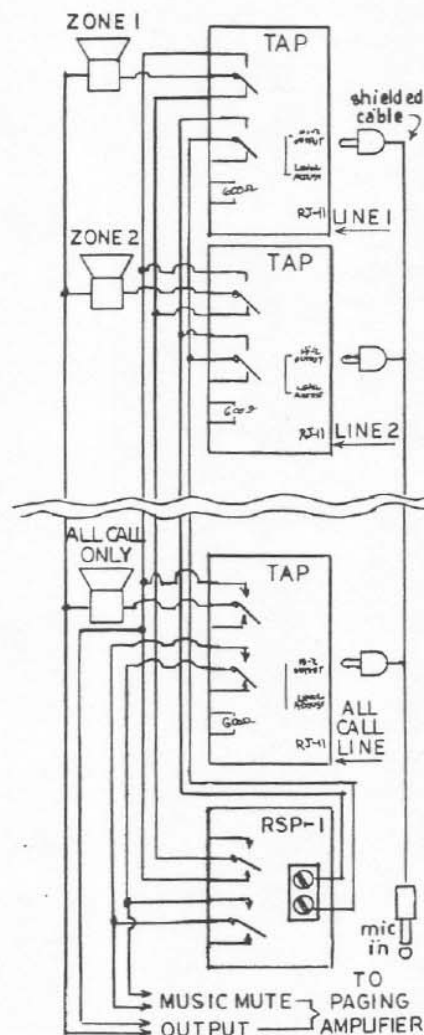
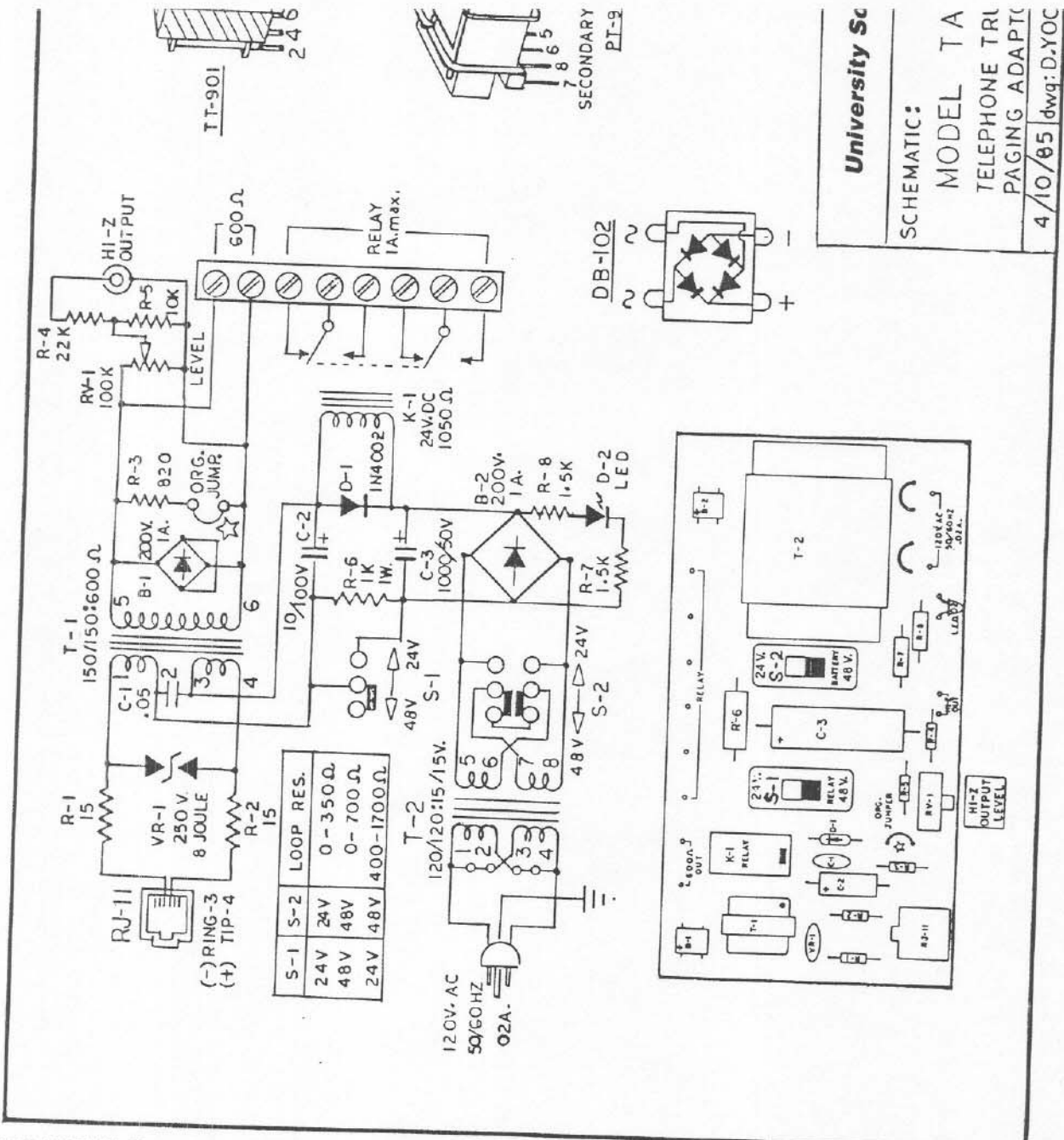


FIGURE 5: ZONE PAGING USES ONE TAP PER ZONE PLUS ONE MODEL RSP-1 RELAY.

MANUFACTURED IN THE USA BY
University Sound, Inc.
 a Mark IV company



University Sound
 SCHEMATIC:
 MODEL TA
 TELEPHONE TRU
 PAGING ADAPT
 4/10/85 dwg: D.YOC

