



IL704
Section C
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NC376 POCSAG Logging Receiver and Repeater

User and Installation Manual

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1.0 IMPORTANT SAFETY INFORMATION

TekTone® products are designed to operate safely when installed and used according to general safety practices. The following requirements should be observed at all times. Do NOT subject this equipment to:

- 1). Mechanical shock
 - 2). Excessive humidity or moisture
 - 3). Extremes of temperature
 - 4). Corrosive liquids
- Do not operate this equipment without the antenna connected. Doing so may cause severe damage to the transmitter.
 - This equipment is designed for indoor use only, unless expressly stated otherwise, and must not be used in classified Hazardous Areas, including areas containing explosive or flammable vapors, unless express authorization has been given in writing by the manufacturer.
 - Do not obstruct any slots or openings in the product. These are provided for ventilation to ensure reliable operation of the product and to protect it from overheating.
 - Only use a damp cloth for cleaning (not liquid or aerosol-based cleaners), and ensure that the unit is disconnected from any powersource prior to beginning the cleaning operation.
 - Removal of covers from the equipment must only be undertaken by authorized service personnel.

Warning!

Alteration or modification to any part of this equipment, without the prior written consent of the manufacturer, will invalidate all manufacturer approvals and warranties. No adjustments can be undertaken except by qualified and licensed persons as defined by the FCC Rules and Regulations. Operation of altered equipment can result in fines, imprisonment, and/or confiscation of such equipment.

1.1 LIABILITY

TekTone® does not accept any liability for any damage or injury howsoever resulting from misuse of this equipment. It is the responsibility of the user to ensure that the equipment is operated in the manner for which it was intended and that it is the correct item of equipment for the required task.

1.2 EQUIPMENT APPLICATIONS

It is the user's responsibility to determine the suitability of the fixed POCSAG Logging Receiver for any given application. Neither TekTone®, nor any of its subsidiaries, can provide specific advice, as each application will require independent evaluation.

1.3 EQUIPMENT LOCATION

As in all radio equipment, attention must be given to the antenna selected and where the unit is mounted in relation to the transmitter being monitored. If the unit

is to be used as a second transmitter, it should be located as centrally as possible within the secondary area to be covered and, of course, be within adequate distance of the originating transmitter.

Range tests should be carried out at least once a week, more often when critical criteria apply. They should involve testing the unit past the limit of its required working range so as to ensure a measure of safety. TekTone® suggests that a log should be kept of all the test dates and the information gathered, together with service records and battery change dates.

The frequency of the tests required will vary between applications. If a pager has been dropped or is worn by a person involved in an accident, the unit should be tested again before re-use. It must be stressed that the physical range tests are essential and any construction work or movement of plant or equipment could alter the signaling capability of the unit.

1.4 LITERATURE

TekTone® has a policy of continual improvement, and therefore reserves the right to modify or change the specifications without prior notice.

While every possible care has been taken in preparation of this manual, TekTone® shall not be liable for technical or typographical errors or omissions contained herein, nor for incidental or consequential damage arising from the use of this material.

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2.0 INSTALLATION INSTRUCTIONS

- 1). Remove the cover from the fixed POCSAG Logging Receiver by removing the two (2) Phillips head screws located on each side of the unit.
- 2). Lift the cover off and set aside. (NOTE: Disconnect the small ribbon cable and LED connector from the cover before complete removal of the top cover.)
- 3). The logging receiver is mounted to the wall by three (3) mounting screws fixed through the backplate. Hold the backplate up to the mounting surface and mark the location of the mounting holes. Ensure that you mount the unit with sufficient space from any side obstruction allowing you to replace the cover and the Phillips head screws.

WARNING!

DO NOT DRILL OR HAMMER WHILE THE INTERFACE UNIT IS ON THE WALL. THIS ACTION COULD DAMAGE THE QUARTZ CRYSTALS ON THE PRINTED CIRCUIT BOARDS.

- 4). Place the logging receiver holes on the backplate over the mounting holes on the mounting surface and secure the unit to the mounting surface with the mounting screws.
- 5). Replace logging receiver cover and secure it with the two (2) screws removed in step 1, after reconnecting the small ribbon cable and

LED connector. (NOTE: Check all switch settings for selected options before replacing the cover).

- 6). Connect the antenna to the top of the logging receiver.
- 7). Plug the power cord of the logging receiver into a 115 Volt AC outlet. When power is applied to the receiver, the POWER LED on the front of the unit will be on. The system reset message will appear on the screen.

3.0 CONFIGURATION SETTINGS

Once the unit is mounted, it will need to be configured to whichever mode is required. This is accomplished by setting the DIP switches (bank of 6) on the logic board. A typical configuration would be to use the receiver as a logging receiver. In this configuration each page transmitted would be received by the logging receiver and printed on a serial printer. The serial printer is connected to the 9-pin connector on the bottom of the receiver by way of a standard serial cable. The page would also be displayed on the 2-line LCD display on the front of the logging receiver, giving the following information.

PAGER ID
BAUD RATE
SIGNAL LEVEL
CURRENT DATE AND TIME
TIME OF MESSAGE

The unit can be configured as a repeater. This configuration would require an additional transmitter.

4.0 DIP SWITCH SETTINGS

1). DIP SWITCH 1

This switch defines whether or not to send data to the serial port. [OFF] — serial communication, regardless of any other DIP switch settings. [ON] — serial data is transmitted relative to the setting of the other switches.

2). DIP SWITCH 2

This switch defines the serial port communications baud rate. [ON] — baud rate is 9600. [OFF] — baud rate is 1200. These

two baud rates will cover most applications. The protocol for the communications port is: 1200/9600, No parity, 8 bits, 1 Stop bit

3). **DIP SWITCH 3**

This selects 40/80 column mode for printers. [ON] is 80 columns and [OFF] selects 40 column mode. The decoder will send a carriage return and a line feed at the end of every line, so you should set your printer so that it does not add line feeds to carriage returns.

4). **DIP SWITCH 4**

This switch selects the type of output to present at the serial port. [OFF] — the unit treats the output as a printer or PC, with the column width as selected by switch 3. [ON] — the unit will assume that a transmitter is connected to it and will send a valid paging command after receiving each call. This is used to retransmit a call via a secondary transmitter to extend the range of a system.

5). **DIP SWITCH 5**

When switch 4 is set to printer/PC mode, this switch determines whether the pager identity, tone type, signal strength and data rate are printed. [ON] enables printing; [OFF] disables printing.

6). **DIP SWITCH 6**

When switch 4 is set to printer/PC mode, this switch determines whether message time and date stamp are printed. [ON] enables printing; [OFF] disables printing.

5.0 TRANSPONDER (REPEATER)

If this unit is being used as a transponder (repeater) to retransmit to a secondary transmitter, the baud rate transmitted will be the same baud rate that was received from the originating transmitter. Baud rate will be automatically detected and retransmitted by the decoder for the pages on the system. The product will detect transmissions of 512, 1200 and a maximum 2400 baud.

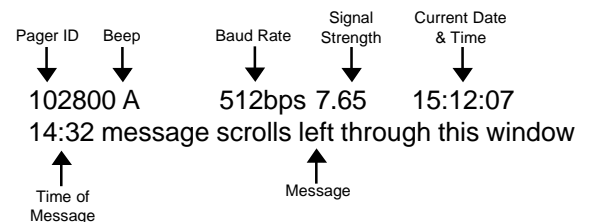
6.0 RELAY AND SOUNDER OUTPUT

The logging receiver has two outputs available to the user for notification of receipt of a page. The first is a [SOUNDER] that will sound for 20 seconds each time a page is logged. If the user does not want the sounder to function, remove the cover and unplug the sounder. The second output is in the form of a dry contact relay. Each time the logging receiver receives a page, the relay will close for 20 seconds. This is a dry contact and **VOLTAGE MUST NOT BE APPLIED.**

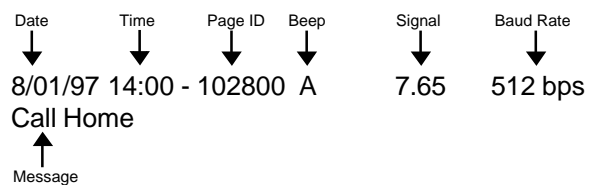
7.0 OPERATION

The fixed POCSAG Logging Receiver consists of a radio receiver, a two-line 40-character LCD display, and a logic controller to decode and process information received and pass this to the display and serial port. The system is housed in a single cabinet designed to be fixed to a wall with the antenna mounted either on top of the receiver or remotely using a coaxial lead. The system can also be used to retransmit the receiver signals to a second transmitter to increase the coverage area. This option requires the addition of another transmitter.

The logging receiver when purchased is set for a specific frequency. Each page sent from an onsite paging transmitter in a POCSAG format will be received and decoded by the logging receiver. The decoder will pass the decoded information to the display and the serial port according to how the DIP switches are configured. If the unit is configured as a logging receiver, the page will appear on the 2 line LCD screen in the following manner.



The logging printer will have a different format as shown below.



8.0 DATE/TIME and YEAR CHANGE

The logging receiver's DATE, TIME and YEAR can be adjusted using the following procedure.

- 1). Disconnect the receiver from all power sources.
- 2). Remove the two cover screws on either side of the cover.
- 3). Lift the cover up **GENTLY** so you can reach inside and remove the power lead and the ribbon cable connected to the display.
- 4). Set the cover aside.
- 5). Locate the bank of 8 DIP switches to the left of the ribbon connector you just removed.
- 6). Only one, switch #8, will be available for use. Place switch #8 to the **ON** position.
- 7). Connect the output from the receiver to your PC serial port using a standard PC to PC transfer cable, also known as a Null Modem Cable. (Pin #2 to Pin #3, Pin #3 to Pin #2. etc.).
- 8). Using any terminal program, set the input for 9600 baud, No parity, 8 bits, 1 stop bit.
- 9). Apply power to the receiver.
- 10). Your PC screen will display:
INPUT NEW VALUES OR <ENTER> TO
LEAVE UNCHANGED:
DAY (01-07)
Follow the screen prompts
DATE (01-31):
MONTH (01-12):
YEAR (00-99):
HOUR (00-23):
MINS (00-59):
SECS (00-59):
- 11). Remove power from the receiver.
- 12). Remove the serial cable from the receiver.
- 13). Set DIP switch #8 to the **OFF** position.
- 14). Reconnect the Power and Ribbon cable removed in step #3.
- 15). Replace the top and screws removed in step #2.
- 16). Apply power to the receiver.
- 17). This completes the procedure.

Record your system details here for quick reference.

Date supplied ____/____/____

Serial number of the POCSAG Logging Receiver

Frequency _____ Mhz Receiver FCC ID

No. **JRNUSADATARX**

WARRANTY

TekTone® warrants that your fixed logging receiver and components are free from defects of workmanship and materials. If there is a defect or malfunction of this product, TekTone® will repair or replace it free of charge, with proof of purchase, for one year from date of original purchase.

This warranty does not include adjustments, parts, and repair by circumstances beyond the control of TekTone®, including, but not limited to, fire or other casualty, accident, neglect, abuse, abnormal use, or battery leakage damage.

There are no other expressed warranties except as stated herein. After the period of the expressed warranty set forth herein, there are no additional expressed or implied warranties, and those excluded include those of merchantability and fitness for a particular purpose. In no event will TekTone® or any of its agents be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect in the product, even if advised of the possibility of such damages.

The warranty and remedies set forth above are exclusive and in lieu of all others, and or written, expressed or implied. No TekTone® distributor, dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow limitations on how long an implied warranty lasts and some states do not allow exclusions or limitation of incidental or consequential damages.

To obtain service under the terms of this warranty, please contact TekTone® and follow explicit instructions.

SERVICE

If your fixed logging receiver or pagers require service, return them to TekTone® at the address listed in the front of this manual. Prior to returning the equipment you must call the **Sales Department** at **1-800-666-4800** and obtain an **RMA** (Return Merchandise Number). **NO RETURNS WILL BE ACCEPTED WITHOUT AN RMA NUMBER.**

9-pin cable configuration

InterPage	Printer
1	5
2	3
3	2
5	5
6	4
7	5
	7
	8

25-pin cable configuration

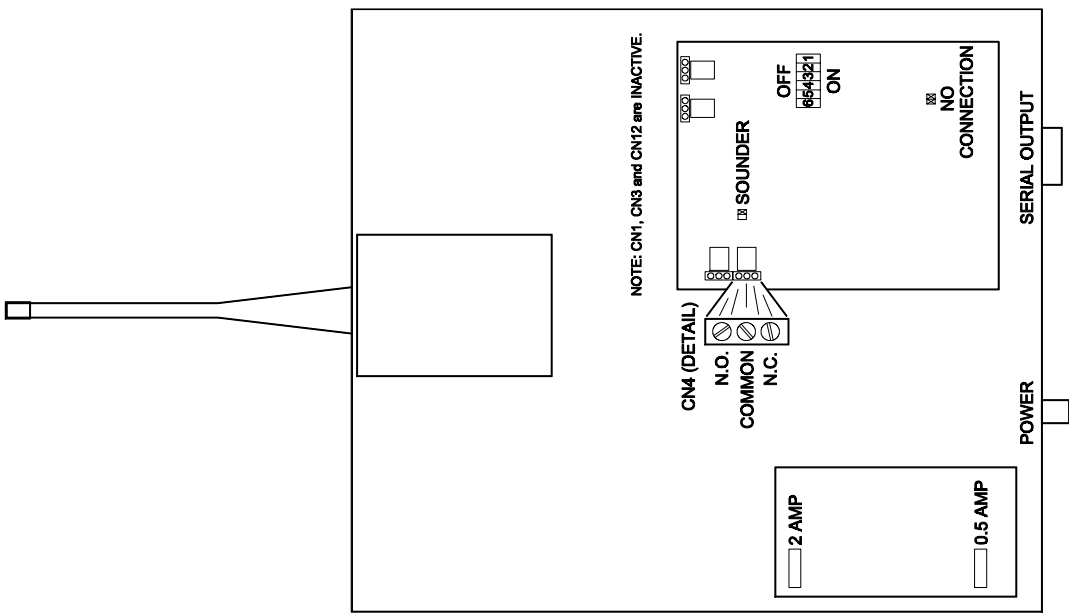
InterPage	Printer
2	2
3	3
5	7
6	20
8	11
	4
	5



InterPage Pager Receiver
Serial Printer Connection Diagrams

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InterPage Pager Receiver
Serial Printer Connection Diagrams

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