



FEATURES

- Available in two models:
 - Model 61F - Encodes FLEX™ (1600 baud) and POCSAG (512, 1200, 2400 baud)
 - Model 61 - Encodes POCSAG (512, 1200, 2400 baud) and Golay
- Makes any digital transmitter a simple and inexpensive TNPP network node
- Can receive network transmissions over a variety of link media
- Supports full handshaking and error detection in bidirectional mode
- Includes Tone Remote Control (PURC®) for remote paging transmitters
- Multitasking batching organization for:
 - Simultaneous transmission and storage of paging data
 - Pager battery saver operation
 - Minimal transmission airtime
- Supports the FLEX Mail Drop message mode
- Periodically transmits Morse Code station identification for FCC compliance
- Easily programmed using a dumb terminal or PC running terminal emulation software
- Uses full node addressing for selective, regional paging

INTRODUCTION

The Model 61 and 61F are particularly suitable for the commercial paging operator looking for a cost-effective transmitter controller. The Model 61 accepts a TNPP input and can encode FLEX, POCSAG, and Golay formats for tone-only, numeric, and alphanumeric pages.

The Model 61 can be used in a variety of ways. It can be used in conjunction with Zetron's ZAPP! operator entry software to build a complete commercial operator alphanumeric entry paging company. The Model 61 is also used to add additional fill-in coverage areas which can be reached by satellite, wireline, or RF link.

The Model 61/61F Network Access Paging Encoder receives RS-232 data on a satellite downlink or data circuit, sorts the TNPP packets, encodes pages into FLEX, POCSAG, or Golay format, and batches them for transmission. The encoder can store a substantial number of TNPP packets in several large buffers.

TNPP MODES

The Model 61 supports two different modes of the TNPP protocol. The first mode is one-way, or "blind send", transmission, where no handshaking or error correction occurs. This is most often used with a satellite downlink to support nationwide paging, but can also be used with any simplex link. The Model 61 also supports the bidirectional networking mode. Even though the Model 61 cannot initiate and send TNPP pages to other network nodes, it can communicate with the nodes that send pages to it. The encoder provides verification to the sending terminal that the packets were received correctly and that the link is in operation. The bidirectional mode requires a full-duplex link, such as a dedicated wireline or packet radio modem.

TRANSMITTER INTERFACE

The Model 61 has all the connections necessary to fully control a digital paging transmitter. A built-in modem generates remote control tones to operate a remotely located PURC® capable transmitter.

The Model 61's COR input continually monitors the paging channel for other traffic. When the channel is busy, the unit buffers pages until the channel clears.

SPECIFICATIONS

Physical

| | |
|--------------------|---|
| Size: | 1.75"H x 19"W x 10.25"D rack-mountable |
| Weight: | 4 lbs. |
| Temperature Range: | 0 to +65 degrees C. +32 to +149 degrees F. |
| Power Input: | 11-15 VDC or 9-12 VAC, internally fused, 700 mA, optional 110-120 VAC power adapter |

Network Link Interface

| | |
|-------------|---|
| Connector: | Female DB9 RS-232: DTR, TXD, RXD, GND, RTS, CTS |
| Speed: | 300, 1200, 2400, 4800, and 9600 baud |
| TNPP Node: | 32 Addresses |
| TNPP Modes: | Unidirectional ("blind send") Bidirectional (full handshaking) |

Buffers

| | |
|-----------------------|---|
| Initial Input Buffer: | 2,500 bytes |
| TNPP Buffer: | 2,000 bytes (minimum of two 1,000 byte packets; TNPP packets are typically 20-50 bytes) |

| | |
|-------------------------|--------------|
| Paging Encoder Packets: | 10,000 bytes |
|-------------------------|--------------|

Transmitter Interface

| | |
|---------------------------|--|
| Digital Data Stability: | + or - 2 ppm |
| Connector: | Screw-down terminal strip |
| RTS: | RS-232C, + or - 5V into 3000 ohms |
| Digital Data: | RS-232, + or - 5V into 3000 ohms |
| PTT: | SPDT relay, 150 VDC at 0.5A |
| COR: | Channel busy input relay closure or TTL |
| BUSY IN: | Channel busy input relay closure or TTL |
| Audio (for tone control): | TX High and TX Low, -9 dBm into remote 600 ohm load |
| Paging Formats: | Available in models that support either 1) FLEX (1600 baud) and POCSAG (512, 1200, and 2400 baud) or 2) POCSAG and Golay Sequential Code |
| Message Length | 500 character maximum |

Programmable Parameters

| | |
|--------------|--|
| TNPP: | Node address (0-31), acceptable channel and zone |
| Transmitter: | Automatic station ID (up to 8 characters, 15- or 30-minute intervals), batch period (0 - 2550 seconds), input/output polarities, hold times and key up delay (0 - 25.5 seconds), remote tone control HLGT time (120 - 1920 ms), max keyed up time (0 - 2550 seconds), periodic POCSAG out of range transmissions |
| Model 61F: | Supports FLEX (1600 baud), POCSAG (512, 1200, and 2400) and Mail Drop message mode |
| Model 61: | Supports POCSAG and Golay Sequential Code |



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