



MAINTAINER'S AMP II Model 85-99003

Application:

The LMG 85-99003 Maintainer's Amp II allows the user to monitor and communicate over 2-wire and 4-wire communications lines. Uses include:

- Temporary communications over 2 and 4-wire lines during cut-overs and maintenance.
- Keying base station radios with keying tones. Use the DTMF touchpad for radio-telephone applications.
- Performing level checks using the built-in test tone generator.
- Monitoring telephone lines. Place and answer telephone calls.
- Monitoring and decoding DTMF tones on a communication line.
- Providing operator's station (intercom or radio control) when normal console is disabled.

Features:

The Maintainer's Amp II offers many features, enabling it to do the work of several pieces of test equipment.

- Electret microphone and push-to-talk switch on front panel for voice transmission.
- Built-in speaker for receive audio.
- Switchable 600 Ohm / High Impedance termination.
- Works on 2-wire and 4-wire circuits.
- Powered by 6 "C" cells, with optional AC adapter. Built-in battery monitor.
- Headset jack for use in noisier areas, or to prevent intruding on others.
- Built-in DTMF encoder (all 16 digits).
- DTMF decoder with readout on the LCD display.
- Programmable radio keying tones. 2175, 2175-1950-2175 and 2175-1850-2175 are default values, but user can program the (3) switch positions to desired keying/function tones.
- Constant test tones are switch selectable. Default values are 400, 1000 and 2804 Hz. All three may be reprogrammed by the user to frequencies between 300 & 3000 Hz.
- "Step Tone Generator" mode allows the user to step through a series of test tones.
- Can monitor or seize a POTS (telephone) line. Receive or place telephone calls.
- Can select from several fixed transmit levels (0, -9 & -16 dBm) or variable transmit level.
- Test leads plug into common "banana jacks", allowing flexibility in lead configuration. Standard test leads are equipped with "telecom" clips.
- Built-in pocket for test lead storage.

Operation:

The Maintainer's Amp II allows a user to operate or monitor 2-wire and 4-wire communications circuits. Once the user has connected the test leads to the circuit, circuit testing and/or operation can begin. Using front panel switches, the user chooses from the various options, including circuit termination, test tone generation, generating radio keying tones, transmit level adjustments, etc. DTMF tones can be transmitted simultaneously with radio keying tones. Received DTMF tones are decoded and displayed on the LCD display. A telephone line (POTS) can be monitored or seized and an LED flashes when the line is "ringing".

Physical Description:

The 85-99003 is enclosed in a compact, rugged and water resistant plastic case. The case measures 10 5/8" x 9 3/4" x 5" and weighs seven pounds. All of the circuit boards, switches and other components of the Maintainer's Amp II are mounted on a rugged steel panel that is fastened to the case. "Banana jack" terminals allow the user to readily use a wide variety of test leads. A pocket at the top of the panel provides a space for easy and safe storage of the test leads. All knobs and switches are large enough to be easily operated. The LCD panel is designed to operate even in cold weather. The LCD is protected by a tough plastic face plate.

Specifications:

Input Power	6 "C" cells, or optional AC adaptor
Circuits	2-wire, 4-wire or telephone (POTS) (not intended for permanent installation on a telephone line). 600 Ohm or Hi-Z termination
Receive Signal Level	-40 to +10 dBm (dependent on line condition)
Output Signal Level	0, -9 and -16 dBm fixed levels, or user adjustable to +5dBm
Temperature Range	-30C to +80C storage (do not store at extreme temps for extended periods) -20C to +70C operating (some discoloring of the LCD may occur at temperature extremes, but will clear at more moderate temperatures)
Size	10 5/8" x 9 3/4" x 5"
Weight	7 pounds
Keying Tone Generation	Four-position switch allows user to select no radio keying tones, or one of three programmed keying tone sequences. Default values are "2175" only (transmitted at high then low level), 2175-1950-2175 and 2175-1850-2175. Three switch positions can be programmed for any combination of keying (pilot) tone only or combination of keying tone-function tone-keying tone.
Test Tone Generation	Four-position switch allows user to select no test tone or one of three programmable test tones. Default test tones are 400, 1000 and 2804 Hz. Three switch positions can be programmed for any test tone between 300 and 3000 Hz. (Note: 2713Hz, +/- 50 Hz normally not available for tones. Contact factory if you need to disable this inhibition.)
Protection	Transient protectors on communication lines, reverse polarity protection (fuse) for power polarity protection

Ordering Information:

85-99003	Maintainer's Amp II with Test Leads and Manual
85-99003 A	Maintainer's Amp II without Test Leads and without Manual
85-61002	Standard Test Leads with Telecom clips (two sets of double leads)
PM-85-99003-xy	Manual (xy—revision number)

11/2000 Specifications subject to change