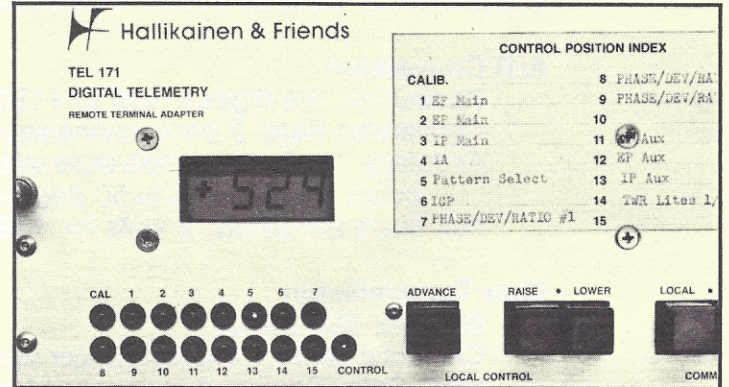
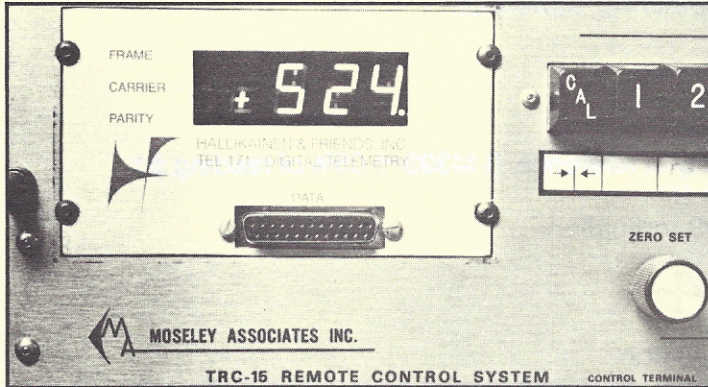


Digital Telemetry TEL 171

TEL 171 Specifications

TEL 171 Telemetry Specifications



The TEL 171 converts your Moseley TRC-15AW or TRC-15AR to digital metering transmission, a method that eliminates the offset and gain drift in the analog metering.

A local display in the transmitter control unit duplicates the readings displayed by the studio control unit. This permits one-man weekly meter calibration.

The system consists of printed circuit boards which substitute directly for the audible metering generator, the audible metering demodulator, and the meter. The local display for the transmitter control unit includes a replacement front panel and a liquid crystal display printed circuit board.

Installation is quick and simple since the same PC mounting hardware is used, and the same wiring harness connects to the new boards.

3½ digit (-1999 to +1999) display are used. These easily read displays are updated twice a second. Should the metering carrier be lost, or a framing or parity error occur, the display at the studio will blank and a front panel LED will indicate the problem.

Through the use of digital transmission and display, we eliminate the error inherent in analog transmission, and simplify the task of remote meter calibration and meter reading.

Moseley, our neighbors down the road, make a good remote control. We can make it better.

Hallikainen & Friends

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TEL 171 Specifications

H&F 1211TT Telemetry Transmitter

Substitutes for Moseley 51A5416 Audible Metering Generator.

A/D Conversion

Resolution: 3½ digits (-1999 to +1999)

Conversion Rate: 2 conversions/second

Accuracy: Limited by temperature stability of reference (LM399H).05% of reading ± 1 count, 0 degrees C to 50 degrees C

Full Scale Sensitivity: 2 Volts for +1999 indication.

Data Transmission

Bit Rate: 300 Baud

Character Rate: 4 characters per conversion

Word Rate: One word per conversion (2/s), each conversion transmitted once with idle time between conversions.

Character Format: Start bit, six data bits, even parity bit, two stop bits. First four data bits carry digit code in BCD (except for on half digit where three bits carry \pm , 0 or 1, and out of range indications). Last two data bits identify digit (00 half digit, 11 is last digit).

Word Format: Digits transmitted in order (0,1,2,3).

Data channel idle between conversions.

Encoding: FSK, 1270 Hz Mark, 1070 Hz Space.

Output Level: +1 dBm into 600 ohms, adjustable (line), and 5 V P-P open circuit, Z = 2.2K (subcarrier).

Display

3½ digit LCD local display.

Power Requirements

Floating +15: 35 mA

Floating -15: 30 mA

+ 5: 0.2 mA

+15: 30 mA

H&F 1221TR Telemetry Receiver

Substitutes for Moseley 51A5420 Audible Metering Demodulator.

Minimum Receive Level: -40 dBm (7.7 mV)

Data Output: Character parallel, negative 250 uS strobe, carrier, parity, and framing alarms. All TTL levels.

Power Requirements: 5V, 100 mA

H&F 1231TD Telemetry Display

Substitutes for Moseley meter.

3½ digit LED display with PROM programmed decimal points.

All metering and control data presented on front panel connector for logging for ATS.

Power Requirements: +5V, 400 mA