Telephone Modem with Voice Synthesizer
Model COM310

Campbell Scientific’s COM310 voice-synthesizer modem provides a CR510, CR800, CR10(X), CR1000, CR23X, or CR3000 datalogger with speech capability, thus enabling the user to call the site for a spoken summary of real-time or historical data. The COM310 can also act as a standard modem, with data transmit rates up to 9,600 bps.

Features:

- Allows anyone to call a COM310-equipped site from any phone (including cellular) to receive a verbal report of current site conditions.
- Enables the datalogger to call you and recite a verbal warning if specified conditions occur.
- Reports specific conditions or allows selection of information by pressing numbers on a touch-tone phone.
- Generates voice strings using CRBasic code for the CR800, CR1000, and CR3000 or LoggerTalk™ software for the CR510, CR10(X), and CR23X; see page 3 for standard word list.
- Operates over a wide temperature range: -25° to +50°C standard, -55° to +80°C, optional
- Includes a speaker that aids troubleshooting in the field
- Compatible with both mixed-array and PakBus® dataloggers

A COM310’s connections: The 9-pin serial port connects the COM310 to a datalogger via an SC12 cable. The RJ11C Modular Telephone Jack connects the COM310 to a surge-protected telephone line, or alternatively, the screw terminals (GND, RING, TIP) connect the COM310 to a phone line via a surge protector. Surge protectors are strongly recommended for sites where the phone company has not provided surge protection.

You can use any phone to call a COM310-equipped site and receive a verbal report of real-time conditions.
**Required Equipment**

- **Phone.** Typically a touch-tone phone, but a rotary phone can be used to receive a verbal report only when the report does not require user participation (i.e., pressing numbers to select information).

- **Analog phone line.** Some DBX office phone lines are digital and cannot be used with analog modems such as the COM310.

- **Surge protector at the datalogger site if one is not installed by the phone company.** CSI offers model 6362 (mounts inside enclosure) or model 4330 (similar to the 6362 but without enclosure mounts).

- **COM310 voice-synthesizer modem** (includes SC12 cable and LoggerTalk™ vocabulary software)

- **CR800, CR510, CR10(X), CR1000, or CR3000 datalogger.** The CR10 requires a UV EPROM.

- **Environmental enclosure (typically an ENC12/14, ENC14/16, or ENC16/18).**

- **Power supply**

Datalogger-to-computer communication also requires at the computer site an IBM-PC or compatible computer with our LoggerNet Datalogger Support Software, an SC25PS or equivalent modem cable, and a user-supplied Hayes-compatible modem.

**Specifications**

- **Baud rate:** 1200, 9600 bps
- **Typical current drain:** 100 µA quiescent
  
  180 mA active (voice transmitting)
- **Operating voltage:** 12 Vdc
- **Operating temperature range:** -25° to +50°C standard, -55° to +80°C, optional
- **Dimensions:** 5.2” x 1.7” x 3.6” (13.1 x 4.3 x 9.2 cm)
- **Weight:** 0.75 lbs (0.34 kg)
- **FCC Compliance:** Equipment complies with FCC Rules Part 68 and requirements in Part 15 of FCC Rules for Class A computing devices.

**FCC Registration No.:** B9QUSA-31402-MM-T

**Standards:** Bell 212A, CCITT V.21, V.32bis compatible

**For information on analyzing your system’s power requirements, please request a copy of Campbell Scientific’s Power Supply brochure or application note.**
Customer-requested words for specific applications can also be included; consult the factory for details. The COM310's “sentences” are programmed using CRBasic code or LoggerTalk™ software (included with the COM310).