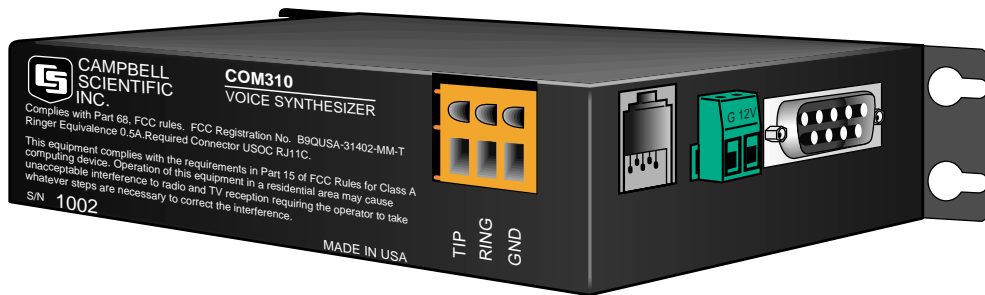


Telephone Modem with Voice Synthesizer

Model COM310

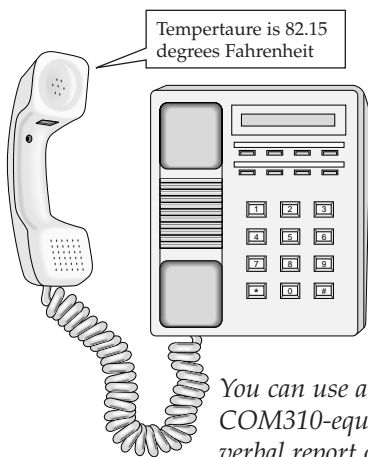
Campbell Scientific's COM310 voice-synthesizer modem provides a CR510, CR800, CR10(X), CR1000, CR23X, or CR3000 datalogger with speech capability, thus enabling the user to call the site for a spoken summary of real-time or historical data. The COM310 can also act as a standard modem, with data transmit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



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.

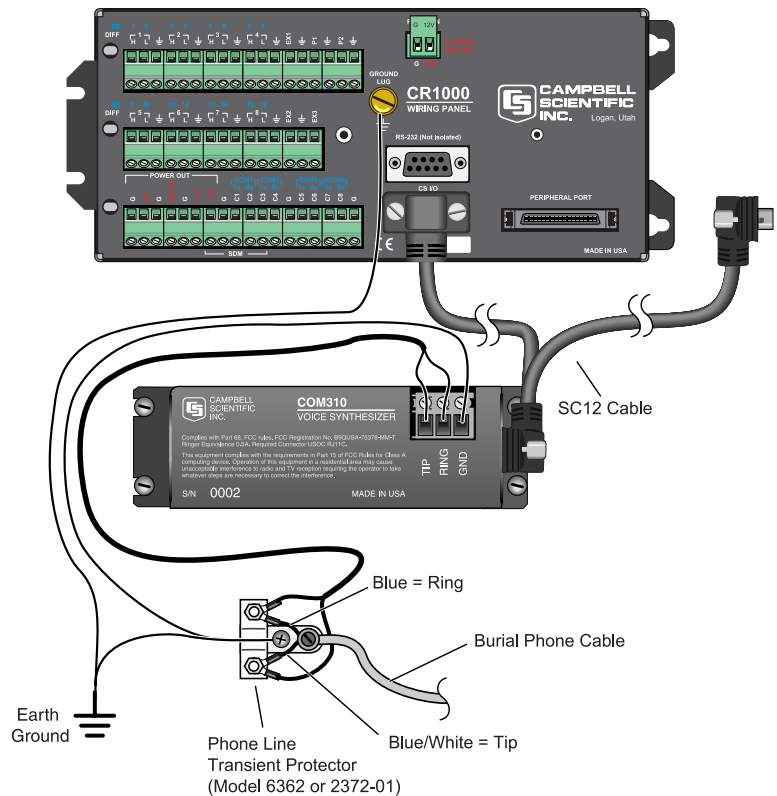
Features:

- 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



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**



A COM310 connected to a CR1000 datalogger, SC12 cable, and a surge protector.

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 μ A 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.

Standard COM310 Word List

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).

50MS	CAMPBELL	EIGHTEEN	GRASS	LAYER
	CAN	EIGHTY	GROUND	LEVEL
A	CELSIUS	ELECTRON		LINE
A	CEMENT	ELEVATION	H	LITER
A-M	CENTI	ELEVEN	H	LOAD
ABOVE	CENTRAL	EMPTIED	H-2-S	LOCATED
ACCUMULATE	CHECK	ENGINE	HAD	LOCATION
ACKNOWLEDGE	CHILL	ENTER	HARDNESS	LOCATIONS
ACRE	CHILLER	EPROM	HAS	LOGAN
ADDITION	CHLORIDE	EQUAL	HASH	LOW
ADDITIONAL	CHLORINE	ERROR	HAVE	
AGAIN	CLOSED	EVENT	HEAD	M
AGO	CODE	EXCEEDS	HEAR	M
AIR	CONDUCTIVITY	EXTERNAL	HEAT	M-R-P
ALARM	CONTACT		HELLO	MANAGEMENT
ALL	CORRECTED	F	HERTZ	MAXIMUM
AMMONIUM	CROSSING	F	HIGH	MEMORY
AND	CUBIC	FAHRENHEIT	HOLD	MENDON
APPROACH	CURRENT	FAILED	HOT	MENU
ARE	CYCLES	FAILURE	HOUR	MERCURY
AREA		FALL	HOURS	MESSAGE
AT	D	FALLING	HUMIDITY	METER
AVAILABLE	D	FEET	HUNDRED	METERS
AVERAGE	D-O	FIFTEEN	HYDROLOGIC	MICRO
	DAM	FIFTY		MID
B	DATA	FIRST	I	MID-MOUNTAIN
B	DATALOGGER	FIVE	I	MIDNIGHT
BACK-UP	DAY	FLAG	IN	MILES
BAROMETRIC	DAYS	FLAGS	INCHES	MILLI
BARS	DEGREES	FLOW	INDEX	MILLION
BATTERY	DELTA	FLUORIDE	ING	MINIMUM
BAY	DEPTH	FOLLOWING	INPUT	MINUS
BE	DEVIATION	FORTY	INTAKE	MINUTE
BEAVER	DEW	FOUR	INTERNAL	MINUTES
BEDS	DING	FOURTEEN	INTRUDER	MODEM
BEHIND	DIRECTION	FREEZER	IRRADIANT	MOISTURE
BELOW	DISCONNECT	FREQUENCY	IRRIGATION	MONDAY
BIG	DISTRICT	FRIDAY	IS	MONITOR
BILLION	DIVERSION	FROM	IT	MONTH
BLAST	DOCK	FUEL		MOUNT
BOILER	DOOR		J, K	MOUNTAIN
BUILDING	DOWN	G	J	MULTIPLIER
BY	DRAW	G	K	
	DURING	GALLONS	KEY	N
C		GAS	KILO	N
C	E	GATE	KILOBYTES	N-T-U
C-O	E	GAUGE	KNOTS	NEEDS
CALCIUM	E-T-O	GENERATOR		NETWORK
CALIBRATE	E08'S	GOING	L	NEW
CALL	EAST	GOOD	L	NEXT
CALLBACK	EASTERN	GOODBYE	LAKE	NINE
CALLS	EFFLUENT	GRADIENT	LAST	NINETEEN
	EIGHT	GRAM		NINETY

NITRATE
NITROGEN
NO
NOON
NORTH
NOT
NUMBER

O

O
OF
OFF
OFFSET
OK
ON
ONE
OPEN
OR
OUT
OVERFLOW
OVERRUNS
OZONE

P

P
P-H
P-M
P-S-I
PACIFIC
PARAMETER
PARTS
PAST
PEAK
PENDING
PER
PERCENT
PHONE
PLANT
PLEASE
POINT
POND
PORT
PORTS
POTASSIUM
POUND
POWDER
POWER

PRECIPITATION
PREHEAT
PRESS
PRESSURE
PREVIOUS
PROBE
PRODUCT
PROGRAM
PROGRESS
PUMP

Q

Q
QUALITY
QUIT

R

R
R-P-M
RACE
RADIAL
RADIATION
RAIN
RANGE
RATE
REACHED
READING
RECEIVED
REFERENCE
RELATIVE
RESERVOIR
RESET
RESIDUAL
RETURN
REVISION
RISING
RIVER
ROAD
ROOM
RUN
RUNOFF

S

S
S-O-2
SAMPLE
SATURDAY
SCIENTIFIC
SECOND
SECONDS
SECURITY
SEDIMENT
SELECTED
SELECTION
SENSOR
SENSORS
SET
SEVEN
SEVENTEEN
SEVENTY
SHAFT
SIEMENS
SIGNATURE
SINCE
SITE
SIX
SIXTEEN
SIXTY
SKIING
SMOG
SNOW
SODIUM
SOIL
SOLAR
SONAR
SOUTH
SPEED
SPILL
SQUARED
STAGE
STANDARD
STAR
STATES
STATION
STATUS
STORM
STREAMBED

SUMMIT
SUMP
SUNBURN
SUNDAY
SURFACE
SURFACTANCE
SYSTEM

T

T
TABLE
TAIL
TEMPERATURE
TEN
TESTING
THANK
THAT
THE
THIRTEEN
THIRTY
THIS
THOUSAND
THREE
THRESHOLD
THRU
THURSDAY
TIME
TING
TO
TODAY
TODAYS
TOGGLE
TOTAL
TRIGGERED
TUESDAY
TURBIDITY
TWELVE
TWENTY
TWO

U

U
ULTRAVIOLET
UNITS
UP

V

V
V-O-C
VALUE
VELOCITY
VERSION
VERTICAL
VIA
VOLTAGE
VOLTS

W

W
WARNING
WAS
WATER
WATTS
WE
WEATHER
WEDNESDAY
WELCOME
WELL
WEST
WHAT
WIND
WITH

X, Y

X
Y
YEAR
YESTERDAY
YOU
YOUR

Z

Z
ZERO

