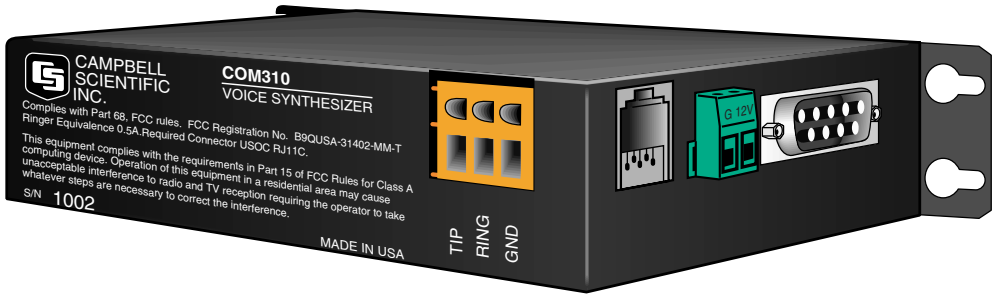
Telephone Modem with Voice Synthesizer

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.

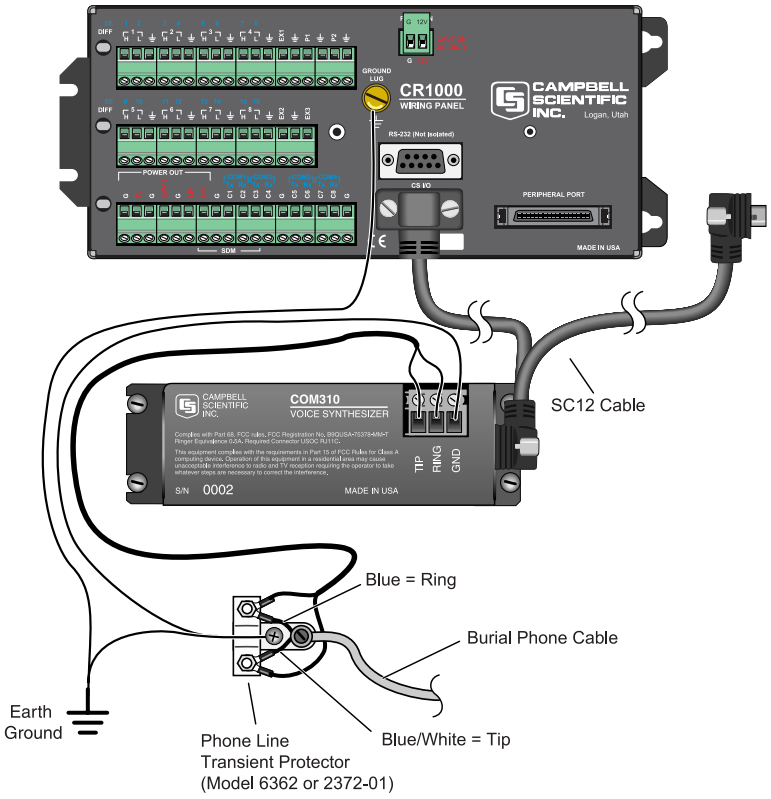
Features:

- 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

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**



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 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.

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

A

A
A-M
ABOVE
ACCUMULATE
ACKNOWLEDGE
ACRE
ADDITION
ADDITIONAL
AGAIN
AGO
AIR
ALARM
ALL
AMMONIUM
AND
APPROACH
ARE
AREA
AT
AVAILABLE
AVERAGE

B

B
BACK-UP
BAROMETRIC
BARS
BATTERY
BAY
BE
BEAVER
BEDS
BEHIND
BELOW
BIG
BILLION
BLAST
BOILER
BUILDING
BY

C

C
C-O
CALCIUM
CALIBRATE
CALL
CALLBACK
CALLS
CAMPBELL
CAN
CELSIUS
CEMENT
CENTI
CENTRAL
CHECK
CHILL
CHILLER
CHLORIDE
CHLORINE
CLOSED
CODE
CONDUCTIVITY
CONTACT
CORRECTED
CROSSING
CUBIC
CURRENT
CYCLES

D

D
D-O
DAM
DATA
DATALOGGER
DAY
DAYS
DEGREES
DELTA
DEPTH
DEVIATION
DEW
DING
DIRECTION
DISCONNECT
DISTRICT
DIVERSION
DOCK
DOOR
DOWN
DRAW
DURING

E

E
E-T-O
E08'S
EAST
EASTERN
EFFLUENT
EIGHT
EIGHTEEN
EIGHTY
ELECTRON
ELEVATION
ELEVEN
EMPTIED
ENGINE
ENTER
EPROM
EQUAL
ERROR
EVENT
EXCEEDS
EXTERNAL

F

F
FAHRENHEIT
FAILED
FAILURE
FALL
FALLING
FEET
FIFTEEN
FIFTY
FIRST
FIVE
FLAG
FLAGS
FLOW
FLUORIDE
FOLLOWING
FORTY
FOUR
FOURTEEN
FREEZER
FREQUENCY
FRIDAY
FROM
FUEL

G

G
GALLONS
GAS
GATE
GAUGE
GENERATOR
GOING
GOOD
GOODBYE
GRADIENT
GRAM
GRASS
GROUND

H

H
H-2-S
HAD
HARDNESS
HAS
HASH
HAVE
HEAD
HEAR
HEAT
HELLO
HERTZ
HIGH
HOLD
HOT
HOUR
HOURS
HUMIDITY
HUNDRED
HYDROLOGIC

I

I
IN
INCHES
INDEX
ING
INPUT
INTAKE
INTERNAL
INTRUDER
IRRADIANT
IRRIGATION
IS
IT

J, K

J
K
KEY
KILO
KILOBYTES
KNOTS

L

L
LAKE
LAST
LAYER
LEVEL
LINE
LITER
LOAD
LOCATED
LOCATION
LOCATIONS
LOGAN
LOW

M

M
M-R-P
MANAGEMENT
MAXIMUM
MEMORY
MENDON
MENU
MERCURY
MESSAGE
METER
METERS
MICRO
MID
MID-MOUNTAIN
MIDNIGHT
MILES
MILLI
MILLION
MINIMUM
MINUS
MINUTE
MINUTES
MODEM
MOISTURE
MONDAY
MONITOR
MONTH
MOUNT
MOUNTAIN
MULTIPLIER

N

N
N-T-U
NEEDS
NETWORK
NEW
NEXT
NINE
NINETEEN
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

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