# Telephone Modem with Voice Synthesizer Model COM300

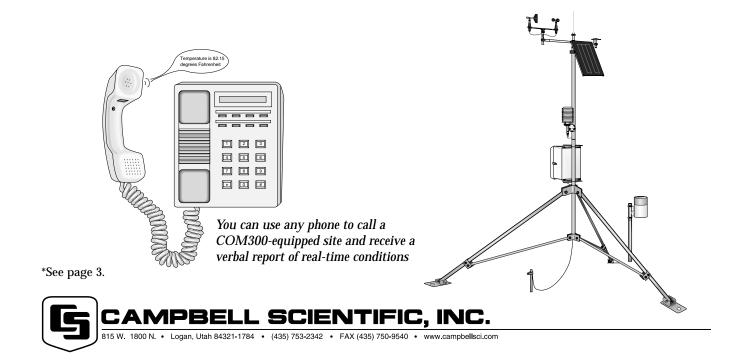
Campbell Scientific's COM300 voice-synthesizer modem provides a CR510, CR10(X), CR23X, or CR5000 datalogger with speech capability, thus enabling the user to call the site for a spoken summary of real-time or historical data. The COM300 can also act as a standard modem, with data transmit rates up to 9,600 bps.



A COM300's connections: The 9-pin serial port connects the COM300 to a datalogger via an SC12(R) cable. The RJ11C Modular Telephone Jack connects the COM300 to a surge-protected telephone line, or alternatively, the screw terminals (GND, RING, TIP) connect the COM300 to a phone line via a surge protector. Surge protectors are strongly recommended for sites where the phone company has not provided surge protection.

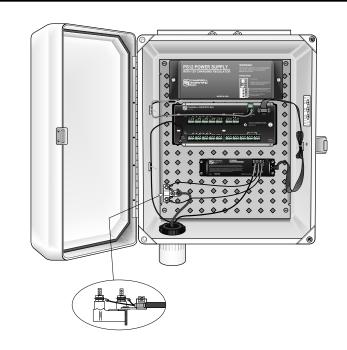
#### Features:

- Allows anyone to call a COM300-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.
- Contains a large number of words on the COM300 chip for constructing the verbal reports; customized words and phrases are also available.\*
- Operates over a wide temperature range: -25° to +50°C standard, -55° to +80°C, optional.



## 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).
- 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 (same functionality as 6362 but without enclosure mounts).
- COM300 voice-synthesizer modem (includes SC12 cable and LoggerTalk™ vocabulary software)
- CR510, CR10(X), CR23X, or CR5000 (the CR10 requires a Library Special PROM)
- Environmental enclosure (typically ENC 12/14 or ENC 16/18).
- Power supply\*\*



An ENC 12/14 enclosure housing a CR10X, PS12LA power supply, a COM300, an SC12 cable, and a surge protector. Sensor cabling and solar panel not shown.

Datalogger-to-computer communication also requires (at the computer site) an IBM-PC or compatible computer with our PC208(W) Support Software, an SC25PS or equivalent modem cable, and a user-supplied Hayes-compatible modem.

### **Specifications**

Bps: 300, 1200, 9600

Typical current drain: 100 µA quiescent

140 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.2, V.32bis

<sup>\*\*</sup> For information on analyzing your system's power requirements, please request a copy of Campbell Scientific's Power Supply brochure or application note.

# Standard COM300 Word List

Customer-requested words for specific applications can also be included; consult the factory for details. "Sentences" used by the COM300 are programmed using LoggerTalk $^{\text{TM}}$ , a software package included with COM300 purchase.

F		,		
50MS	CAMPBELL	EIGHT	GRADIENT	LAKE
	CAN	EIGHTEEN	GRAM	LAST
Α	CELSIUS	EIGHTY	GRASS	LAYER
	CEMENT			
A		ELECTRON	GROUND	LEVEL
A-M	CENTI	ELEVATION		LINE
ABOVE	CENTRAL	ELEVEN	Н	LITER
ACCUMULATE	CHECK	EMPTIED	Н	LOAD
ACKNOWLEDGE	CHILL	ENGINE	H-2-S	LOCATED
ACRE	CHILLER	ENTER	HAD	LOCATION
ADDITION	CHLORIDE	EPROM	HARDNESS	LOCATIONS
ADDITIONAL	CHLORINE	EQUAL	HAS	LOGAN
	CLOSED	ERROR		LOW
AGAIN			HASH	LOVV
AGO	CODE	EVENT	HAVE	<b>.</b> .
AIR	CONDUCTIVITY	EXCEEDS	HEAD	M
ALARM	CONTACT	EXTERNAL	HEAR	M
ALL	CORRECTED		HEAT	M-R-P
AMMONIUM	CROSSING	F	HELLO	MANAGEMENT
AND	CUBIC	F	HERTZ	MAXIMUM
APPROACH	CURRENT	FAHRENHEIT	HIGH	MEMORY
ARE	CYCLES	FAILED	HOLD	MENDON
	0.0220			
AREA	Б	FAILURE	HOT	MENU
AT	D	FALL	HOUR	MERCURY
AVAILABLE	D	FALLING	HOURS	MESSAGE
AVERAGE	D-O	FEET	HUMIDITY	METER
	DAM	FIFTEEN	HUNDRED	METERS
В	DATA	FIFTY	HYDROLOGIC	MICRO
В	DATALOGGER	FIRST		MID
BACK-UP	DAY	FIVE	1	MID-MOUNTAIN
	DAYS	FLAG		MIDNIGHT
BAROMETRIC	DEGREES	FLAGS		MILES
BARS	DELTA	FLOW	IN	MILLI
BATTERY			INCHES	
BAY	DEPTH	FLUORIDE	INDEX	MILLION
BE	DEVIATION	FOLLOWING	ING	MINIMUM
BEAVER	DEW	FORTY	INPUT	MINUS
BEDS	DING	FOUR	INTAKE	MINUTE
BEHIND	DIRECTION	FOURTEEN	INTERNAL	MINUTES
BELOW	DISCONNECT	FREEZER	INTRUDER	MODEM
BIG	DISTRICT	FREQUENCY	IRRADIANT	MOISTURE
BILLION	DIVERSION	FRIDAY	IRRIGATION	MONDAY
BLAST	DOCK	FROM	IS	MONITOR
	DOOR	FUEL		MONTH
BOILER	DOWN	. 622	IT	MOUNT
BUILDING	DRAW			MOUNTAIN
BY		G	J, K	
	DURING	G	J	MULTIPLIER
С	_	GALLONS	K	
С	E	GAS	KEY	N
C-O	E	GATE	KILO	N
CALCIUM	E-T-O	GAUGE	KILOBYTES	N-T-U
CALIBRATE	E08'S	GENERATOR	KNOTS	NEEDS
CALL	EAST	GOING	111010	NETWORK
CALLBACK	EASTERN	GOOD	ī	NEW
	EFFLUENT	GOODBYE	L	NEXT
CALLS	LITEOLINI	COODDIL	L	INLAI

NINE	POUND	•	CTDEAMDED	
		S	STREAMBED	U
NINETEEN	POWDER	S	SUMMIT	U
NINETY	POWER	S-O-2	SUMP	ULTRAVIOLET
NITRATE	PRECIPITATION	SAMPLE	SUNBURN	UNITS
NITROGEN	PREHEAT	SATURDAY	SUNDAY	UP
NO	PRESS	SCIENTIFIC	SURFACE	•
NOON	PRESSURE	SECOND	SURFACTANCE	V
NORTH	PREVIOUS		SYSTEM	
NOT	PROBE	SECONDS	SISILIVI	V
NUMBER		SECURITY	<b>-</b>	V-O-C
	PRODUCT	SEDIMENT	T	VALUE
0	PROGRAM	SELECTED	Т	VELOCITY
0	PROGRESS	SELECTION	TABLE	VERSION
OF	PUMP	SENSOR	TAIL	VERTICAL
OFF		SENSORS	TEMPERATURE	VIA
OFFSET	Q	SET	TEN	VOLTAGE
OK	Q	SEVEN	TESTING	
ON	QUALITY	SEVENTEEN	THANK	VOLTS
ONE				
OPEN	QUIT	SEVENTY	THAT	W
OR	_	SHAFT	THE	W
OUT	R	SIEMENS	THIRTEEN	WARNING
OVERFLOW	R	SIGNATURE	THIRTY	WAS
OVERRUNS	R-P-M	SINCE	THIS	WATER
OZONE	RACE	SITE	THOUSAND	WATTS
020112	RADIAL	SIX	THREE	WE
Р	RADIATION	SIXTEEN	THRESHOLD	WEATHER
<b>.</b> Р	RAIN	SIXTY	THRU	
r P-H	RANGE	SKIING	THURSDAY	WEDNESDAY
P-M		SMOG	TIME	WELCOME
P-S-I	RATE	SNOW	TING	WELL
PACIFIC	REACHED		TO	WEST
PARAMETER	READING	SODIUM		WHAT
PARTS	RECEIVED	SOIL	TODAY	WIND
PAST	REFERENCE	SOLAR	TODAYS	WITH
PEAK	RELATIVE	SONAR	TOGGLE	
PENDING	RESERVOIR	SOUTH	TOTAL	X, Y
PER	RESET	SPEED	TRIGGERED	•
PERCENT	RESIDUAL	SPILL	TUESDAY	X
PHONE	RETURN	SQUARED	TURBIDITY	Υ
PLANT	REVISION	STAGE	TWELVE	YEAR
PLEASE	RISING	STANDARD	TWENTY	YESTERDAY
		STAR	TWO	YOU
POINT	RIVER	STATES	1 4 4 🔾	YOUR
POND	ROAD			
PORT	ROOM	STATION		Z
PORTS	RUN	STATUS		<b>–</b> Z
POTASSIUM	RUNOFF	STORM		
				ZERO

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