# Computer Automation Technology, Inc.
CAT-300 Repeater Controller

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Finally a full feature repeater controller with voice synthesizer and autopatch for an incredible price of $299.00.

Features Include:

* Voice Synthesizer
* Twelve Voice Messages
* CW Identifier
* Programmable Courtesy Tones
* Forty-Five Control Functions
* Full Feature Autopatch
* User Speed Dials
* Emergency Speed Dials
* Reverse Autopatch
* Autopatch Cover Tone
* Autopatch Time Extender
* Phone Number Read Back
* Caller ID Suppression
* DTMF or Pulse Dialing
* DTMF Pad Test
* DTMF Repeater Access
* DTMF Window
* DTMF Audio Muting
* Programmable Prefix Codes
* Programmable Timers
* User Function Inputs
* User Function Switches
* DVR Controller
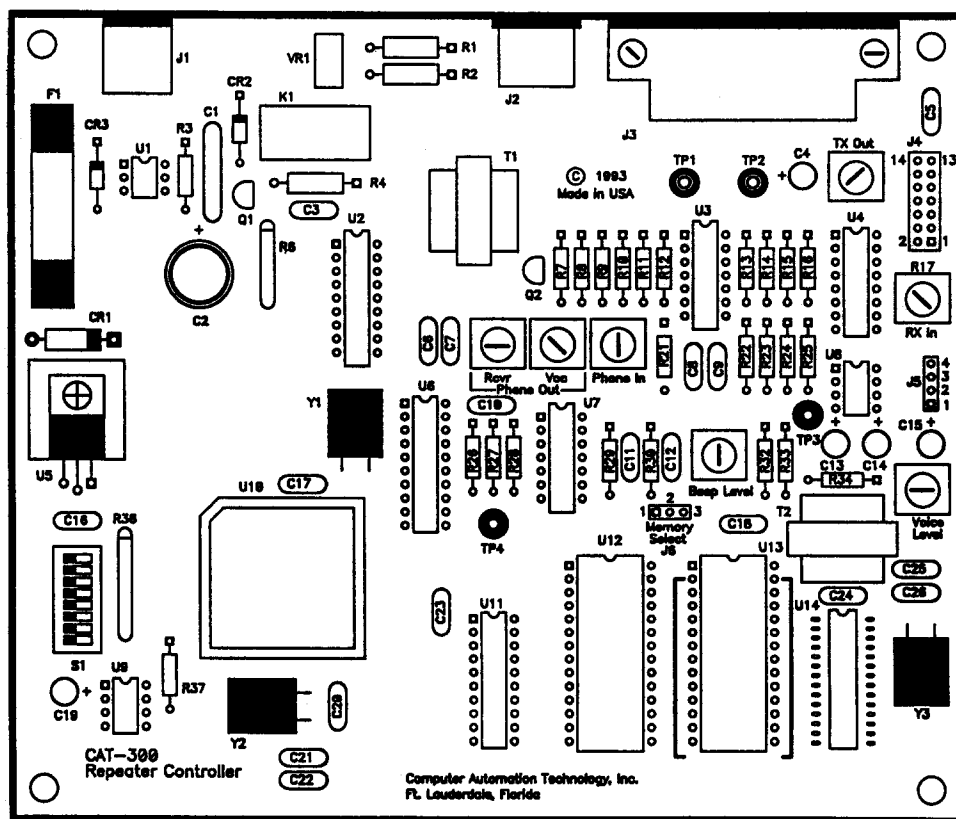
Voice Synthesizer

A [412] word vocabulary carefully selected for amateur repeater operation is available to construct [12] different voice messages. Each message can be [23] words in length. Configure your repeater ID and announcements to suit your particular needs. Chimes, sound effects and female salutations are also included.

DTMF Key-Pad Test

The key-pad test will read back the numbers decoded in a synthesized voice. This includes the words "STAR" and "POUND."

Courtesy Tone

Memory space is provided for [8] custom courtesy tones. Each tone can consist of up to three different tone frequencies of various lengths and separations.

CW ID

The CAT-300 will switch to a CW ID when a user talks over the voice ID.

Autopatch

A full feature autopatch with storage for [25] speed dial numbers highlights the CAT-300. Each speed dial location accepts [11] digit numbers and includes space for call letters. The same is true for the [5] Emergency speed dial locations. Regular calls are preceded by a phone number read-back. This feature can be suppressed by a mic key-click. Long distance protection is provided by a first number 0-1 check. An autopatch time extender command rounds out the features. In addition to the Reverse autopatch, full telephone control and programming provides extra security.

Digital Voice Recorder

An optional DVR, controlled by the CAT-300 through the MF-1000 serial card, can be added to your repeater. Control of the DVR is fully integrated into the CAT-300 control and command structure. The CAT-300 will permit you to substitute any of the [16] DVR tracks in place of the messages normally generated by the voice synthesizer. In fact, you can even intermix DVR tracks with voice messages.

User Function Output Switches

Three remote switches control equipment at your repeater site. DTMF commands are available to turn OFF, ON or Momentarily change state, any time you choose.

Repeater Programming

An extensive set of programming commands permits you to customize your repeater's operation. Protection is provided by a user programmable [7] digit un-lock number. Once un-locked, use the programming commands to load voice messages, speed dial numbers, change prefix codes and timer settings.

User Function Inputs

Two inputs activated by a positive voltage from other equipment at the repeater site, causes the CAT-300 to execute any repeater command. External repeater control or information about the repeater site will be instantly available.

CAT-300DX Repeater Controller

By replacing the DS1220Y RAM with the DS1243Y, memory is increased from [16K] to [64K] and a digital clock is added. With this additional memory, and a software up-date, the CAT-300 is converted to a CAT-300DX at an equally incredible price of $399.00.

Voice Clock [CAT-300DX]

The voice will announce the time upon request, at the completion of an autopatch, during repeater IDs, or on the hour through the grandfather clock feature.

Autopatch [CAT-300DX]

Speed Dial storage is increased to [100] locations with the additional memory contained in the CAT-300DX.

Macro [CAT-300DX]

By entering a macro number, the CAT-300 will execute up to [5] commands in a string. Store up to [10] macros in memory. Customize the control functions to suit your particular needs.

Scheduler [CAT-300DX]

An advanced [40] position scheduler fully automates the operation of the repeater. Pre-schedule your repeater's operation to one minute accuracy. Program the hours, minutes, day of week, or day of month and month of year. The CAT-300 will do the rest.

Memory Save [CAT-300DX]

Configure the CAT-300 to suit your special requirements. Save the current settings of the control channels, prefix codes, timers and [12] voice messages. Space is provided for [4] memory saves. These memory saves can be later recalled with a DTMF command or through the action of the scheduler.

CAT-300 Schematic
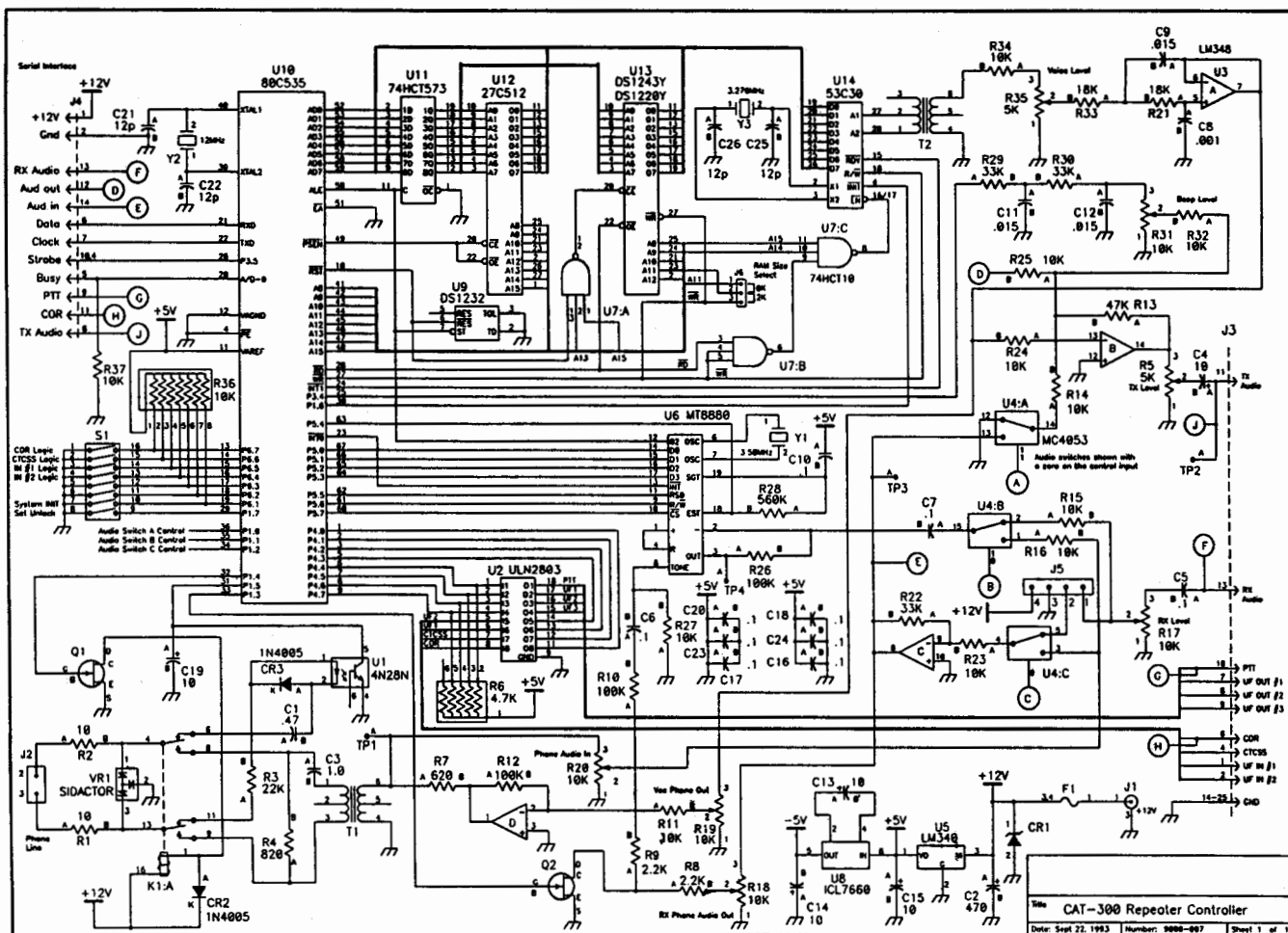
Voice Vocabulary Word List

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Zero..........	Between........	Fire...........	Long...........	Point..........	The(shortE)....	**Sound Effects**
One...........	Bravo..........	Fog...........	Look...........	Police........	The(longE).....	Chime 1........
Two...........	Break.........	For...........	Low...........	Position.......	Then...........	Chime 2........
Three.........	By.............	Foxhunt........	Lower..........	Pound..........	This...........	Chime 3........
Four..........	C.............	Foxtrot........	M.............	Power..........	This-is........	Gunshot........
Five..........	Calibrate......	Freezing.......	Machine........	Preset.........	Thousand.......	Laughter.......
Six...........	Call...........	Frequency......	Macro..........	Program........	Thunderstorms..	**Female**
Seven.........	Calling........	Friday.........	Make...........	Put............	Thursday.......	Good Morning...
Eight.........	Cancel........	From...........	Manual.........	Q.............	Time...........	Good Afternoon..
Nine..........	Cat...........	Front..........	Many...........	Quebec.........	Timer..........	Good Evening...
Ten...........	Caution........	Full..........	March..........	R.............	Today..........	**Time Variables**
Eleven........	Center.........	G.............	May...........	Radio..........	Tomorrow.......	Time of Day....*
Twelve........	Celsius........	Gear..........	Measure.......	Radios.........	Tonight........	Day of Week....*
Thirteen.......	Change.........	Get...........	Measured.......	Rain...........	Tornado........	Day and Month..*
Fourteen.......	Charlie........	Go...........	Meeting........	Range..........	Tower..........	Salutation.....*
Fifteen........	Check..........	Golf..........	Mega..........	Rate...........	Traffic........	
Sixteen........	Circuit........	Good..........	Message........	Ready..........	Transmit.......	
Seventeen......	Clear.........	Green..........	Meter..........	Receive........	Transmitter....	* CAT-300[DX]
Eighteen.......	Clock.........	Ground........	Meters.........	Receiver.......	Try............	
Nineteen.......	Closed.........	H.............	Mike..........	Red............	Tuesday........	
Twenty........	Club..........	Hail..........	Miles.........	Release........	Turn...........	
Thirty.........	Code..........	Half..........	Milli.........	Remark........	Type...........	
Forty..........	Come..........	Ham..........	Million........	Remote.........	U.............	
Fifty..........	Complete.......	Hamfest........	Minus.........	Repair.........	Uniform........	
Sixty..........	Completed......	Have..........	Minute.........	Repeat.........	Unit...........	
Seventy........	Computer.......	Hazardous......	Minutes........	Repeater.......	Until..........	
Eighty.........	Condition......	Heavy..........	Mobile.........	Reset..........	Up............	
Ninety.........	Connect........	Henry..........	Modified.......	Right..........	Use(noun)......	
A.............	Contact........	Hertz..........	Monday.........	Road...........	Use(verb)......	
A.M............	Control........	High...........	Month..........	Roger..........	V.............	
Abort..........	Cycle..........	Hotel..........	More than......	Romeo..........	Verify.........	
Above..........	D.............	Hour...........	Move...........	Route..........	Version........	
Acknowledge....	Danger.........	Hours..........	Much...........	S.............	Victor.........	
Action........	Data...........	Hundred........	N.............	Safe...........	Volts..........	
Adjust.........	Date...........	I.............	Near...........	Saturday.......	W.............	
Advise.........	Day............	Ice...........	Net...........	Scattered......	Wait...........	
Affirmative....	Days...........	Icing..........	New...........	Seconds........	Warning........	
Again..........	December.......	Identify.......	Next...........	Security.......	Watch..........	
Air............	Decrease.......	Immediately....	Night.........	Send...........	Watts..........	
Alert..........	Degree.........	In............	No...........	Sent...........	Weather........	
All............	Delay..........	Increase.......	Normal.........	September......	Wednesday......	
Alpha..........	Delta.........	India.........	North..........	Sequence.......	Week...........	
Alternate......	Department.....	Information....	Not...........	Service........	Weekday........	
Altitude.......	Direction......	Ing(suffix)....	November.......	Set............	Welcome........	
Amateur........	Do............	Inputs.........	Now...........	Severe.........	West...........	
Amps...........	Down..........	Intruder.......	Number.........	Short..........	What...........	
An.............	Drizzle........	Is............	O.............	Showers........	Whiskey........	
And............	Due...........	It............	O'clock........	Side...........	Will...........	
Answer.........	Dynamic........	J.............	October........	Sierra.........	Wind...........	
April..........	E.............	January........	Of............	Slow...........	With...........	
Are............	East..........	Juliet.........	Off...........	Snow...........	X.............	
Area...........	Echo..........	July..........	Ohms..........	South..........	X-Ray..........	
As.............	Ed (suffix)....	June...........	On...........	Speed..........	Y.............	
Assistance.....	Emergency......	K.............	Open...........	Star..........	Yankee.........	
Association....	End............	Key...........	Operation......	Start..........	Year...........	
At.............	Enter..........	Keypad.........	Operator.......	Stop...........	Yellow........	
Attempt........	Equals.........	Kilo..........	Or............	Storm..........	Yes............	
Attention......	Error..........	L.............	Oscar.........	Sunday.........	Yesterday......	
August.........	Evacuation.....	Last...........	Other..........	Switch.........	You............	
Automatic......	Exit...........	Left...........	Out...........	System........	Your...........	
Autopatch......	Expect.........	Less than......	Over...........	S (plural).....	Z.............	
Auxiliary......	F.............	Let...........	P.............	T.............	Zed............	
Avenue.........	Fail..........	Light..........	P.M............	Tango..........	Zero...........	
Average........	Failure........	Lima..........	Papa..........	Telephone......	Zone...........	
B.............	Fahrenheit.....	Line...........	Patch..........	Temperature....	Zulu..........	
Back..........	Fast...........	Link..........	Per...........	Test...........	Pause 1........	
Band..........	February.......	List..........	Plan...........	Than..........	Pause 2........	
Base..........	Feet..........	Load..........	Please........	Thank-You.....	Pause 3........	
Below..........	File...........	Lockout........	Plus...........	That...........	Pause 4........	

MF-1000 Serial Interface Card

This card controls the digital voice recorder. The MF-1000 selects the track and the Play, Record, and Reset functions. Eight expanded user function switches are also included.

Repeater Control Channels

REPEATER TRANSMITTER ENABLE	REPEATER TIMEOUT ENABLE
REPEATER CTCSS ENABLE	REPEATER CTCSS OVERRIDE ENABLE
CONTROL OPERATOR CTCSS ENABLE	SQUELCH TAIL ENABLE
TURN ON DELAY ENABLE	DTMF ACCESS ENABLE
DTMF KEY-PAD TEST ENABLE	DTMF WINDOW ENABLE
DTMF MUTING ENABLE	AUTOPATCH ENABLE
AUTOPATCH SPEED DIAL ENABLE	EMERGENCY SPEED DIAL ENABLE
EMERGENCY 911 ENABLE	AUTOPATCH TIME-OUT ENABLE
AUTOPATCH PRE-DIAL ENABLE	LONG DISTANCE ENABLE
PHONE NUMBER READ BACK ENABLE	REVERSE AUTOPATCH ENABLE
RING DETECTOR ENABLE	COURTESY BEEP ENABLE
TALK OVER VOICE ENABLE	REPEATER ID #1 ENABLE
REPEATER ID #2 ENABLE	SQUELCH TAIL MESSAGE ENABLE
DROPOUT MESSAGE ENABLE	USER FUNCTION INPUT #1
USER FUNCTION INPUT #2	USER FUNCTION SWITCH #1
USER FUNCTION SWITCH #2	USER FUNCTION SWITCH #3

Specifications

Microprocessor	(80C535)
Memory EPROM	(512K)
Memory RAM	(16K)
Memory RAM [CAT-300DX]	(64K)
Clock Accuracy	($\pm$1 minute per month)
Voice Synthesizer	Texas Instruments TSP53C30
DTMF Transceiver	Mitel MT-8880
Operating Temperature	-15 to +55 degrees C
Power Requirements	+9 to +15VDC at 100 ma
Size	7.0" X 6.0"

Warranty

Computer Automation Technology warrants this product to the original purchaser to be free from defective materials and workmanship for a period of (1) year from the date of purchase when returned prepaid.

Ordering Information

CAT-300   *Repeater Controller Board, Wired & Tested.* **$299.00.**

CAT-300DX   *Repeater Controller Board, Wired & Tested.* **$399.00.**

DX-300   *Repeater Controller [DX] Up-grade. $129.00*

M-300   *Detailed sixty page manual. $20.00 (Included with Purchase)*

MF-1000   *Serial Interface Card, Wired & Tested. $59.00*

SHIPPING   *UPS Surface $7.00 - UPS 2nd Day $12.00 - C.O.D. $5.00 (Continental U.S.)*

(Price and Specifications subject to change without notice.)

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