

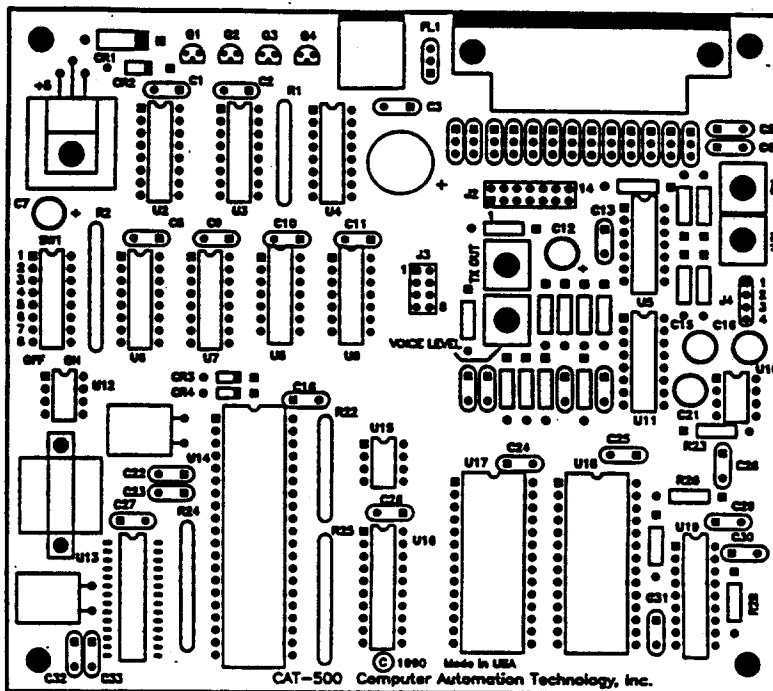
Computer Automation Technology, Inc. CAT-500 Repeater Controller

CAT-500 Repeater Controller

The CAT-500 is packed with features you have been looking for and at a price you can afford. By using advanced circuit design and state-of-the art technology, the CAT-500 is truly the controller of the nineties. With the lowest part count of any comparable controller, the CAT-500 is priced at an affordable \$379.00.

Features Include:

- * Voice Synthesizer
- * Eight Voice Messages
- * Digital Voice Clock
- * Grandfather Clock
- * CW Identifier
- * (64) Control Functions
- * (60) Position Scheduler
- * DTMF Pad Test
- * DTMF Repeater Access
- * DTMF Audio Muting
- * DTMF Window
- * Remote Base Operation
- * Programmable Prefix Codes
- * Programmable Timers
- * (8) Memory Saves
- * (3) Hardware Inputs
- * (3) User Function Switches
- * DVR Controller
- * Full Feature Autopatch
- * (60) User Speed Dials
- * (10) Emergency Speed Dials
- * Reverse Autopatch
- * Autopatch Time Extender
- * Phone Number Read Back
- * Caller ID Suppression
- * Phone Number Lock-Out
- * Remote Base Serial Tuning
- * Remote Base Preset Frequencies
- * Remote Base Auto Disconnect



- 1 (Requires T-500 Telephone Interface Card)
- 2 (Requires MF-1000 Serial Interface Card)

Voice Synthesizer

A vocabulary list of 380 words carefully selected for amateur repeater operation is available to construct any of 8 different voice messages. Each message can be 31 words in length. Configure your repeater ID and announcements to suit your particular needs. The voice synthesizer fully interacts with you during control and programming operations.

Digital Voice Clock

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.

DTMF Key-Pad Test

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

Courtesy Tone

Select between a dual or single tone courtesy beep and change the beep frequency with an external input from other equipment at the repeater site. This feature is especially useful in indicating when the repeater is operating on emergency power.

CW ID

The CAT-500 will switch to a CW ID when a user talks over the voice ID. The CW ID is field programmable with a fixed speed of twenty words per minute and a tone frequency of 800 Hz.

Repeater Timers

A total of 19 timers control repeater operation. Each timer is user programmable to afford maximum flexibility to suit your requirements.

User Function Switches

Three switches control equipment at your repeater site. Controlled manually by DTMF commands, or by the scheduler, they can be made to turn OFF, ON or Momentarily change state, any time you choose.

Hardware Inputs

Three hardware inputs activated by a positive voltage from other equipment at the repeater site, causes the CAT-500 to send a voice message or change the frequency of the courtesy tone.

Digital Voice Recorder

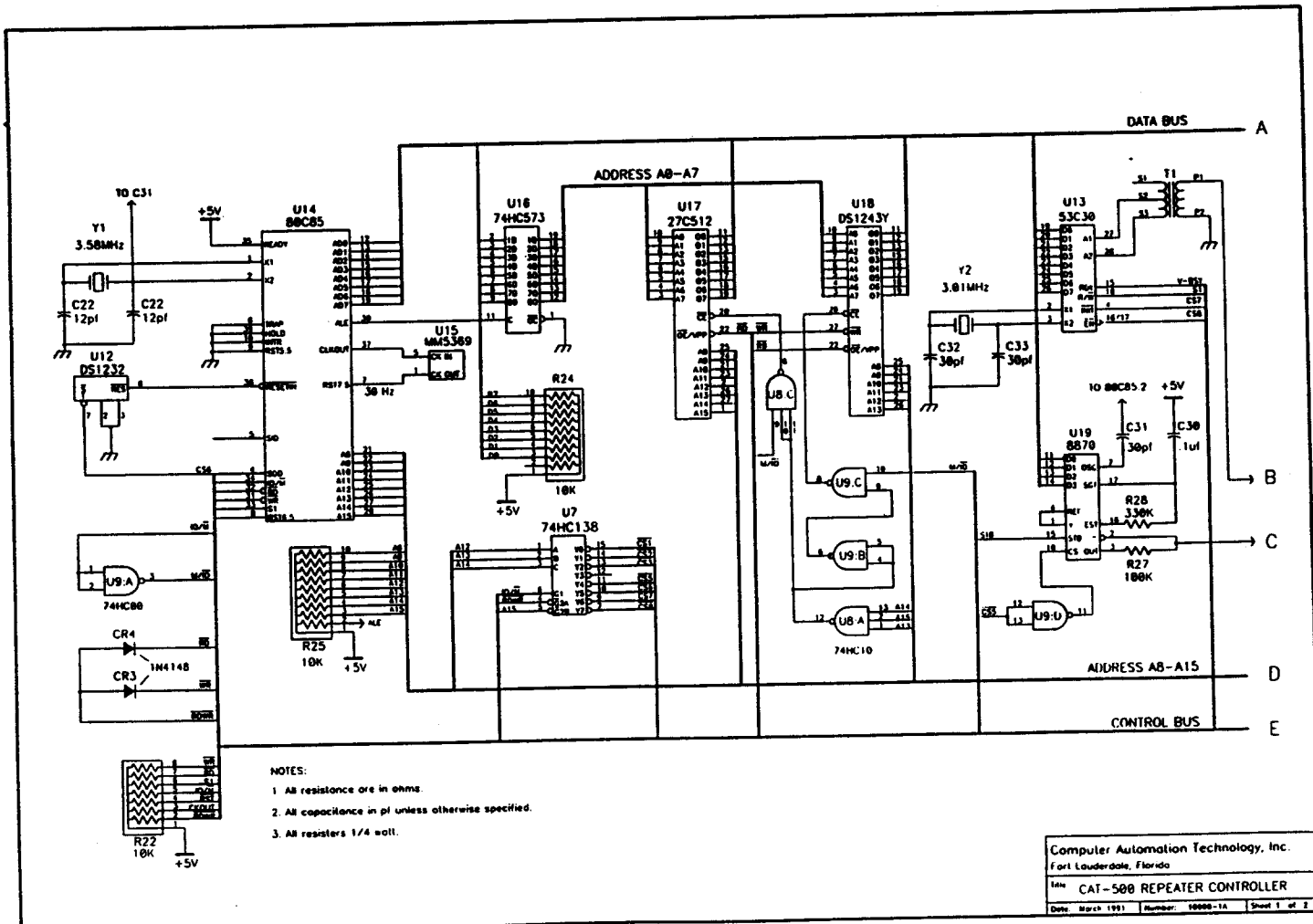
An optional DVR, controlled by the CAT-500 through the MF-1000 serial card, can be added to your repeater. Control of the DVR is fully integrated into the CAT-500 control and command structure. The CAT-500 will permit you to substitute any of the sixteen DVR tracks in place of the messages normally generated by the voice synthesizer. In fact, you can even intermix DVR tracks with voice messages.

Scheduler

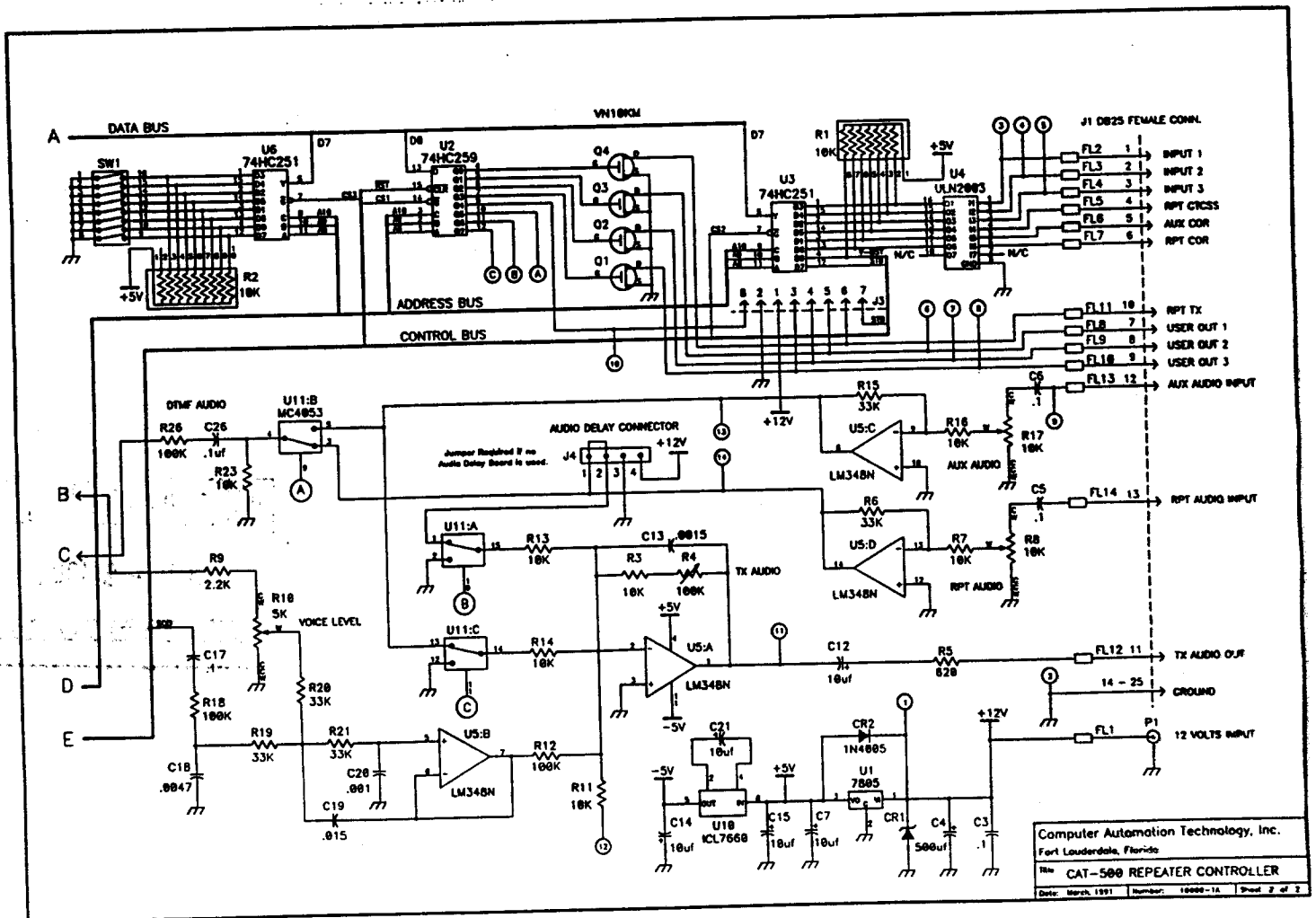
An advanced 60 position scheduler fully automates the operation of the repeater. Pre-schedule your repeater's operation to one minute accuracy. Program the hours, minutes, day of week, or day of month and month of year.

CAT-500 Word Listing V3.0

Zero	Above	B	Contact	Fail	High
One	Acknowledge	Back	Control	Failure	Hotel
Two	Action	Band	D	Fast	Hour
Three	Adjust	Base	Danger	Feet	Hours
Four	Advise	Below	Data	Fire	Hundred
Five	Affirmative	Between	Date	Five-Hundred	I
Six	Again	Bravo	Day	Flag	Identify
Seven	Air	Break	Days	Fog	Immediately
Eight	Alert	By	Decrease	For	In
Nine	All	C	Delay	Forhunt	Increase
Ten	Alpha	Calibrate	Delta	Foxrot	India
Eleven	Alternate	Call	Department	Freezing	Information
Twelve	Altitude	Calling	Direction	Frequency	Ing(suffix)
Thirteen	Amateur	Cancel	Do	Friday	Inputs
Fourteen	Amps	Cat	Down	From	Intruder
Fifteen	An	Caution	Due	Full	Is
Sixteen	And	Center	Dynamic	G	k
Seventeen	Answer	Change	E	Gear	J
Eighteen	Are	Charlie	East	Get	Juliet
Nineteen	Area	Check	Echo	Go	K
Twenty	As	Circuit	Ed (suffix)	Golf	Key
Thirty	Assistance	Clear	Emergency	Good	Keypad
Forty	Association	Clock	End	Green	Kilo
Fifty	At	Club	Enter	Ground	L
Sixty	Attempt	Code	Equals	H	Last
Seventy	Attention	Complete	Error	Half	Left
Eighty	Automatic	Completed	Evacuation	Ham	Less than
Ninety	Autopatch	Computer	Exit	Hamfest	Let
A	Auxiliary	Condition	Expect	Have	Light
A.M	Avenue	Connect	F	Henry	Lima
About	Average			Hertz	



Line	Next	Preset	Set	Tonight	Wind
Link	Night	Program	Severe	Tornado	With
List	No	Put	Short	Tower	X
Load	Normal	Q	Side	Traffic	X-Ray
Low	North	Quebec	Sierra	Transmit	Y
Lower	Not	R	Slow	Transmitter	Yankee
M	November	Radio	Snow	Try	Year
Machine	Now	Radios	South	Tuesday	Yellow
Macro	Number	Rain	Speed	Turn	Yes
Make	O	Range	Star	Type	Yesterday
Mammal	O'clock	Rate	Start	U	You
Many	Of	Ready	Stop	Uniform	Your
Measure	Off	Receive	Storm	Unit	Z
Measured	Ohms	Receiver	Sunday	Until	Zed
Meeting	On	Red	Switch	Up	Zero
Mega	Open	Release	System	V	Zone
Message	Operator	Remark	S (plural)	Verify	Zulu
Meter	Or	Remote	T	Version	
Meters	Oscar	Repair	Tango	Victor	Pause 1
Mike	Other	Repeat	Telephone	Volts	Pause 2
Miles	Out	Repeater	Test	W	Pause 3
Million	Over	Reset	Than	Wait	Pause 4
Minus	P	Right	That	Warning	
Minute	P.M.	Roger	The	Watch	Chime 1
Minutes	Papa	Romeo	The(long E)	Watts	Chime 2
Modified	Patch	S	Then	Weather	Chime 3
Monday	Per	Safe	This is	Wednesday	
Month	Plan	Saturday	Thousand	Week	
More than	Please	Seconds	Thunderstorms	Weekday	
Move	Plus	Security	Thursday	Welcome	
Much	Point	Send	Time	West	
N	Police	Sent -	Timer	What	
Near	Position	Sequence	Today	Whiskey	
Net	Pound	Service	Tomorrow	Will	
New	Power				



Repeater Control Prefix

Fifteen prefix numbers control repeater operation. Each prefix is programmable from one to seven digits depending on the security you require.

Repeater Control Channels

The CAT-500 has 64 remote control channels. Divided into groups of eight, according to their function, they can be manually controlled through the repeater, link or telephone.

ZONE 1

Repeater Transmitter
Repeater CTCSS
Turn on Delay
DTMF Access
DTMF Window
Squelch Tail
DTMF Muting
DTMF Pad Test

ZONE 3

Repeater ID #1
Repeater ID #2
Squelch Tail Msg #1
Squelch Tail Msg #2
Dropout Message #1
Dropout Message #2
Message Request #1
Message Request #2

ZONE 5

Autopatch
Autopatch timer
Long Distance
Emergency 911
Speed Dial
Number Read Back
Reverse Autopatch
Ring Detector

ZONE 7

Link Receiver
Link Transmitter
Link Repeater
Link ID
Link Auto Disconnect
Output #1
Output #2
Output #3

ZONE 2

Repeater Timeout #1
Repeater Timeout #2
Scheduler Control
Time of Day Request
Grandfather Clock
Grandfather Clock Sleep
Courtesy Beep
Dual Courtest Tone

ZONE 4

Memory Save #1
Memory Save #2
Memory Save #3
Memory Save #4
Memory Save #5
Memory Save #6
Memory Save #7
Memory Save #8

ZONE 6

Expanded Output #1
Expanded Output #2
Expanded Output #3
Expanded Output #4
Expanded Output #5
Expanded Output #6
Expanded Output #7
Expanded Output #8

ZONE 8

Link Frequency #1
Link Frequency #2
Link Frequency #3
Link Frequency #4
Link Frequency #5
Link Frequency #6
Link Frequency #7
Link Frequency #8

Repeater Programming

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

Active Memory Save

Configure the CAT-500 to suit your special requirements. Save the current settings of the control channels, prefix codes, timers and the eight voice messages. Space is provided for eight memory saves. These memory saves can be later recalled with a DTMF command.

Remote Base Transceiver Control

The CAT-500 will control a remote base transceiver. With the optional MF-1000 serial card, the CAT-500 will accept commands on the repeater input to serial tune the transceiver. You can also turn the remote base ON or OFF or enable just the receiver. After a preselected period of inactivity the link will automatically disconnect.

T-500 Telephone Interface

Add a full feature autopatch to the CAT-500. Its as simple as connecting the T-500 Telephone Interface Card to the CAT-500's accessory connector J2 and installing a new PROM on the CAT-500 board. Sixty speed dial numbers highlights the CAT-500. Each speed dial location accepts numbers of up to seven digits and includes space for the users call letters. The same is also true for the ten 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 check. Sixty telephone numbers or whole prefixes can be locked-out. An autopatch time extender command rounds out the features. In addition to the Reverse autopatch, full telephone control and programming provides extra security.

MF-1000 Serial Interface Card

This card serves a dual function by tuning a remote base transceiver or controlling a digital voice recorder. Both BCD and Push Button tuning of a remote base transceiver is supported. When connected to the CAT-500 at J2, the Serial Interface Card expands the present User Function Outputs from three to twenty-four. Driven by a serial word, the MF-1000 provides twenty-four parallel outputs for BCD or PUSH-BUTTON tuning of the remote base transceiver with latched transmitter power control. Eight Expanded User Function outputs are under full control of the scheduler for automatic operation. These outputs are independent of the frequency load command. During DVR control, the MF-1000 selects up to sixteen tracks and activates the PLAY, RECORD and RESET functions. A jumper is provided to set the outputs at +5V, +12V or ground to simplify interfacing. The PC Board is Glass Epoxy (size 2.7" X 3.0").

Preset Frequencies

Eight preset frequencies can be stored in the CAT-500 memory. The scheduler can be programmed to load these frequencies any time you choose. In the PUSH BUTTON mode, outputs 1 through 15 pulse in sequence to simulate a key-pad frequency entry. Output 16 is a latched HIGH/LOW transmitter power control. Outputs 17 through 24 provided eight expanded user functions.

Specifications

MICROPROCESSOR	(80C85)
MEMORY EPROM	(512K)
MEMORY RAM	(64K non volatile)
CLOCK ACCURACY	(+1 minute per month)
VOICE SYNTHESIZER	(Texas Instruments TSP53C30)
VOICE VOCABULARY	(380 Words)
DTMF RECEIVER	(MT8870)
OPERATING TEMPERATURE	(-15 to +55 degrees C)
POWER REQUIREMENTS	(+9 to +15 VDC at 100 mA)
SIZE	(5.5" by 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-500	Repeater Controller Board, Wired & Tested	\$379.00.
M-500	Detailed one hundred page manual	\$20.00. (Included with Purchase)
T-500	Telephone Interface Card, Wired & Tested	\$129.00
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.)	

Computer Automation Technology Inc.

4631 N.W. 31st. Avenue, Suite 142, Fort Lauderdale, Florida 33309
(305) 978-6171

