Electric Auto Association NEWS

FEBRUARY 1984 Vol XVI No.2

DIRECTIONS

communication

BY CLARENCE ELLERS

Commications is the flow of information,usually <TWO WAYS> However our newsletter seems tobe mostly a one way street.Month after month I ask for various inputs, especially EVENTS AND PROGRAMS, with very little response. I believe you will have better attendance if your EVENT is published as early as possible.

This issue is dedicated to my good friend in Olympia, Don Cheeseman my best COMMUICATOR thanks Don keep it coming.

SUBJECTS FOR FOLLOWING MONTHS

MAR.	BATTERIES
APR.	MOTORS
MAY.	SELECTING A CAR
JUNE	RELAY CONTROLS
JULY	INSTRUMENTS
AUG.	CABLES & WIRING
SEPT.	RALLIES

ANYONE HAVING INFO ON THESE SUBJECTS PLEASE SEND. THANKS

NEW SERVICE

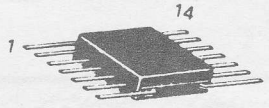
PROGRAM

VHS TAPES T120 OF OUR BIGGEST RALLY. EVENING MAGAZINE 12 min. segment that was telecast nationally. VICTOR WOUK AT OUR 1983 SEMINAR. WE HOPE VERY SOON TO PUT TOGETHER A SLIDE SHOW OF ROGER HEDLUNDS' WORLD SPEED RECORD RUN.

We have serveral people who have video equipment ,so we can tape programs. If you have an idea of something you would like to see on tape LET US KNOW!!!!

If you would like to borrow one of our tapes or other program material contact John Newell area code (415) 591-6698 1249 Lane St. Belmont CA. 94002

SO YOU WANT TO BE A Design Engineer



Pg 2

BY CLARENCE ELLERS

RUN DON'T WALK TO YOUR NEAREST (?) & PROCURE THE FOLLOWING PUBLICATIONS:

BEST ELECTRICAL FOR NOVICE

*Navy Training Course NAVPERS 10086-A covers everything!!

BEST ELECTONIC FOR NOVICE

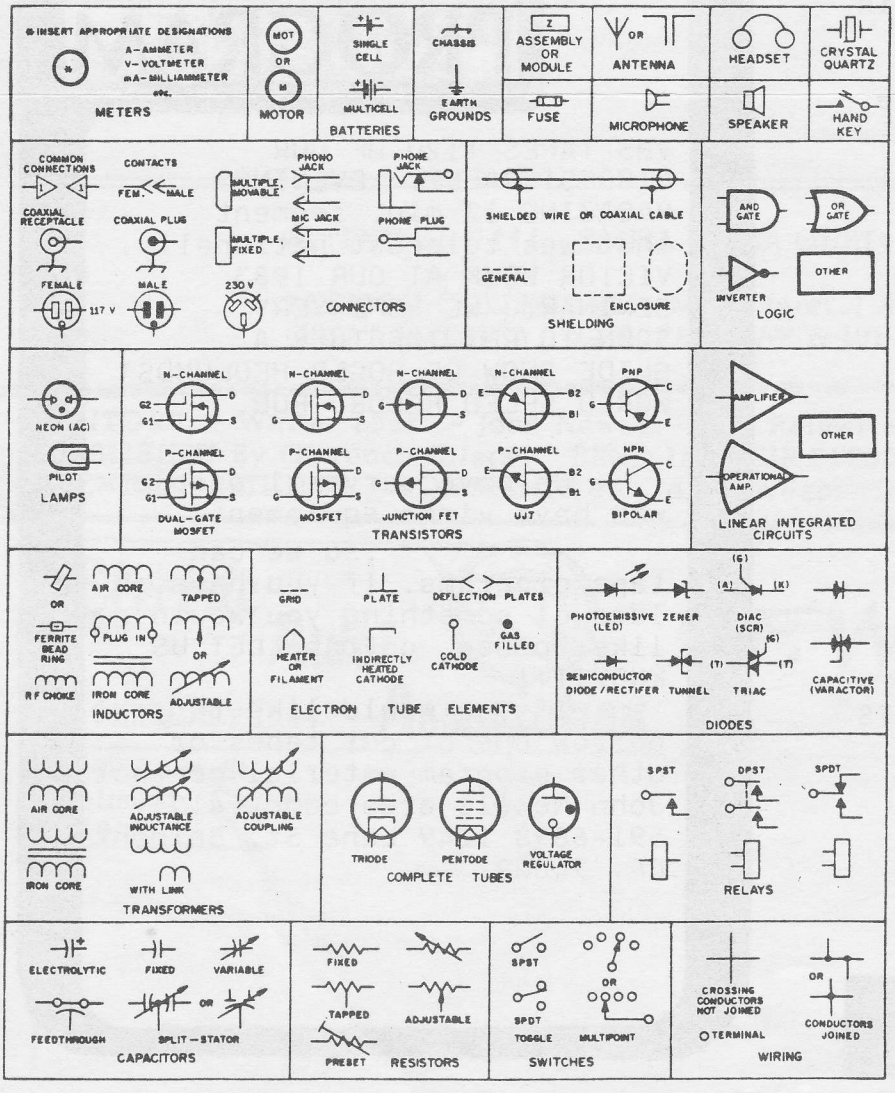
ARRL Amateur's Handbook. 6 of the 22 chapters are extremely good foundation in electronic, anybody can understand.

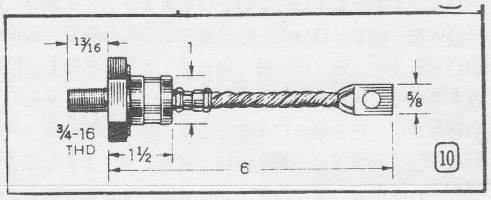
BEST INFO ON CHIPS: I.C. (Integrated Circuits)-RADIO SHACK, Engineer's Notebook almost every standard IC with sample circuits for every use of each IC.

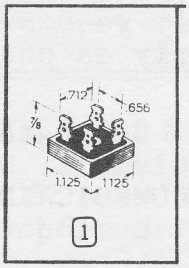
THE BEST THINGS IN LIFE ARE FREE:
CATALOGS & SPEC SHEETS FROM MAJOR Distribitors with locations in major cities. Hamilton/avnet Electronics, Wyle Distriber Group, Almac/Stroum Electronics, CANADA Zentronics Ltd.
Many others; Hall-Mark, Kierulff, etc.

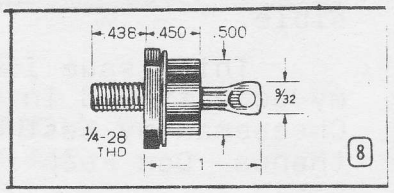
*Available from the Superintendent of Documents, U.S. Government Office Washington 25, D.C.

Symbols Used in Circuit Diagrams









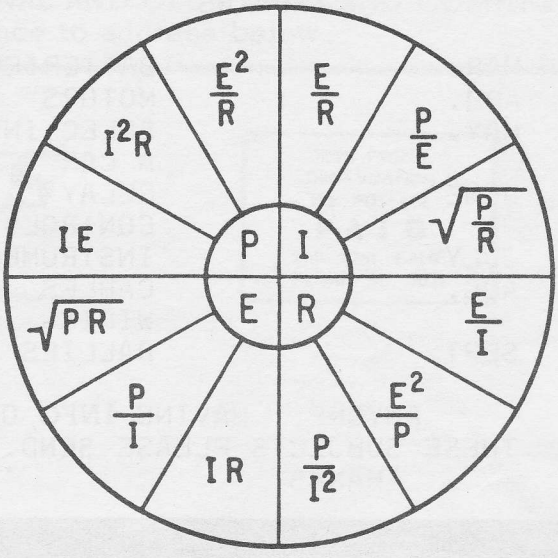
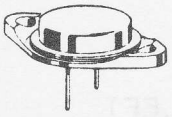


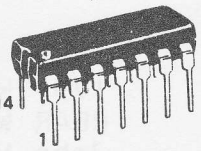
Figure 3-10.—Summary of basic formulas.

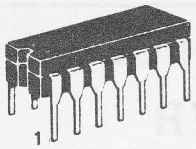
TO-3 Package

Electronic control

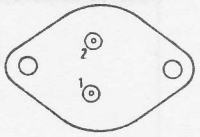


CASE 11-01, 11-3 — 40 mil pins
CASE 1-04, 1-05 — 40 mil pins
MODIFIED TO-3
CASE 197-01 — 60 mil pins





STYLE 1:
PIN 1. BASE
2. EMITTER
CASE. COLLECTOR



NOTE: TO MANUFACTURERS AND DEALERS OF CONTROLLERS

1. THE MORE THAT IS KNOWN ABOUT ANY PRODUCT, THE EASIER IT IS TO SELL.

2. ANYONE WITH THE KNOWLEDGE TO BUILD THIS CONTROLLER, WOULD NEVER BUY ONE.

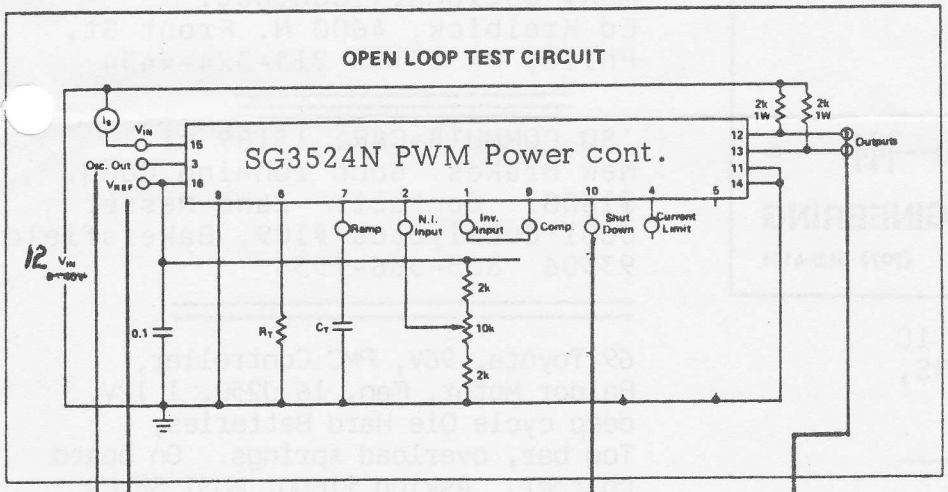
3. IF THE BUILDER INTENDS TO SAVE MONEY, THE SAVING IS VERY SMALL.

SG 3524 Circuit; From Silicon General Cctalog.
MJ 10200 specs. from Motorola Catalog.
741&7474 Circuits From Engineer's Notebook, Radio Shack.

BASIS FOR A 600AMP. 30 To 120Volt STATE OF THE ART CONTROLLER

X WARNING!! THE CIRCUIT BELOW IS NOT GUARANTEED TO BE COMPLETE OR ACCURATE

10K To 15K MFD. Computer grade from B+toB- Close to Controller.
L 20 To 30 Turns, 1/16"X3/4" Copper strap.2"X2" Core.
100 To 200 Ohms, For best drive. R 1W
LARGE HEAT SINK approx. 48 sq. inch.



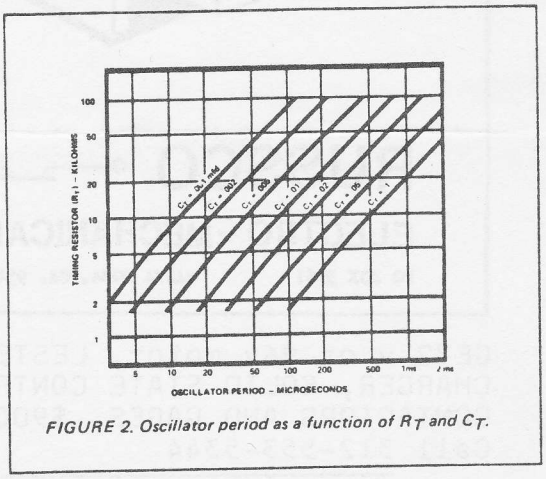
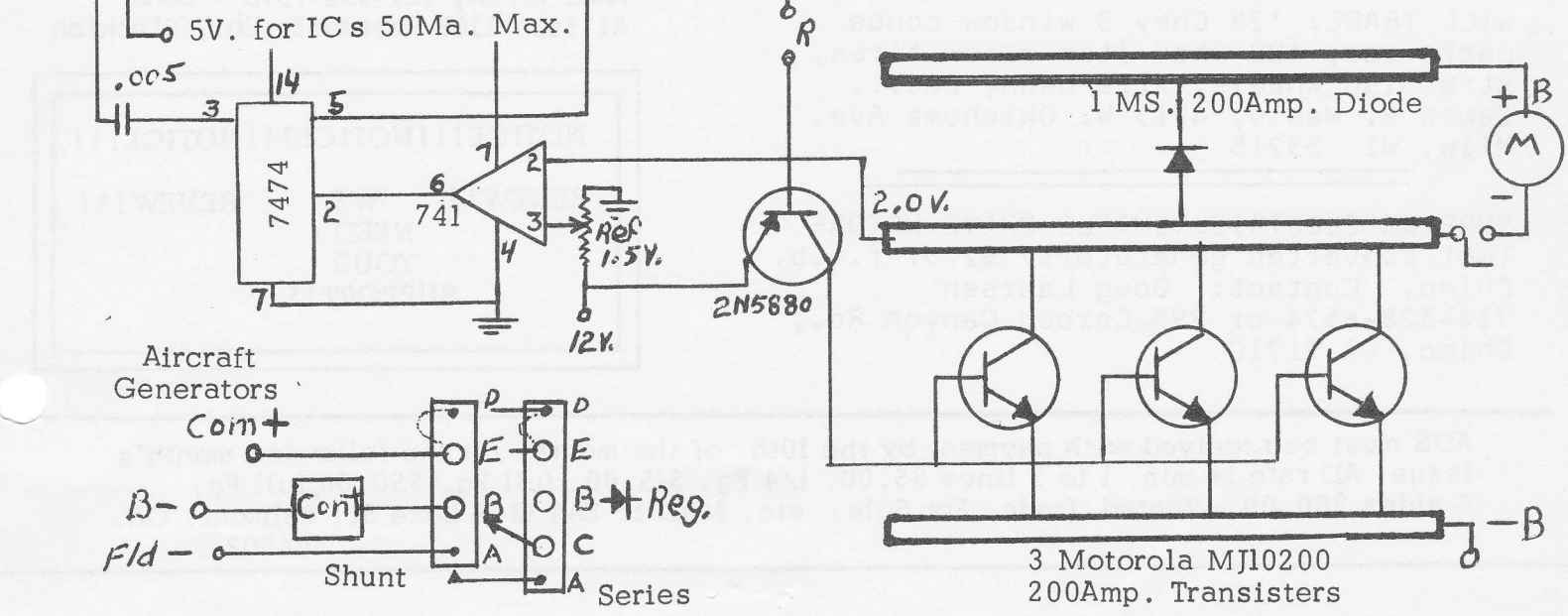


FIGURE 2. Oscillator period as a function of R_T and C_T.

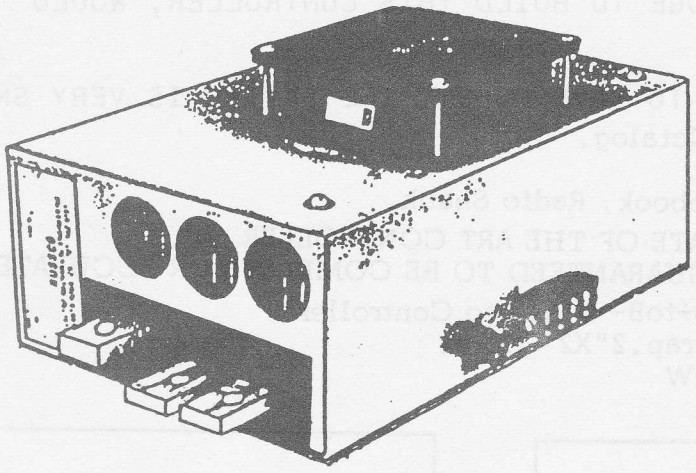


EV Marketplace

ELECTRIC VEHICLE CONTROLLER

$495

400 AMP 120 VOLT
FULLY PROTECTED
SEND FOR INFO.



RUSSCO

ELECTRO-MECHANICAL ENGINEERING

PO BOX 3761 SANTA ROSA, CA. 95402 (707) 542-4151

GE72 v or 96v motor, LESTER-MATIC CHARGER, SOLID STATE CONTROLLERS, CONTACTORS AND GAGES, $900. Call 312-553-5344

WANTED: NON-CONVERTED ELECTRIC CAR. WILL TRADE: '28 Chev 3 window coupe parts car, '28 Chev ½ton w/new tires, xtra disc wheels, xtra dash, etc... James A. Maslo, 4213 W. Oklahoma Ave. Milw, WI 53215

SURPLUS ELECTRIC VEHICLE DRIVE MOTORS (Not converted generators) $275. f.o.b. Chino. Contact: Doug Laursen 714-528-6574 or 993 Carbon Canyon Rd., Chino, CA 91710

'73 VW BUG-DAMAGE, LEFT REAR WHEEL & BODY-$400. John Newell, 1249 Lane St. Belmont, CA 94002 415-591-6698

'70 TRIUMPH GT. NEEDS Interior work, Painting, batteries; 84v, 7½ HP series wound mtr, solid state speed control-$950. ALSO: GE 2CM77Mtr-$125. JACK & HEINTZ 27v, 9½ HP MOTOR-$75. John McMillian 501-985-1288

'82 MERCURY LYNX ELECTRA Brand New-Never Titled 200 mi.-by Jet Industries Many Options. Contact: Ed Kreibick, 4600 N. Front St. Phila, PA 15150 215-324-4434

'80 COMMUTA-CAR, 15189 mi. New Brakes. Good running Cond. $1600. Contact: Zane Messer 6601 Eucalyptus #109, Bakersfield 93306 805-366-7536

---

69 Toyota, 96V, PMC Controller, Baldor Motor, Fan, 16 J250, 1 12V. deep cycle Die Hard Batteries, Tow bar, overload springs. On board charger. Asking $1600, MUST SELL-MAKE OFFER; 209-952-7370 - John Allison 1108 Rosemarie Ln., Stockton

NOTICE!!!NOTICE!!!NOTICE!!!

RENEW!! WE NEED YOUR SUPPORT!! RENEW!!!

ADS must be received with payment by the 10th. of the month, for the following month's issue. AD rate is min. 1 to 5 lines $5.00, 1/4 Pg. $15.00, full Pg. $50.00, full Pg. 2 sides $80.00. Wanted, Trade, For Sale, etc. Mail to EAA 1249 Lane St. Belmont, CA. 94002

CON'T FROM Pg. 2

CATALOG/JIG SAW DESIGN

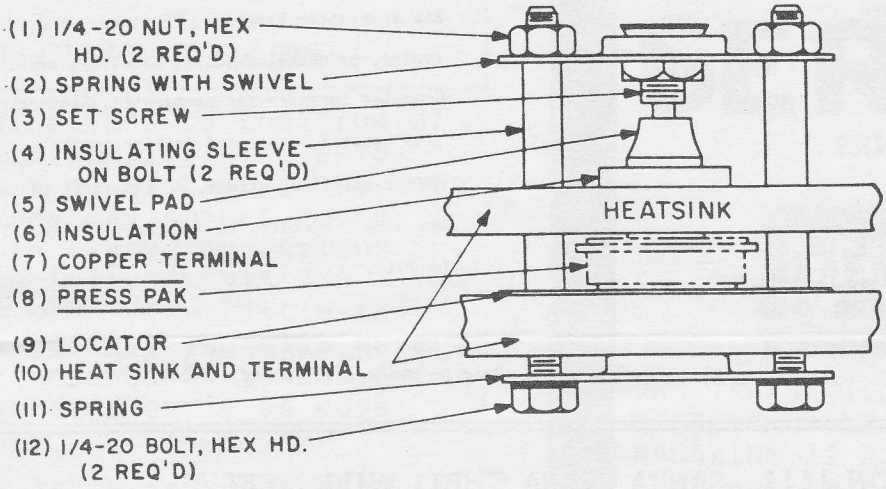
1- Make a Block Diagram
2- Look up each possible component in catalog. Draw best circuit available for individual component. Sometimes shown in catalog or check Engineer's Notebook.
3- Cut out each component with its circuit and place on your block diagram. Usually the interconnect will be quite obvious.

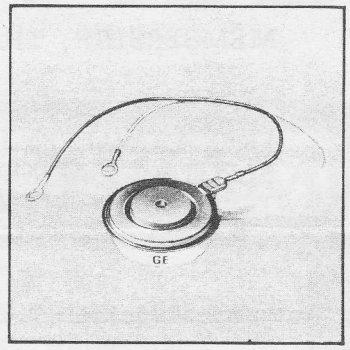
170.57 1/69

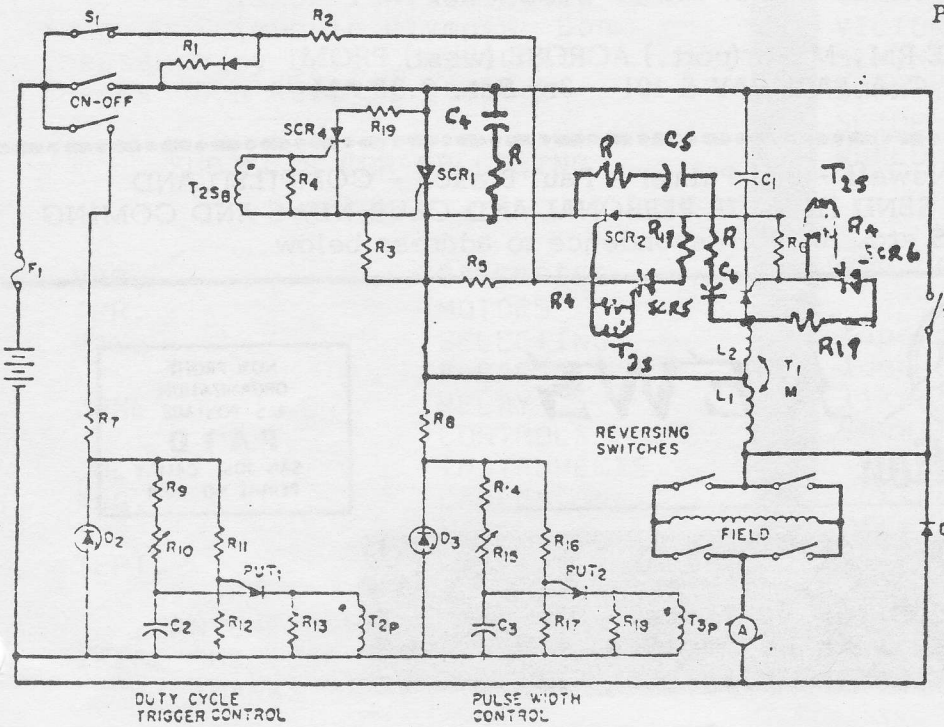
C385

HIGH SPEED
Silicon Controlled Rectifier

600 Volts **250A AVG**







Parts List:

SCR_1 – C 385
SCR_2, SCR_3 – C147
D_1 – 1N3912 ← GE A187C
D_2, D_3 –
PUT_1, PUT_2 –
SCR_4, SCR_5, SCR_6 – C106C
R_1 – 1K 1W
R_2 – 100 1W
R_3, R_5, R_6 – 47 ohms, 1W
R_4 – 1K, ½W
R_7, R_8 – 220 ohms, 2W
R_9, R_{14} – 27K, 1W
R_{10} – Pot (Speed Control)
R_{11}, R_{16} – 2.2K 1W
R_{12}, R_{17} – 3.9K 1W
R_{15} – Pot (Pulse Width Control)
R_{13}, R_{18} – 100 ohm, 1W
R_{19} – 27 ohm, 1W
C_2, C_3 – 0.01 μfd, 100 Volt
C_1 – 40 μfd, GE 28F5117 – 0.1 or Paper
T_1 – See Text
T_2, T_3 – Pulse Engineering Type PE 2229
S_1 – On-Off & Start Control
S_2 – Bypass Switch
F_1 – 250 Amp, 200 Volt DC Fuse

R – 10Ω, 2W
C_4, C_5, C_6 – .47 μf, 200V (GE Type 28F6237)

Electric Auto Association
1249 Lane Street • Belmont, California 94002 • (415) 591-6698

January 10, 1984

HELP!! HELP!! HELP!!

AS YOU CAN SEE BY OUR 1983 STATEMENT WE LOST 3500.00 NOBODY GETS PAID, IN FACT MOST SPEND A LOT OF OUR OWN MONEY.

WE NEED YOU TO RE-NEW NOW & PROMOTE MEMBERSHIP. THANKS

FREE !! WALTER LASKI'S ELECTRIC CAR MANUAL TO ALL NEW MEMBERS

SECRETARY'S REPORT FOR THE YEAR 1983

INCOME:

Dues and Subscriptions to A V News Received	$ 10578.00
Advertising Paid	854.92
Bank Interest Received	36.31
Total	11,460.23

EXPENSES:

Rebates to Chapters dtd 1/1 to 5/11/83	$ 2,943.00
Rebates to Chapters dtd 5/11 to 11/9/83	720.00
A V News Subscriptions Paid thru 1983, 4 issues	4,092.50
EAA Newsletter Expenses, 12 issues, for editing, typing, printing, folding, labeling, sorting, mail.	3,750.84
Computer Services for membership, Chapter, Zip lists plus printed labels and mailing costs.	715.07
Office supplies, stamps, copies, toll phone calls	1,524.79
Due Others (Rebates to Chapters 11/9 to 1/1/84) to be Paid.	1,105.00
Total	14,851.20

Paid Up Members at year's end 692.

ATTENTION !!!! SANTA CLARA CHPT. WILL MEET AT

MISSION COLLEGE RM. MT-3 (port.) ACROSE (west) FROM GREAT AMERICA G.A.PARKWAY & 101 3rd Sat. 9:30 AM

EDITORS: - Walter Laski - John Newell - Bill Palmer - Paul Brasch - COMPILED AND PUBLISHED By Clarence Ellers. SEND IN YOUR PERSONAL AND CLUB NEWS AND COMING EVENTS. ARTICLES _ COMMENTS etc. all correspondence to address below.

Electric Auto Association NEWS
FEBRUARY 1984

1249 Lane St.
Belmont, Ca.
94002

NON PROFIT ORGANIZATION U.S POSTAGE PAID SAN JOSE, CALIF. PERMIT NO. 3021