

# RTTY

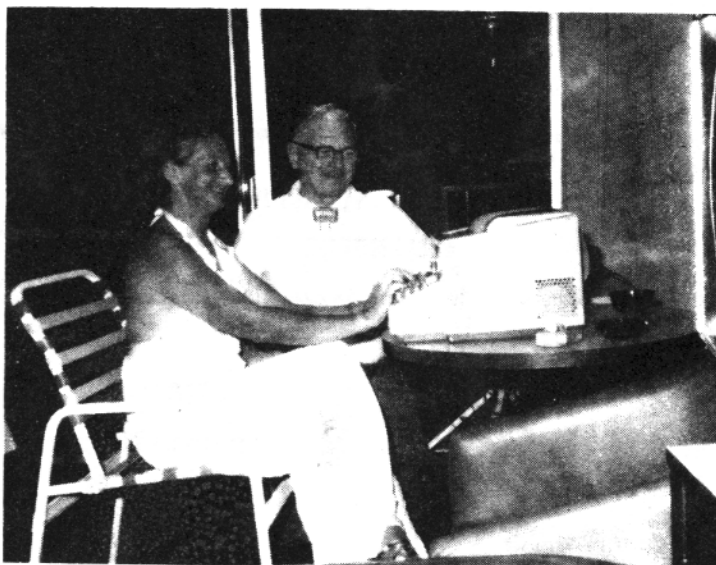
November 1978

## JOURNAL

VOLUME 26 NO. 9

75 CENTS

EXCLUSIVELY AMATEUR RADIO TELETYPE



Dee, Publisher and Chuck, WJMN0

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**Subscription Rates**

**RTTY JOURNAL**

Dee Crumpton, Editor & Publisher  
P.O. Box RY  
Cardiff by the Sea, CA. 92007

The RTTY JOURNAL MUST INCREASE ITS SUBSCRIPTION RATES DUE TO THE INCREASE IN MAILING AND HANDLING COSTS. I REGRET THIS VERY MUCH. RATES AS OF OCTOBER 1, 1978 WILL BE:  
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**BACK ISSUES**

A duplicate of any back issue may be obtained from R. Wilson, 4011 Clearview Dr., Cedar Falls, IA. 50613. \$1.00 pp. Reprints of all UART articles, \$2.00 pp.

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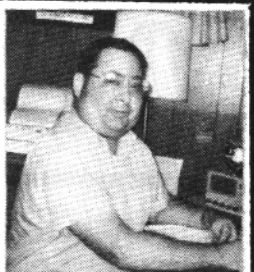
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# VHF RTTY NEWS



Arny Gamson, K6PXA, 8034 Gentry

N. Hollywood, CA 91605

Glad to see so much RTTY activity in Colorado as reported by Jim - KØST/WØBZA Editor of FM-RTTY, voice of the newly formed Metro Amateur FM-RTTY Club. There are three RTTY repeaters and two RTTY Clubs in Colorado. The prime RTTY Repeater is sponsored by the Denver Amateur Radio Teleprinter Society (DARTS) at Squaw Mountain on UHF 442.2/449.2 MHz. (WRØACK). The Cheyenne Mountain ARC sponsors WRØAPP on 147.945/345. Another repeater is presently being tested on 146.19/79 in the Black Forest in Aurora. There is lots of simplex activity on 147.57.

The Amateur Radio Research and Development (AMRAD) Group in the Washington D.C. area is preparing an official Club response to the FCC request for comments prior to ASCII legalization. The Southern California Amateur Teleprinter Society (SCATS) is also preparing the same. It is hoped that more individuals will respond. The SCATS Group was happy to meet AMRAD reps at the 2 hour demo-forum in San Diego at the ARRL national convention and hear their experience and ideas on ASCII. There were over 100 that attended it and much interest in RTTY was generated. Many joined us at the Hospitality Suite sponsored by the JOURNAL.

Many do not understand the significance of the ASCII authorization which will affect RTTY and Telecomputing. ASCII (American-Nat'l Standard Code for Information Interchange) is the 8 level Standard code for Information exchange as compared to the Baudot 5 level communication code. Essentially the Standards under consideration fall into 4 categories:

- Data Transmission rate: speed Words per Minute
- Parity bit: odd, even or both
- Synchronous or Asynchronous : start stop bits
- Least significant-Most significant bit; order of the bit

Now that you know all about that from this appliance operator the FCC Meerly expects us to comment with 19 copies in legal format. I urge you to send your knowledgeable comments to me and I will see that they are included in our SCATS Club official response to the FCC.

CU ENJOY ARMY

## NuData UT-4 Board

Vince Staffo, WB2FYZ  
10 Monroe Street  
Ilion, NY 13357

The purpose of this report is to describe the UT-4 Board being offered by Nudata Electronics of Mount Prospect, Illinois.

Before getting into the board I will basically try to describe what a UT-4 does for the RTTYer.

- 1) It performs regeneration via a UART of the RTTY signal on both the Transmitt and Receive side, thus cleaning up the distortion caused by you or the other RTTYers machine. This feature alone will greatly improve copy at both ends.
- 2) It allows for variable adjustment of the output typing speed for a jerky and slow typist, such as myself, allowing a steady output of characters to keep the receiving end machine in synch.
- 3) Via a memory storage set-up it has a Repeat Mode which allows one to send a pre-entered message over and over again, such as a CQ, RY or Quick Brown Fox pattern.
- 4) Pre-load Mode via the same FIFO Memory to fill the memory before outputting while in Transmitt or Receive Mode.
- 5) Speed conversion is possible via the different switch selectable clocks which control the input and output from the UART.

I have listed basically what the UT-4 does. For a general description of the UT-4, I recommend reading Irv Hoff's excellent article on the UT-4 in the MARCH, 1975 issue of the RTTY JOURNAL. Back issues of the UART/UT-4 articles are available from R. Wilsom, advertiser in the RTTY JOURNAL.

Now on to the NuData Board. The board is a 9" X 5 5/8" double sided type (foil on both sides) and requires soldering to both sides as it does not have plated thru holes. Provision is made for connecting a dual 22-Pin Edge Connector to the board which allows for easy servicing, plus no external wires have to be soldered to the board. This allows one to take the board in and out for servicing, etc.

The UT-4 Board has all the standard features, plus a few extra options added which we will explain what they are and what they do.

- 1) A 7404 I.C. is used as an Inverter/Buffer for output clocking for character counting or clocking characters into a SEL-CAL Unit.
- 2) Provision is made via the edge-board connector pins for the Repeat Mode Switch.
- 3) 2 555 I.C. clocks with provisions for switching in 3 different TTY speeds.
- 4) 2 7417 I.C.'s comprise a parallel data buffered output for use with SEL-CAL's or similar external devises.
- 5) A 7408 I.C is used for external stopping of the FIFO Memory Output. This is used for a hold from a CW ID unit or RTTY ID generator.
- 6) A 741 OP-Amp is provided for FSK output.

7) Transitional Autostart is provided by the use of 74122 I.C by monitoring a pin on the UART which goes low for the character duration.

8) The pin that controls the number of Stop Bits on the UART is led off the board for use with an external switch.

9) Provision is made for connecting a signal indicator such as a LED or LAMP.

Figure 1 is the schematic for the UT-4 and Figure 2 shows the parts layout. Table 1 is the Edge Connector Connections.

NuData supplies a complete documentation package with their UT-4 board that consists of reprints of Irv Hoff's UART and UT-4 articles, plus complete parts lists, schematic, parts layout and edge connector connections.

I used 74LS type I.C.'s where possible, or available, and was able to reduce the current consumption of the plus 5 volts to around 400 mA. Using LS type chips also reduces the heat generated by non-LS types and makes things run a little cooler.

I experienced no problems with the board and other than a couple of wiring errors I made in hooking up the switches I was able to get it running on the first power up. I found no foil shorts on the board I received and was quite pleased when it came on the air so easy. I always make it a practice to inspect all P.C. boards under a magnifying glass before putting the parts on for foil shorts, and after for solder shorts. This saves a lot of time and grief later.

The only modification I made to the board was to replace the Input FSK diode and 8.2K resistor with an Opto-Isolator. The input of the Opto-Isolator is tied into the TTY loop and the output connects to the FSK input pin, and the previous mentioned diode and 8.2K resistor are replaced with a piece of hook-up wire. This modification makes for an easier interface especially for a Kleinschmidt Printer, such as mine, that has an internal loop supply.

A couple of other features I added to my set-up was to add an IN/OUT switch, which completely bypasses the UT-4 from my Terminal Unit and AFSK Unit. This switch allows for backup

CU ENJOY ARMY

# • RTTY-DX •

**SKIP PRINSEN WB6CYA** 714-276-3182

3611 Merrimac, San Diego, Calif. 92117



Greetings to all!

After a very successful convention that was enjoyed by all that attended I am happy to report that I had several enjoyable chats with Paul, AH6D (ex KH6AG) and also John KL7GRF/W6, who recently moved to California.

dj8BT reports that DL2XP will be active during the European WAEDC contest 11-12 of November from 4X land signing DL2XP/4X. QSL will be via DL2XP, Rene Fuellmann, Fasane-nweg 15, 8056 Neufahrn, Germany Federal Republic. Hans DJ8BT will operate 4U1TU QSL via DJ8BT, Hans Schalk, Hammarskjoldring 174, 6000 Frankfurt 50, Germany Federal Republic.

KC4AAD Mike at Siple Station Antarctica has been very active on 20 meters his QSL manager is W6MAB. There will be a delay in QSL cards due to mail not leaving from there until early November so please bear with him.

From Asia Gin, JA1ACB reports hearing or working VU2RAK, SV1 and a 3A2. He also has overheard someone saying that VK9ZM will be on from Willis very soon. Gin has also worked GU5TU and has heard GI3XP, and XT2AE who is on 50 band.

Mac K7BV writes listing some of the activity that he has heard from his part of the country: XT2BA, EA6BW, EA6CK, EA6DW, EA6EQ, KP4DJT /TI3, VU2RAK 1300Z long path, UD6 KAG, UI8IG.

Look for ZD9GG on CW on 14101 and send slowly. After making contact he will get to RTTY at 50 Baud and 425 shift. He has a rhombic on the States, but I work him better on long path.

3D6AD, S8ACH etc. His wife is an avid stamp collector, send any unusual stamps along for Jerri's collection. He will QRT for five weeks effective 30 September. He is coming to the States and South America. He has other African Countries cooking.

HB9AVK, Paul Kung Glaubtenstrasse 106, 8046 Zurich, Switzerland, earned DXCC #33 and also WAC on 10M/15M/ and 20 M all on RTTY/CW/SST/ and SSB. Super job by paul.

Ed. 'Mac' McGinley K7BV endorsement # 130 on Sept 30, 1978.

W.K. Dusty Chapman WA3IKK endorsement #150 on 1 Sept, 1978.

After going over my listing for WAC all on 20 meters and reading my past several articles I notice several mis-

takes so in order to correct that here is the listing in the order which they were earned. My apologies to those concerned.

WAC #56 SM5EIT -5 April 1978

#57 WA8CZS - 19 April 1978

#58 WA9BOW

#59 SWL Barry Niendorf

#60 K4RN

#61 ISØESS - 15 August 1978

#62 K5GH/W5KHP - 30 August 1978 and now for the WAC awards that were earned this month, WAC all on 10 meters #6 HB9AVK.

WAC all on 10 meters #7 SM5EIT  
WAC all on 15 meters #11 HB9AVK.  
WAC all on 15 meters #12 SM5EIT.  
WAC all on 20 meters # 63 HB9AVK.  
WAC all on 20 meters #64 WB6CYA.

HR2AFK is active again on 20 meters and Ken W2PSU writes that 9H1FV is over QSL via DL8OA who is his Dad (9H1FV's) Also others have been heard working an SV and a vu2 station.

Norm K6ZDL writes that Al WA6 QFN , 3D6AD, S8AHC etc. is in the states for the next month. He has plans for more operations from Africa so look for him again in November.

The ZL/VK/Oceania contest was super from the west coast. I only worked 4 Stateside stations out of over 60 contacts, many, many Europeans. It didn't seem like many stations were active from South America or Africa tho I worked YV5AVW and ZS6DN. The ZS6 had a super signal on short path 20 meters. By far 10 meters was my best band. Some of the prefixes worked were: VK, VE, G, SM, F, HB, DK, I, EA, PAQ, IT9, OZ, OH, GW, HA, DK, DM, GM3, YO, AH6, ZL, JA, YV, and ZS by and far a very very nice test and hope that it continues.

73 de "Skip"

The CARTG "Big Smoke"

In case you have forgotten the CARTG annual W/W RTTY Sweepstakes is October 21st weekend, and if you require Rule sheets and Awards lists, or Zone chart and contest logs send SASE or IRC's to cover postage to 85 Fifeshire Rd. Willowdale, Ontario, Canada M2L 2G9. Due to the ever increasing popularity of RTTY Contests world wide we are expecting a large turn-out of contestants. And with the usual one hundred bonus points for working each Canadian station, you can

be sure the world will be looking for Canadian contacts. The usual engraved plaques are the awards for top ten scores, and additional plaques and medallions for other classifications such as Canadian High score, Most contacts on 80 meters, Green RTTYer (first RTTY contest participation), low power stations, 40 meter contacts, SWL printer, ten meter contacts etc. There will be certificates issued to top scores in each USA, Canadian and VK district, and each country. Learn your zone number and plan to be "on deck" for the 1978 "Big Smoke".

"FROM CARTG NEWS".

RTTY CONTEST CALENDAR

7&8 October - 1000 - 1000 GMT  
VK/ZL/Oceania RTTY DX.

21-23 October - 0200-0200 GMT -  
CARTG W/W contest.

11-12 November - 0000-2400 GMT  
European DX contest, WAEDC-RTTY.  
2-3 December - 1200-1200 GMT -  
14th Alexander Volta RTTY DX contest.

DXCC Honor Roll will run again in the January issue. Please don't wait until the last minute to give me your scores. If you get any last minute QSL's a short note or call on the bands for update is fine. Remember don't wait until the last minute due to lead time required. I must have your inputs by the middle of December at the very latest. For the newcomers I need two sets of numbers from you for listing, they should be 28/13, meaning that you have worked 28 countries and have confirmed 13 of them.

14th Alexander Volta RTTY DX Contest.

The SSB & RTTY Club of Como and the Associazione Radio Amatori Italiani takes pleasure in announcing details of the 14th A.V. RTTY DX Contest. This contest is organized in order to increase interest in RTTY MODES AS USED BY Radio Amateurs and to honor the Italian discoverer of electricity, Alexander Volta.

RULES:

Test Period: Saturday, December 2nd  
1200 GMT to Sunday December 3rd  
1978 1200 GMT.

**NEXT PAGE.**

RULES CONT.

Bands; all Amateur Bands 3.5-28MHZ. Exchange Points: All two way RTTY contacts between stations of the same country are not valid (count for zero exchange points, zero multipliers and zero QSO). All two way RTTY Contacts with stations in your own zone will count for two points. All two-way RTTY contacts with stations outside one's own zone will count for points in accordance with the Exchange Points Table. The two way RTTY contacts made on 7MHZ are worth double and on 3.5 or 28MHZ are worth triple.

Contacts: Stations may not be worked more than once on any band. Additional contacts may be made with the same station if a different band is used. Multipliers: A multiplier of one is given for each country contacted. The same country may be claimed for extra multipliers if a different band is used. Scoring: Total exchange points times the total number of multipliers times the total number of QSO's. Italian Bonus Points added last, 1000 points for each I/IS/IT contact on all bands. Countries List: ARRL Country List. Each USA, Canadian and Australian District will be considered as a separate country.

Message: Message number, RST, and zone.

Logs and Score Sheet: Use one log per band. Logs must be received before January 20th 1979 to qualify (it is advisable using air mailing).

Send logs and score sheets to:  
A.V. RTTY DX Contest Committee  
c/o SSB & RTTY Club  
P.O. Box 144  
22100 Como, Italy.

SWL Entries: This contest is open to SWL RTTYers. The same rules apply as are used for transmitting stations and a separate result table will be made for these entries. Logs must contain: Band, Time GMT, Call sign of station heard, number sent by that station heard, number sent by that station and exchange points.

Awards: 1) 40-80 mt. Dipole Antenna. 2),3) one year subscription to RTTY JOURNAL, High Score SWL : The Radio Amateurs Callbook DX listings. World Championship: Points and positions achieved in this contest will be valid for inclusion in the "World RTTY Championship" for 1978.

GOOD HUNTING!!!

UT-4 CONT.

in case of a failure in the UT-4, plus it's nice for making comparison tests with the UT-4 in and out of the circuit. I also wired in a switch to switch the Memory Status Meter from the UT-4 to the Terminal Unit, as required. Interfacing the UT-4 to a TU is not that difficult and the excellent documentation package supplied makes the job even easier by showing the input and output connection points on the edge connector, plus information shown in the UART reprints for various TU hookups. The board uses plenty of bypass capacitors between plus 5 volts and ground to keep noise from getting into the I.C.'s. I took extra care to make sure that all ground connections to the cabinet were scraped clean of any paint as I.C.'s don't like bad ground connections.

My NuData UT-4 was thoroughly tested with my linear amplifier in operation and it showed no adverse conditions. In the LMD type cabinet I used for mounting the UT-4, there was space available under the chassis to mount it separate from my TU, Power Supply and, etc. thus making for more isolation from RFI and internal units.

I made comparison tests with the UT-4 in and out of circuit and I was well pleased with the results. The UT-4 definitely made a difference in improving copy.

All in all, I found the UT-4 Board an excellent value. The only adverse comment I could make is that the board does not have thru-plated holes, but this is no great problem as one could use MOLEX type pins if they wanted to plug in the I.C.'s rather than solder them to the board directly. I used Molex pins for the UART, FIFO's and D/A converter I.C.'s as these are the most costly.

I was well pleased with the documentation package and even after I had completed the board, NuData sent me a letter with some updates to the documentation. This type of service is a plus as far as I am concerned and something unheard of from some firms.

I hope anyone constructing the UT-4 Board has as much enjoyment as I DID WITH MINE.

NuData Electronics is now Daytapro Electronics.

SCHEMATICS (FIGURES 1 & 2) are on pages 6 & 7 respectively. Table 1 is on page 8. Sorry but we were unable to print a picture of this layout but the picture was just too dark.

ADS CONT.

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\$40. Slip base \$5. Model 28 ASK, KSR, RO's on hand. Also 28 ROTR, TD and keyboard reperforator stand alone units. Assemblies for all above including cabinets. Most 14,15,19, 28 parts on hand. SASE for equipment list. Inquire regarding specific assemblies and parts. Please include shipping. Excess refunded. All items FOB Rochester, M. Paul Andersen, 115 Boyken Road, Rochester, MI 48063. 313-652-3060.

Nederlands typende RTTYers gewenst. Ontmoet ons op 20/15 meter afhangende van cndx. Zaterdag of Zondags rond 1500 UTC plus 14085/21085 of na geschreven sked. WB6PMV, Joe 635 Carlisle Way, Sunnyvale, CA - 94087. Tel. 408-732-6757.

FROM THE PUBLISHER.....

The RTTY Journal hospitality suite at the Convention in San Diego was packed from morning until night and sometimes into the wee small hours of the next morning.

We met a lot of wonderful Amateurs there and all apparently had a good time.

Demonstrations of RTTY were available to all wanting to know more about this mode of Amateur radio. Many thanks to the OM's setting up the station seen on the front cover this month, with W6MNO, Chuck giving yours truly a lesson in "green keying". By the way I am the one in the dress. Surprise! Some of you out there are still a bit confused as to what "Dee" is--Look again and please do not write to me as an OM again. Thanks.

To all of you that stopped in to say hello-thanks- you made it a great time for the Journal staff. See you next year??

Dee Crumpton, Publisher  
P.S. The Journal was late last month because of a paper strike. Hope it is over soon so we can meet our deadline.

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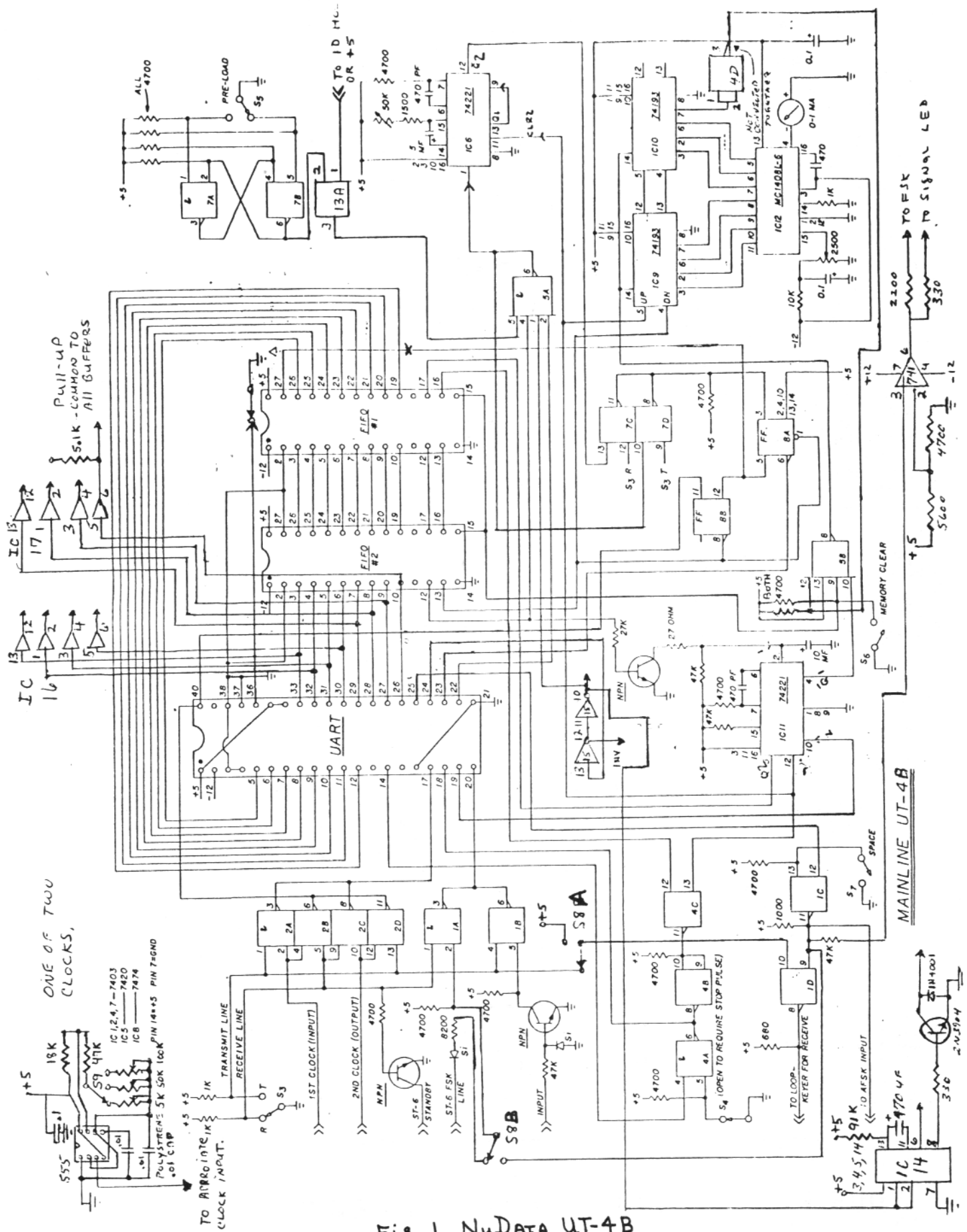


Fig. 1 NuDATA UT-4B



NUDATA UT-4 BOARD  
EDGE CONNECTOR CONNECTIONS

<u>COMPONENT SIDE</u>	<u>FOIL SIDE</u>
1. TO MINUS ON METER	A. GROUND
2. TO MEMORY CLR SWITCH	B. TO AUTOSTART RELAY
3. TO AUTO TD CONTROL S20A	C. MINUS 12V
4. FOR MEMORY AND TD CONTROL (LOW FROM CW ID UNIT TO STOP)	D. TO ST 6 STAND BY
5. TO N.O. SIDE OF PRE LOAD SW.	E. PLUS 12V
6. TO N.C. SIDE OF PRE LOAD SW.	F. TO FSK AND CW ID POT
7. TO 50K POT (OUTPUT SPEED CTL)	H. TO LED ON FRONT PANEL FOR SIG- NAL (SIGNAL INDICATING LAMP)
8. TO LOOP KEYER FOR REC.	J. INPUT
9. TO S8A WIPER	K. TO S8B N.O. & AFSK LINE
10. TO S7 SPACE SWITCH N.O.	L. TO T OF S3 OR T OF R/T RELAY ALSO TO S8A.
11. PLUS 5V	M. TO SELECTION SWITCH FOR FIRST INPUT CLOCK. (FIRST OF THREE SPEED INPUTS).
12. TO S8B WIPER.	N. SELECTION SWITCH FOR FIRST IN- PUT CLOCK (SECOND OF THREE SPEED INPUTS).
13. THRU 20. PARALLEL DATA OUT	P. SELECTION SWITCH FOR FIRST IN- PUT CLOCK (THIRD OF THREE SPEED INPUTS).
21. ONE OR TWO STOP BIT SELECTION GROUND FOR ONE.	R. TO COMMON OF SELECTION SWITCH FOR FIRST INPUT CLOCK.
22. OUTPUT CLOCK FOR MA-4 AUTOCOM	S. SELECTION SWITCH FOR SECOND IN- PUT CLOCK. (FIRST OF THREE SPEED INPUTS).
	T. SELECTION SWITCH FOR SECOND IN- PUT CLOCK. (SECOND OF THREE INPUTS).
	U. SELECTION SWITCH FOR SECOND IN- PUT CLOCK. (THIRD OF THREE SPEED INPUTS).
	V. TO COMMON OF SECOND SELECTION SWITCH FOR SPEED SELECTION.
	W. TO R OF S3 OR R OF R/T RELAY.
	X. TO S4 FOR REQUIRED STOP PULSE.
	Y. TO S8B N.C.
	Z. TO ST6 OR EQUIV. FSK LINE.

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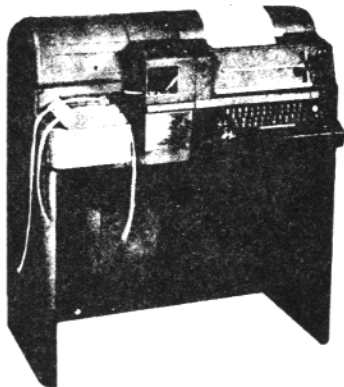
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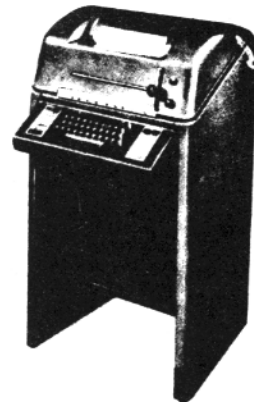
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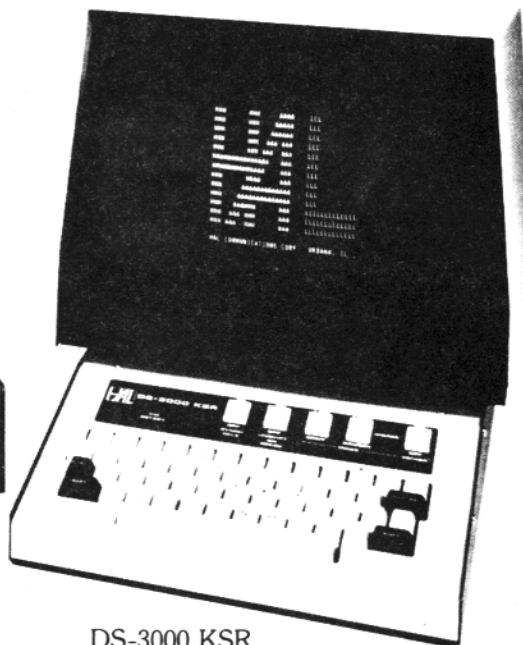
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# YOU ASKED FOR IT-

## BOTH MORSE AND RTTY



ST-6000

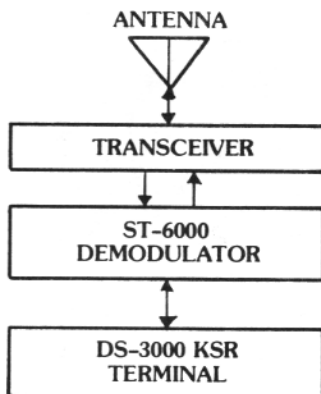


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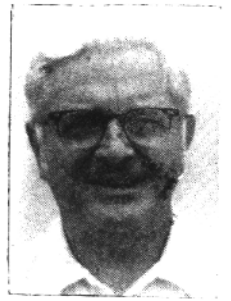
# HITS & MISSES

From The Editor  
and  
his Mail

**CHUCK EDWARDS W6MNO**

4726 Barbarossa Drive -

San Diego, CA 92115



Well, at this time of writing, the San Diego ARRL National Convention is now history. It, without doubt, was the largest ARRL Convention ever. The record was beat by some 1500 registrants, which isn't too shabby for San Diego.

Dee, our publisher and her RTTY JOURNAL staff, had a great time with their Hospitality suite. A lot of new friends were made, with hopefully, a few more new believers in this art called radio teleprinters. It has been very surprising, how many newcomers showed up and asked how they might get into RTTY and start a new hobby. Some were interested in how they might interface RTTY machinery with their computers to permit hardcopy--others were just curious to find out what this blossoming hobby was all about. We had a very able station set up within the RTTY JOURNAL Suite which worked the San Diego Teleprinter Society's new 220 repeater. The antenna went up several floors and was fastened to one of the ballstrades for a ground plane. The Convention site, unfortunately, is in a sort of a low valley (river bottom) and we had a time getting it to work consistantly. The equipment belonged to KØPJ/6, Paul and WB6CYA Skip, WB6BDY Steve, W6II Tom, and WB6ODR Bob, were the technical staff who set it all up along with a lot of other SDTS members. It was a very interesting RTTY set-up and every one visiting had a chance to enjoy it.

The RTTY sessions at the Convention went over very well. Many highly technical questions were asked ranging from - how to get started in RTTY- to interfacing computers to RTTY. Hopefully, all the questions were answered to everyones satisfaction and that we soon will have a lot of new RTTYers on the way to join us on the air. There was also a great deal of RTTY equipment on display. Members from the Southern Counties Amateur Teleprinter Society were responsible for most of this equipment having brought it all the way down from their personal shacks in Los Angeles.

Anyway, Dee, her friend John and the staff of RTTY JOURNAL did a terrific job and it will be remembered for a long long time. At least 'til the next Convention. We don't know how many people visited our suite. We tried to keep a log, but so many came that it got out of control and we missed a lot of them, but we do

know that a lot of gallons of lethal spirits were consumed together with pounds of snacks. So there were literally hundreds of visitors, which was gratifying after all of the preparations that went into the Convention.

One very interesting meeting at the Convention was held by the attending ARRL top staff and top management called the 'ARRL Forum'. It was, by far, the largest and best attended of the sessions. After a few speeches and fine introductions and honor passings, the meeting was opened for questions and yours truly hopefully, got in a good one. I got up and announced who I was and that I represented a lot of RTTY Amateurs and the RTTY JOURNAL. The question I proposed was of great concern to not only me but to all radio teleprinters 'Why has the ARRL staff and management in the past and present, totally shunned the mention of RTTY in their magazine. There have been no articles nor recognition of technical or operating achievements whatsoever'. I ALSO CONVEYED 'that the teleprinter operators were becoming a large and powerful group and must be reckoned with. That we were, not only interested in Ham radio, but were interested in promoting the growth of RTTY not only in the US but all over the world.' Well, there was a bit of sputtering amongst the ARRL Headquarters staff and they finally came out with what I thought was a very weak answer, 'that they were interested in RTTY but that no one ever sends in articles for RTTY'.

I have a word for that but it cannot be printed here! Wayne Green certainly recognized that RTTY is here to stay. He even had one issue of his magazine totally devoted to RTTY. That ought to mean something--so fellows back me up! Send in letters to ARRL, specifically to Mr. Harry Dannals, and lets get them off dead center. Now that we have our foot in the door so to speak, let's get with it. Let them know that we want RTTY recognized. Could be, you know that if we don't get recognition we just might go out and start our own league. We ARE getting strong enough to do so. I personally am a life long member of ARRL but I want to see some RTTY material or recognition for us. Write me letters also and let me know your thoughts, maybe I am all wrong and am not doing what ya want.

By the way, there is another channel of thought that I want to mention.

That is that the ARRL staff, specially Harry Dannals wants to consider allowing the CBers to legally use part of our 220 band as a potential stand off to losing the band altogether. In my opinion, if this should happen it will be a sad day for not only RTTYers but for Hamdom in general. It is obvious that the optional 900 MHZ band is ideal for the CBers. It permits operation exactly within the limits set up for them and will be a frequency that they can call their own. It is not really ARRL that wants the CBers onto 220. It is the manufacturing lobbies that are pushing hard to make them do it. So if and when you write to the ARRL tell them how you feel about keeping 220 for Hams and promote the use of 990 MHZ for CBers.

I see where the FCC has decided that the ASCII mode of operation may soon be permitted. In fact, I think that they have actually decided that it should be permitted and are now trying to set up some standards and regulations for its use. ASCII will be great for the VHF bands (220) for dumping computer programs and things like that, however, for low band operation I think that there will be a lot of surprizes when it comes to Amateur communications on ASCII at 100 WPM under adverse propagation. Baudotat 60 WPM may prove to be better than we think. Speaking of low band operation, reminds me, that the San Diego Teleprinters Society net still operates on 36075 HRZ every Wednesday at 1900 hours local. To date we have not heard from any of our fine readers farther east than our own Laguna Mountains nor farther north than the outskirts of Los Angeles. I wonder if you fellows are really trying or is it bad propagation that inhibits check-ins from other states? It would be nice to know if some of you have been trying and have not been able to make it, though have tried CW on those frequencies and have gotten out just fine. Shucks, we ought to be as good as the CWers.--Nuff said.

Well fellows, I hope that I have started some good thinking here. I hope that we are on the way to being recognized as RTTYers amongst others than just ourselves.

Have fun----- 73 W6MNO Chuck

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ATTENTION FAKSIMILE OPERATORS A list with more than 200 frequencies of faksimile weather stations transmitting on SW is airmailed to you for \$3.00 or 10 IRC. It includes frequency, call sign, name, drum speed and cooperation index of each station. Write to: Joerg Klingenfuss, Goethestrasse 14, D-7400 Tuebingen 1, West Germany.

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TELETYPE PAPER-50¢ per roll or \$5.00 per case. PICK-UP ONLY. 54 pounds per case. Call (714) 276-3182 or Write: Skip, WB6CYA, 3611 Merrimac Avenue, San Diego, CA 92117.

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NEW CW ID UNIT. Includes many extras, on board interface for FSK and AFSK plus H.V. interface, 10 minute timer, variable speed 5-24 WPM, on board 7805 allows 5 or 12 volt use. \$37.50 kit. Mini version of above, ID only with 7805 regulator \$21.95 kit. Board alone (same for both units) \$9.45. Power supply for above 5V @ 1AMP \$11.95 kit. Daytapro Electronics, (formerly NuData Electronics), 3029 Wilshire Ln., Arlington Heights, IL 60004.

YOU NEED INFORMATION ON COMMERCIAL RTTY STATIONS? News Agencies, Telex, Weather on shortwave? I have up-to-date frequency, call sign, schedule, code lists. Write for details. Joerg Klingenfuss, Goethestrasse 14, D-7400 Tuebingen 1, West Germany.

PRINTED CIRCUIT BOARDS: RTTY Selcal with TTL logic, (73 magazine, Nov. 72) \$12.00. ST5A-W/P.S. (2 boards) \$6.25. AK-1 (AFSK) \$4.25. CW IDer (Feb. 73, 73 magazine) \$4.75. New CW IDer (dec. 76, 73 magazine) \$8.50. Synthesizer-75-S Collins rec. (Dec. 75 Ham Radio) (2 boards) \$12.50. Digital capacitance tester - W/PS (Radio elec. Dec 77) (2 boards) \$11.00. Speech compressor (QST Mar. 76) \$9.50. New logic probe (board and parts) READ: TTL - open - low - high \$6.95. Hefty 12v. supply regulator 5A.-50A \$2.50. Warble alarm/siren (5w) (board & parts) \$3.95. Instructions and parts list included: S.J. Zalewski, 29307 Red Cedar Dr., Flat Rock, MI 48134. 313-782-9316.

FOR SALE: MODEL 35 ASR \$500., 28 KSR \$250., 28 printer \$60., 28 LPR double shift \$75., Punch block \$30., Stunt box \$5., typebox \$15., LESU \$15., power supply \$5. Wanted; I.F. Strip for R-390A. Ed Wagner, 1018 Birch-Haven Circle, Monona, WI 53716.

AFSK GENERATOR Direct replacement board for AK-1 IN ST-6. Has CW ident with your call. 170 shift only. Other shifts available. Stable output. Special at \$29.95. Allow three weeks for delivery. Sulfun Electronics Services, PO Box 1475, Weaverville, CA 96093.

NEWS-NEWS-NEWS - Amateur Radio's Newspaper "Worldradio". Trail subscription Two Issues for one dollar. "Worldradio" 2509-F Donner Way, Sacramento, CA 95818.

Ham Radio Magazine - The no-nonsense state-of-the-art technical magazine. Dozens of exciting projects and an emphasis on quality unmatched by any other radio magazine. Subscribe now and see for yourself. 1 year. \$12.00. 2 years \$22.00 and three years. \$30.00. Ham Radio Magazine, Greenville, NH 03048.

UT-4C FOR SALE NuData/Daytapro Electronics. Assembled, attractive cabinet. Features include character counting, autocom clock, preload, repeat, serial and parallel output, external stop memory, CW ID, FSK, AFSK, autostart, etc. Needs alignment Cashiers check \$150.00 UPS delivered. - WB4WWC - Paul Lindsey, 2210 June Dr., Nashville, TN 37214 tel. 615-883-3620.

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WHAT! THE ST-5 improved? You bet! The MEG-1 RTTY Demodulator is designed to be built by the beginner, modular, and easy to work on. Curious? For information and prices write to the Midnight Engineering Group, PO Box 349, Galesburg, IL 61401.

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WANTED: KLEINSCHMIDT Teletype-writer parts, also Mite and Teletype Corp. Send listing for my quote. Phil Rickson, W4LNW, Rte 6, Box 1103G2, Brooksville, FL 33512.

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Surplus TD paper yellow an oiled 11/16 Carton of 10 \$3.00 Wt. 13. 11/16 Carton of 40 \$10.00 Wt. 47. 7/8 Carton of 8 \$3.75 Wt. 13. 7/8 Carton of 32 \$12.00 Wt. 47. Add UPS wt. Harmon, 5628 10th Ave., So, Birmingham, AL 35222.

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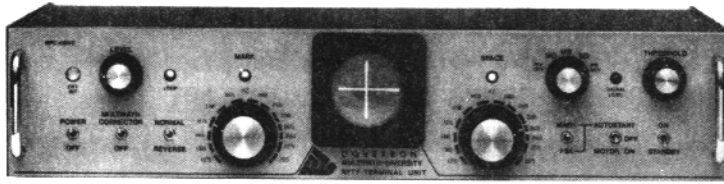
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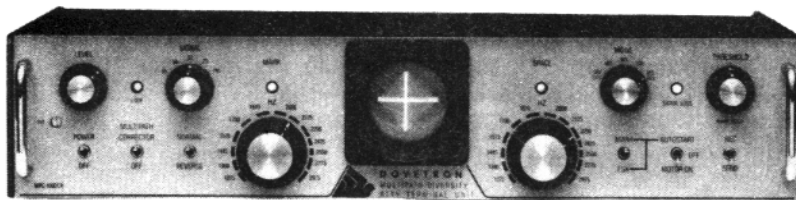


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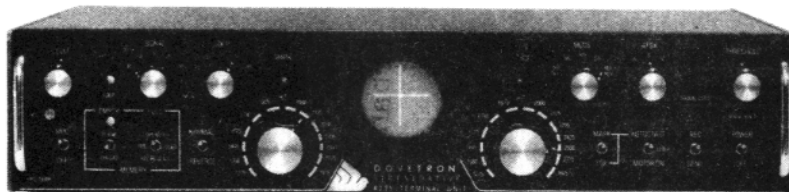


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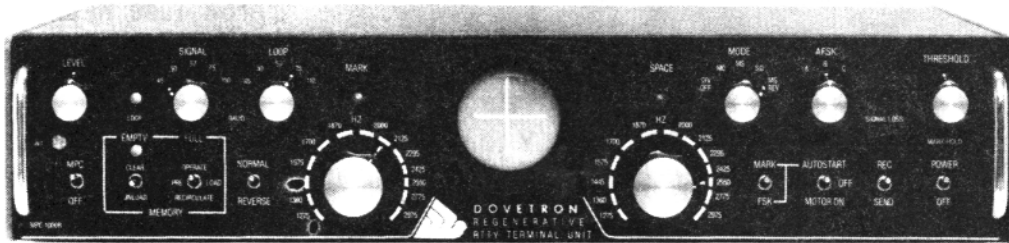
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