

February 16, 1965

Mr. Richard Kelly
Manager, University Commons
College Avenue
New Brunswick, N.J.

Dear Mr. Kelly:

As you know, this Friday is the date set for Showathon, WRSU's annual marathon event to raise money for Campus Chest, in cooperation with Crown & Scroll. Since Showathon is the climax of the week long fund drive, we at WRSU are continually trying to improve this program as much as possible.

Being Chief Engineer, my efforts along this line naturally are concerned with the technical aspects of the program. It has come to my attention that the new University Commons has a number of extremely high-quality microphones for use with its sound system.

Since we at WRSU will be using four microphones for our fourteen-hour broadcast from the Ledge on Friday, and we have only two microphones available, the thought of borrowing two microphones for this program naturally occurred to me.

Use of two of the Electro-Voice model 666 microphones owned by the Commons would greatly enhance the quality of this fund-raising marathon. I would personally see to it that the microphones were picked up and returned at the times you specified and WRSU would guarantee the safety and proper handling of the units while in our care.

If you have any questions, I would be happy to meet with you at your convenience and discuss them.

Sincerely yours,

Clive Knowles

CK/mfm
cc:Mr. William Muser

September 17, 1964

Ampex Corporation
934 Charter Street
Redwood City, California

Dear Sirs:

Several years ago WRSU purchased an Ampex Model PR-10 Tape Recorder. It came with a preliminary instruction manual bearing the number X-2014. Inside was a note saying that a final instruction manual would soon be available. Is this final manual now available and if so can WRSU obtain a copy? The serial number of our mschine is # 1045.

Thank you.

Sincerely yours,

Clive Knowles
Chief Engineer

September 17, 1964

Mr Oppenheimer
Sonocraft Corp.
115 West 45th St
New York 36, N.Y.

Dear Mr Oppenheimer:

Please consider this a conformation of my telephone order
of this afternoon for the following parts:

For an Ampex Model 601

1 Head Assembly - Full Track	#6206 - 10
2 Reel Hold Knobs	#6319

For an Ampex Model PR-10

2 Clutch Belts

Thank you.

Sincerely yours,

Clive Knowles
Chief Engineer

October 14, 1964

Mr. Oppenheimer
Sonocraft Corporation
115 West 45th Street
New York 36, N.Y.

Dear Mr. Oppenheimer,

I would like to order the following parts for
an Ampex 601 tape recorder:

- 1) 1-Actuator spring 11/64"dia. x 1" long #9368
- 2) 1-Holdback brake assembly kit #7974
- 3) 2-Spring, clutch "U" #6246
- 4) 1-Take-up belt, rubber "O" ring #432-010
- 5) 1-Motor #6239
- 6) 1-Motor starting capacitor
- 7) 2-Edi Tall 8" splicing block

Thank you.

Sincerely yours,

Clive Knowles
Chief Engineer

December 18, 1963

Mr. Fred Lissa
Sonocraft Corporation
115 West 45th Street
New York 36, N. Y.

Dear Mr. Lissa,

I would like to order the following part for an Ampex
601 tape recorder:

1) Nylon Drive Belt, 60 cps, 7½ips Ampex Part # 2871-3

Enclosed is a check for \$3.00 to cover the cost of the
part and mailing charges.

Thank you.

Sincerely yours,

Clive Knowles
Chief Engineer

C
O
P
Y

March 2, 1964

Lafayette Radio
165-08 Liberty Ave.
Jamaica 33, N. Y.

Dear Sirs,

I need two cartridge holders for an Argonne
AR-600S Deluxe Viscous Damped Transcription Arm. Can
you send me some information on whether they are
available separately, and if so what they cost.

Also, please send me a copy of your 1964 catalog.

Thank you.

Sincerely yours,

Clive Knowles
Chief Engineer

April 4, 1964

Herbach & Rademan, Inc.
1204 Arch Street
Philadelphia, 7, Pa.

Dear Sirs:

In the Spring ~~LXXX~~ 1964 issue of This Month, page 12,

you advertise a Telex "Magatwin" Combination Boom-type Microphone and Headset. As advertised, this comes equipped with a high impedance crystal mic. Do you have available a similar unit using a 250-ohm dynamic mic suitable for broadcast use? If such is available, please send me specifications and prices.

Thank you.

Sincerely,

Clive Knowles
Chief Engineer

June 19, 1964

Mr. L. Vaux
Chief Testboardman
Philadelphia 2B
A T & T
Philadelphia, 6 Pa.

Dear Mr. Vaux,

This is to introduce you Jill Muchler, an active member of the staff of WRSU, the Rutgers University radio station in New Brunswick. Would you please grant her permission to visit your radio and television switchboard rooms.

Thank you in advance for your kind consideration.

Sincerely yours,

Clive Knowles
Chief Engineer

CK/kkk

February 16, 1965

Simpson Instrument
Service Dept.
130 Cutter Mill Road
Great Neck, L. I., N.Y.

Dear Mrs. Mark:

Please send me the following replacement part for
a Simpson model #260 Meter:

1 Front Cover #0-005572	@ \$2.62
Shipping charges	<u>.29</u>
Total	\$2.91

Enclosed is a check for \$2.91 to cover the above
charges. Please ship to:

WRSU - Radio Rutgers
12 College Ave
New Brunswick, N.J.
Attn: Mr. Knowles

Thank you.

Sincerely yours,

Clive Knowles
Chief Engineer

December 1, 1964

Mr. H. E. Lindlan
Daven Division
530 West Mt. Pleasant Avenue
Livingston, New Jersey

Dear Mr. Lindlan:

This is to confirm my telephone order
dated today(December 1, 1964) for:

2 Spec. 2277-E Attenuator @ \$25.56
as per your quote of November 16, 1964.

Thank you very much for your co-
operation.

Sincerely,

Clive Knowles
Chief Engineer

ck/vjp

August 24, 1964

Office of Campus Parking and Transportation
Rutgers University
26 1/2 Morrell Street
New Brunswick, New Jersey

Dear Sirs:

WRSU has just ordered from RCA some new equipment valued at approximately \$1000. We are expecting delivery sometime before this Freshman Week begins. Since no one will be at the 12 College Ave studios to receive the package and since we do not like to leave this valuable a piece of equipment where it might be tampered with for any length of time, we were hoping that your office could accept delivery for us. If you could then use the enclosed post card to notify me, I will see to it that either I, myself, or some other authorized person will pick up the package as promptly as possible.

Assuming that these arrangements will be satisfactory to you, I have given your address to RCA. If, however these arrangements are unsatisfactory, please let me know and I will make other plans.

Sincerely yours,

Clive Knowles
Chief Engineer

August 4, 1964

Mrs. Noreen Griffiths
Customer Relations
Heath Company
Benton Harbor, Michigan

Dear Mrs. Griffiths:

Please consider this an order for:

2	Part No. 54-119	Power transformers @ \$6.90	\$13.80
	Extra to cover parcel post and insurance		2.20
		Total	<hr/> \$16.00

Enclosed is a check for \$16.00. Please ship the transformers to me at:

20 Terrace Avenue
Stamford, Conn. 06905

Thank you for your kind assistance.

Sincerely yours,

Oliver Knowles
Chief Engineer

20 Terrace Ave
Stamford, Conn.
July 29, 1964

Mr. I. V. McDaniel, Director
Broadcast Engineering
Oklahoma State University

Dear Mr. McDaniel:

Please excuse my delay in answering your last letter. However it arrived at WRSU after I had returned to Stamford for the summer and was not forwarded immediately. I hope the attached information will be of use to you.

Enclosed are copies of our transmitter schematics. The first is a diagram of the master oscillator located at the studios. The 42.5 kc output of this oscillator is mixed with the audio that is distributed to each of the transmitters. 42.5 kc was chosen because: 1) it is an even sub-multiple of 680 kc (our frequency)

- 2) any lower frequency (say 21.25 kc) was found too difficult to separate from the audio at the transmitter to prevent it from swamping the modulator
- 3) the line losses encountered at any higher frequency made this use impractical

The next four diagrams are the four units that make up each transmitter. Each unit is built on a separate chassis to make substitution servicing a practicable policy. The four units are interconnected as shown in the last diagram. Essentially the inputs to the modulator and multiplier units are connected in parallel. The R-C network is to reduce the audio level, since the modulator has more than ample gain, and to provide some measure of tone control. The values of R and C vary at each location as length and quality of the lines vary considerably.

The multiplier consists of a preamplifier stage that also serves as an audio filter followed by four doubler stages. The output of the last doubler is fed to the rf driver and from there to the modulated rf output stage. The choke across the output is to keep any 60 cycle hum from getting into the last stage and modulating the signal. The signal is coupled through a blocking capacitor to the hot side of the AC power line. Since the transmitter is plugged in on the building side of the building power transformer, the signal is injected into the AC wiring inside the building and prevented by the building transformer from leaking out. This system keeps us well within FCC requirements and we have no hum problems. Although the hum

on the detected carrier is more than is usually found on a commercial AM carrier, in no case where the equipment is working properly does the hum come anywhere near the objectionable level.

I hope this answers your questions. You may use any of the enclosed material as long as you credit it to WRSU in your paper. Please let me know if I can be of further assistance.

Sincerely yours,

Clive Knowles
Chief Engineer

August 4, 1964

Mr. J. L. Nickels
Broadcast and Closed Circuit
Equipment Sales
Radio Corporation of America
36 W. 49th Street
New York 20, New York

— 10020 *27* Code

Dear Mr. Nickels:

Please consider this an order for the following:

1	MI-11957-B	RA-7B Playback Unit.....	\$578.75
1	MI-11958-B	BA-7B Recording Amplifier....	367.50
2bx	MI-11988-1	40 sec Cartridges 300 series.	30.00
5bx	MI-11988-2	70 sec Cartridges 300 series.	76.50
1bx	MI-11988-4	3 $\frac{1}{2}$ min Cartridges 300 series.	20.70

Total for merchandise.....\$ 1073.45

5% Educational Discount..... 50.36

Total (Less shipping).....\$ 1023.09

Please prepay all shipping and insurance charges incurred on this order and bill them as a separate item. The billing and shipping address is:

WRSU - Radio Rutgers
12 College Avenue
New Brunswick, New Jersey

Since WRSU will be returning to the air at the end of the summer recess on September 12, we would appreciate it if the above ordered merchandise could be delivered by that date.

Sincerely yours,

Clive Knowles
Chief Engineer

RADIO CORPORATION OF AMERICA

36 W. 49TH STREET-RADIO CITY
NEW YORK 20, NEW YORK



August 14, 1964

Mr. Clive Knowles, Chief Engineer
WRSU Radio
Rutgers University
12 College Avenue
New Brunswick, New Jersey

Dear Mr. Knowles:

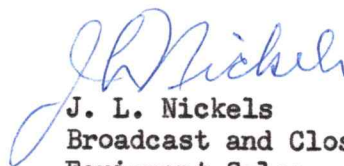
I have just learned that we have available in New York, one (1) RT-7 Cartridge Tape System and one (1) BA-7 Recording Amplifier. These are in excess of the local requirement and rather than shipping them back to Camden they are available for sale here at a reduced price.

As quoted in my July 24 letter, the normal price is \$578.75 for the RT-7B and \$367.50 for the BA-7B. Thus the normal total would be \$946.26 minus the usual 5% educational discount.

If you are interested and can send me your immediate purchase authorization, we can let you have the above two (2) units carrying the normal full warranty for a total price of \$809.05.

I am sure you recognize that this is a real bargain and I hope you can take advantage of it.

Cordially yours,


J. L. Nickels
Broadcast and Closed Circuit
Equipment Sales

JLN:im

August 24, 1964

Mr. J. L. Nickels
Broadcast and Closed Circuit
Equipment Sales
Radio Corporation of America
36 W 49th Street
New York 20, New York

Dear Mr. Nickels:

Your letter of August 14 arrived in New Brunswick after I had returned to Connecticut and, because of a delay in forwarding, I did not receive it until this Saturday. However, if it is still available, I would like to take advantage of your offer to sell WRSU the two (2) units for a total price of \$809.05.

Please also include in the order the tape cartridges listed in my letter of August 4. This will make the complete order as follows:

1	RT-7B Cartridge Tape System and	
1	BA-7B Recording Amplifier.....	\$809.05
2bx	40 Sec Cartridges 300 series.....	30.00
5bx	70 Sec Cartridges 300 series.....	76.50
1bx	5 1/2 Min Cartridges 300 series...	20.70
	5% Discount on Cartridges.....	<u>6.36</u>
	Total (Less Shipping).....	\$929.89

I notice your letter lists one (1) RT-7 unit and one (1) BA-7 unit. Are these the same as the units described by the literature you sent me or are these earlier models? If there is any significant difference, please notify me before filling this order.

Also, please ship the equipment to the address below, rather than to the address listed in my letter of August 4. The billing address, however, will remain the same.

WRSU - Radio Rutgers
c/o Office of Campus Parking and Transportation
26 1/2 Morrell Street
New Brunswick, New Jersey

If this letter should arrive too late to take advantage of your special offer, please fill the order in its original form. The change in shipping address, however, applies in either case.

Sincerely yours,

Clive Knowles
Chief Engineer

August 19, 1964

Mr. John McCormick
Department of Physical Plant
Rutgers University
New Brunswick, N.J.

Dear Mr. McCormick:

Please have the shelf for the WRSU Heights transmitter made 16 inches deep and at least 30 inches long. If possible we would like it to be 36 inches long.

Please have it mounted on the wall of the main utility room in the cafeteria building over the green telephone junction box as we arranged last Saturday.

Thank you.

Sincerely yours,

Clive Knowles