

FEDERAL BUREAU OF INVESTIGATION  
FOI/PA  
DELETED PAGE INFORMATION SHEET  
FOI/PA# 20-cv-3269

Total Deleted Page(s) = 1  
Page 14 ~ Duplicate;

XXXXXXXXXXXXXXXXXXXXXXXXX  
X Deleted Page(s) X  
X No Duplication Fee X  
X For this Page X  
XXXXXXXXXXXXXXXXXXXXXXXXX

Please Furnish Complete Information

Agency submitting evidence

- FBI
- Federal
- Local or State

Date 9/13/84

Laboratory # 40913034

DWW

Delivered by

Accepted by

95

Suspect(s)

Victim(s)

JAMES J. BULGER and [redacted] - subjects;

~~NARCOTICS MATTER~~

Offense

Place and date of offense

b6  
b7C  
b7E  
b7F per DEA

~~DOUGS~~

BOSTON

Agency case #

Date of hearing, grand jury, trial, or reason why expeditious handling is necessary

AF PURP. T.3

Prev. exams this case

Evid. located

Report to be directed to

Yes  No

Room #

DEA RM 664 JER FEO BLDG BOSTON 02203

Copies to

Evidence to be returned to

Brief Facts covering case

Q1-Q2

Description of evidence

Exams requested

Q1- ONE WOMAN'S DAY MAGAZINE DATED AUG 1983 DE-145  
Q2- ON SPIRAL BOUND NOTE BOOK 1-A0 N 95

COMP HANDWRITING W F.P. SIG. BULGER FBI II 169-486A

263/42

23 SEP 21 1984

Partly completed 9/13/84 will # 74

(This space for blocking)

INDEXED

53 JAN 17 1985

(Use reverse side if necessary for additional evidence)

40913034 D-WW

FILE # 95-263192-2  
CONTENTS: LAB WORKSHEET ITEMS  
DO NOT STAMP OR HANDLE AS ENCLOSURE



**Woman's Day** <sup>super special</sup>

*Super Special*  
**Simply Delicious**

*4.50* *SPD*  
**Meals in Minutes**

AUGUST 1983 \$2.25

**EASY COOKING**

8 Pages of How-To's

**259** ★★★★★

Recipe & Menu Quickies



9-2-84 REA  
AVB 9/2/84  
Accounted for - Frank bin  
on 9/17/84 @ 2230  
witness 101.

# steno notebook

72 Sheets  
Book No. \_\_\_\_\_  
From \_\_\_\_\_ To \_\_\_\_\_

Stock No. 710003	Green	Gregg
Stock No. 710004	White	Gregg

Quality  FAY-VO-RITE Papers

FAY PAPER PRODUCTS, INC., Norwood, Mass. 02062

57-2  
FBI

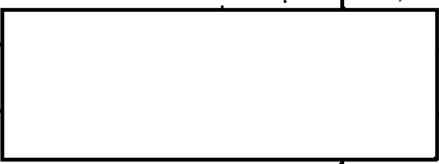
12 VDC  
3 Curr/Pit. Head/X-ray  
2 Teaching  
2 Coin DETECTOR

---

19

Pay Store 15.50 + chips

See



b6  
b7C per DEA

James  
Papalga  
cut up

*[Handwritten scribble]*



- 1:00 PM -

Yone over the house -  
Papaya cut up in fridge  
and Potato Kugel in toaster  
oven keeping warm.

Be Back later. ... OK

Love



b6  
b7C per DEA

Thanks for the talk & the  
wine last night - I slept  
and I feel a little better  
knowing he's finally at peace -  
I hope he knows I've  
loved him.

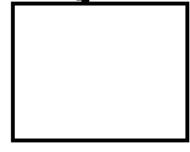
James,

9:30 pm

Decided to stay at my  
house tonight - Nothing is  
wrong - just feel like being  
alone for awhile.

Talk to you tomorrow

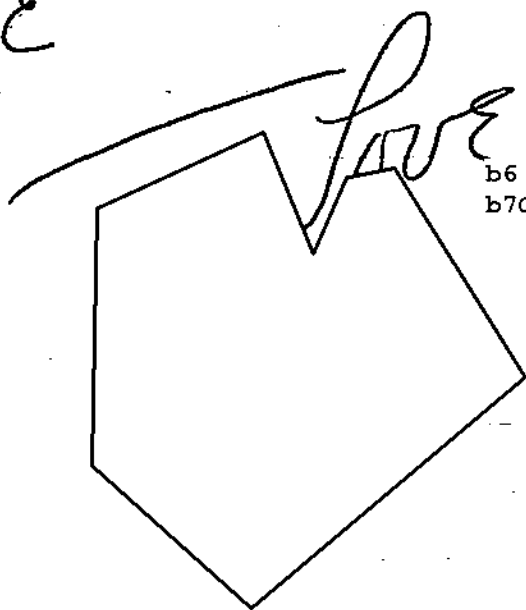
Lane



b6  
b7C per DEA

to  
Gone  
the Good

Store



b6  
b7C per DEA

1 Finish reports next week.

2 Burn all notes envelopes numbers etc.

3 Start to go through series of letters

4



take a nap - then

clean up.

Leave fire place till later in case we burn more soon.

Let's check into the "Kunch Time" - sounds pretty good. - Dick is definitely a buyers market - interests rate are going up.

Let my things want well with your mother - I think that's finally she's giving in and going to London - before she was trapped and bottled into all suggestions.

Get some notes - they have and will catch you later.

P.S.  
I look up the  
address in fire place  
& it seems every thing  
is released to asker  
so we can learn  
the letter its  
night and  
first let  
the asker blow  
every or part  
in trash receptacle.

7:00 pm

James

Gone to visit my mother  
this home -

Tuna fish & papaya in fridge  
more bread in freezer.

b6  
b7C per DEA

You couldn't be more wrong  
when you think I don't appreciate  
you. - I told my mother,   
everyone - that I don't know  
what I would have done this  
past week without you. The  
long talks have helped to part  
things out in my mind, the house  
searching has helped to distract  
me, the concern for my mother  
has given me purpose - but  
all those things can't erase  
the pain - the ache - inside  
me. I'm really incapable  
of describing what I feel - I  
know with time it will  
ease -

FBI(20-cv-3269)-4077

I apologize for hurting you -  
~~your words echo.~~

I really do understand your  
need to be away from me -  
to take a trip - whatever -  
makes you happy. -

But I need time James - I  
feel myself slipping - Can't  
hear to hear your words  
of disgust -

I'm trying to keep going  
Called - I'm meeting her  
tomorrow at 6:00pm - Ho  
workout run a for a bite  
to eat.

b6  
b7C per DEA

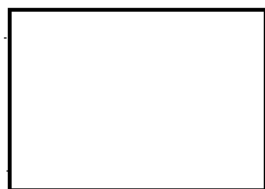
It's only been one week & a half  
I need time to recover spine  
been depressed for a year -

~~was so for for for~~  
You much better now

He araised someone who  
makes you happy - go away -

just please don't say those  
things to me anymore -  
I can't take it James -  
leave me alone - give me  
time -

I'll always be here  
for you



b6  
b7C per DEA

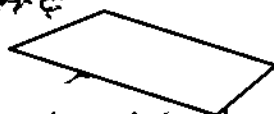


Jax -

Sliced Chicken on shelf with  
bread & mayo -

Speak to Jim later.

Love



b6  
b7C per DEA

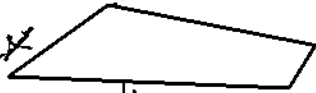
Thanks for being so  
understanding

Looked at 3 houses & made deposit -  
The one at Sycamore - asking 94,9 -  
is the niciest we've seen - "water  
in the basement" - I'll call about  
the other one listed by the owner  
tonight.

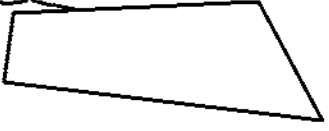
James ..

Just in case you come in  
I wonder why the air conditioner  
is off - apparently there was  
a power failure in the complex

- a fire in the area - so I  
turned everything off before  
I left.

gone to meet  then  
maybe to mom's.

b6  
b7C per DEA

Have  


FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

RETURN TO FBI  
ENGINEERING SECTION  
TECHNICAL SERVICES DIVISION  
O-4 RETURN RECEIPT REQUESTED

DATE: June 18, 1985

Re:

JAMES J. BULGER, ET AL, SUSPECTS;  
CONSPIRACY TO TRAFFIC IN  
CONTROLLED SUBSTANCES;  
ILLEGAL GAMBLING BUSINESS

TO: Mr. Robert M. Stutman  
Special Agent in Charge  
Drug Enforcement Administration

Attn: SA [redacted] b6  
Room G-64 b7C  
JFK Federal Building b7F per DEA  
Boston, Massachusetts 02203

Invoice of Contents

b6 -1  
b7C -1

FEDER

- 2233637865*
1. Specimens Q3 thru Q8 (Six Nagra SN reels).
  2. Specimens Q9 thru Q25 (Seventeen cassettes).
  3. Transcriptions.
  4. Enhanced copies of Q4 thru Q16 and Q21 thru Q25 (Sixty-four cassettes & thirty-two reels).

Return to Engineering Sect.  
Room 1B341 TL 152  
FBI File # 95-263142  
Case # 50412040 E OZ  
Your # [redacted]

b7E per DEA

Evidence - send via registered mail

Mail Room: 1B327, TL 152  
(registered mail)

PSM - Supply Unit, 1B353  
(not registered)

34  
b6 -1  
b7C -1

REGISTERED MAIL  
RETURN RECEIPT REQUESTED

EVIDENCE EVIDENCE EVIDENCE  
PRIORITY HANDLING REQUIRED.  
UPON RECEIPT, DELIVER TO  
CASE AGENT, OR CASE SUPVR.

CHECKED BY [redacted]

PACKAGED BY [redacted]

Shipping # \_\_\_\_\_  
Shipping Method \_\_\_\_\_

REPORT  
of the

1 -

[Redacted]

b6 -1  
b7C -1



FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

To: Drug Enforcement Administration  
Room G64  
Federal Building  
Boston, Massachusetts 02203  
FEDERAL GOVERNMENT

November 14, 1984

FBI FILE NO. 95-263142

Re: JAMES J. BULGER AND  
[Redacted] SUBJECTS  
NARCOTICS MATTER

LAB. NO. 40913034 D WJ

YOUR NO. [Redacted] b7E per DEA

Examination requested by: Addressee

Reference: Evidence received September 13, 1984

Examination requested: Document - Fingerprint

Specimens:

- Q1 One Woman's Day magazine dated August 1983
- Q2 One spiral bound notebook

Result of examination:

Due to insufficient known standards, it could not be determined whether the name "James Joseph Bulger" in the upper left corner of the cover page of specimen Q1 was or was not written by JAMES JOSEPH BULGER, FBI #169 486A whose known writing consists of fingerprint card signatures.

Specimens Q1 and Q2 have been photographed and will be returned with the results of the latent fingerprint examination.

[Redacted] 263142-2

b6 -1  
b7C -1

MAILED 8  
NOV 1 1984  
FBI

[Redacted] (4)

53 JAN 17 1985

MAIL ROOM [Redacted]

FBI/DOJ

FBI(20-cv-3269)-4083

RECORDED  
9/17/84  
[ ]

FEDERAL BUREAU OF INVESTIGATION  
UNITED STATES DEPARTMENT OF JUSTICE

9/13/84  
[ ]

b6 -1  
b7C -1

Laboratory Work Sheet

To: Drug Enforcement Administration  
Federal Building  
Room G64  
Boston, Massachusetts 02203

FBI FILE NO. 95-263142-2

LAB. NO. 40913034 D WW

Re: JAMES J. BULGER AND  
[ ] - SUBJECTS;  
NARCOTICS MATTER b6 -2  
b7C -2

YOUR NO. [ ] b7E per DEA

Examination by: 10.1

Examination requested by: Addressee

Reference: Evidence received ~~August~~ <sup>sept</sup> 13, 1984

Examination requested: Document - Fingerprint

Specimens received:

b6 -1  
b7C -1

Specimens:

- Q1 Magazine One Woman's Day magazine dated AUGUST 1983
- Q2 ~~Notebook~~  
One spiral bound note book

notes

request

- ① comp handwriting Q1, Q2 WITH BULGER #169-486A
- ② PHOTO FOR FUTURE comp.

CFPS  
[ ]

EXAM

Q1 B-point OVERPRINTING DIST. F.P. CARDS 1959 & 1963  
SIXES  
Q2 PHOTO

7-19  
11-13-84  
[ ] (OVER)

b6 -1  
b7C -1

## RESULTS OF EXAMINATION

Due to insufficient known standards, it could not be determined whether the "name" James Joseph Bulger" ~~written~~ in the upper left corner of the cover page of Specimen Q, was or was not written by JAMES JOSEPH BULGER, FBI # 169-486A whose known writing consists of fingerprint card signatures.

Specimen Q, and Q2 have been photographed and will be returned with the results of the latent fingerprint examination.

RECORDED  
9/17/84

FEDERAL BUREAU OF INVESTIGATION  
UNITED STATES DEPARTMENT OF JUSTICE

9/13/84

[Redacted]

Laboratory Work Sheet

b6 -1  
b7C -1

To: Drug Enforcement Administration  
Federal Building  
Room G64  
Boston, Massachusetts 02203

FBI FILE NO. 95-263142-2

Re: JAMES J. BULGER AND  
[Redacted] SUBJECTS  
NARCOTICS MATTER

LAB. NO. 40913034 D WW

YOUR NO. [Redacted] b7E per DEA

Examination by:

Examination requested by: Addressee

Reference: Evidence received <sup>Sept</sup> August 13, 1984

Examination requested: Document - Fingerprint

Specimens received:

Specimens:

- Q1 ~~MAGAZINE~~ ONE WOMAN'S DAY MAGAZINE DATED AUG 1983
- Q2 ~~Notebook~~ ONE SPIRAL BOUND NOTEBOOK

PLEASE RETURN and return  
the submitted evidence

Q1 & Q2 PHOTOGRAPHED 9/13/84  
BY LAPS [Redacted]  
9/13/84

b6 -1  
b7C -1

Q1 & Q2 ret'd to <sup>FBI</sup> [Redacted] by LAPS ON 10-22-84

[Redacted]

4-12



UNITED STATES DEPARTMENT OF JUSTICE  
DRUG ENFORCEMENT ADMINISTRATION  
ROOM G-64, JFK FEDERAL BUILDING  
BOSTON, MA 02203

(617) 223-2170  
JFK BUILDING

April 10, 1985

FEDERAL GOVERNMENT

Federal Bureau of Investigations  
Signal Analysis Division  
8199 Backlick Road  
Newington, VA

50412040

- E 92

*[Handwritten signatures and initials]*

Dear Sir:

The enclosed cassettes and Nagra recordings were obtained pursuant to a court ordered Title III intercept of a vehicle and residence between February 1, 1985 and March 11, 1985. (File reference: )

b7E per DEA

SUSPECTS

The enclosed recordings contain conversations of:

*8/20/85*

- A. James J. BULGER
- B.
- C.
- D.
- E.
- F.

b6  
b7C per DEA

*Track Report  
9/9/85  
BEN/cul*

VIOLATIONS

The above suspects are alleged to be involved in a large scale conspiracy to traffic in controlled substances - all in violation of Title 21, United States Code, Sections 846 and 963; and are conspiring to commit offenses involving the conducting, financing, managing, directing or owning all or part of an illegal gambling business in violation of Massachusetts General Laws, Chapter 271, Sections, 7, 16, 17, and 17A and also thereby in violation of Section 1955, 1962, and 371 of Title 18, United States Code.

Additionally, there is evidence that possible violations of the Arms Export Control Act with respect to shipment of arms to the I.R.A. may be revealed on some of the tapes; Title 22, U.S. Code Section 2778.

b7C  
b7F Per DEA

On 4/11/85, SA  personally delivered 10 SA  at Newington 17 cassettes, 6 Nagras, and transcriptions. Prepare two enlarged copies of each on a reel or a cassette (w/ Dolby B). No immediate deadline. *8/20*

920-53-026

53 NOV 20 1985

b6 -1  
b7C -1

FBI(20-cv-3269)-4087



April 10, 1985

METHOD OF EVIDENCE COLLECTION

The original recordings were obtained by using three different receiver units; each unit was color coded, e.g., red, green, yellow.

Recordings made from the residence were labeled H, (house); a number, and a letter indicating sequential order and color, for example, H-16-A-green would indicate the 16th recording of the house; A -the first tape of the day and green - the color of the machine on which the tape was recorded.

Recordings of the vehicle are labeled C, (car) a number reflecting the intercept and a letter reflecting the number of the recordings on that day and the color of the machine the recording was obtained, for example C-7-A-Yellow would indicate car, 7th day of intercepted recordings A - first tape of the day, yellow - (machine on which the tape was recorded.)

Nagra recordings were made involving conversations intercepted inside the vehicle among the principals.

REQUEST

It is requested that the F.B.I., Signal Analysis Division do the following:

- A. Make exact copies of all original recordings as per U.S.D.C. Judge Mazzone's court order.
- B. Copy Nagra originals onto reel to reel tapes.
- C. Copy original cassettes onto cassette recordings with Dolby.

It is requested that the following original exhibits be enhanced re: road noises, radio music and traffic noise be eliminated, and whispered conversations be amplified.

F.B.I.  
Signal Analysis

-3-

April 10, 1985

CAR

· C-4-A-Yellow	· C-9-A-Sony
· C-4-B-Yellow	· C-11-A-Yellow
· C-7-A-Red	· C-12-A-Red
· C-7-A-Yellow	· C-12-B-Red
· C-8-A-Yellow	· C-14-A-Red

NAGRA

N-1	N-5
N-2	N-6
N-4	N-7

HOUSE

· H-11-A-Green	· H-16-A-Green
· H-12-A-Green	· H-16-B-Green
· H-14-A-Green	H-18-A-Green
	H-18-B-Green

b6  
b7C  
b7F per DEA

Any questions should be directed to S/A [redacted] OR  
S/A [redacted], DEA, Boston, MA, telephone number [redacted]  
[redacted] Also enclosed are rough transcripts of the original  
recordings.

Very truly yours,



Robert M. Stutman  
Special Agent in Charge  
Boston Divisional Office

REPORT of the FBI TECHNICAL SERVICES DIVISION FEDERAL BUREAU OF INVESTIGATION WASHINGTON, D. C. 20535

1 -  
1 -  
1 -  
1 -

b6 -1  
b7C -1

Mr. Robert M. Stutman  
Special Agent in Charge  
Drug Enforcement Administration  
Room G-64  
JFK Federal Building  
Boston, Massachusetts 02203

FEDERAL GOVERNMENT

September 9, 1985

Attention: Special Agent

FBI FILE NO.

95-263142

b6  
b7C

LAB. NO.

50412040 E QZ

b7E  
b7F per DEA

Re:

JAMES J. BULGER,

YOUR NO.

SUSPECTS;

CONSPIRACY TO TRAFFIC IN  
CONTROLLED SUBSTANCES;  
ILLEGAL GAMBLING BUSINESS

b6 -2  
b7C -2

Examination requested by: Addressee

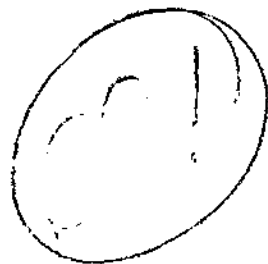
Reference: Letter dated April 10, 1985

Examination requested: Enhancement - Miscellaneous

Specimens received: April 11, 1985

The following specimens are each a 2.65-inch diameter reel of 0.15-inch wide magnetic tape marked in part:

- Q3 "N-1. 2/21/85"
- Q4 "N2. 2-22-85"
- Q5 "N-4. 2/25/85"
- Q6 "N-5. 2/27/85"
- Q7 "N-6. 2/28/85"
- Q8 "N-7"



The following specimens are each a magnetic tape cassette marked in part:

- Q9 "2/7/85. Yellow. C/4/A"
- Q10 "2/7/85. Yellow. C/4/B"
- Q11 "C-7-A. 2/17/85. RED"
- Q12 "C/7/A-YELLOW 2/17/85"
- Q13 "2-18-85. YELLOW C8-A"
- Q14 "C-9-A-(SONY). 2/20/85"
- Q15 "C-11A-YELLOW. 2-22-85"
- Q16 "C12A 2-25-85. RED"
- Q17 "C-12B 2-25-85. RED"
- Q18 "C-14-A-Red. 2/27/85"
- Q19 "H-11-A. Green 2-27-85"
- Q20 "H-12-A. 2-28-85. Green"
- Q21 "H-14-A. GREEN. 3-2-85"
- Q22 "GREEN. 3-5-/85 H-16-A"

95-263142-H

SEP 13 1985

MAILED 5

SEP 09 1985

FBI

Page One

53 NOV 20 1985

MAIL ROOM

(Continued Over)

b6 -1  
b7C -1

FBI/DOJ

FBI(20-cv-3269)-4090

Q23 "3-5-85. H-16-B"  
Q24 "H-18-A 3-7-85"  
Q25 "H-18-B 3-7-85"

ALSO SUBMITTED:

Transcriptions

Result of examination:

When received, the specimen Q7 tape was broken in two portions. The areas were repaired with edit-tabs, to allow proper playback.

Three electronically enhanced copies each were prepared of specimens Q4 through Q16, and Q21 through Q25, with one copy on magnetic tape cassettes, the second copy on magnetic tape cassettes with Dolby B noise reduction, and the third copy on 5-inch reels of magnetic tape in a full-track configuration at a recording speed of 3 3/4 inches per second. Only a slight improvement in voice intelligibility could be obtained on the enhanced copies, due to the high-level noise and distortion in the speech frequency range.

To obtain the best transcriptions and aural intelligibility, the enhanced copies should be played back on good quality tape recorders and listened to with headphones, but not of the in-the-ear steno style.

An aural and electronic examination of specimens Q3 and Q17 through Q20 revealed that no meaningful improvement in voice intelligibility could be obtained through enhancement procedures.

Special Agent  conducted the enhancer<sup>b6 -1</sup>  
and miscellaneous examinations. <sup>b7C -1</sup>

Specimens Q3 through Q25, the transcriptions, and the enhanced copies of specimens Q4 through Q16 and Q21 through Q25 were forwarded to your office on June 18, 1985, via registered mail.

RECORDED

4/19/85

FEDERAL BUREAU OF INVESTIGATION:  
UNITED STATES DEPARTMENT OF JUSTICE

Work Sheet

b6 -1  
b7C -1

To: MR. ROBERT M. STUTMAN  
SPECIAL AGENT IN CHARGE  
DRUG ENFORCEMENT ADMINISTRATION  
ROOM G-64, JFK FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203

FBI FILE NO. 95-263142-4

LAB. NO. 50412040 E QZ

Re: JAMES J. BULGER - SUSPECT  
[redacted] - SUSPECT  
[redacted] SUSPECT  
[redacted] SUSPECT  
[redacted] - SUSPECT b6 -1,-2  
CONSPIRACY; GAMBLING b7C -1,-2

YOUR NO. [redacted] b7E per DEA

Examination by: [redacted]

Examination requested by: Addressee

Reference: Letter dated 4/10/85

Examination requested: Enhancement

Specimens received: 4/11/85, personally delivered by SA [redacted]

Q25 R/S to ECC 5/29/85. 1822  
Q3 - Q26 23 tapes

ALSO SUBMITTED:

b6  
b7C  
b7F per DEA

Transcriptions

On 4/23/85, SA [redacted] telephonically advised that three  
enhanced copies each be prepared of Q3 -> Q26 (One reel, one cassette  
w/o Dolby B, and one cassette w/ Dolby B)

b6 -1  
b7C -1

Tech Rep  
9/9/85  
[redacted]

## Worksheet

- Q3 One 2.65-inch diameter reel of 0.15-inch wide magnetic tape marked in part "N-1. 2/21/85". Silver/Silver Nagra SN reel.  
In a sealed DEA evidence envelope
- Q4 Same as Q3 except "N-2. 2-22-85"
- Q5 Same as Q3 except "N-4. 2/25/85" rd Blue/Silver
- Q6 Same as Q3 except "N-5. 2/27/85"
- Q7 Same as Q3 except "N-6. 2/28/85"
- Q8 Same as Q3 except "N-7."
- Q9 One Drug Enforcement Administration 90-minute magnetic tape cassette marked in part "2/7/85." <sup>Yellow.</sup> "C/4/A." Has screws. Safety tabs removed by me. Tape initialed on backing at beg of side with Lab #.
- Q10 Same as Q9 except "2/7/85." <sup>Yellow.</sup> "C/4/B"
- Q11 Same as Q9 except "~~2/27/85~~" "C-7-A. 2/17/85. RED"
- Q12 Same as Q9 except "C/7/A - YELLOW 2/17/85"
- Q13 Same as Q9 except "~~2/17/85~~" "2-18-85. YELLOW C8-A" rd a 60-min. cassette
- Q14 Same as Q9 except "C-9-A - (SONY). 2/20/85" rd a 60-min cassette.
- Q15 Same as Q9 except "C-11A - YELLOW. 2-22-85"
- Q16 One Lion Recording Services C-90 magnetic tape cassette marked in part "C12A" "2-25-85. RED" on side 1. Has screws. Magnetic tape leader. Safety tabs removed by me. Tape initialed on backing at beg of side 1.
- Q17 Same as Q9 except "C-12B 2-25-85. RED"
- Q18 Same as Q16 except "C-14-A - Red. 2/27/85"
- Q19 Same as Q16 except "H-11-A. Green. 2-27-85"
- Q20 Same as Q16 except "H-12-A. 2-28-85. Green" and in a plastic cassette box.
- Q21 Same as Q16 except "H-14-A. GREEN. 3-2-85"
- Q22 Same as Q9 except "GREEN. 3-5-/85 H-16-A" rd a 60-min cassette.
- Q23 Same as Q9 except "3-5-85. H-16-B" rd a 60-min. cassette.
- Q24 Same as Q9 except "H-18-A. 3-7-85" rd a 60-min. cassette.
- Q25 Same as Q9 except "H-18-B. 3-7-85" rd a 60-min cassette.

Worksheet

Q3

1. Recorded  $\frac{1}{2}$ -track mono, azimuth alignment looks OK - low.
2. Quality of recording mostly very poor - distorted, very little voice info., speed problems in one area (however when slowed down it was just a radio station), rumble, high-level wide-band noise
3. Enhancement procedures do not make a meaningful improvement due to noise and distortion.
4. Run  $\sim \frac{1}{2}$  way

WorksheetQ4.

1. Recorded  $\frac{1}{2}$ -track mono, azimuth alignment looks Ok - dev.
2. Quality very poor to poor - voice info. low level, some distortion, convoluted, limited voice info, rumble, various background sounds, limited freq. response
3. Direct/<sup>re-mastered</sup> copy made at  $7\frac{1}{2}$  ips,  $\frac{1}{2}$ -track stereo, 3-7" reels, 1.0 mil
4. Runs ~ 1 hr. 35 minutes

Enhanced copies (3) 3 Parts

1. Played back on a Nagra SWST,  $15\frac{1}{16}$  ips, left only
2. Then an Italo 4211 Electronic Filter  $\frac{1}{2}$ -<sup>200</sup> Hz - 4k
3. Then both sides of an Orban 424A Gated Compressor/Limiter
4. Then a DAC/M, see attached sheet
5. Recorded on a Revox PR99 full  $3\frac{3}{4}$  ips, 3-5" reel, 1.0 mil
6. " " " " B710MKII,  $17\frac{1}{8}$  ips, both channels, 3-Maxell C90s
7. Same as #6 except Dolby B used

Slight improvement due to noise and distortion.

Q5

Same as Q4 except ~~no~~ ~~Orban~~ ~~ad~~ no voice or noise in <sup>many</sup> ~~most~~ portions, 5 parts used, ~~all~~ runs ~ 3 hr 3 min. ad edit-taps ad non-magnetic leader added to beg to allow full playback.

Q6

Same as Q4 except ~~no~~ ~~Orban~~ no voice or noise in many portions, 4 parts used, runs ~ 2 hr. 50 min

Q7

\* When received, the beginning of the tape had been cut in two and then reeled on with the body toward the head. The tape was properly reattached with an edit-tap (about 27 minutes from beg. of recording).   
 second area also found later and repaired.

Same as Q4 except 2 parts, runs ~ 1 1/2 hrs.



Worksheet

Q8

Same as Q4 except more voice info. runs ~ 3 hr 15 min and 5 parts

## Worksheet

## Q9, side with Lab #

1. No voice info. noted on other side
2. Recorded  $\frac{1}{2}$ -track mono, azimuth alignment looks OK - dev.
3. Recording in a vehicle - interfering radio traffic, static, high-level wide-band noise in portions, quality very poor to poor, low-level voice info.
4. Direct / Enhanced copy made at  $7\frac{1}{2}$  ips,  $\frac{1}{2}$ -track stereo, 7" reel, 1.0 mil
5. Run ~ 40 minutes

## Enhanced copies (3)

1. Played back on a Revox B710MKII,  $1\frac{7}{8}$  ips, left
2. Then 2 Itlaco 4211 Electronic Filters  $\begin{matrix} L-2200 \\ H-3.15k \text{ } \& 4.0k \end{matrix}$
3. Recorded on a Revox PR99, full,  $3\frac{3}{4}$  ips, 5" reel, 1.0 mil
4. " " " " B710MKII,  $1\frac{7}{8}$  ips, both channels, Moxell C90
5. Same as #4 except Dolby B

Slight improvement due to noise - use leadplones.

## Q10, side with Lab #

Same as Q9 except only runs ~ 9 minutes, C60s cassette, ad 1.5 mil tape.

## Q11, side with Lab #

Same as Q9 except only runs ~  $15\frac{1}{2}$  minutes, ~~C60~~ C60s cassette, 1.5 mil tape, ad a 622B Orban Parametric used (see attached sheet)

## Q12, side with Lab #

Same as Q9 except only runs ~  $13\frac{1}{4}$  minutes, C60s cassette, 1.5 mil tape, ad a 622B Orban Parametric used (see attached sheet)

## Q13, side with Lab #

Same as Q9 except only runs 14 minutes, C60 cassette ad 1.5 mil tape.



WorksheetQ21, side 1

1. No voice info. noted on other side
2. Quality poor to very poor - interfering TV/radio, reverberant, low-level voice info.
3. Direct/Enhanced copy made at  $7\frac{1}{2}$ ips,  $\frac{1}{2}$  track stereo, 7" reel, 1.0 mil
4. Run ~ 21 minutes

Enhanced copies (3)

1. Played back on a Revox B710MKII,  $1\frac{1}{8}$ ips, left
2. Tfm 2 Ittaro 4211 Electronic Filters  $f_c = 200$   
 $f_H = 3.15K$
3. Tfm a DAC/M, see attached sheet
4. Tfm a 622B Orban Parametric Equalizer, see attached sheet
5. Recorded on a Revox PR 99, full,  $3\frac{3}{4}$ ips, 5" reel, 1.0 mil
6. " " " " B710MKII,  $1\frac{1}{8}$ ips, both channels, Maxell C90
7. Same as #6 except Dolby B

Slight improvement due to noise - use headphones.

Q22, side w/ Lab #

Same as Q21 except C60s of 1.5 mil, and runs ~ 18 minutes

Q23, side w/ Lab #

Same as Q21 except C60s of 1.5 mil, and runs ~ 28 minutes

Q24, side w/ Lab #

Same as Q21 except runs entire side

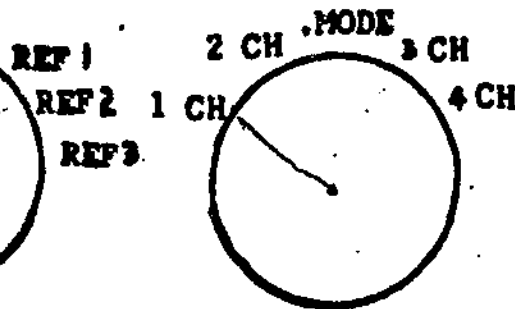
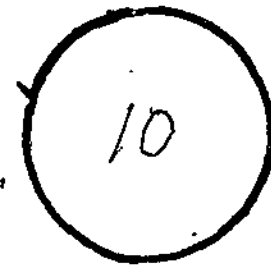
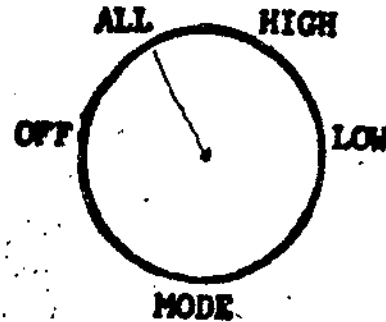
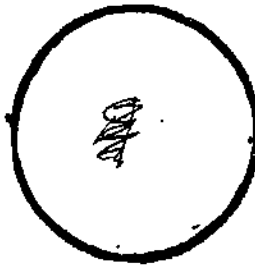
Q25, side w/ Lab #

Same as Q21 except C60s of 1.5 mil tape used, and runs ~ 16 minutes

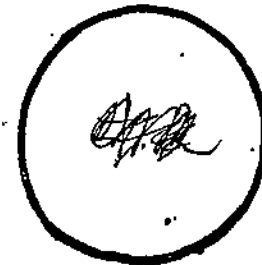
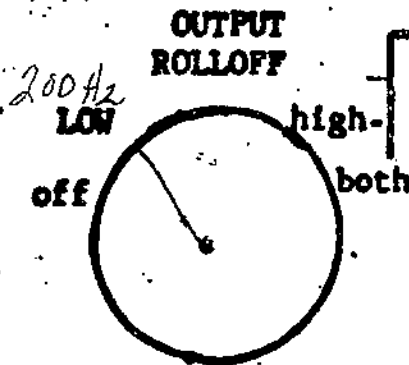
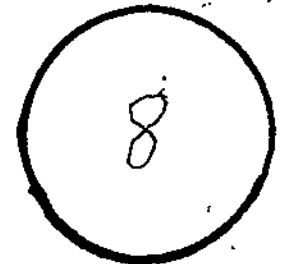
LAB. # 50412040  
Q # 4, 5, 6, 7, 8

DIGITAL AUDIO CORPORATION  
DAC M

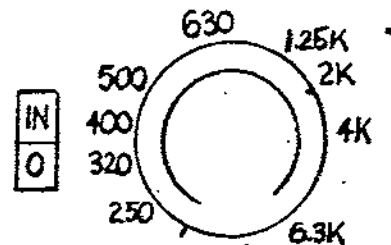
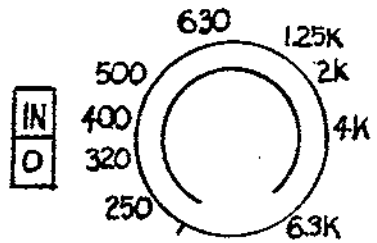
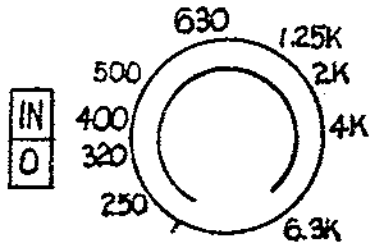
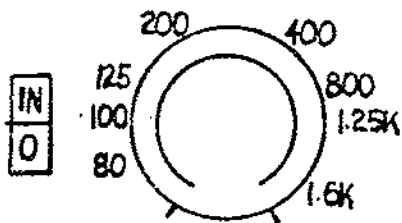
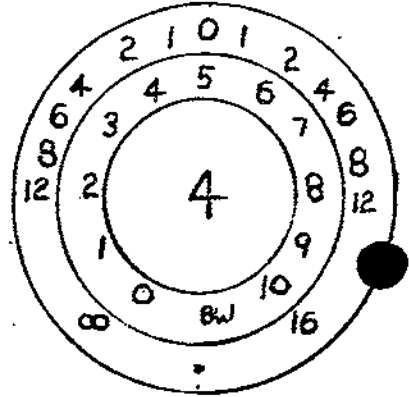
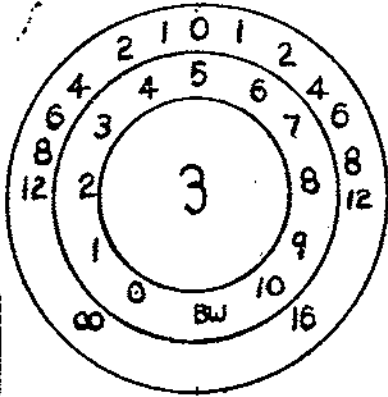
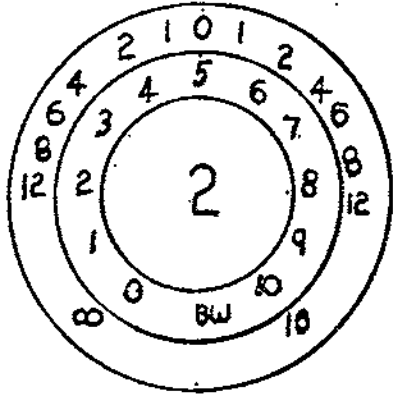
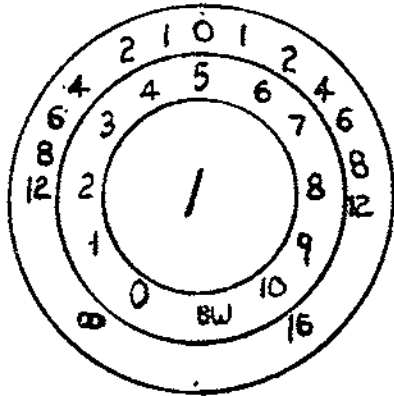
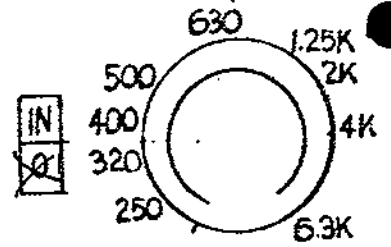
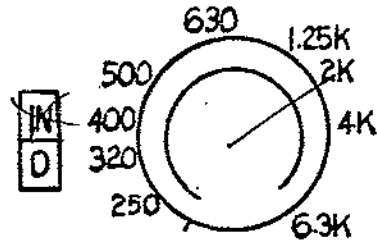
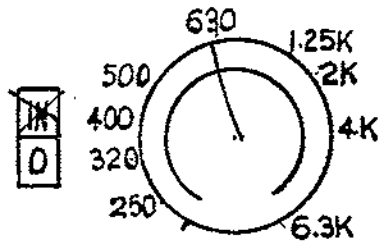
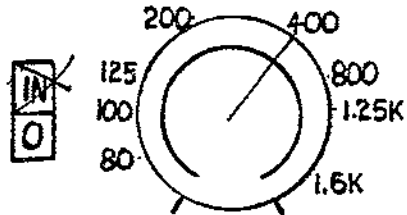
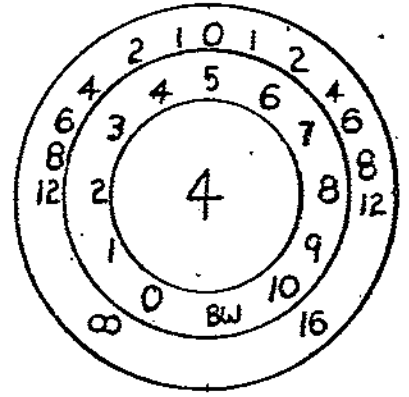
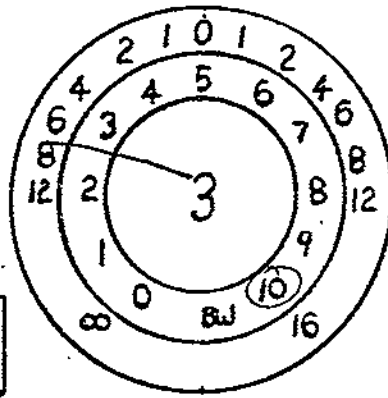
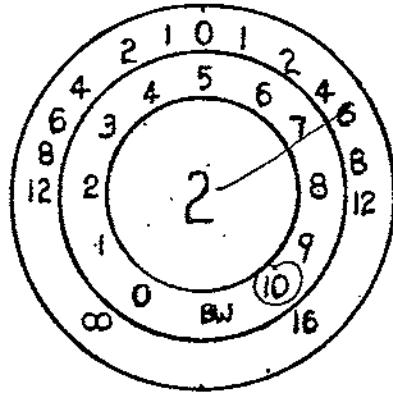
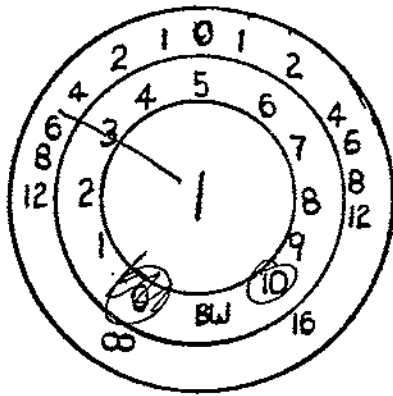
ADAPT  
threshold



FILTER SIZE



MODEL# ORBAN 622B



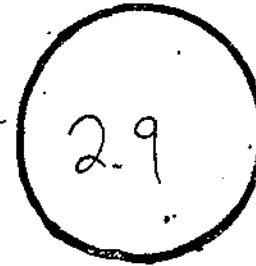
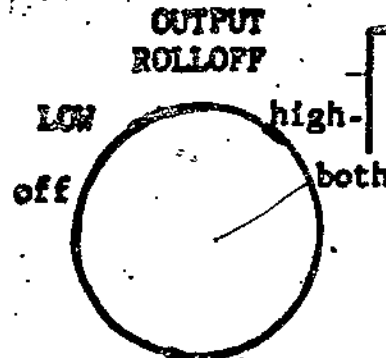
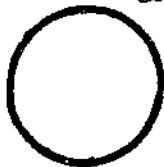
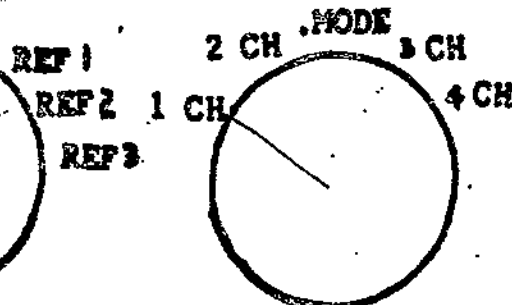
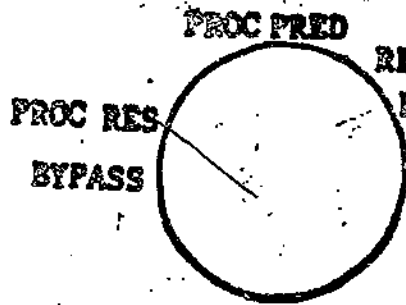
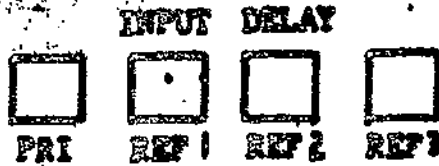
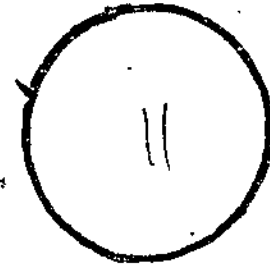
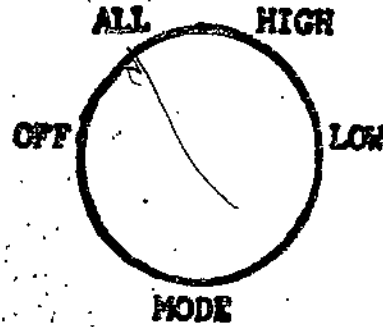
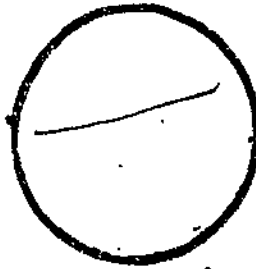
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 Lab# 50412040 E Q2

LAB. # 50412040 EQZ

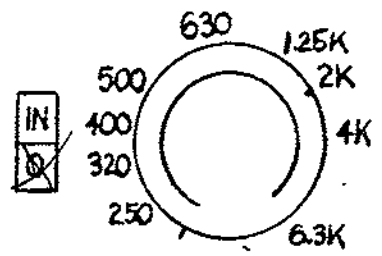
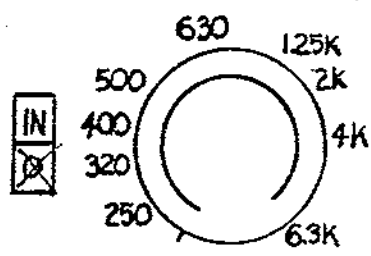
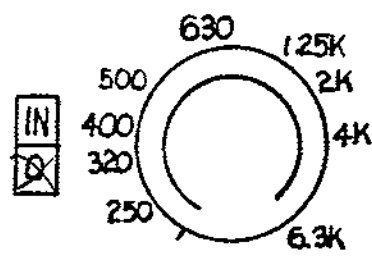
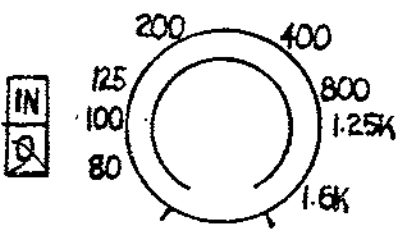
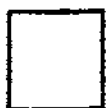
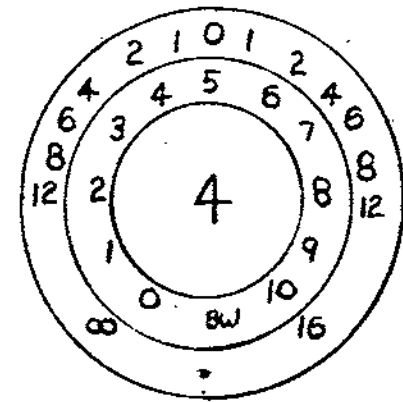
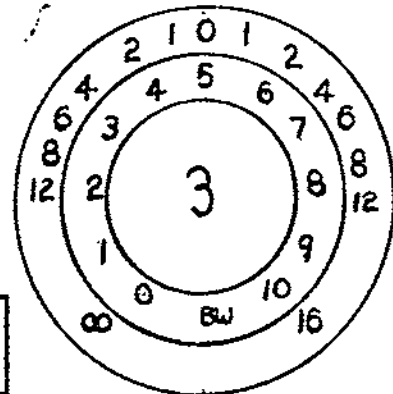
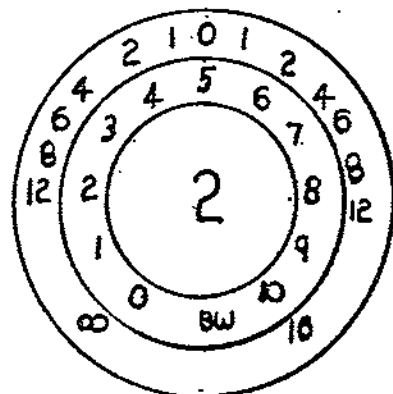
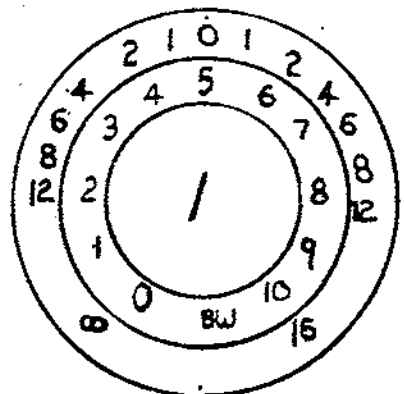
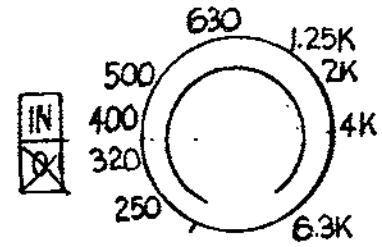
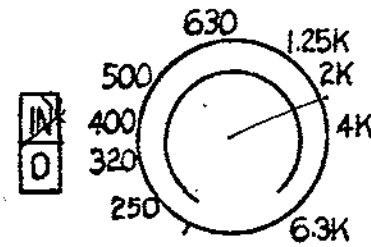
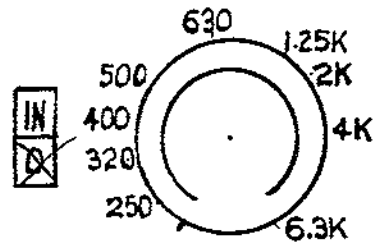
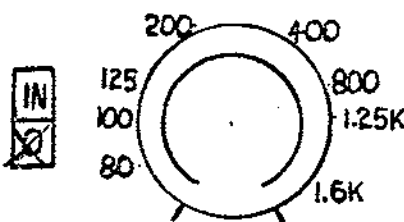
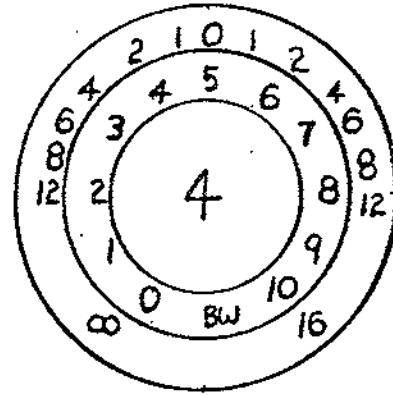
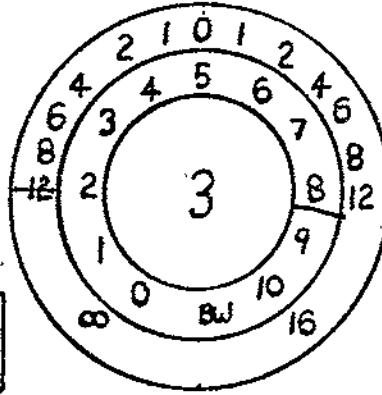
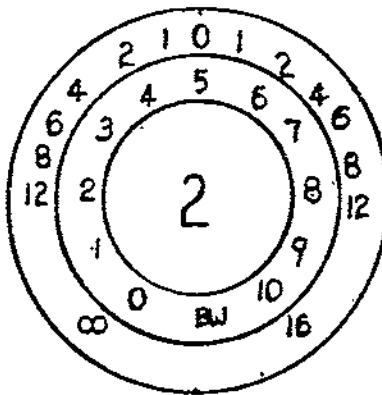
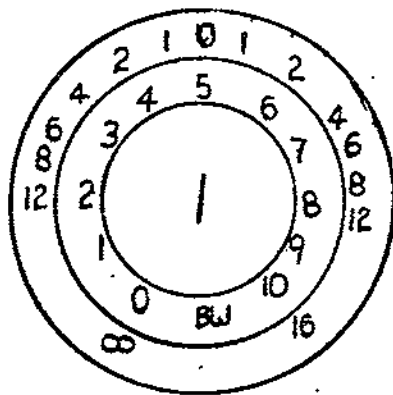
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DIGITAL AUDIO CORPORATION  
DAC M6

ADAPT  
threshold



Model# ORBAN 622B



Q# 21 22 23 24 25  
Lab# 504130410 E R2C