

DATA SET CATALOG #63

Explorer 14 Cosmic Ray A
62-051A-04A 16 tapes

Table of Contents

1. Introduction
2. Errata/Change Log
3. LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM
4. Catalog Materials
 - a. Associated Documents
 - b. Core Catalog Materials

1. INTRODUCTION:

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC
INFORMATION SYSTEM:

<http://nssdc.gsfc.nasa.gov/nmc/>

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

- a. Associated Documents To find associated documents you will need to know the document ID number and then click here.
<http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/>

- b. Core Catalog Materials

EXPLORER 14

GM + SCINT CR COUNT DATA, ENCYCL TAPES

62-051A-04A

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY IT CONTAINED THREE 9-TRACKS, 800 BPI TAPES WRITTEN IN BINARY. THERE IS ONE RESTORED TAPE. D001272 WAS A BAD TAPE. THE DR AND DS TAPES ARE 9-TRACK, 6250 BPI. THE ORIGINAL TAPES WERE CREATED ON A 7094 COMPUTER. THE DR AND DS NUMBERS ALONG WITH CORRESPONDING D NUMBERS AND THE TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR01792	DS01792	D01227	1	10/02/62 – 10/23/62
		D01228	2	10/23/63 – 11/16/62
		D01230	3	12/11/62 – 12/29/62
		D01231	4	12/29/62 – 01/31/63
		D01232	5	01/13/63 – 02/20/63
		D01233	6	02/20/63 – 03/10/63
DR01792	DS01792	D01234	1	03/10/63 – 03/24/63
		D01235	2	03/24/63 – 04/09/63
		D01236	3	04/09/63 – 04/24/63 (a)
		D01237	4	04/24/63 – 05/09/63
		D01238	5	05/09/63 – 05/25/63
		D01239	6	05/25/63 – 06/08/63
		D01240	7	06/08/63 – 06/25/63
		D01241	8	06/25/63 – 07/13/63
		D01242	9	07/13/63 – 07/28/63
		D01243	10	07/28/63 – 08/11/63

(a) D01236 - read errors on record 768, file 3 and records 383 and 385 file 4.

- (a) D01236 - read errors on record 768, file 3 and records 383 and 385, file 4.
- (b) D01273 - read error on record 437, file 2

62-051A-04A

EXPLORER 14 COSMIC RAY A

800 BPI, 7-track, Binary, IBM 7094

DP *	CP	FILES	START	STOP
D-01227	C-03838	1	10/03/62	10/03/62
D-01228	C-03838	1	10/23/62	11/16/62
D-01229	C-03839	1	11/16/62	12/11/62
D-01230	C-03840	1	12/11/62	12/29/62
D-01231	C-03841	1	12/29/62	01/31/63
D-01232	C-03842	1	01/31/63	02/20/63
D-01233	C-03843	1	02/20/63	03/10/63
D-01234	C-03844	1	03/10/63	03/24/63
D-01235	C-03845	1	03/24/63	04/09/63
D-01236	C-03846	1	04/09/63	04/24/63
D-01237	C-03847	1	04/24/63	05/09/63
D-01238	C-03848	1	05/09/63	05/25/63
D-01239	C-03849	1	05/25/63	06/08/63
D-01240	C-03850	1	06/08/63	06/25/63
D-01241	C-03851	1	06/25/63	07/13/63
D-01242	C-03852	1	07/13/63	07/28/63
D-01243	C-03853	1	07/28/63	08/11/63

NOTE: Tapes D-01231 and D-01237 were duped from Bob Johnson's dupe and compare program removing the parity errors. Record 1294 was disregarded from tape D-01231 and record 820 was disregarded from D-01237.

*D-01227
4/24/63*
* These 17 'D' tapes have been sent to the Federal Records Center. Only the 'C' tapes remain in the data center.
Pak

The RMS Technology Center

A Division of RMS Industries, Inc.

INTEROFFICE MEMO NO.

TO: J. Johns, J. Kmets

DATE: February 22, 1971

FROM: R. McDonald

SUBJECT: RED Tape (Explorer , 12 Cosmic Ray A)

DISTRIBUTION:

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45

The following data elements (Ref. attached formats) will be deleted from the standard tape pending your approval.

Word(s)

Field Description

1	Start time of data	> 10.00
2	Start time of data	
15	Analog tape number	1000000
16	Start time of data	
17	Start time of data	1000000
18	Start time of data	
19	Satellite ID	1000000
20, 21	Start time of data	1000000
22	Identification sequence	

The above words were found as duplicates or thought to be irrelevant.

62-0513-04A

S.B. ENCYCLOPEDIA TR. 25

TR. 25	Yr.	START			Yr.	END		
		Mo.	Day	Hour		Mo.	Day	Hour
1. EP 2510	1961	8	10	3	1961	9	3	1
2. EP 2511	1961	8	30	1	1961	9	13	15
3. EP 2512	1961	9	13	16	1961	9	28	22
4. EP 2513	1961	9	28	22	1961	10	13	7
5. EP 2514	1961	10	13	7	1961	10	28	17
6. EP 2515	1961	10	28	17	1961	11	14	4
7. EP 2516	1961	11	14	4	1961	12	6	18

S.B.A. ENCYCLOPEDIA

S.B.A.	Yr.	START			Yr.	END		
		Mo.	Day	Hour		Mo.	Day	Hour
1. EP 1106	1962	10	2	22	1962	10	23	21
2. EP 1107	1962	10	21	21	1962	11	16	20
3. EP 1108	1962	11	16	20	1962	12	11	15
4. EP 1109	1962	11	15	15	1962	12	29	22
5. EP 1110	1962	12	19	23	1963	1	31	15
6. EP 1111	1963	1	31	15	1963	2	20	16
7. EP 1112	1963	2	20	16	1963	3	10	9
8. EP 1113	1963	3	10	9	1963	3	24	17
9. EP 1114	1963	3	24	17	1963	4	9	13
10. EP 1115	1963	4	9	13	1963	4	24	14
11. EP 1116	1963	4	24	14	1963	5	9	15
12. EP 1117	1963	5	9	15	1963	5	25	4
13. EP 1118	1963	5	25	4	1963	6	8	4
14. EP 1119	1963	6	8	4	1963	6	25	12
15. EP 1120	1963	6	25	12	1963	7	13	7
16. EP 1121	1963	7	13	7	1963	7	28	12
17. EP 1122	1963	7	28	12	1963	8	11	4

2. OPERATING INFORMATION

2.1 Processing Mode

The normal mode for each of the programs in the system is to operate under the FORTRAN II system on an IBM 7094 stand alone computer. The individual program decks are binary object decks which are loaded onto a system tape (A3). If there are any parameter (data) cards, they are placed after the "DATA card" which follows the last object deck.

Normal output includes an A3 tape to be listed on a 1403 printer.

2.2 Tape Formats

2.2.1 Encyclopedia Tapes

<u>Format</u>	<u>Words</u>	<u>Variable Name</u>	<u>Field Description</u>
0	1	SORT(1)	Start time of data as follows: Bits 8, 1-5 : year of decade Bits 8-11 : month of year Bits 12-17 : day of month Bits 18-23 : hour of day Bits 24-35 : minute
0	2	SORT(2)	Start time of data as follows: Bits 8, 1-11 : second of minute Bits 12-35 : ms of second
1	3-7	(NRY(I, 1), I=1,5)	Start time of data as follows:
1	3	NRY(1, 1)	Dec. of year 34
1	4	NRY(2, 1)	Month of day
1	5	NRY(3, 1)	Minute of hour
1	6	NRY(4, 1)	Second of minute

VDI (1,1) ¹⁰⁰⁰ 1. Day of year

VDI (1,2) ¹⁰⁰⁰ 2. Time of day in milliseconds ^{max.} 86400000.

VDI (1,3) ¹⁰⁰⁰ 3. Time of day in milliseconds

(1,4) 13 Satellite ID

(1,5) 14 Station number

(1,6) 23

↓

(1,32)

<u>Format</u>	<u>Words</u>	<u>Variable Name</u>	<u>Field Description</u>
I	7	NRV(5, 1)	Millisecond of second
I	8-12	(NRV(I, 2), I=1, 5)	End time of data as follows:
I	8	NRV(1, 2)	Day of year
I	9	NRV(2, 2)	Hour of day
I	10	NRV(3, 2)	Minute of hour
I	11	NRV(4, 2)	Second of minute
I	12	NRV(5, 2)	Millisecond of second
I	13	ID1	Satellite ID, = 3 for S3, = 13 for S3A
I	14	ID5	Station number
I	15	ID3	Analog tape number
I	16	ID2	Start time of data, month of year
I	17	ID3	Start time of data, day of month
I	18	ID4	Start time of data, year A.D.
A	19	SAT	Satellite ID (S3) or S3A), left adjusted
A	20,21	(AMONTH(1,I), I=1,2)	Start time of data, Julian month of year right adjusted plus blanks
I	22	ISEQ	Identification sequence number
F	23	DD(7)	Satellite height in kilometers or 0
F	24	DD(13)	Satellite magnetic latitude in degrees or 9999
F	25	SUNAN	Sun angle in degree or 0
F	26	SUNSD	Average sun error in degrees in 0
F	27	PERD	Satellite spin period in seconds or 0
F	28	SDS	Spin period standard deviation in seconds or 0
F	29	PS	Satellite spin rate in RPM or 0
I	30	IERR	Switch for destructive readout: =1 for successful; =2 for not successful

<u>Format</u>	<u>Words</u>	<u>Variable Name</u>	<u>Field Description</u>
F	31-40	(SLTOM(I), I=1, 10)	Sensor look times in minutes
F	41-50	(ASUM(I), I=1, 10)	NASA energy level count sums or 99999
I	51-60	(NAWT(I), I=1, 10)	Number of NASA energy level counts
F	61-70	(AVER(I), I=1, 10)	Averages of NASA energy level counts or 99999.
F	71-80	(AERR(I), I=1, 10)	Errors associated with averages of NASA energy level counts or 99999
I	81-200	(INASA(I), I=1, 120)	NASA readings for constructing NASA energy level counts or 99999
F	201-320	(SLAN(I), I=1, 120)	Sensor look angles in degrees at time of NASA readings
I	321-440	(NADI(I), I=1, 120)	NASA energy level counts or 99999
A	441-560	(INASA(I), I=1, 120)	Flags for the NASA energy level counts, one character left adjusted: N=count not used; *=reconstructed reading used to calculate count
A	561-680	(NASA(I), I=1, 120)	NASA readings, right adjusted with = for missing digit
I	681	IPR	Data content of record: =1 for both NASA and RIDL; =2 for NASA data only; =3 for RIDL data only
A	682-713	(RCOL1(I,1), I=1, 32)	Six low order digits of eight digit RIDL count, in base 4, first transmission with = for missing digit
A	714-745	(RCOL2(I,1), I=1, 32)	Six low order digits of eight digit RIDL count, in base 4, second transmission with = for missing digit
A	746-777	(RCOL1(I,2), I=1, 32)	Two high order digits of eight digit count, in base 4, first transmission, left adjusted with = for missing digit

<u>Format</u>	<u>Words</u>	<u>Variable Name</u>	<u>Field Description</u>
A	778-809	(RCOL3(I, 2), I=1, 32)	Two high order digits of eight digit RIDL count in base 4, second transmission, left adjusted with * for missing digit
I	810-841	(NRCOL3(I), I=1, 32)	RIDL counts of 99999
A	842-873	(RCOL3A(I), I=1, 32)	Flags for the RIDL counts, left adjusted: * = the first and second transmission counts differ
F	874	GLAT	Satellite geographic latitude in degrees or 9999
F	875	GLONG	Satellite geographic longitude in degrees or 9999

The tapes are FORTRAN II compatible.

2.2.2 Logbook Tapes

<u>Format</u>	<u>Words</u>	<u>Variable Name</u>	<u>Field Description</u>
I	1	JCNT	The number of encyclopedia records summarized on this logbook tape
A	2-3	(AMONTH(2,I), I=1,2)	Start time of data, month, right adjusted plus blanks
I/I	4-555	(PKLOG(I), I=1, 555)	Integer counts from the logbook data array packed two to a word
F	556-651	((LOG(I, J), I=20, 21), J=1,48)	Averages and errors of the logbook data array
I	652-669	(IHRH(I), IHT(I), I=1,9)	Start time of data, minute of hour, and height of satellite for each encyclopedia record summarized in the logbook record

<u>Format</u>	<u>Words</u>	<u>Variable Name</u>	<u>Field Description</u>
I	670	IDW	Start time of data, day of the month
I	671	LYR	Start time of data, year A. D.
I	672-779	(NALI(I, J), I=1, 9), J=1, 12)	Individual level one NASA energy level counts
I	780	HR	Start time of data, hour of day
A	781	TAS	Satellite ID (S3% or S3A), left adjusted

The tapes are FORTRAN II compatible.

3. PROGRAMMING INFORMATION

3.1 Method

The S3, S3A data is transmitted from the satellite and recorded at various stations around the globe. The stations record the data on analog tapes. The data on a tape starts when the satellite first comes into the range of the station's receiver and ends when the satellite passes out of this range. During certain time periods, the telemetry data is recorded at more than one station.

Before being processed by the S3, S3A Data Processing System (S3DPS) the data is decommutated and digitized onto seven track magnetic tape. These tapes are known as experimenter tapes, and contain data from only the cosmic ray experiments.

The experimenter tapes consist of records containing thirty-two data frames with each frame containing the time of the data and channels 0, 1, 2, 3, 11. Each file of the tape consists of all data from one receiving station analog tape.

Each encyclopedia record produced consists of data from one 1250 frame telemetry block which contains 120 NASA readings and 32 RIDL readings. Other parameters included for future processing are: sun angle, spin period, sensor lock times and angles, definitive orbital data, counts computed from the NASA and RIDL readings, and averages of the various energy level counts with associated statistical information.

NOTE: Frequent references to the system flowchart, Section 3.4, should be made to facilitate understanding of the following description of the system flow.

Output Tapes from S-3 Data

Reduction Program

These tapes were written on an IBM 1620 using a Symbolic Programming System program. * The data is represented on the tape in the same format as it appears internally within the 1620 (i.e. each new field is flagged in the high order position). All of the data is in five minute intervals with the exception of a couple of orbits at the beginning of Tape #1, which are in ten minute increments.

Format

At the beginning of each file there appears a header written alphanumerically which is 31 positions in length with a record mark in the 32th position when listed numerically. When translated alphanumerically the header spells EXPLORER 12.

The format of a data record is:

Day Number	Hour	Minute	Milliseconds	Field	σ Field
1-3	4-5	6-7	8-12	13-22	23-32
Alpha	σ alpha	Psi	σ psi		
33-42	43-52	53-62	63-72		

17 add

Each of the last six variables is written in a ten digit field with the exponent appearing in the last two positions (i.e. 41105510-3 = 311.055107).

* density 556 psi

Page 2

Output Tapes

At the end of each file there is at least one tape mark depending on whether the orbit^{*} has been completed or not. If the processing of an orbit had to be interrupted a single tape mark was put on, but at the end of each orbit two tape marks were put on.

Following is a listing of the tape, giving the beginning and end time in day number, hours and minutes, also the calendar date plus any comments regarding that particular file.

Robert Swazey
Programmer
Magnetic Fields Laboratory
Space Science Center
UNH

* In referring to an orbit I am actually speaking about a half orbit; that is, either the inbound or the outbound pass.

10/10/2

D-1027

C-2

C-02103

10/2/62 -

10/23/62

Explan 14

0001 001553000000	002202200012	000700000000	000623000000
0049 000423000000	000026000000	000020000000	000070000000
0097 000012000000	000002000000	003652000000	620321000000
0145 000000000000	000000000000	000000000000	000000000000
0193 212763400000	212763400000	212763400000	212763400000
0241 212763400000	204640000000	237564000000	211443000000
0289 210802000000	202400000000	000000000000	000006000000
0337 000007000000	000007000000	000007000000	000007000000
0385 205742525252	205735252525	205633333333	205644444444
0433 201755602011	202553726570	202437009347	202435327244
0481 000000000000	303237000000	303237000000	303237000000
0529 303237000000	303237000000	303237000000	303237000000
0577 303237000000	303237000000	303237000000	303237000000
0625 303237000000	303237000000	303237000000	303237000000
0673 303237000000	303237000000	303237000000	303237000000
0721 303237000000	303237000000	303237000000	303237000000
0769 303237000000	303237000000	303237000000	303237000000
0817 051505000000	051533000000	051561000000	051561000000
0865 051764000000	052017000000	052060000000	052123000000
0913 052176000000	052254000000	052303000000	052347000000
0961 052471000000	052471000000	052503000000	052552000000
1009 053002000000	053003000000	053003000000	053006000000
1057 053244000000	053272000000	053320000000	053320000000
1105 053456000000	053513000000	053541000000	053567000000
1153 053647000000	053733000000	054003000000	054032000000
1201 054127000000	060606060606	060606060606	212763400000
1249 212763400000	212763400000	212763400000	606060606060
1297 212763400000	212763400000	212763400000	212763400000
1345 212763400000	212763400000	212763400000	212763400000
1393 606060606060	212763400000	212763400000	212763400000
1441 212763400000	606060606060	606060606060	212763400000
1489 212763400000	212763400000	212763400000	606060606060
1537 212763400000	212763400000	212763400000	212763400000
1585 212763400000	212763400000	212763400000	212763400000
1633 606060606060	212763400000	212763400000	212763400000
1681 212763400000	606060606060	606060606060	212763400000
1729 212763400000	212763400000	212763400000	606060606060
1777 212763400000	212763400000	212763400000	212763400000
1825 212763400000	212763400000	212763400000	212763400000
1873 606060606060	212763400000	212763400000	212763400000
1921 212763400000	303237000000	303237000000	303237000000
1969 303237000000	303237000000	303237000000	303237000000
2017 303237000000	303237000000	303237000000	303237000000
2065 303237000000	303237000000	303237000000	303237000000
2113 303237000000	303237000000	303237000000	303237000000
2161 303237000000	303237000000	303237000000	303237000000
2209 303237000000	303237000000	303237000000	303237000000
2257 000033000000	000026000000	000026000000	000000000000
2305 000035000000	000033000000	000041000000	000000000000
2353 000021000000	000056000000	000027000000	000044000000
2401 000000000000	000000000000	000012000000	000047000000
2449 000032000000	000001000000	000000000000	000003000000
2497 000031000000	000026000000	000026000000	000000000000
2545 000022000000	000035000000	000026000000	000026000000
2593 000027000000	000064000000	000050000000	000027000000
2641 000000000000	606060606060	606060606060	606060606060
2689 606060606060	606060606060	606060606060	606060606060
2737 606060606060	606060606060	606060606060	606060606060
2785 606060606060	606060606060	606060606060	606060606060
2833 606060606060	606060606060	606060606060	606060606060
2881 606060606060	606060606060	606060606060	606060606060
2929 606060606060	606060606060	606060606060	606060606060

[illegible]

FILE 0001 REC 0001 CF 5256

2577	606060606060	606060606060	606060606060	606060606060	606060
3022	606060606060	606060606060	606060606060	606060606060	606060
3073	606060606060	606060606060	606060606060	606060606060	606060
3121	606060606060	606060606060	606060606060	606060606060	606060
3169	606060606060	606060606060	606060606060	606060606060	606060
3217	606060606060	606060606060	606060606060	606060606060	606060
3265	606060606060	606060606060	606060606060	606060606060	606060
3313	606060606060	606060606060	606060606060	606060606060	606060
3361	606060606060	131313131300	131313131300	131313131300	131313
3409	131313131300	131313131300	131313131300	131313131300	131313
3457	131313131300	131313131300	131313131300	131313131300	131313
3505	131313131300	131313131300	131313131300	131313131300	131313
3553	131313131300	131313131300	131313131300	131313131300	131313
3601	131313131300	131313131300	131313131300	131313131300	131313
3649	131313131300	131313131300	131313131300	131313131300	131313
3697	050105030300	050105030300	050105060100	050105060100	050105
3745	050107060400	050200010700	050200060000	050201020300	050201
3793	050201070600	050202050400	050203000300	050203040700	050204
3841	050204070100	050204070100	050205000300	050205050200	050206
3889	050300000200	050300000300	050300000300	050300000600	050300
3937	050302040400	050302070200	050303020000	050303020000	050303
3985	050304050600	050305010300	050305040100	050305060700	050306
4033	050306040700	050307030300	050400000300	050400030200	050400
4081	050401020700	000001000000	000000000300	000000000301	000000
4129	000000000100	000000000100	000000000103	000000000102	000000
4177	000000000002	000000000002	000000000003	000000000001	000000
4225	000000000003	000000000001	000000000001	000000000001	000000
4273	000000000001	000000000001	000000000000	000000000001	000000
4321	000000000000	000000000000	000000000003	000000000002	000000
4369	000000000002	000000000002	000000000003	000000000001	000000
4417	000000000003	000000000001	000000000001	000000000001	000000
4465	000000000001	000000000001	000000000000	000000000000	000000
4513	000000000000	000000000000	000000000000	000000000000	000000
4561	000000000000	000000000000	000000000000	000000000000	000000
4609	000000000000	000000000000	000000000000	000000000000	000000
4657	000000000000	000000000000	000000000000	000000000000	000000
4705	000000000000	000000000000	000000000000	000000000000	000000
4753	000000000000	000000000000	000000000000	000000000000	000000
4801	000000000000	000000000000	000000000000	000000000000	000000
4849	000000000000	000000000000	000014000000	000015000000	000047
4897	000004000000	000004000000	000007000000	000006000000	000004
4945	000002000000	000002000000	000003000000	000001000000	000001
4993	000003000000	000001000000	000001000000	000001000000	000001
5041	000001000000	000001000000	606060606060	606060606060	606060
5089	606060606060	606060606060	606060606060	606060606060	606060
5137	606060606060	606060606060	606060606060	606060606060	606060
5185	606060606060	606060606060	606060606060	606060606060	606060
5233	606060606060	606060606060	000000000000	000000000000	000000

FILE 0001 REC 0002 CF 5256

0001	001553000000	021202260020	007000001017	000423000000	000026
0049	000423000000	000026000000	003224000000	000002000000	000300
0097	000012000000	000002000000	003652000000	620321000000	606060
0145	000000000000	000000000000	000000000000	000000000000	000000
0193	212763400000	212763400000	212763400000	212763400000	212763
0241	212763400000	203500000000	207404000000	210434000000	207570
0289	206740000000	201400000000	000000000000	000003000000	000004
0337	000004000000	000003000000	000003000000	000003000000	000003
0385	205765202025	205660000000	205654000000	205760000000	205600
0433	202401774017	202774335141	202635526272	202514433413	202513
0481	000000000000	055721000000	055744000000	056026000000	056072
0529	056251000000	056251000000	056251000000	056253000000	056265
0577	056474000000	056534000000	056554000000	056555000000	056555

PARITY ERROR LIST

UNIT# 5 FILE# 1 RECORD# 820 LENGTH# 879 WORDS

[illegible]

[illegible]

[illegible]

OUTPUT UNIT FILE AND RECORD HISTORY

UNIT 15

FILE

1 CONTAINS

2823 RECORDS

OUTPUT UNIT 15 CONTAINS 1722.28 FEET OF DATA

TAPE ON INPUT UNIT 5 SUCCESSFULLY DUPED

CRY

RECORDS