FIG. 1A

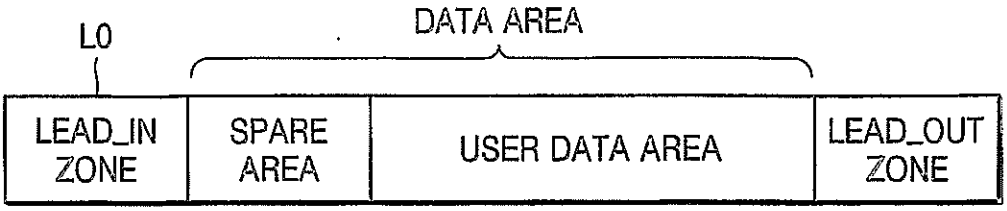

L0
DATA AREA
LEAD_IN ZONE
SPARE AREA
USER DATA AREA
LEAD_OUT ZONE

FIG. 1B

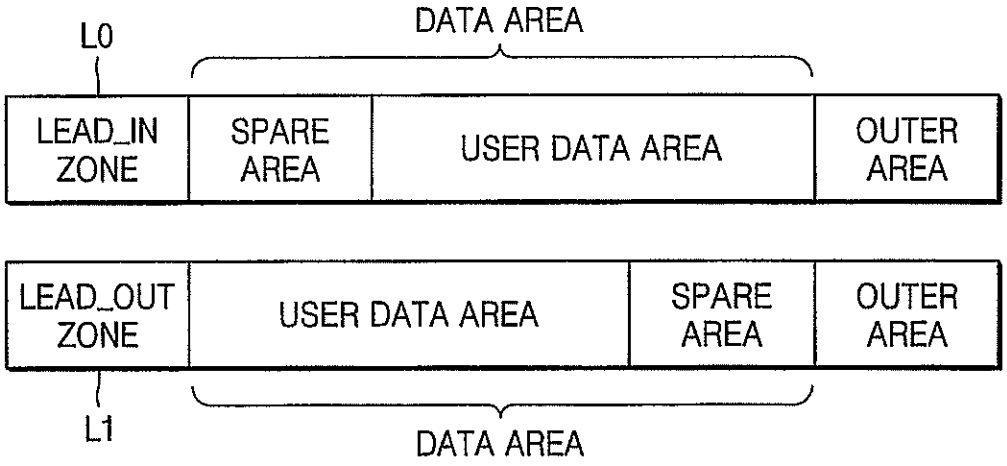

L0
DATA AREA
LEAD_IN ZONE
SPARE AREA
USER DATA AREA
OUTER AREA
LEAD_OUT ZONE
USER DATA AREA
SPARE AREA
OUTER AREA
L1
DATA AREA

FIG. 2

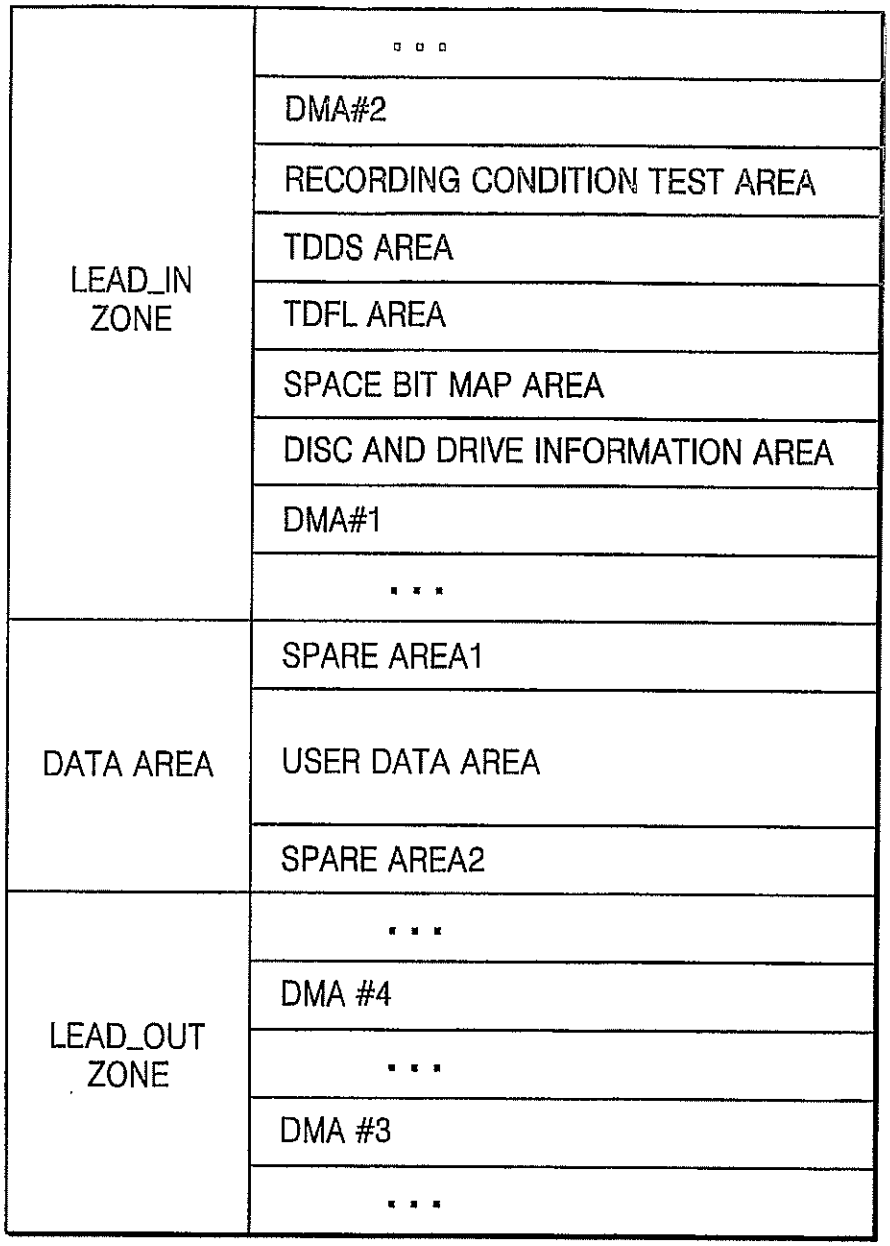

LEAD_IN ZONE
DMA#2
RECORDING CONDITION TEST AREA
TDDS AREA
TDFL AREA
SPACE BIT MAP AREA
DISC AND DRIVE INFORMATION AREA
DMA#1
DATA AREA
SPARE AREA1
USER DATA AREA
SPARE AREA2
LEAD_OUT ZONE
DMA #4
DMA #3

FIG. 3

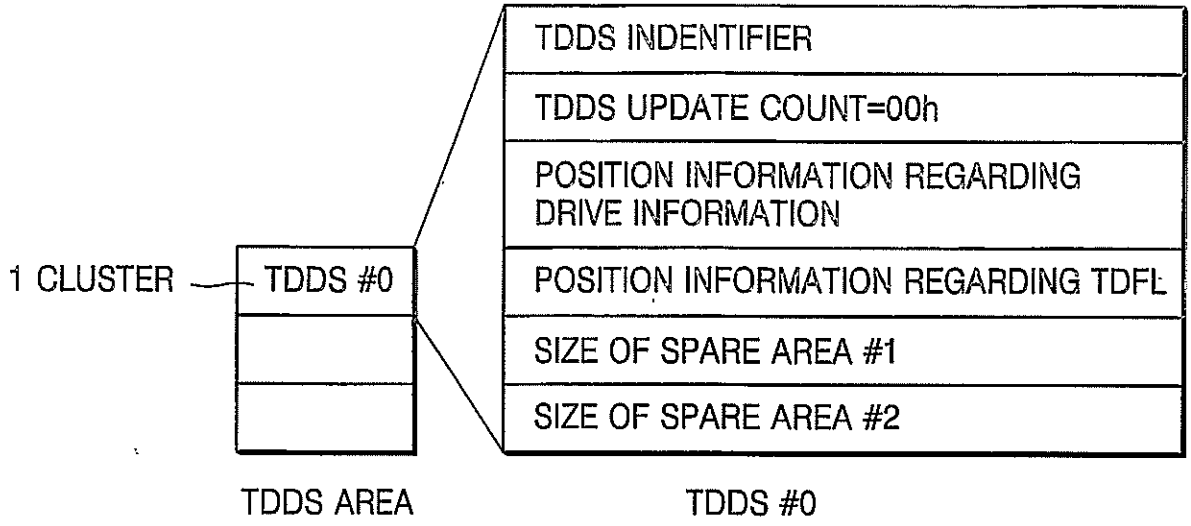

TDDS INDENTIFIER
TDDS UPDATE COUNT=00h
POSITION INFORMATION REGARDING DRIVE INFORMATION
POSITION INFORMATION REGARDING TDFL
SIZE OF SPARE AREA #1
SIZE OF SPARE AREA #2
1 CLUSTER
TDDS #0
TDDS AREA
TDDS #0

FIG. 4

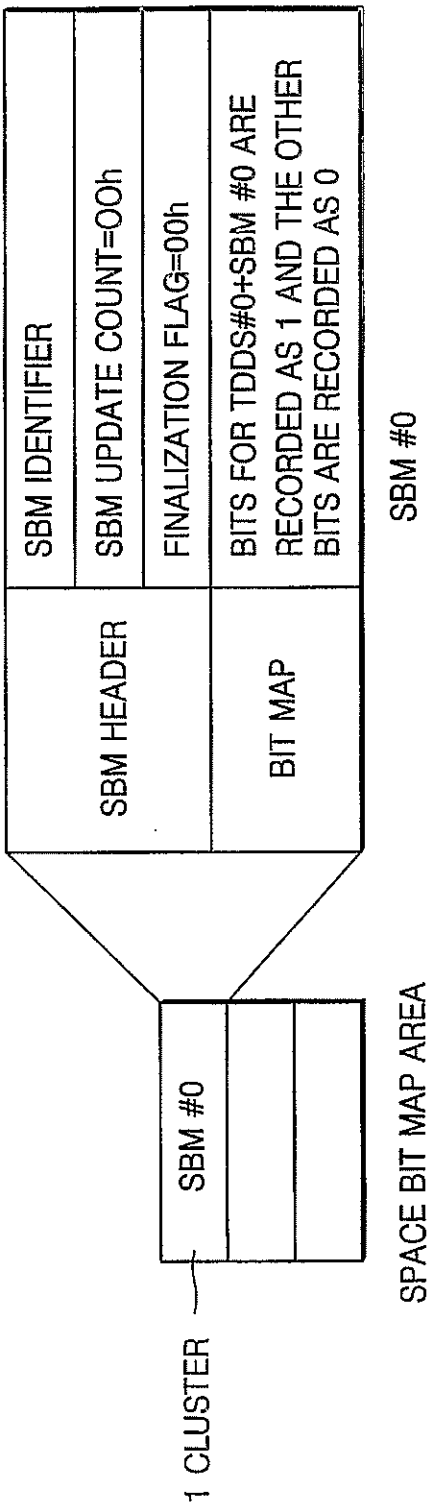

SBM IDENTIFIER
SBM UPDATE COUNT=00h
FINALIZATION FLAG=00h
BITS FOR TDDS#0+SBM #0 ARE RECORDED AS 1 AND THE OTHER BITS ARE RECORDED AS 0
SBM HEADER
BIT MAP
SBM #0
SBM #0
1 CLUSTER
SPACE BIT MAP AREA

FIG. 5

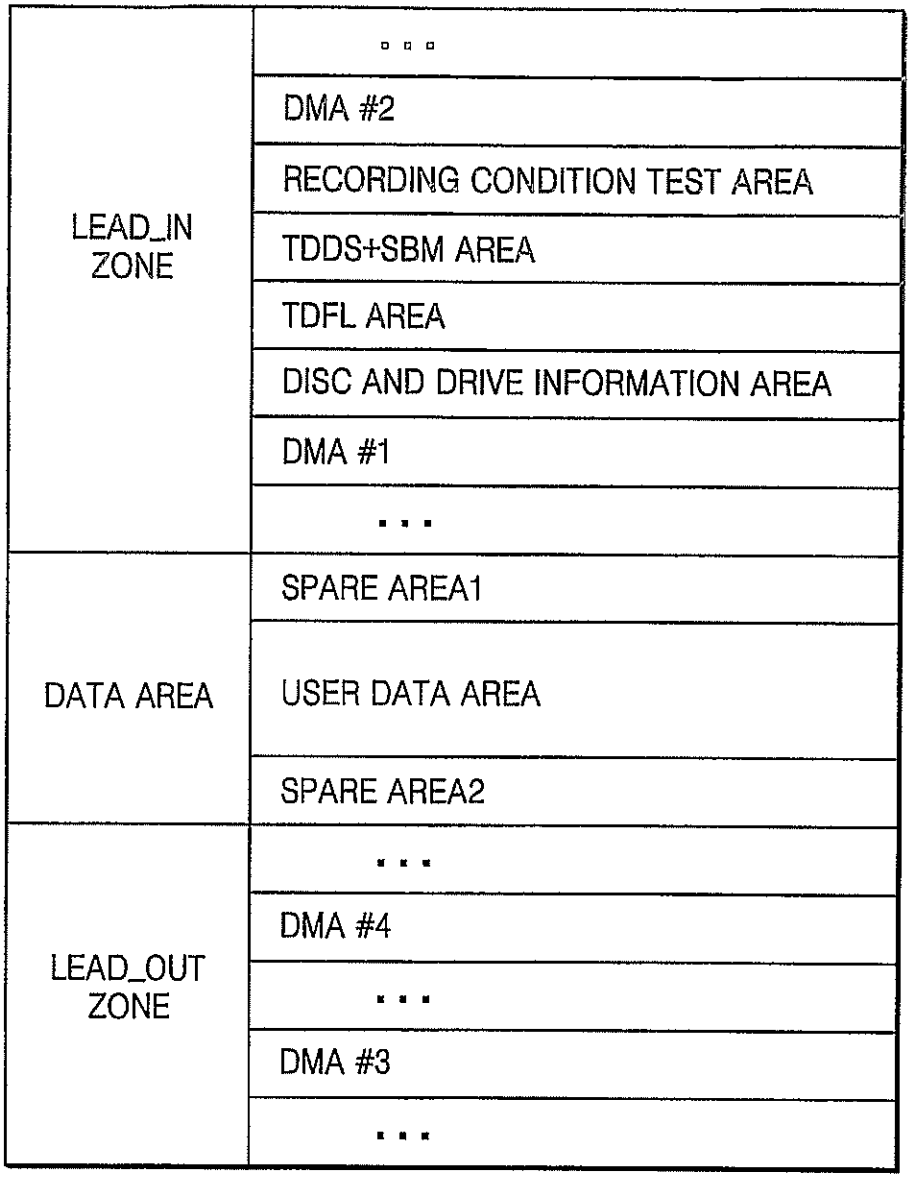

LEAD_IN ZONE
DMA #2
RECORDING CONDITION TEST AREA
TDDS+SBM AREA
TDFL AREA
DISC AND DRIVE INFORMATION AREA
DMA #1
DATA AREA
SPARE AREA1
USER DATA AREA
SPARE AREA2
LEAD_OUT ZONE
DMA #4
DMA #3

FIG. 6

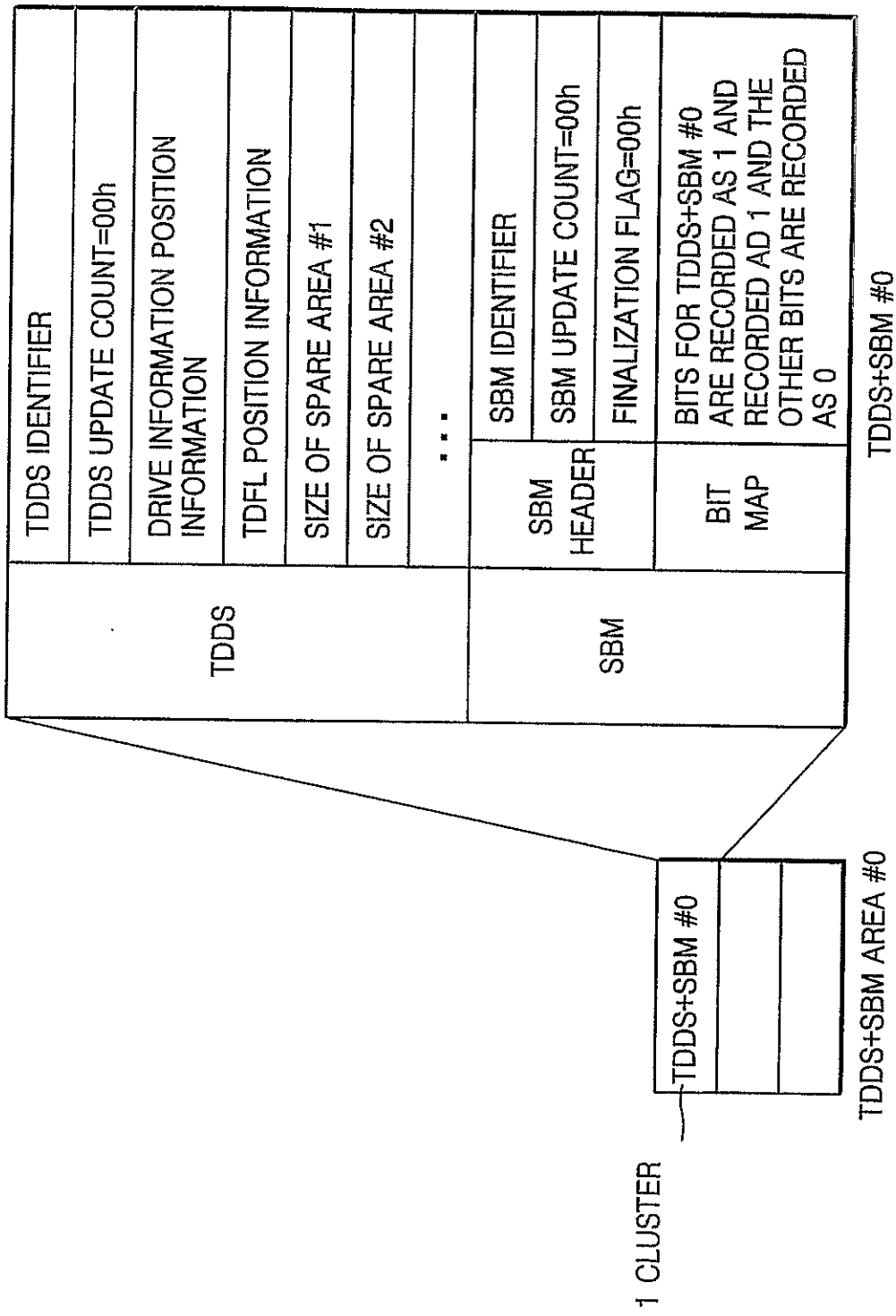

TDDS
TDDS IDENTIFIER
TDDS UPDATE COUNT=00h
DRIVE INFORMATION POSITION INFORMATION
TDFL POSITION INFORMATION
SIZE OF SPARE AREA #1
SIZE OF SPARE AREA #2
...
SBM
SBM HEADER
SBM IDENTIFIER
SBM UPDATE COUNT=00h
FINALIZATION FLAG=00h
BIT MAP
BITS FOR TDDS+SBM #0 ARE RECORDED AS 1 AND RECORDED AD 1 AND THE OTHER BITS ARE RECORDED AS 0
TDDS+SBM #0
1 CLUSTER
TDDS+SBM #0
TDDS+SBM AREA #0

FIG. 7

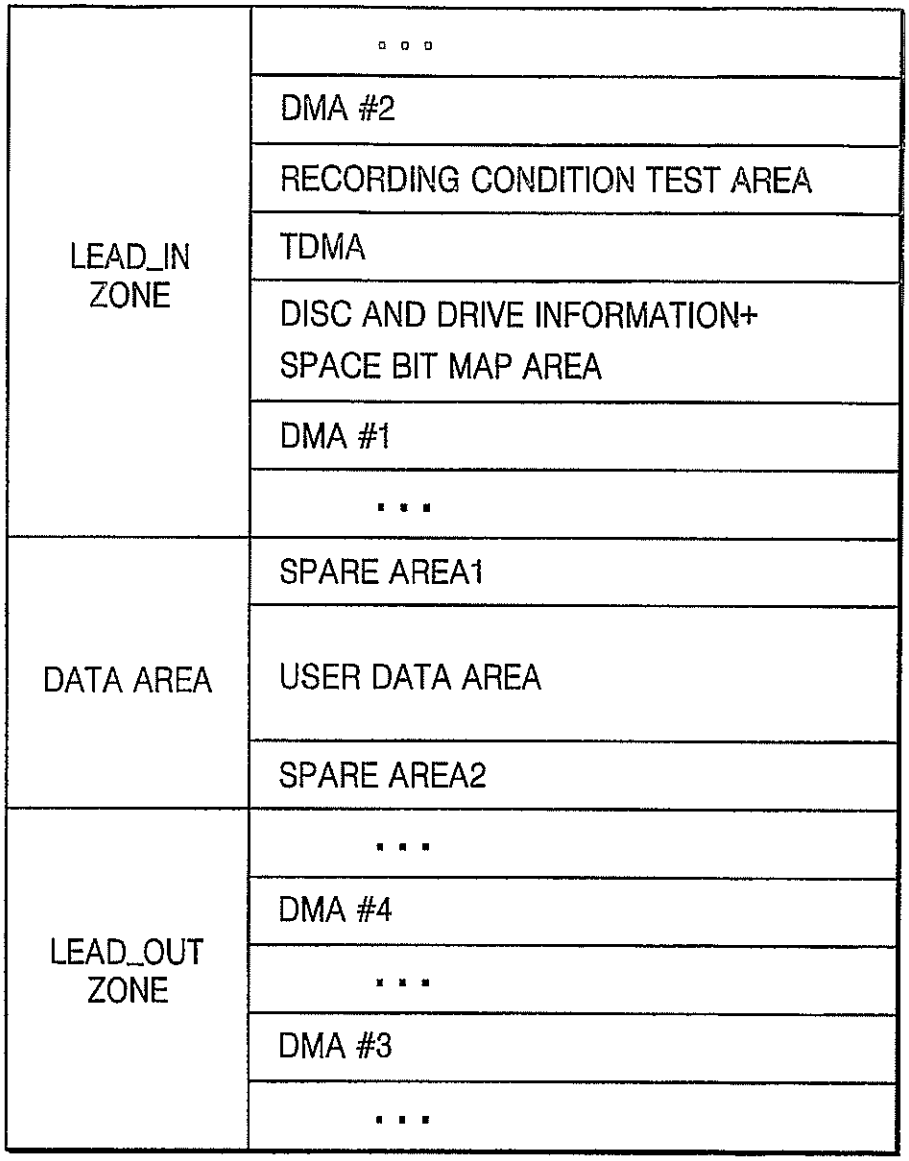

LEAD_IN ZONE
DATA AREA
LEAD_OUT ZONE
DMA #2
RECORDING CONDITION TEST AREA
TDMA
DISC AND DRIVE INFORMATION+ SPACE BIT MAP AREA
DMA #1
SPARE AREA1
USER DATA AREA
SPARE AREA2
DMA #4
DMA #3

FIG. 8

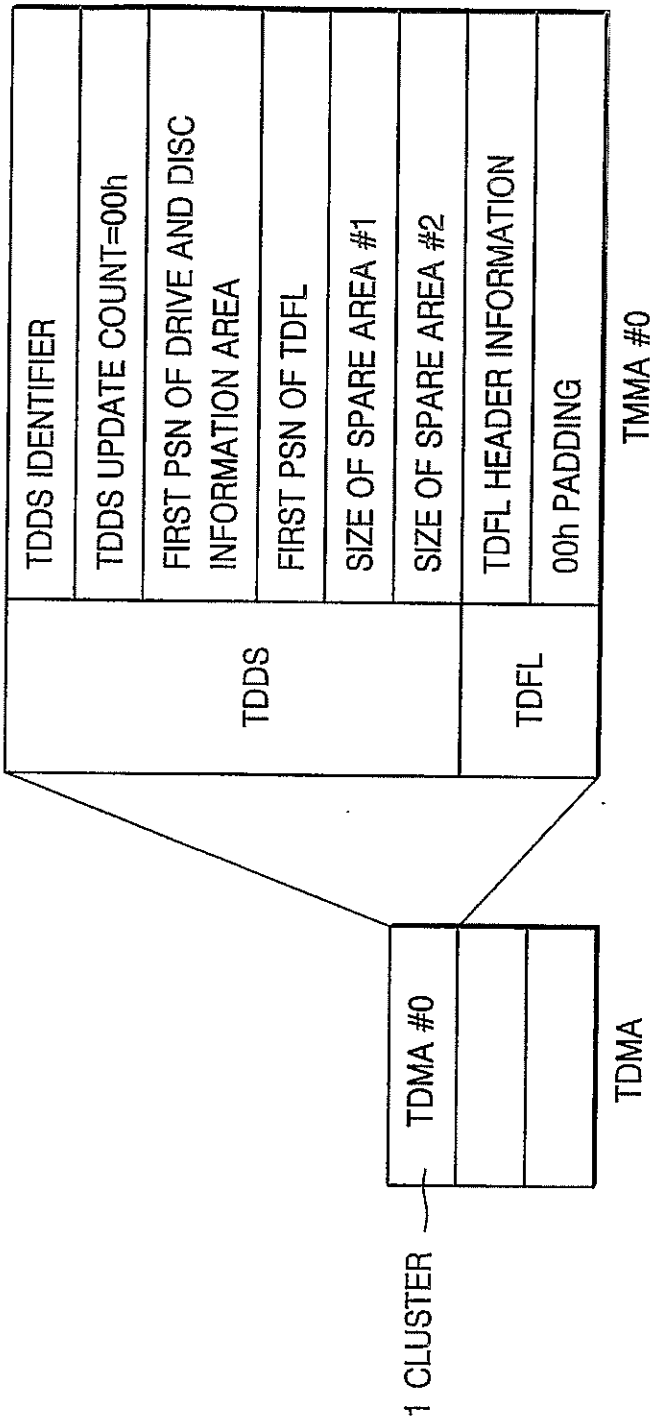

TDDS IDENTIFIER
TDDS UPDATE COUNT=00h
FIRST PSN OF DRIVE AND DISC INFORMATION AREA
FIRST PSN OF TDFL
SIZE OF SPARE AREA #1
SIZE OF SPARE AREA #2
TDFL HEADER INFORMATION
00h PADDING
TDDS
TDFL
TMMA #0
TDMA #0
TDMA
1 CLUSTER

FIG. 9

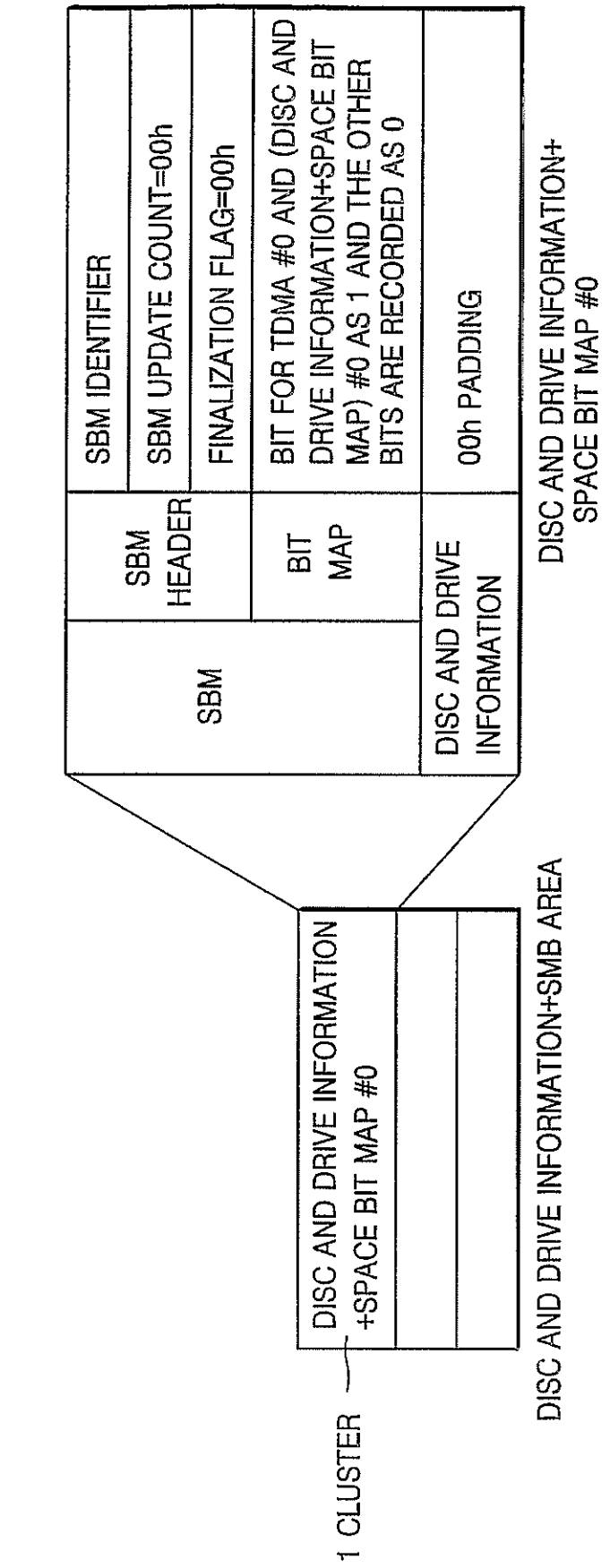

1 CLUSTER
DISC AND DRIVE INFORMATION +SPACE BIT MAP #0
DISC AND DRIVE INFORMATION+SMB AREA
SBM
SBM HEADER
SBM IDENTIFIER
SBM UPDATE COUNT=00h
FINALIZATION FLAG=00h
BIT MAP
BIT FOR TDMA #0 AND (DISC AND DRIVE INFORMATION+SPACE BIT MAP) #0 AS 1 AND THE OTHER BITS ARE RECORDED AS 0
DISC AND DRIVE INFORMATION
00h PADDING
DISC AND DRIVE INFORMATION+ SPACE BIT MAP #0

FIG. 10

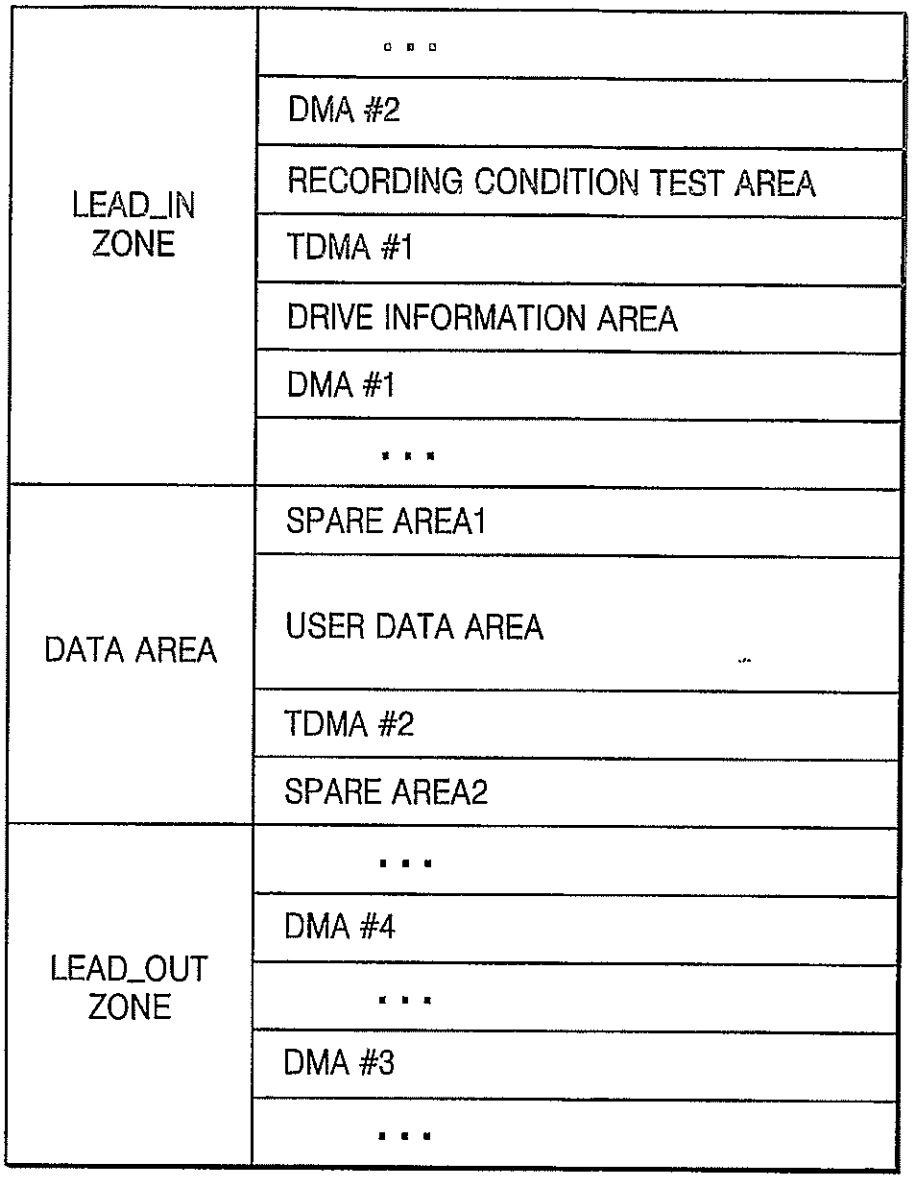

LEAD_IN ZONE
DMA #2
RECORDING CONDITION TEST AREA
TDMA #1
DRIVE INFORMATION AREA
DMA #1
DATA AREA
SPARE AREA1
USER DATA AREA
TDMA #2
SPARE AREA2
LEAD_OUT ZONE
DMA #4
DMA #3

FIG. 11

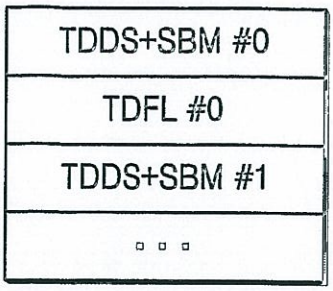


FIG. 12

TDDS	TDDS IDENTIFIER	
	TDDS UPDATE COUNT	
	DRIVE INFORMATION POSITION INFORMATION	
	TDFL POSITION INFORMATION	
	RECORDING DONDITION TESTABLE POSITION INFORMATION	
	POSITION INFORMATION REGARDING TDDS+ SBM AREA FOR ANOTHER RECORD LAYER	
	POSITION INFORMATION REGARDING TDDS+ SBM IN ANOTHER TDMA	
	SIZE OF TDMA #2	
	SIZE OF SPARE AREA #1	
	SIZE OF SPARE AREA #2	
	...	
SBM	SBM HEADER	SBM IDENTIFIER
		SBM UPDATE COUNT
		FINALIZATION FLAG
	BIT MAP	...

FIG. 13

<table>
<tr><td rowspan="11">TDDS</td><td colspan="2">TDDS IDENTIFIER</td></tr>
<tr><td colspan="2">TDDS UPDATE COUNT=00h</td></tr>
<tr><td colspan="2">POSITION INFORMATION REGARDING DRIVE INFORMATION</td></tr>
<tr><td colspan="2">TDFL POSITION INFORMATION=00h</td></tr>
<tr><td colspan="2">RECORDING CONDITION TESTABLE POSITION INFORMATION</td></tr>
<tr><td colspan="2">POSITION INFORMATION REGARDING TDDS+ SBM IN ANOTHER RECORD LAYER=00h</td></tr>
<tr><td colspan="2">POSITION INFORMATION REGARDING TDDS+ SBM IN ANOTHER TDMA=00h</td></tr>
<tr><td colspan="2">SIZE OF TDMA #2</td></tr>
<tr><td colspan="2">SIZE OF SPARE AREA #1</td></tr>
<tr><td colspan="2">SIZE OF SPARE AREA #2</td></tr>
<tr><td colspan="2">...</td></tr>
<tr><td rowspan="4">SBM</td><td rowspan="3">SBM HEADER</td><td>SBM IDENTIFIER</td></tr>
<tr><td>SBM UPDATE COUNT=00h</td></tr>
<tr><td>FINALIZATION FLAG=0</td></tr>
<tr><td>BIT MAP</td><td>...</td></tr>
</table>

FIG. 14

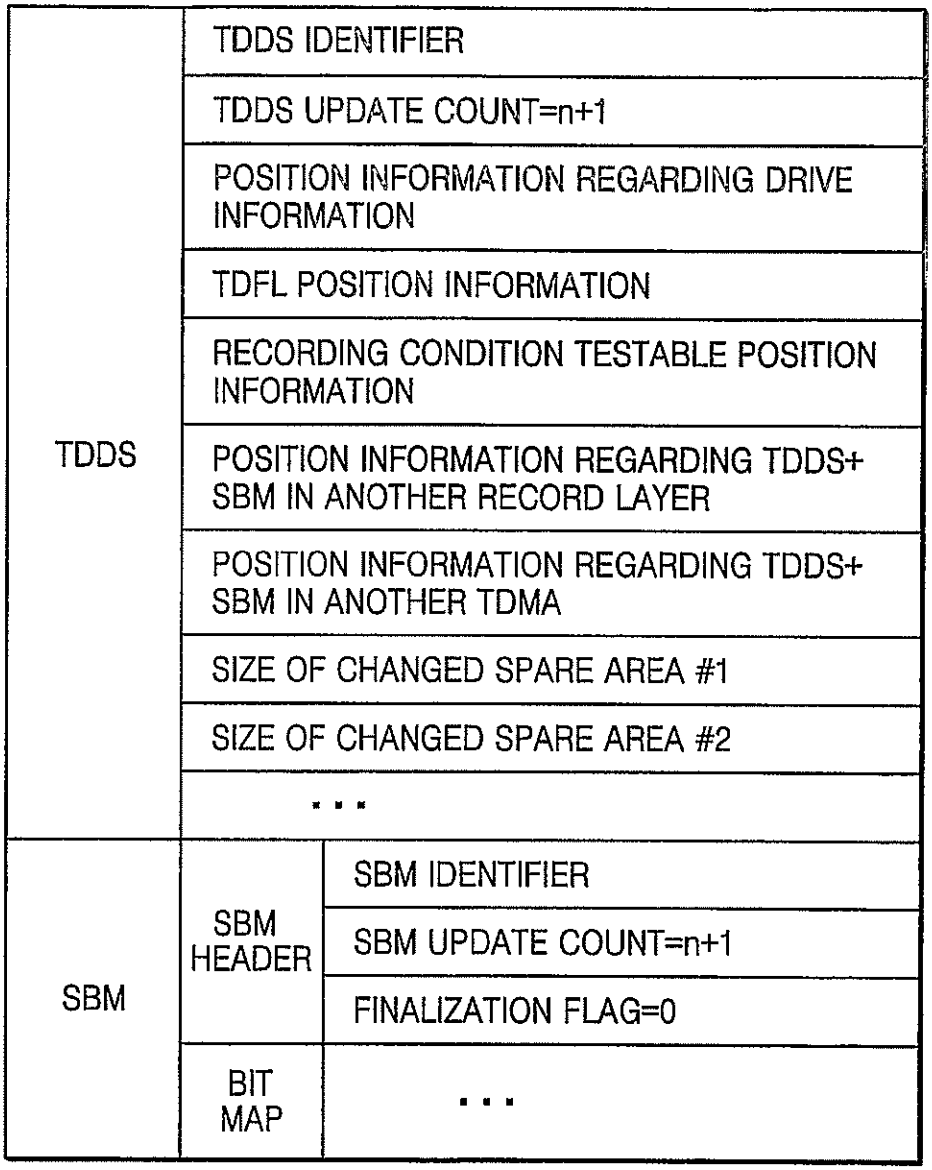

TDDS
TDDS IDENTIFIER
TDDS UPDATE COUNT=n+1
POSITION INFORMATION REGARDING DRIVE INFORMATION
TDFL POSITION INFORMATION
RECORDING CONDITION TESTABLE POSITION INFORMATION
POSITION INFORMATION REGARDING TDDS+ SBM IN ANOTHER RECORD LAYER
POSITION INFORMATION REGARDING TDDS+ SBM IN ANOTHER TDMA
SIZE OF CHANGED SPARE AREA #1
SIZE OF CHANGED SPARE AREA #2
• • •
SBM
SBM HEADER
SBM IDENTIFIER
SBM UPDATE COUNT=n+1
FINALIZATION FLAG=0
BIT MAP
• • •

FIG. 15

SBM #0	FINALIZATION FLAG=0
	UPDATE COUNTER=0
	BIT MAP #0
SBM #1	FINALIZATION FLAG=0
	UPDATE COUNTER=1
	BIT MAP #1
...	...
SBM #n	FINALIZATION FLAG=0
	UPDATE COUNTER=n
	BIT MAP #n
...	...

FIG. 16

SBM #0	FINALIZATION FLAG=0
	UPDATE COUNTER=0
	BIT MAP #0
SBM #1	FINALIZATION FLAG=0
	UPDATE COUNTER=1
	BIT MAP #1
...	...
SBM #n	FINALIZATION FLAG=0
	UPDATE COUNTER=n
	BIT MAP #n
SBM #n	FINALIZATION FLAG=1
	UPDATE COUNTER=n
	BIT MAP #n
NON-RECORDING AREA	ffh
...	...

FIG. 17

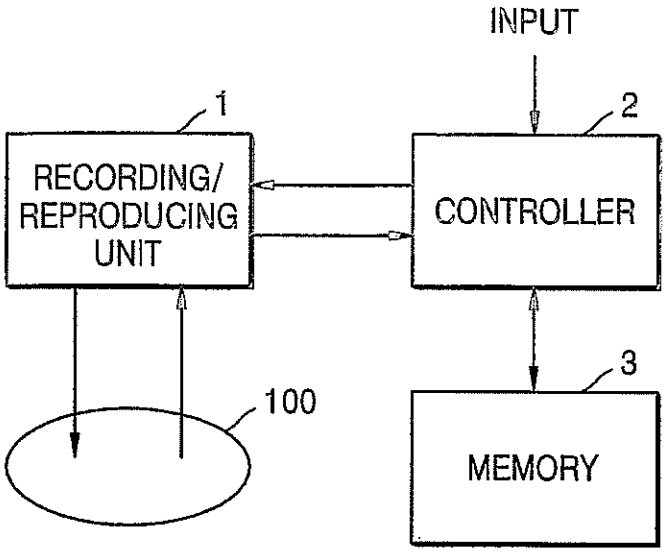
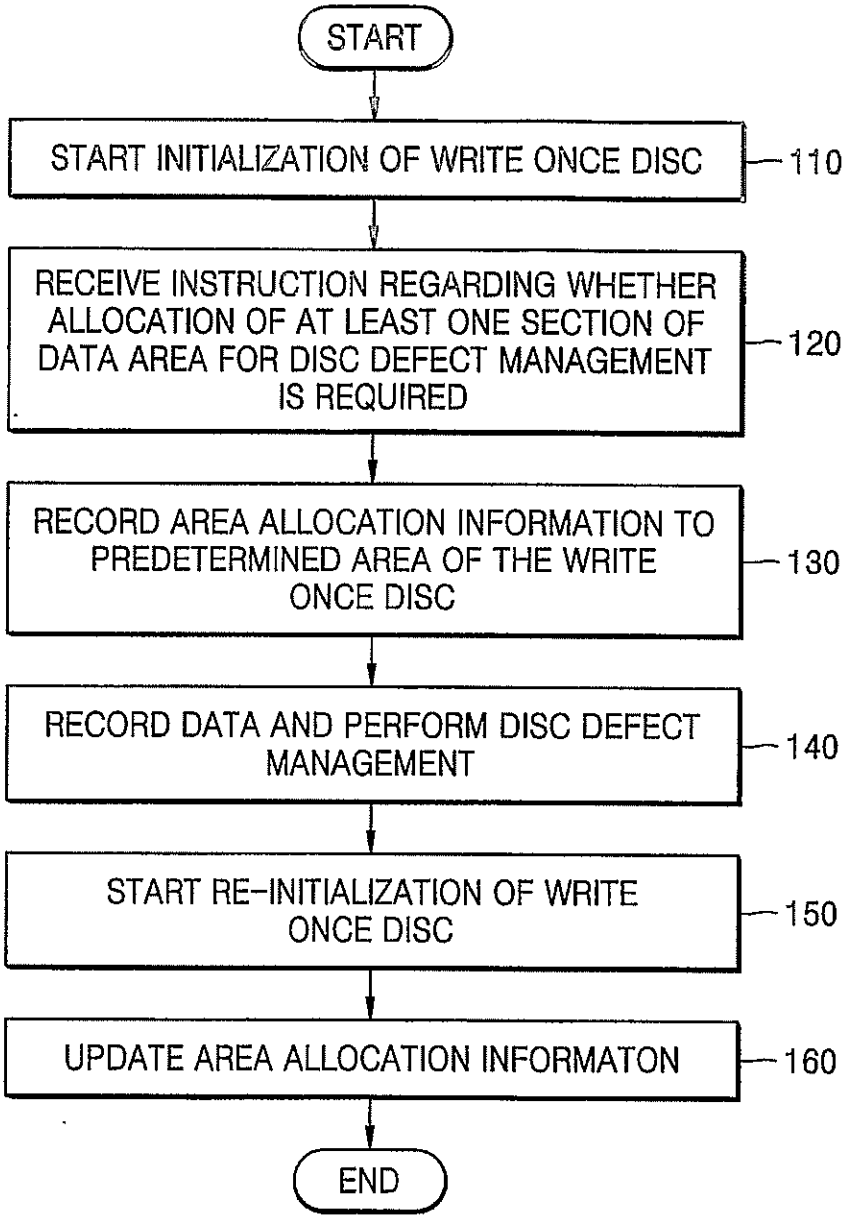

INPUT
1
2
RECORDING/
REPRODUCING
UNIT
CONTROLLER
3
100
MEMORY

FIG. 18


START
START INITIALIZATION OF WRITE ONCE DISC
110
RECEIVE INSTRUCTION REGARDING WHETHER ALLOCATION OF AT LEAST ONE SECTION OF DATA AREA FOR DISC DEFECT MANAGEMENT IS REQUIRED
120
RECORD AREA ALLOCATION INFORMATION TO PREDETERMINED AREA OF THE WRITE ONCE DISC
130
RECORD DATA AND PERFORM DISC DEFECT MANAGEMENT
140
START RE-INITIALIZATION OF WRITE ONCE DISC
150
UPDATE AREA ALLOCATION INFORMATON
160
END