FIG. 1A

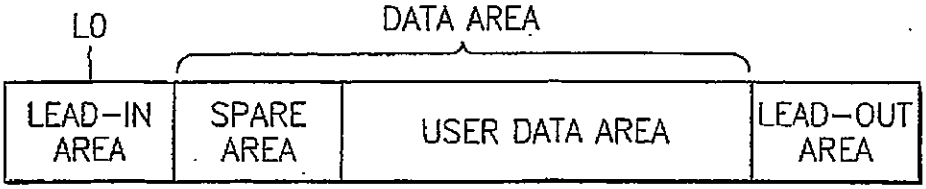


FIG. 1B

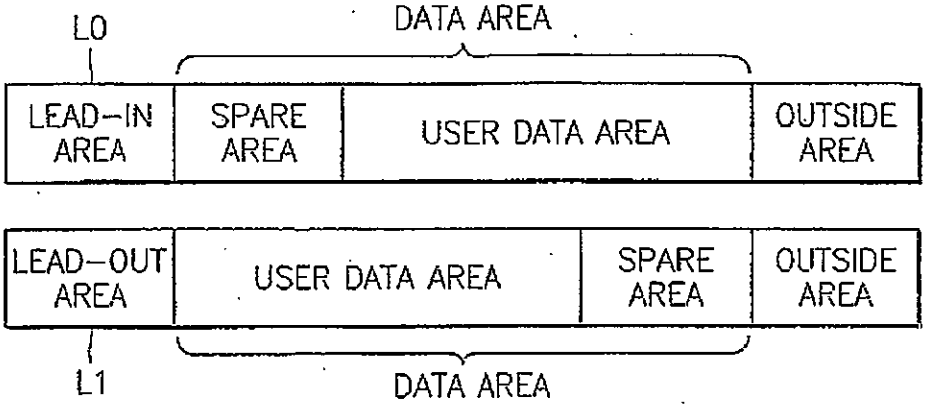


FIG. 2

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. 3

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
RECORDING PREVENTION AREA	ffh
...	...

FIG. 4

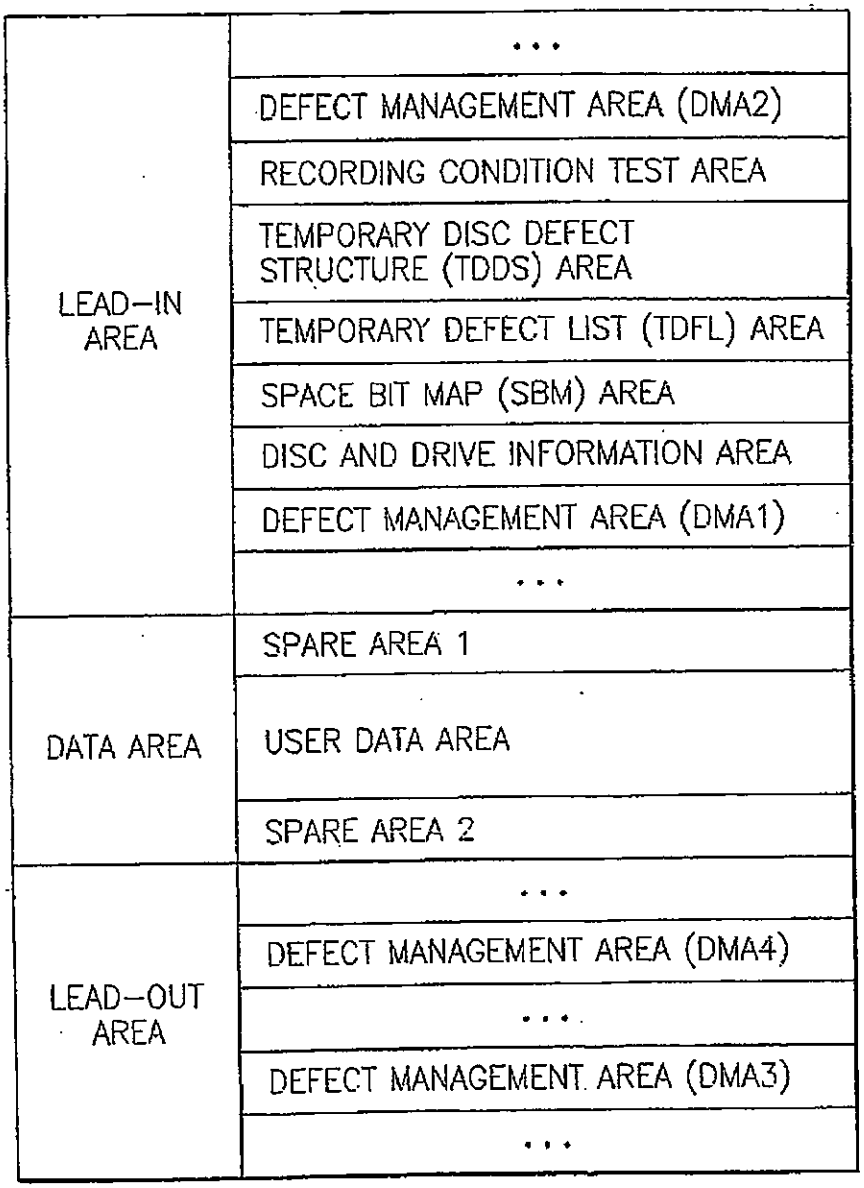

LEAD-IN AREA
...
DEFECT MANAGEMENT AREA (DMA2)
RECORDING CONDITION TEST AREA
TEMPORARY DISC DEFECT STRUCTURE (TDDS) AREA
TEMPORARY DEFECT LIST (TDFL) AREA
SPACE BIT MAP (SBM) AREA
DISC AND DRIVE INFORMATION AREA
DEFECT MANAGEMENT AREA (DMA1)
...
DATA AREA
SPARE AREA 1
USER DATA AREA
SPARE AREA 2
LEAD-OUT AREA
...
DEFECT MANAGEMENT AREA (DMA4)
...
DEFECT MANAGEMENT AREA (DMA3)
...

FIG. 5

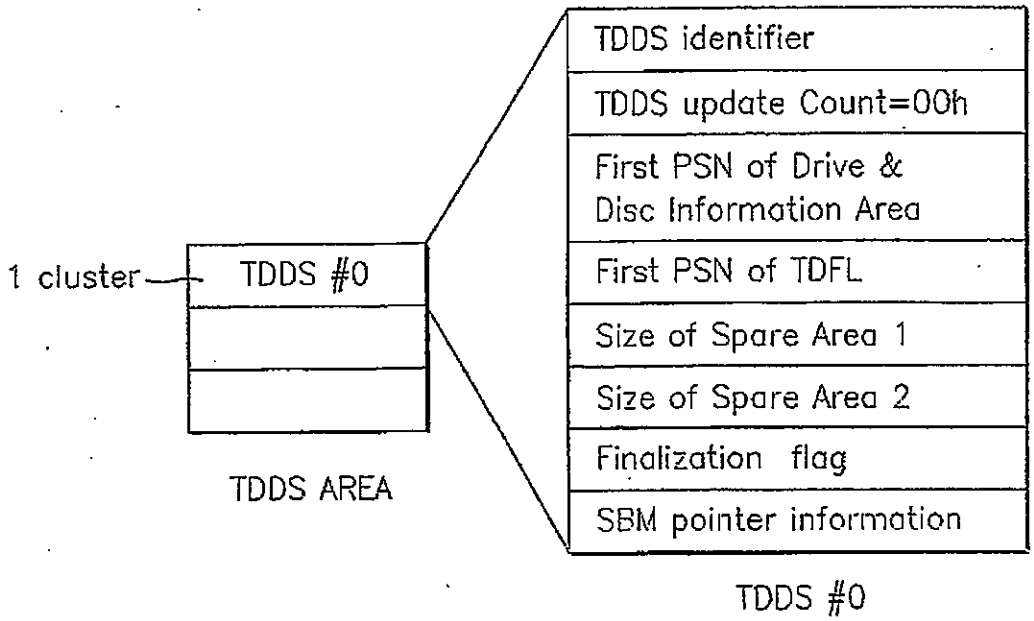

1 cluster
TDDS #0
TDDS AREA
TDDS identifier
TDDS update Count=00h
First PSN of Drive & Disc Information Area
First PSN of TDFL
Size of Spare Area 1
Size of Spare Area 2
Finalization flag
SBM pointer information
TDDS #0

FIG. 6

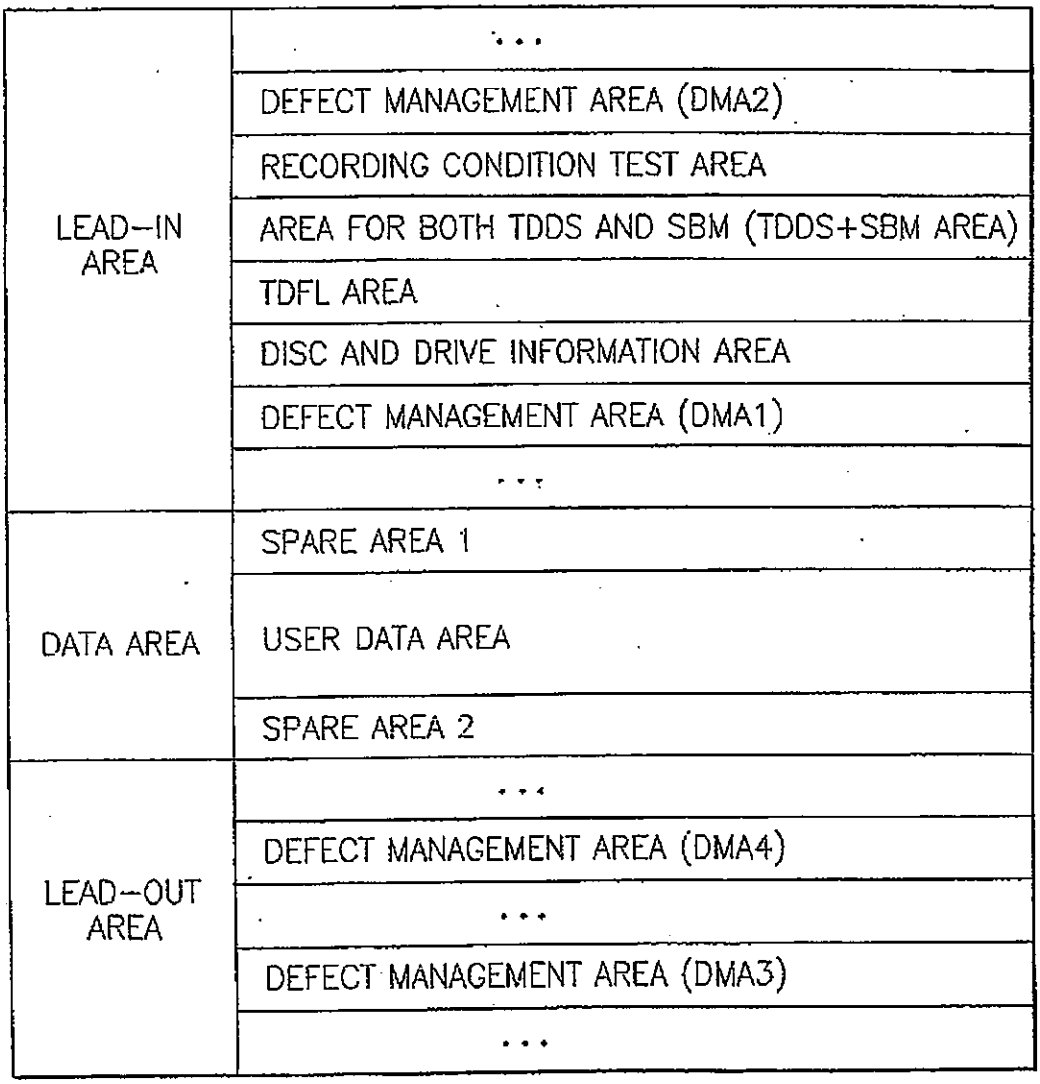

LEAD-IN AREA
...
DEFECT MANAGEMENT AREA (DMA2)
RECORDING CONDITION TEST AREA
AREA FOR BOTH TDDS AND SBM (TDDS+SBM AREA)
TDFL AREA
DISC AND DRIVE INFORMATION AREA
DEFECT MANAGEMENT AREA (DMA1)
...
DATA AREA
SPARE AREA 1
USER DATA AREA
SPARE AREA 2
LEAD-OUT AREA
...
DEFECT MANAGEMENT AREA (DMA4)
...
DEFECT MANAGEMENT AREA (DMA3)
...

FIG. 7

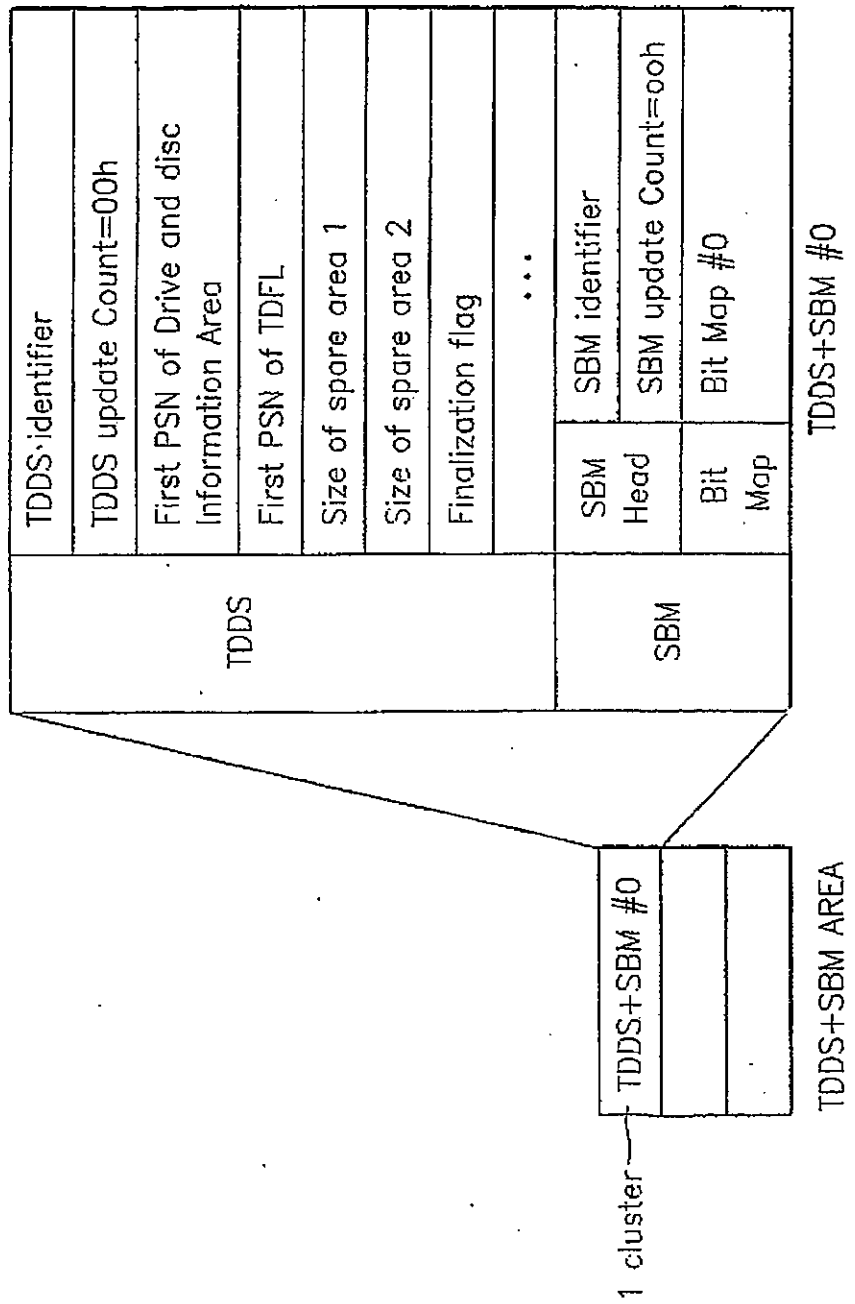

TDDS identifier
TDDS update Count=00h
First PSN of Drive and disc Information Area
First PSN of TDFL
Size of spare area 1
Size of spare area 2
Finalization flag
...
TDDS
SBM identifier
SBM update Count=00h
Bit Map #0
SBM Head
Bit Map
SBM
TDDS+SBM #0
1 cluster
TDDS+SBM #0
TDDS+SBM AREA

FIG. 8

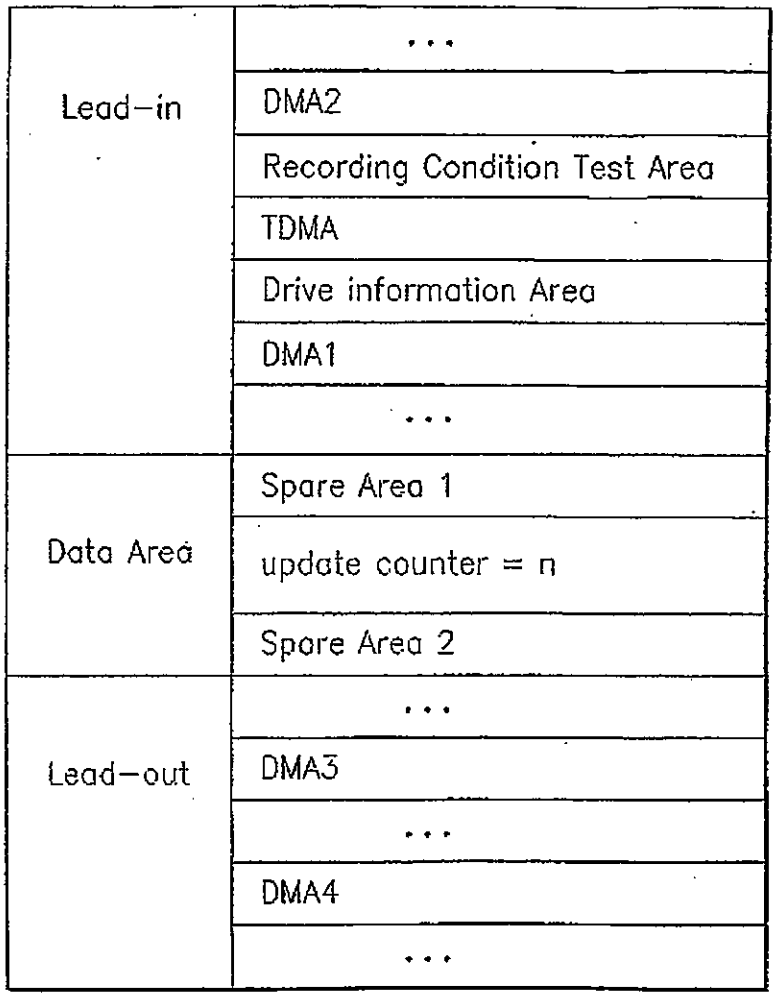

Lead-in
...
DMA2
Recording Condition Test Area
TDMA
Drive information Area
DMA1
...
Data Area
Spare Area 1
update counter = n
Spare Area 2
Lead-out
...
DMA3
...
DMA4
...

FIG. 9

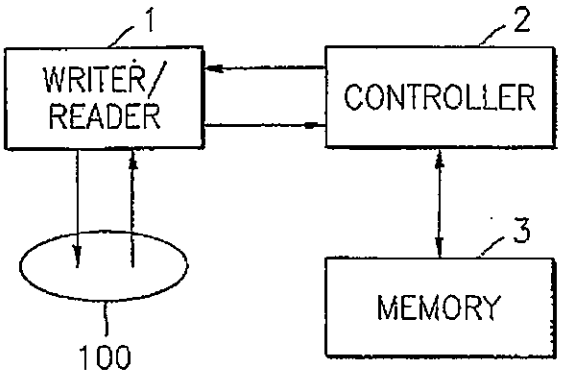

1
2
WRITER/
READER
CONTROLLER
3
MEMORY
100

FIG. 10

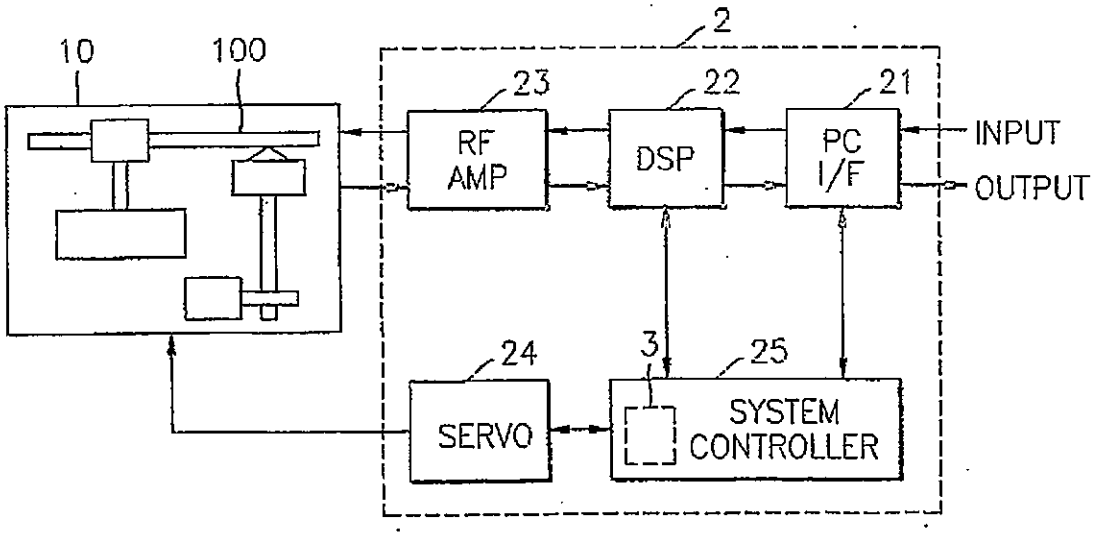

2
10
100
23
22
21
RF
AMP
DSP
PC
I/F
INPUT
OUTPUT
24
3
25
SERVO
SYSTEM
CONTROLLER

FIG. 11

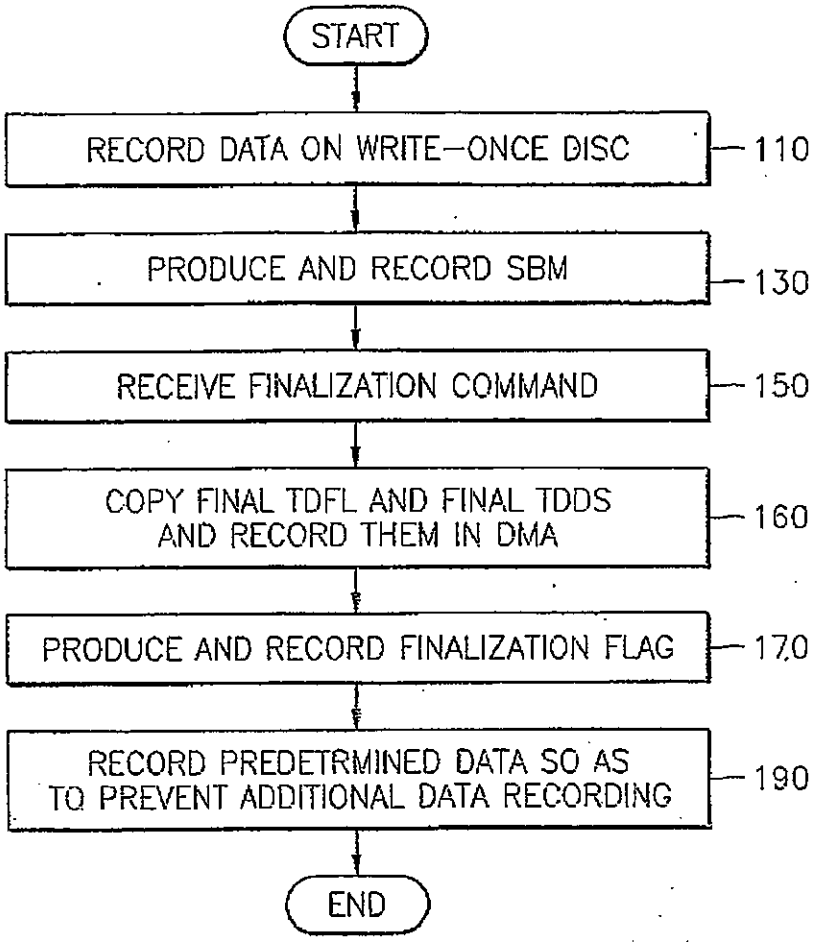
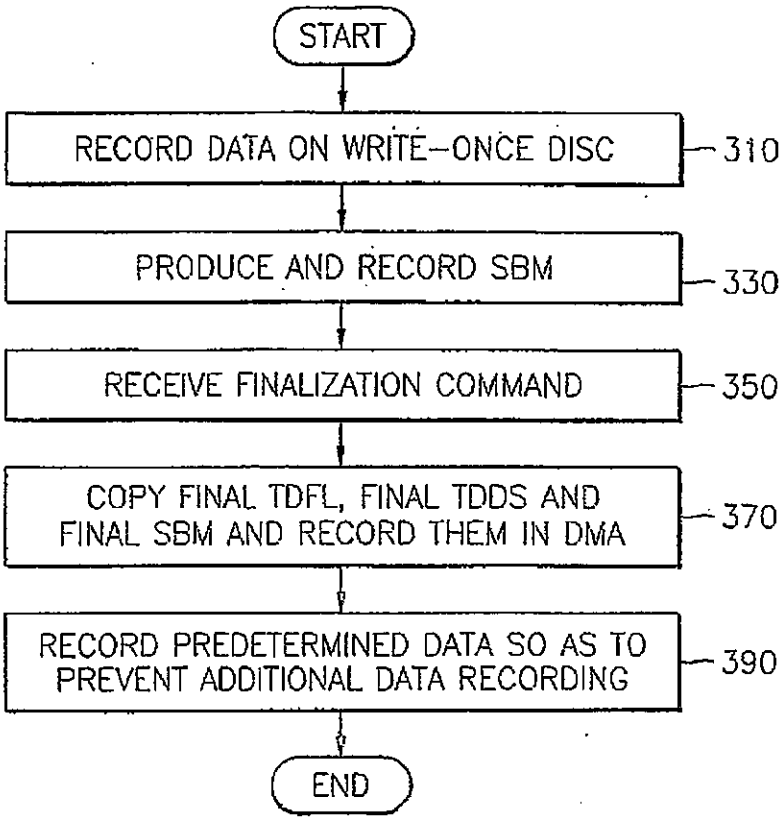

START
RECORD DATA ON WRITE-ONCE DISC
110
PRODUCE AND RECORD SBM
130
RECEIVE FINALIZATION COMMAND
150
COPY FINAL TDFL AND FINAL TDDS AND RECORD THEM IN DMA
160
PRODUCE AND RECORD FINALIZATION FLAG
170
RECORD PREDETRMINED DATA SO AS TO PREVENT ADDITIONAL DATA RECORDING
190
END

FIG. 12


START
RECORD DATA ON WRITE-ONCE DISC
310
PRODUCE AND RECORD SBM
330
RECEIVE FINALIZATION COMMAND
350
COPY FINAL TDFL, FINAL TDDS AND FINAL SBM AND RECORD THEM IN DMA
370
RECORD PREDETERMINED DATA SO AS TO PREVENT ADDITIONAL DATA RECORDING
390
END