ALMEDIO

ABEX
Product Introduction

No.M32062

2012.04 Rev.2

TEST VIDEO CD

For Checking Video CD Players and CD Drives

Eccentricity	***TVD-611/ -612/ -613/ -614***
Vertical Deviation	***TVD-631***
Scratches	***TVD-621***
Defects	***TVD-625***

1. Purpose of use, Features

These are test discs processed Eccentricity, Vertical deviation, Scratches and Defects using TVD-691 Video disc.
These test discs are designed for confirmation of operation, evaluation, measurement and adjustment of Video CD Players and Drives etc.. Video data are recorded at outer location of φ113mm.
Features of respective discs

- Eccentricity discs
  TVD-611/ -612/ -613/ -614 are designed for confirmation of Tracking Servo ability , evaluation, measurement and adjustment. It is processed Eccentricity of 70μm、140μm、210μm、28μm with ±10μm tolerance.
- Vertical deviation discs
  TVD-631 is designed for confirmation of Focus Servo ability, evaluation, measurement and adjustment.
  Vertical deviation at φ112mm is ±0.5mm. Eccentricity is processed less than 10μm.
- Scratches discs
  It is simulated lack of signals by scratches on the surface of TVD-621. Scratches are processed as staircase type from 0.4mm to 3.0mm width. Playback operation check and evaluation are available with respect to each 0.2mm step of 14 steps.
- Defects discs
  It is simulated stains and fingerprints adhered on the surface of TVD- 625 by Black Bands and Fingerprints. Black Bands are processed as staircase type from 0.3mm to 1.1mm width. Playback operation check and evaluation are available with respect to each 0.2mm step of 5 steps.
  Microscopic dimension of dots are managed on Fingerprints .
  Playback operation check and evaluation are available with respect to two steps of Fingerprints A and B.

2. Specifications

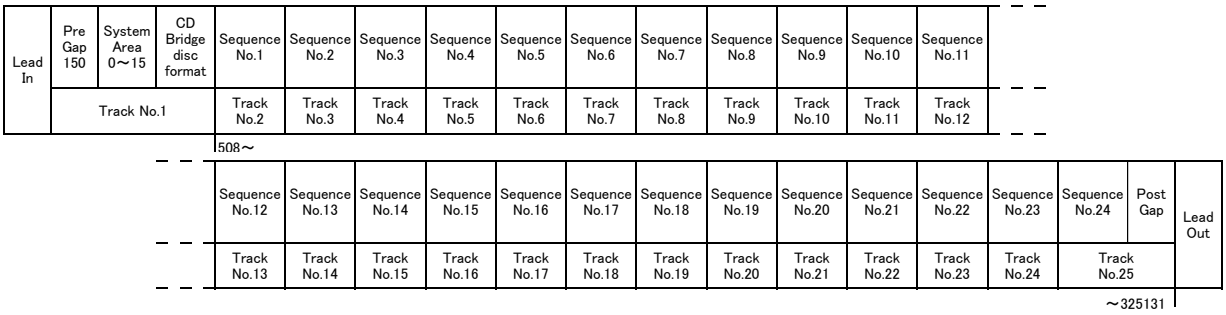
- Disc type : Video CD
- Material disc : TVD-691
- Format : CD-ROM Mode2 Form2
- File system : CD Bridge disc format
- Recorded Blocks : 0 ～ 325, 131Block
  (Post Gap included)
- Menu : none

note) Though disc format is Video CD Ver2.0, Menu and Subtitle

- Recorded time : 1hr. 11min. 34sec.
  (TRC time 02 : 11 : 34)
- Physical characteristics ＊
  Scanning velocity (for refe : 1.24 m/s
  Track pitch (for reference) : 1.51μm

＊Physical characteristics of material disc comply with Compact Disc Read Only Memory System.

- Disc layout



Values in this sheet are measured by the equipments ALMEDIO-owned. Appearance and specifications are subject to change without notice.

3. Content

Track No.	Sequence No.	Time		Video Description		Audio Description			Radial positions * mm
		min	sec	Contents (352x240)	Rate Mbps	Mpeg Audio/2ch	Level	Rate kbps	
1	–	0	5	Video CD Data Track					24.9
2	1	2	58	Motion Picture	1.152	400Hz	−10dB	224	25.0
3	2	2	58	Motion Picture	1.152	400Hz	−10dB	224	27.1
4	3	2	58	Motion Picture	1.152	400Hz	−10dB	224	29.0
5	4	2	58	Motion Picture	1.152	400Hz	−10dB	224	30.8
6	5	2	58	Motion Picture	1.152	400Hz	−10dB	224	32.5
7	6	2	58	Motion Picture	1.152	400Hz	−10dB	224	34.1
8	7	2	58	Motion Picture	1.152	400Hz	−10dB	224	35.6
9	8	2	58	Motion Picture	1.152	400Hz	−10dB	224	37.1
10	9	2	58	Motion Picture	1.152	400Hz	−10dB	224	38.5
11	10	2	58	Motion Picture	1.152	400Hz	−10dB	224	39.9
12	11	2	58	Motion Picture	1.152	400Hz	−10dB	224	41.2
13	12	2	58	Motion Picture	1.152	400Hz	−10dB	224	42.5
14	13	2	58	Motion Picture	1.152	400Hz	−10dB	224	43.8
15	14	2	58	Motion Picture	1.152	400Hz	−10dB	224	45.0
16	15	2	58	Motion Picture	1.152	400Hz	−10dB	224	46.2
17	16	2	58	Motion Picture	1.152	400Hz	−10dB	224	47.3
18	17	2	58	Motion Picture	1.152	400Hz	−10dB	224	48.4
19	18	2	58	Motion Picture	1.152	400Hz	−10dB	224	49.5
20	19	2	58	Motion Picture	1.152	400Hz	−10dB	224	50.6
21	20	2	58	Motion Picture	1.152	400Hz	−10dB	224	51.6
22	21	2	58	Motion Picture	1.152	400Hz	−10dB	224	52.7
23	22	2	58	Motion Picture	1.152	400Hz	−10dB	224	53.7
24	23	2	58	Motion Picture	1.152	400Hz	−10dB	224	54.7
25	24	2	58	Motion Picture	1.152	400Hz	−10dB	224	55.7
TOTAL TIME (Including pause time) 71min 34sec									(AA : 56.6)

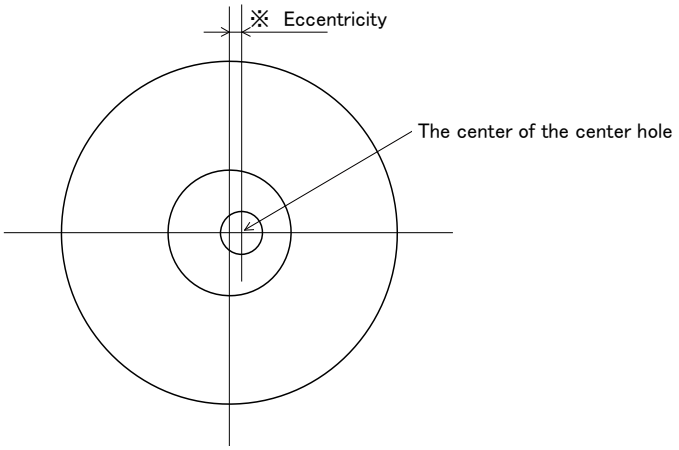
* Radial positions are calculate value of design. Actual value may differ.

4. Specification of Eccentricity discs

- Center hole diameter : 15 +0.04/ −0 mm
- Eccentricity

Model name	Eccentricity μm ※	Description
TVD-611	70 ± 10	For testing the maximum value specified in CD Specifications
TVD-612	140 ± 10	-
TVD-613	210 ± 10	-
TVD-614	280 ± 10	-

※ We define Eccentricity here is the distance from the center of the center hole to the center of the track circle that the most inner pit of the disc plots. Therefore, the Eccentricity of this table is indicated as 0-p.



Imaged figure of Eccentricity

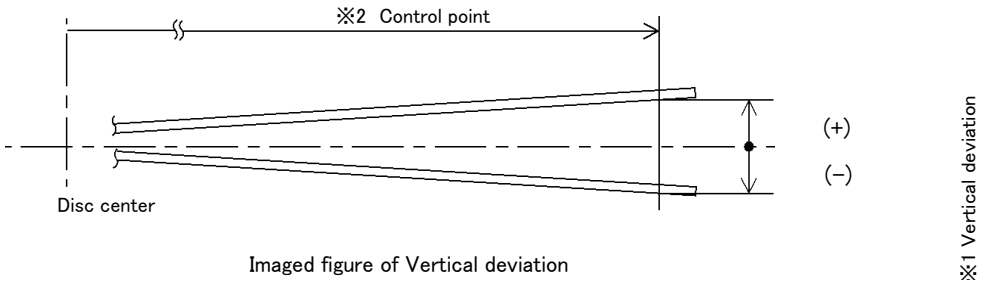
5. Specifications of Vertical deviation disc

- Center hole diameter : 15 +0.04/ −0 mm
- Eccentricity : ≦10 μm
- Vertical deviation

Model name	※1 Vertical deviation mm	Vertical deviation spreading mm		※2 Control point
TVD-631	1.0 ± 0.05	(+)	0.5 ± 0.05	φ112mm, Track No.25、Sequence No.24
		(−)	−0.5 ± 0.05	

※1 We define Vertical deviation here is the difference between max. and min. shift value of the recorded layer at φ112mm in vertical direction when a disc rotating one revolution.を Therefore, the Vertical deviation of this table is indicated as p-p.

※2 Time code at the control point φ112mm is design value. Actual value may differ.

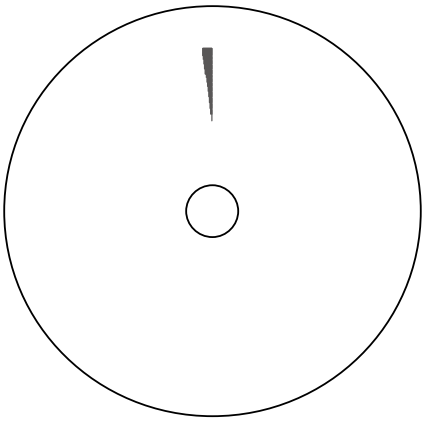


Imaged figure of Vertical deviation

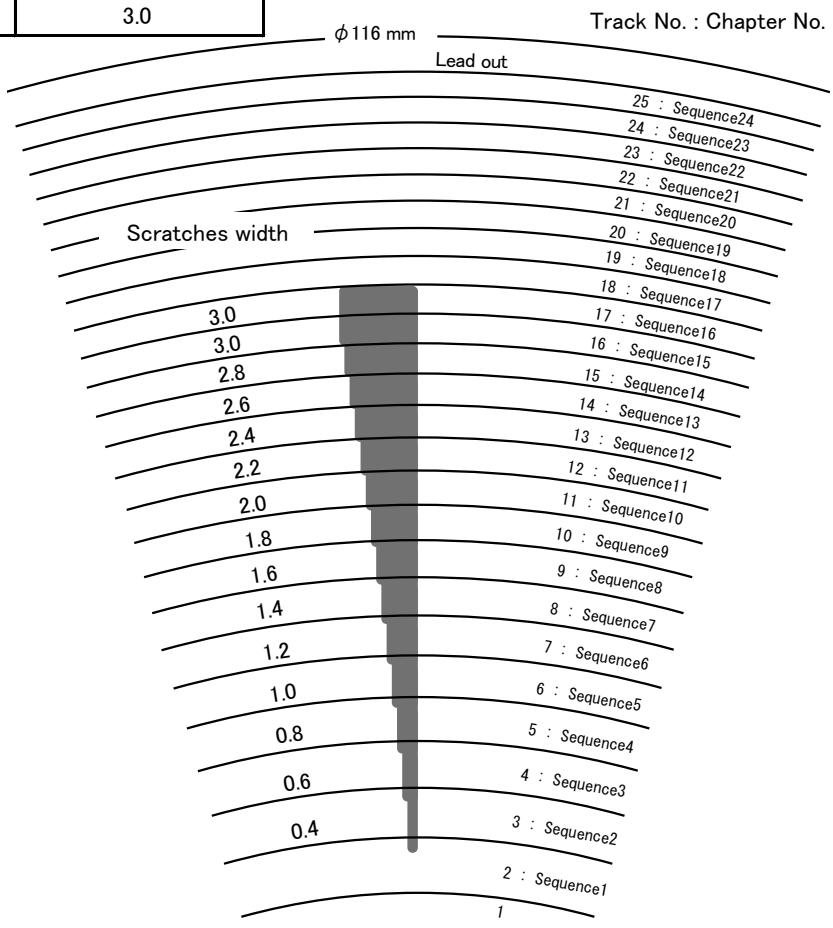
6. Specifications of Scratches

- Scratches are processed as staircase type.
- Scratches width are 0.4mm to 3.0mm with respect to each 0.2mm step of 14 steps.

Track No.	:	Sequence No.	Scratches width mm
3	:	2	0.4
4	:	3	0.6
5	:	4	0.8
6	:	5	1.0
7	:	6	1.2
8	:	7	1.4
9	:	8	1.6
10	:	9	1.8
11	:	10	2.0
12	:	11	2.2
13	:	12	2.4
14	:	13	2.6
15	:	14	2.8
16	:	15	3.0
17	:	16	3.0



Imaged figure of Scratches (Read out side)

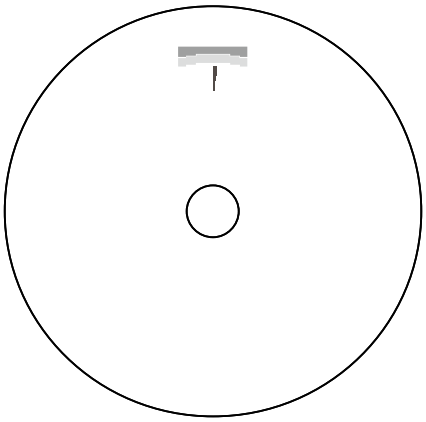


Location of Scratches and Chapters

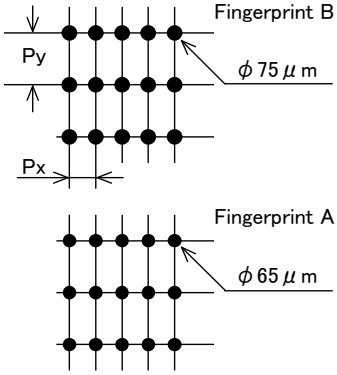
7. Specifications of Defects

- Black Bands are processed as 5 steps.
- Fingerprints are processed as 2 steps of A & B.

Track No.	:	Sequence No.	Defects
8	:	7	Black band width 0.3 mm
9	:	8	Black band width 0.5 mm
10	:	9	Black band width 0.7 mm
11	:	10	Black band width 0.9 mm
12	:	11	Black band width 1.1 mm
13	:	12	—
14	:	13	Fingerprint A
15	:	14	Fingerprint A
16	:	15	—
17	:	16	Fingerprint B

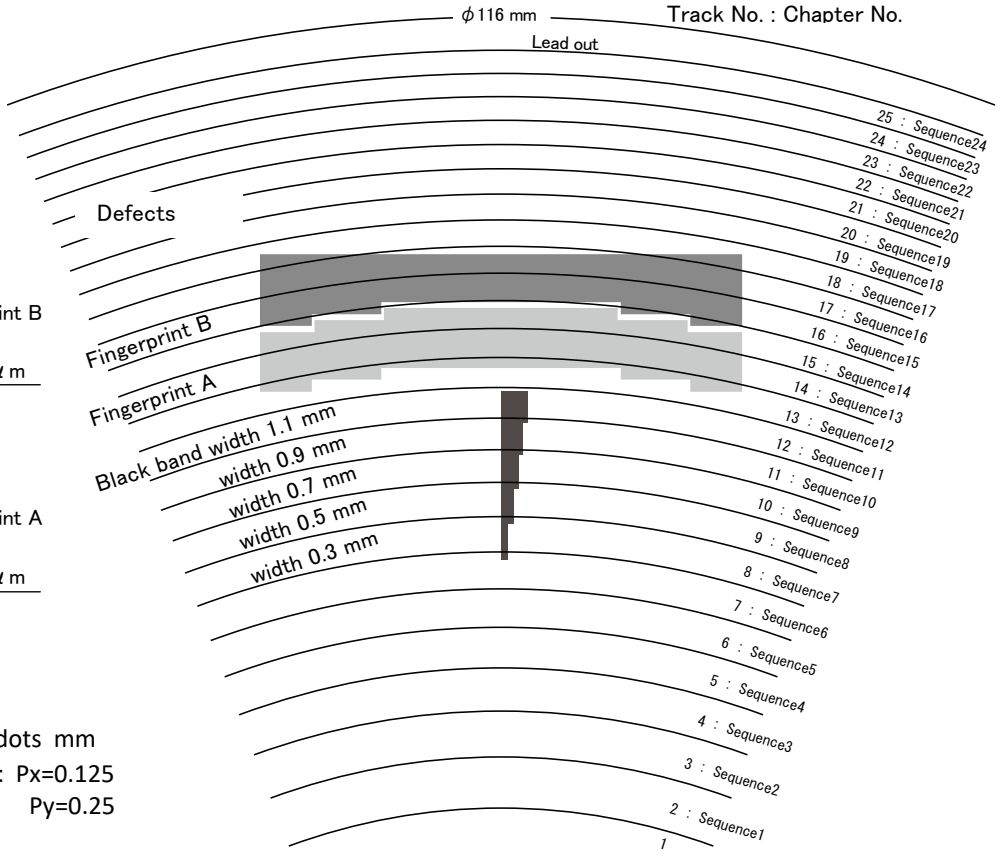


Imaged figure of Defects (read out side)



Clearance of respective dots mm
Tangential direction : Px=0.125
Radial direction : Py=0.25

Details of Fingerprints



Locations of Defects, Tracks and Chapters

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<Proper handling of the disc>
Do not write on the surface with a pen and others, nor put a sticker on it.
Do not expose the disc to direct sunlight, nor leave it in the place of high temperature and high humidity.
After playing, store the disc in its own case.

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