

LOW REFLECTIVITY TEST CD-RW

For Checking CD Players and CD Drives

Eccentricity	SCD-4079/ -4080/ -4081
Vertical deviation	SCD-4082
Scratches	SCD-4083
Defects	SCD-4084

1. Purpose of use, Features

These are Test Discs designed for various kinds of confirmation of operation and playability for low reflection CD-RW of CD Players and Drives etc..

TCD-W091L its Reflectivity is 15% is used as material disc.

Disc Format is CD-DA.

Features of respective discs

- SCD-4079/ -4080/ -4081 are Eccentricity discs.
Each disc has 70, 140 and 210 μ m Eccentricity respectively. It is available to use for confirmation of tracking servo ability, evaluation, measurement and adjustment.
- SCD-4082 is Vertical deviation disc.
Vertical deviation at ϕ 115mm is 1.0mm. It is available to use for confirmation of Focus servo ability, evaluation, measurement and adjustment.
- SCD-4083 is Scratches disc.
It is simulated missing signals by Scratches on the surface of a disc. Scratches are processed as staircase type from 0.4mm to 1.4mm width with each 0.2mm step of 6 steps.
- SCD-4084 is Defects disc.
It is simulated stains and fingerprints adhered on the surface of a disc by Black Bands and Fingerprints.
Black Bands are processed as staircase type from 0.1mm to 0.7mm width with each 0.1mm step of 7 steps.
Microscopic dimension of dots are managed on Fingerprints.
Fingerprints are processed with 2 steps of A and B.

2. Specifications *1

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| <ul style="list-style-type: none"> ▪ Disc type : Low reflection CD-RW Disc (650Mbytes/ 74min) ▪ Material disc : TCD-W091L ▪ Format : CD-DA ▪ Recorded time : 1hr. 14min. 10sec. ▪ Scanning velocity : 1.2 m/sec (for reference) ▪ Track pitch : 1.6 μm (for reference) | <ul style="list-style-type: none"> ▪ Outer diameter : 120 \pm 0.3 mm ▪ Center hole diameter : 15.0 +0.1/ -0 mm *3 ▪ Disc thickness : 1.2 +0.3/ -0.1 mm ▪ Eccentricity : \leq 70 μm 0-p ▪ Radial tilt (β angle) : \leq \pm 0.6 deg |
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▪ Reflectivity (R_{top})

Model name	Reflectivity	CD-R Specification	Description
TCD-W091L	15 \pm 2 % with PBS *2	15% < R _{top} < 25%	For testing minimum value specified in CD-RW Specification

note1) Reflectivity (R_{top}) of TCD-W091L is measured value at user data area (except Index 0) by our standard equipment after recorded once by our standard recorder.

note2) Physical Characteristics other than Reflectivity comply with Recordable Compact Disc Systems Part 3 Ver. 2.0.

*1 Values described above Specifications are characteristics of a disc before processing.

*2 PBS is acronym standing for Polarization Beam Splitter.

*3 In regard to center hole diameter of Eccentricity discs (SCD-4079~4081) and Vertical deviation disc (SCD-4082) please refer to Specifications of those discs.

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

3. Content

Track No.	Time		Contents	Radial positions * mm
	min	sec		
1	3	15	Minuetto	24.8
2	2	32	2 ème Gymnopédie	27.1
3	3	02	Ouverture Miniature (Casse-noisette Op. 71a)	28.8
4	2	36	Marche (Casse-noisette Op. 71a)	30.7
5	3	09	Clair de Lune	32.2
6	3	12	Nocturne (Op. 9-2)	34.0
7	2	26	Danse de la Fée-Dragée (Casse-noisette Op. 71a)	35.7
8	2	29	Danse Arabe (Casse-noisette Op. 71a)	36.9
9	2	51	Fantaisie-Impromptu (Op. 66)	38.1
10	2	02	Hungarian Dance No.5	39.5
11	3	38	Prélude < Raindrop >	40.4
12	3	15	Maiden's Prayer	42.0
13	3	08	Valse des Fleurs (Casse-noisette Op. 71a)	43.4
14	3	29	1 ère Gymnopédie + Blank(35sec)	44.8
15	30	53	Danse des Mirlitons (Casse-noisette Op. 71a)	46.2
16	1	43	1 ère Gymnopédie	57.1
TOTAL TIME (Including pause time) 74min 10sec				(AA : 57.6)

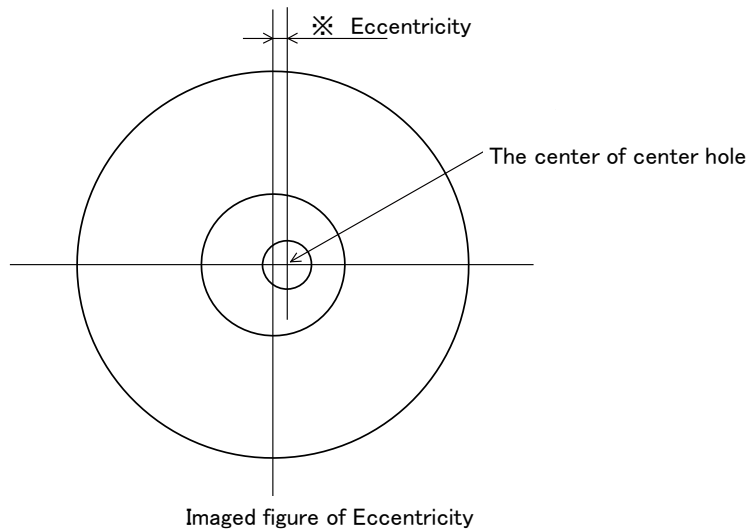
* Radial positions are calculated value.

4. Specifications of Eccentricity Discs

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

Model name	Eccentricity μm ※	Descriptions
SCD-4079	70 \pm 5	For testing the maximum value specified in CD-RW Specifications
SCD-4080	140 \pm 5	-
SCD-4081	210 \pm 5	-

※ 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.
 note) Please be careful not to erase from, nor overwrite SCD-4079~SCD-4081.

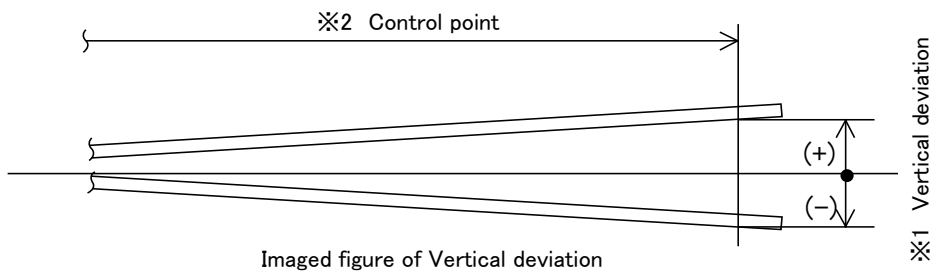


5. Specifications of Vertical deviation disc

- Center hole diameter : 15 +0.04/ -0 mm
- Eccentricity : $\leq 10 \mu\text{m}$
- Vertical deviation

Model name	※1 Vertical deviation mm	Vertical deviation spreading mm	※2 Control point mm
SCD-4082	1.0 \pm 0.05	(+)	ϕ 115 Track No. 16
		(-)	

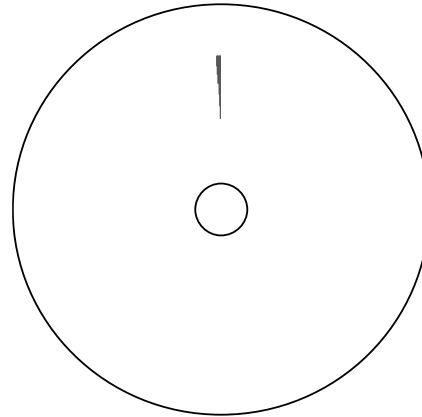
※1 We define Vertical deviation here is the difference between max. and min. shift value of the recorded layer at the control point in vertical direction when a disc rotating one revolution.
 Therefore, the Vertical deviation of this table is indicated as p-p.
 note) Please be careful not to erase from, nor overwrite SCD-4082.



6. Specifications of Scratches disc, SCD-4083

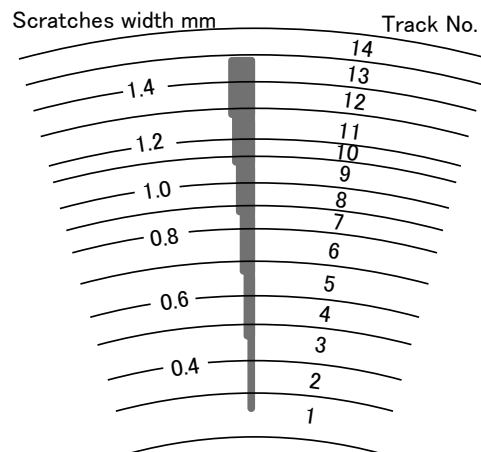
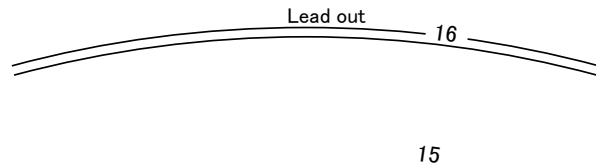
- Scratches are processed as staircase type from 0.4mm to 1.4mm with respect to each 0.2mm step of 6 step

Track No.	Scratches width mm
1	-
2	0.4
3	0.4
4	0.6
5	0.6
6	0.8
7	0.8
8	1.0
9	1.0
10	1.2
11	1.2
12	1.4
13	1.4
14	-
15	-
16	-



Imaged figure of Scratches (Read out side)

note) Please be careful not to erase from, nor overwrite SCD-4083.



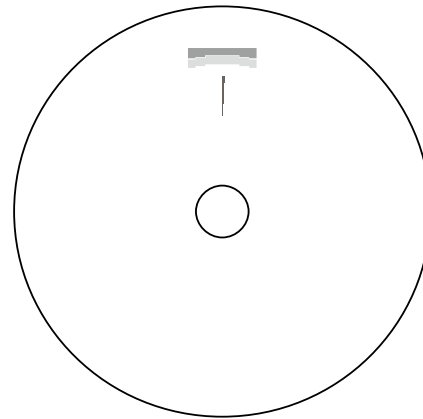
Location of Scratches and Tracks

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

7. Specifications of Defects disc, SCD-4084

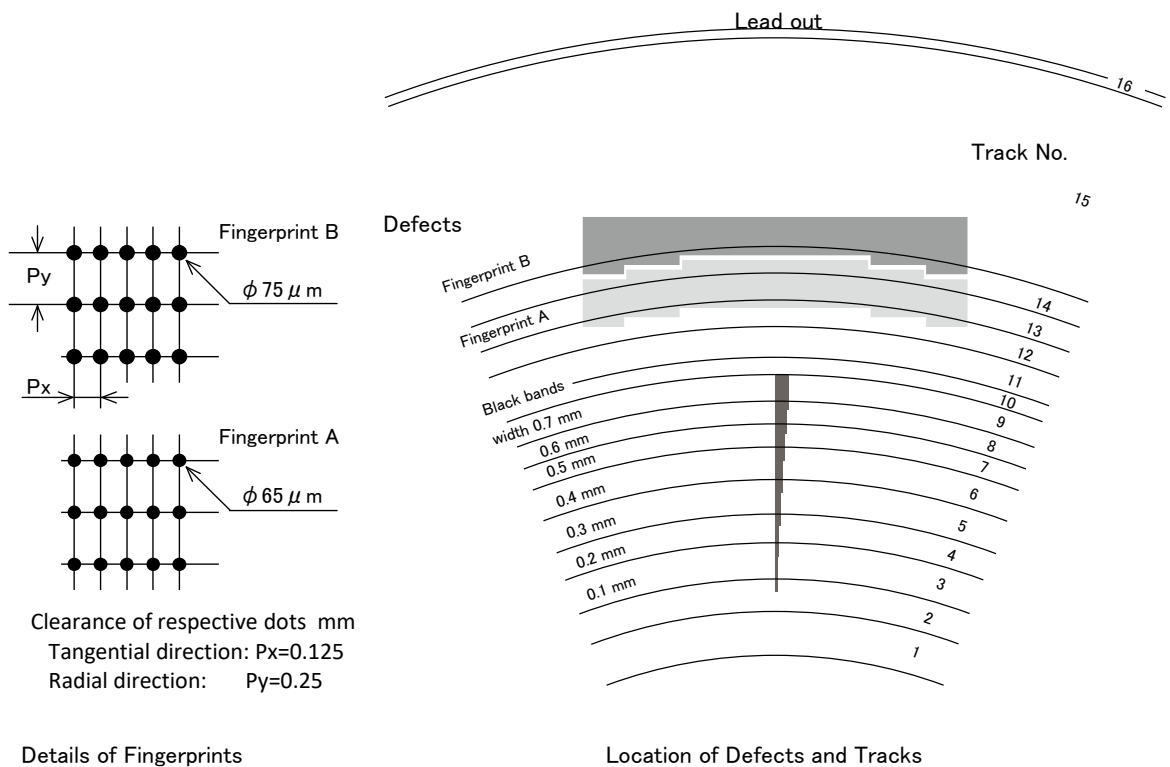
- Black Bands are processed as staircase type from 0.1 to 0.7mm with respect to each 0.1mm step of 7 steps
- Microscopic dimension of dots are managed on Fingerprints area.

Track No.	Defects
1	-
2	-
3	Black band width 0.1 mm
4	Black band width 0.2 mm
5	Black band width 0.3 mm
6	Black band width 0.4 mm
7	Black band width 0.5 mm
8	Black band width 0.6 mm
9	Black band width 0.7 mm
10	-
11	-
12	-
13	Fingerprint A
14	Fingerprints A or B
15	Fingerprint B
16	-



Imaged figure of Defects (Read out side)

note) Please be careful not erase from, nor overwrite SCD-4084.



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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.

ALMEDIO INC.
Sales Headquarters
<http://www.almedio.co.jp>
E-Mail : tm-sales@almedio.co.jp