



## Philips Firmware Upgrade Information

Upgrade for type:      DVDR16LSK/00  
                             DVDR16LSK/35

→ Drive type number on label.

Upgrade for string:    DVDR16LS

→ Drive name as seen in Windows <sup>TM</sup>

From firmware:        P1.x

To new firmware:      P2.0

Date:                    9 May 2006

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<http://www.philips.com/storageupdates>



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# 1. Version History

Changes from firmware P1.4 (initial release) to P1.5

- Released 29 March 2005.
- Improved WOPC (Walking Optimum Power Calibration) to improve writing quality on all DVD media.
- Improved writing quality on DVD+R Double layer discs.
- Improved writing quality on DVD+R 16x discs.

Changes from firmware P1.5 to P1.6

- Released 19 April 2005.
- Improved writing quality on DVD+R discs.
- Improved writing quality on DVD-R discs.
- Improved Optimum Power Calibration process to ensure better writing quality on all media.

Changes from firmware P1.6 to P1.7

- Released 4 May 2005.
- Protection to prevent writing on the (at this time) non supported DVD+R Double Layer media from Ricoh (code RICOHJPN D00). Nero will report this disc is not writable.
- Improved recognition of LightScribe media.
- Improved WOPC (Walking Optimum Power Calibration) to improve writing quality on all DVD media.

Changes from firmware P1.7 to P1.8

- Released 23 May 2005.
- Improved protection to prevent writing on non supported media.
- Added WOPC (Walking Optimum Power Calibration) on CD-Recordable and CD-ReWritable to improve writing quality on these media.

Changes from firmware P1.8 to P1.9

- Released 5 August 2005.
- Improved LightScribe Writing algorithm.
- Improved recognition of System Restore CD discs.

Changes from firmware P1.9 to P2.0

- Released 9 May 2006.
- Fix for "Session Fixation Error" at the beginning of the writing process when writing unknown DVD+R Double Layer discs.

## 2. Nero software update

We advise to have your Nero LightScribe software also up to date:

1

Start the Nero StartSmart



2

Choose the Nero Productcenter (A).

Click on the "Check Now" button (B).

Install the latest available versions by clicking on the green arrows (C) behind LightScribe API and Nero 6.



3

We advise to restart your computer after updating.

More information (also about LightScribe) can also be found on <http://www.philips.com/storageupdates>

### 3. Supported DVD media lists

The ADIP code (for "+" media) and the Pre Recorded Info in Lead In Code or MID code (for "-" media) do indicate the manufacturer of the disc. This code will allow the drive to recognize the disc and with this information the drive will choose the best possible write strategy so that the discs are written in the best possible way.

This information can easily be obtained using e.g DVD Identifier (download from <http://dvd.identifier.cdfreaks.com>). Please note that this is 3<sup>rd</sup> party software for which Philips can not take any responsibility.

Please also note that Philips can not guarantee that discs which are not in the list are well written.

#### 3.1. Supported DVD+R discs



DVD+R 2,4x discs

ADIP code										
C	M	C		M	A	G		R	0	1
M	C	C						0	0	1
O	P	T	O	D	I	S	C	O	P	2
P	R	O	D	I	S	C		R	0	1
R	I	C	O	H	J	P	N	R	0	0
R	I	T	E	K				R	0	1

DVD+R 4x discs

ADIP code										
A	M	L						0	0	1
B	e	A	I	I	0	0	0	P	4	0
C	M	C		M	A	G		F	0	1
D	A	X	O	N				A	Z	1
D	D	T	0	1				0	0	1
D	T	-	D	0	2			0	2	
G	S	C	5	0	2			0	0	2
I	N	F	O	D	I	S	C	R	1	0
M	A	X	E	L	L			0	0	1
M	B	I	P	G	1	0	1	R	0	3
M	C	C						0	0	2
M	P	O	M	E	D	I	A	0	4	0
M	U	S	T					0	0	2
N	A	N	Y	A				R	J	B
O	P	T	O	D	I	S	C	O	R	4
P	O	M	S	C	0	0	1	0	0	2
P	R	O	D	I	S	C		R	0	2
R	I	C	O	H	J	P	N	R	0	1
R	I	T	E	K				R	0	2
R	I	T	E	K				M	0	2
S	O	N	Y					D	0	1
T	D	K						0	0	1
Y	U	D	E	N	0	0	0	T	0	1

DVD+R 8x discs

ADIP code										
A	M	L						0	0	2
B	E	A	L	L	0	0	0	P	8	0
C	M	C		M	A	G		E	0	1
D	A	X	O	N				A	Z	2
D	D	D	e	s	s	a	u	V	3	0
D	T	-	D	0	3			0	0	4
G	S	C	5	0	3			H	0	1
I	N	F	O	D	I	S	C	R	2	0
I	N	F	O	M	E			R	2	0
I	S	S	M					0	0	1
L	D							S	0	3
L	O	N	G	T	E	N		0	0	2

M	A	M	M	O	2					
M	A	X	E	L	L			0	0	2
M	B	I	P	G	1	0	1	R	0	4
M	J	C						0	0	3
M	C	C						0	0	3
M	P	O	M	E	D	I	A	0	8	0
M	U	S	T					0	0	2
N	A	N	Y	A				C	L	X
N	A	N	Y	A				C	H	X
O	P	T	O	D	I	S	C	0	R	8
P	H	I	L	I	P	S		C	0	8
P	H	I	L	I	P	S		0	8	1
P	L	A	S	M	O	N	1	C	0	1
P	O	S						R	0	1
P	R	O	D	I	S	C		R	0	3
R	I	C	O	H	J	P	N	R	0	2
R	I	T	E	K				R	0	3
S	K	Y	M	E	D	I	A	R	0	3
S	O	N	Y					D	1	1
T	D	K						0	0	2
U	L	T	R	A	N			2	0	2
V	A	N	G	U	A	R	D	0	0	1
V	D	S	P	M	S	A	B	0	0	2
V	I	V	A					0	0	2
W	I	N	G	S	H	I	N	0	0	1
Y	U	D	E	N	O	O	O	T	0	2

DVD+R 16x discs

ADIP code										Remarks
B	e	A	I	I				P	G	0
C	M	C	M	A	G			M	0	1
D	A	X	O	N				A	Z	3
D	A	X	O	N				C	Y	3
I	N	F	O	M	E			R	3	0
L	D							M	0	4
M	A	X	E	L	L			0	0	3
M	B	I	P	G	1	0	1	R	0	5
M	C	C						0	0	4
M	J	C						0	0	5
M	U	S	T					0	0	6
N	A	N	Y	A				F	L	X
N	S	D						R	4	0
O	P	T	O	D	I	S	C	R	1	6
O	P	T	O	D	I	S	C	F	1	6
P	H	I	L	I	P	S		C	1	6
P	R	O	D	I	S	C		R	0	4
P	R	O	D	I	S	C		R	0	5
R	I	C	O	H	J	P	N	R	0	3
R	I	T	E	K				R	0	4
S	O	N	Y					D	2	1
T	D	K						0	0	3
Y	U	D	E	N	O	O	O	T	0	3

### 3.2. Supported DVD+R Double Layer discs



DVD+R Double Layer 2,4x discs

ADIP code										
M	K	M						0	0	1

### 3.3. Supported DVD+RW discs



DVD+RW 2,4x discs

ADIP code										
C	M	C		M	A	G		W	0	1
I	N	F	O	D	I	S	C	A	0	1
M	B	I	P	G	1	0	1	W	0	3
M	C	C						A	0	1
O	P	T	O	D	I	S	C	O	P	1
P	H	I	L	I	P	S		0	1	0
P	R	O	D	I	S	C		W	0	1
R	I	C	O	N	J	P	N	W	0	1
R	I	T	E	K				0	0	1
S	E	N	T	I	N	E	L	W	0	1

DVD+RW 4x discs

ADIP code										
C	M	C		M	A	G		W	0	2
D	A	X	O	N				D	4	2
I	N	F	O	D	I	S	C	A	1	0
M	B	I	P	G	1	0	1	W	0	4
M	K	M						A	0	2
N	A	N	Y	A				D	R	W
O	P	T	O	D	I	S	C	O	P	4
P	H	I	L	I	P	S		0	4	1
P	R	O	D	I	S	C		W	0	2
R	I	C	O	H	J	P	N	W	1	1
R	I	T	E	K				0	0	4
S	O	N	Y					S	1	1
S	E	N	T	I	N	E	L	W	0	2

### 3.4. Supported DVD-R discs



Please note that 1x DVD-R discs are not supported.

DVD-R 2x discs (written at 2,4x)

Pre Recorded Info In Lead In Code											
B	e	A	I	I		G	0	0	0	0	1
M	C	C		0	0	R	G	2	0	0	
M	X	L		R	G	0	1				
P	R	O	D	I	S	C	G	0	2		
R	I	T	E	K	G	0	3				
S	O	N	Y								
T	A	I	Y	O	Y	U	D	E	N		
T	D	K	G	0	2	0	0	0	0	0	0

DVD-R 4x discs

Pre Recorded Info In Lead In Code											
4	M		S	Y	S		2	0	2	C	1
B	e	A	I	I		G	4	0	0	0	1
C	M	C		M	A	G	.		A	F	1
D	A	T	A		T	R	A	C	K		
D	A	X	O	N	0	0	4				
F	U	J	I	F	I	L	M	0	2		
I	N	F	O	D	I	S	C	-	R	0	1
I	S	S	M						0	1	
M	A	M	4	X	G	0	2				
M	A	M	4	X	G	0	1				
M	B	I		0	1	R	G	2	0		
M	C	C		0	1	R	G	2	0		
M	U	S	T		0	0	1				
M	X	L		R	G	0	2				
O	P	T	O	D	I	S	C	R	0	0	4
R	I	T	E	K	G	0	4				
R	I	T	E	K	M	0	2				
S	O	N	Y	0	4	D	1				
T	Y	G	0	1							
W	I	N	G	S	H	I	N	G	0	4	

DVD-R 8x discs

Pre Recorded Info In Lead In Code												Remark
B	e	A	I	I		G	4	0	0	0	1	
C	M	C		M	A	G	.		A	E	1	
D	A	X	O	N	0	0	8	S				
F	U	J	I	F	I	L	M	0	3			
G	S	C	0	0	3							
I	N	F	O	D	I	S	C	-	R	2	0	
I	N	F	O	M	E	D	I	A	R	2	0	Written at 4x
L	E	A	D	D	A	T	A		S	0	3	
L	E	G	0	8								
M	B	I		0	3	R	G	3	0			
M	C	C		0	2	R	G	2	0			
M	X	L		R	G	0	3					
O	P	T	O	D	I	S	C	R	0	0	8	Written at 4x
P	I	a	s	m	o	n	1	A				
P	O	M	S	3	A							
P	O	M	S	I	0	0	2					
P	R	I	N	C	O	8	X	0	2			
P	r	o	d	i	s	c	S	0	4			
P	r	o	d	i	s	c	F	0	1			
R	I	T	E	K	G	0	5					
R	I	T	E	K	G	0	6					
S	O	N	Y	0	8	D	1					
T	T	G	0	2								

T	T	H	0	1								
T	Y	G	0	2								
W	I	N	G	S	H	I	N	G	0	8		

DVD-R 16x discs, all written at 8x

Pre Recorded Info In Lead In Code												
B	e	A	I	I		G	1	6	0	0	1	
C	M	C		M	A	G	.		A	M	3	
F	U	J	I	F	I	L	M	0	4			
M	B	I		0	3	R	G	4	0			
M	C	C		0	2	R	G	2	0			
M	X	L				R	G	0	4			
O	P	T	O	D	I	S	C	R	0	1	6	
P	r	o	d	i	s	c	F	0	2			
P	r	o	d	i	s	c	S	0	5			
R	I	T	E	K	F	1						
S	O	N	Y	1	6	D	1					
T	T	H	0	2								

### 3.5. Supported DVD-RW discs



Please note that 1x DVD-RW discs are not supported.

DVD-RW 2x discs (written at 2,4x)

Pre Recorded Info In Lead In Code												
C	M	C	W	0	2							
D	A	X	O	N	_	R	W	2	X	0	1	
J	V	C	_	V	i	c	t	o	r	W	7	
M	C	C		0	1	R	W	1	1	n	9	
O	P	T	O	D	I	S	C	W	0	0	2	
P	r	o	d	i	s	c		D	W	0	4	
R	I	T	E	K	W	0	1					
T	D	K	5	0	2	s	a	k	u	M	3	

DVD-RW 4x discs

Pre Recorded Info In Lead In Code												
C	M	C	W	0	3							
J	V	C	0	V	i	c	t	o	r	D	7	
M	C	C		0	1	R	W	4	x			
O	P	T	O	D	I	S	C	W	0	0	4	
P	R	O	D	I	S	C	D	W	0	6		
R	I	T	E	K		W	0	4				
T	D	K	6	0	1	s	a	k	u			