

Features**Super AllWrite****LH-20A1P**

- ★ ATAPI/E-IDE Half-Height internal DVD+R / DVD+RW / DVD-R / DVD-RW / DVD+R9/ DVD-R9/ DVD-RAM/DVD-ROM / CD-R/ CD-RW / CD-ROM combination drive
- ★ Support Double Layer DVD+/- R9 Recording Function
- ★ SMART-BURN(*1) avoiding Buffer Under Run error, Automatically adjusting writing strategy & running OPC to provide the best burning quality
- ★ SMART-X(*2) function adjusts CD-DA / VCD / DVD data extraction to a fastest allowable speed according to both data request rate from host and disk quality
- ★ SMART-WRITE : Through drive's self-learning function, automatically detect and decide the optimal write strategy of DVD recordable media (DVD+R & DVD-R) for the best write quality.
- ★ ABS system reduce vibration and noise during recording and reading
- ★ Support Fixed Packet, Variable Packet, TAO, SAO, DAO, Random Access time, Incremental, sequential recording, restricted overwrite, Layer Jump recording, Raw Mode Burning & Over-Burn
- ★ DVD read compliant: DVD single/dual layer (PTP/OTP), DVD-R(3.9GB/4.7GB), DVD-R multi-borders, DVD-RAM DVD+R, DVD+R multi-sessions, DVD-RW, and DVD+RW
- ★ CD read compliant: CD-DA, CD-ROM, CD-ROM/XA, Photo-CD, Multi-session, Karaoke-CD, Video-CD, CD-I FMV, CD Extra, CD Plus, CD-R, and CD-RW
- ★ Support both 8cm and 12cm disc of CD and DVD family
- ★ Conform to Orange Book: Part 2 CD-R Volume 1, Part 2 CD-R Volume 2 Multi Speed, Part 3 CD-RW Volume 1 (1x, 2x, and 4x), Part 3 CD-RW Volume2: High Speed, Part 3 CD-RW Volume 3: Ultra Speed.
- ★ Supported transfer mode: PIO mode 4, DMA mode 2 and Ultra DMA mode 4

Specifications◎ **DVD Family :****Write**

DVD+R	20X maximum by CAV
DVD-R	20X maximum by CAV
DVD+R9	8X maximum by Zone CLV
DVD-R9	8X maximum by Zone CLV
DVD-RAM	12X maximum by PCAV

ReWrite

DVD+RW	8X by Z-CLV
DVD-RW	6X by CLV

Read 16X maximum by CAV**Access time** 160ms◎ **CD Family :****Write**

CD-R	48X by CAV
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ReWrite

CD-RW	32Xmaximum by Z-CLV in UltraSpeed disc
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Read 48X maximum by CAV**Access time** 160ms◎ **Buffer Size :** 2MB(MAX)◎ **PC Required :** Pentium 4 1.3GHz or higher CPU and 128MB or higher RAM are required
HDD must have access time < 20 ms; with a minimum of 650MB free space
9GB free space for creating a DVD image file (9GB for double layer; 5GB for single layer)◎ **Compatibility :** Microsoft Windows 2000/XP◎ **MTBF(Life) :** 70000 POH◎ **S/N Ration :** >75dB◎ **Environment :**

Operating	5°C to 50°C; Relative Humidity: 15% to 80%
Non-Operating	-40°C to 65°C; Relative Humidity: 15% to 95%

◎ **Dimension :** 145(W) x 41.3(H) x 170(D) mm◎ **Weight :** <0.9 Kg◎ **Voltage Requirements :**

+5V +/-5% and less than 100 mVp-p ripple voltage
+12V +/-10% and less than 200 mVp-p ripple voltage

*1 **SMART-BURN :** Smart Monitoring & Adapting Recording Technology for **BURNing**.*2 **SMART-X :** Smart Monitoring & Adjusting Read-speed Technology for **eXtraction**.