KHX2000C9D3T1FK3/6GX

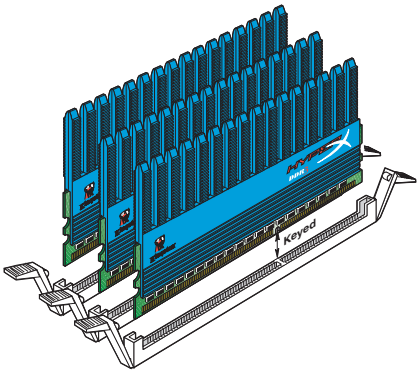
6GB (2GB 256M x 64-Bit x 3 pcs.) DDR3-2000MHz CL9 240-Pin DIMM Kit w/ Fan

DESCRIPTION:

Kingston's KHX2000C9D3T1FK3/6GX is a kit of three 256M x 64-bit 2GB (2048MB) DDR3-2000MHz CL9 SDRAM (Synchronous DRAM) memory modules, based on sixteen 128M x 8-bit DDR3 FBGA components per module. Each module kit supports **Intel® XMP** (Extreme Memory Profiles). Total kit capacity is 6GB. Each module kit has been tested to run at DDR3-2000MHz at a low latency timing of 9-9-9 at 1.65V. The SPDs are programmed to JEDEC standard latency DDR3-1333MHz timing of 9-9-9 at 1.5V. Each 240-pin DIMM uses gold contact fingers and requires +1.5V. The JEDEC standard electrical and mechanical specifications are as follows:

This special kit part number includes Kingston's HyperX high-performance cooling fan assembly (KHX-FAN).

FEATURES:

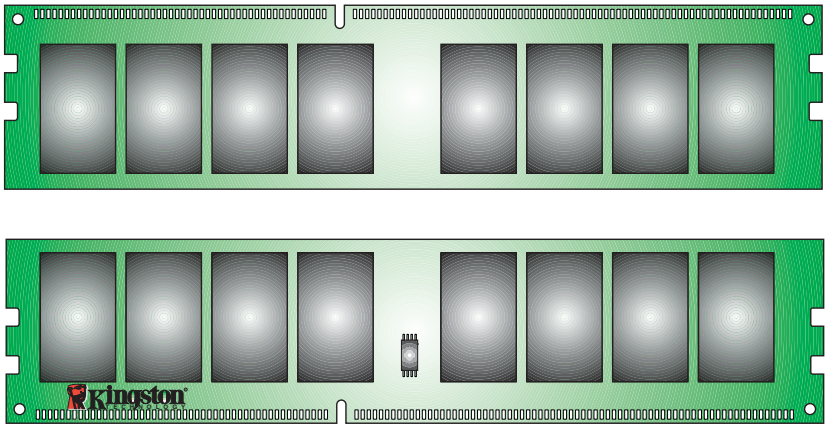


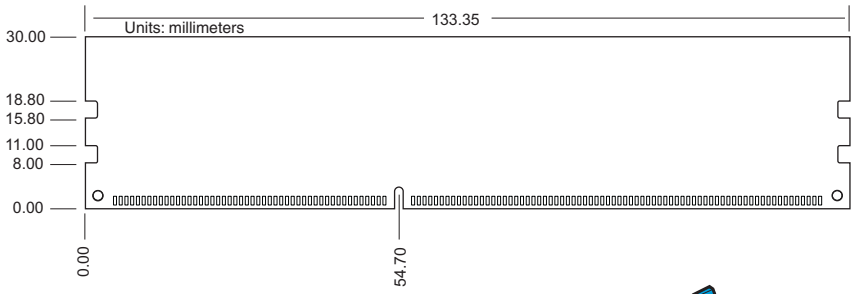
- ☑ JEDEC standard 1.5V ± 0.075V Power Supply
- ☑ VDDQ = 1.5V ± 0.075V
- ☑ 667MHz fCK for 1333Mb/sec/pin
- ☑ 8 independent internal bank
- ☑ Programmable CAS Latency: 5,6,7,8,9,10
- ☑ Posted CAS
- ☑ Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- ☑ Programmable CAS Write Latency(CWL) = 7(DDR3-1333)
- ☑ 8-bit pre-fetch
- ☑ Burst Length: 8 (Interleave without any limit, sequential with starting address “000” only), 4 with tCCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]
- ☑ Bi-directional Differential Data Strobe
- ☑ Internal(self) calibration : Internal self calibration through ZQ pin (RZQ : 240 ohm ± 1%)
- ☑ On Die Termination using ODT pin
- ☑ Average Refresh Period 7.8us at lower then TCASE 85°C, 3.9us at 85°C < TCASE . 95°C
- ☑ Asynchronous Reset
- ☑ PCB : Height 2.401” (61.00mm) w/ heatsink, double sided component

PERFORMANCE:

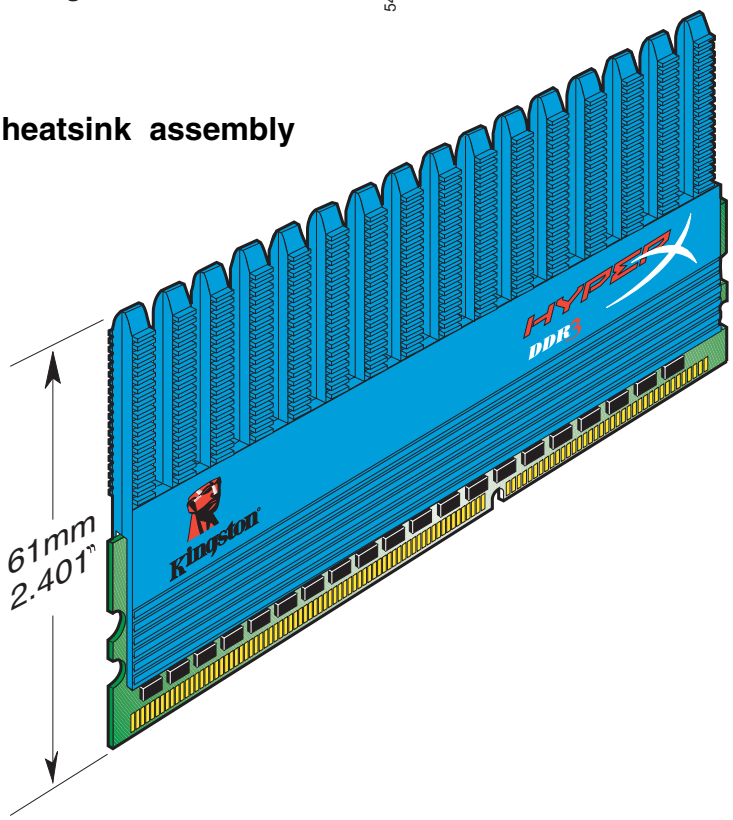
☑ CL(IDD)	9 cycles
☑ Row Cycle Time (tRCmin)	49.5ns (min.)
☑ Refresh to Active/Refresh Command Time (tRFCmin)	110ns
☑ Row Active Time (tRASmin)	36ns (min.)
☑ Power	1.800 W (operating per module)
☑ UL Rating	94 V - 0
☑ Operating Temperature	0° C to 85° C
☑ Storage Temperature	-55° C to +100° C

MODULE DIMENSIONS:





w/ heatsink assembly



KHX-FAN

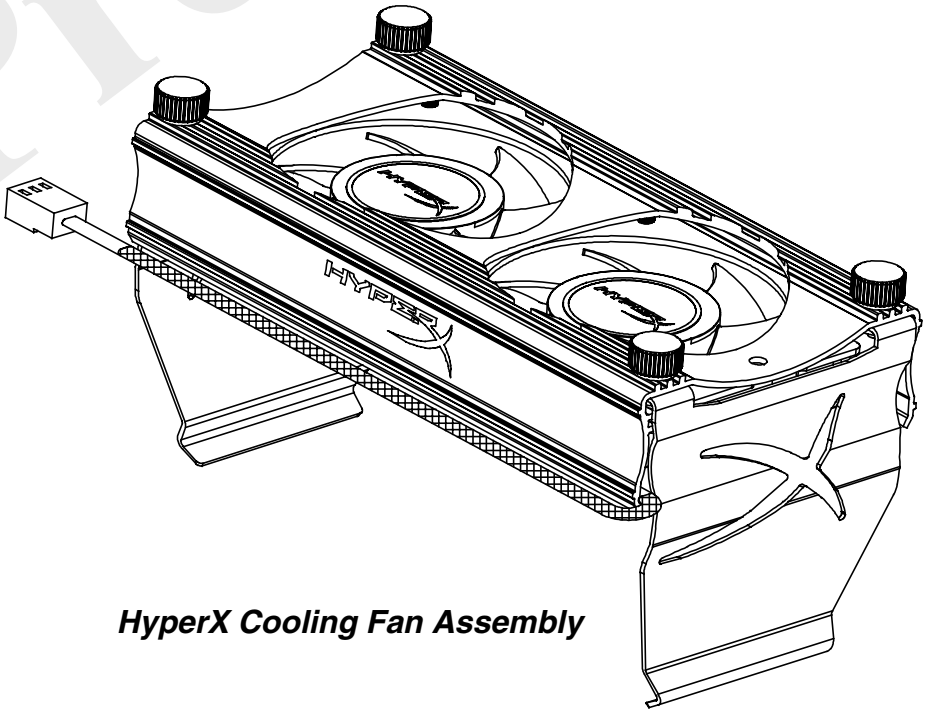
HyperX Cooling Fan Assembly

DESCRIPTION:

This document describes Kingston's HyperX memory module cooling fan assembly. If you are looking to maximize the performance potential of your HyperX memory... this is it. With twin fans focusing air directly onto your HyperX modules, your modules will run cooler, even in the most demanding environments. The mechanical and electrical specifications are as follows:

PERFORMANCE:

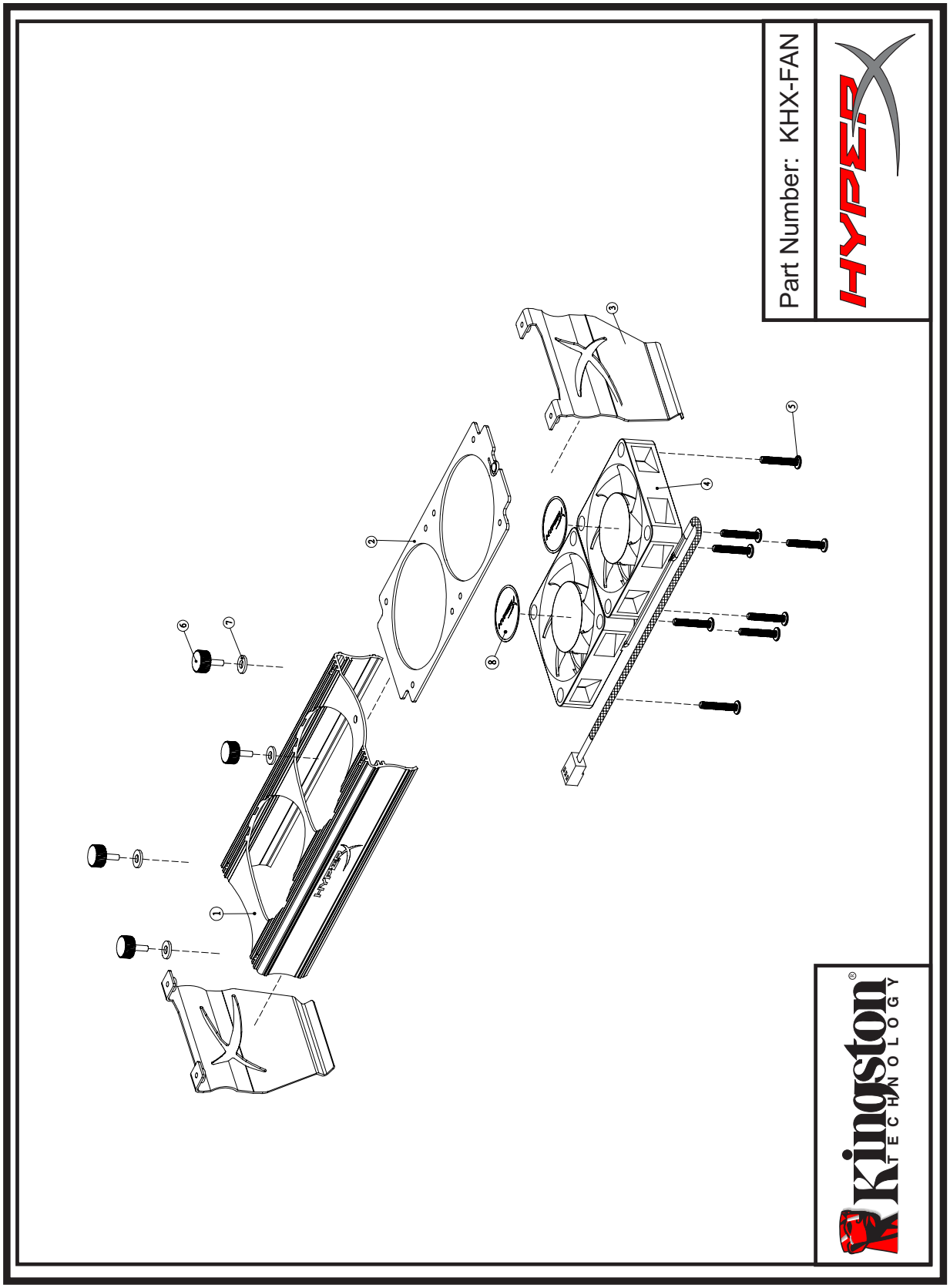
☑ Rated Voltage	12 VDC
☑ Operational Voltage	8 - 13.5 VDC
☑ Input Current	0.09 amp
☑ Input Power	1.08 watt
☑ RPM	3000 ± 10%
☑ Speed Control Type	
☑ Signal Output	Frequency Generator (FG)
☑ Max. Air Flow	0.43 m^3/min
At Zero Static Pressure	15.02 CFM
☑ Max. Air Pressure	2.31 mm-H_2O
At Zero Flow	0.09 inch-H_2O
☑ Accoustical Noise	25 (28 max.) dB-A



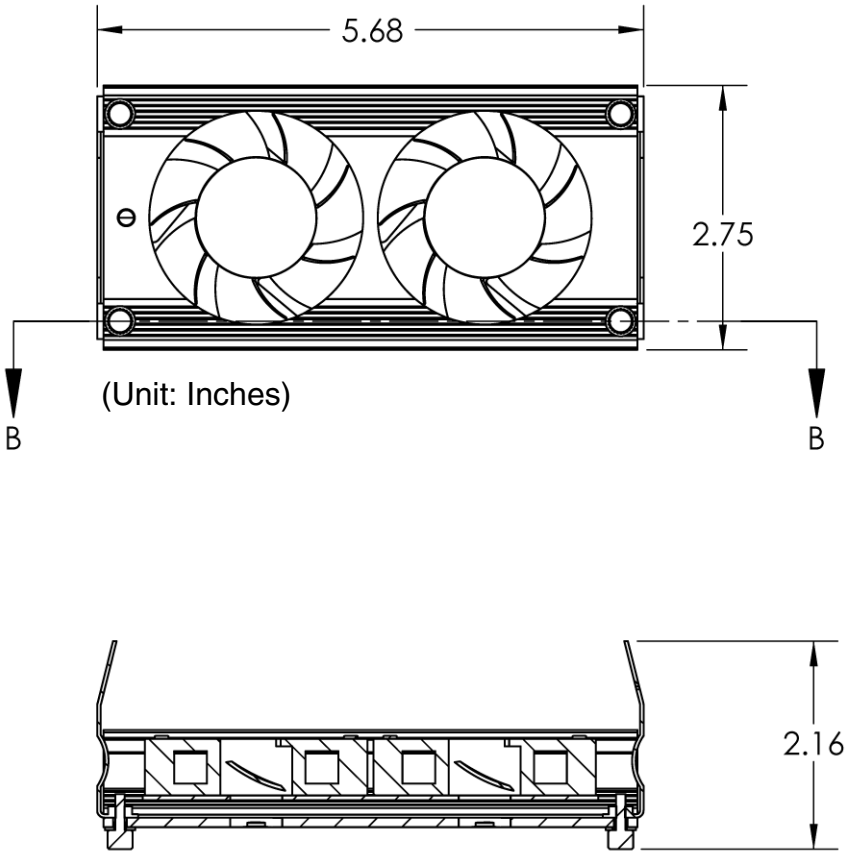
HyperX Cooling Fan Assembly

Preliminary

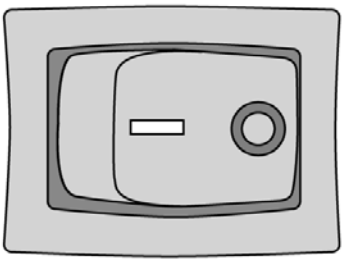
ASSEMBLY:



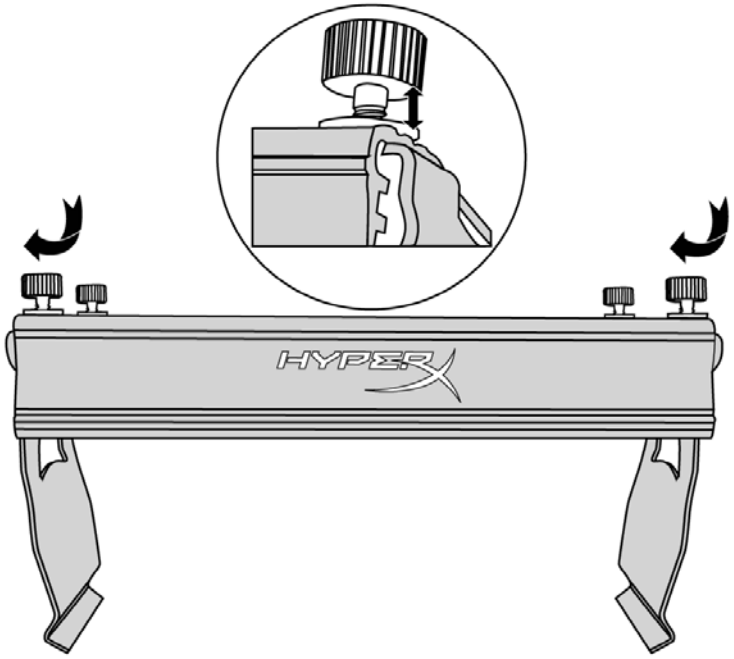
DIMENSIONS:



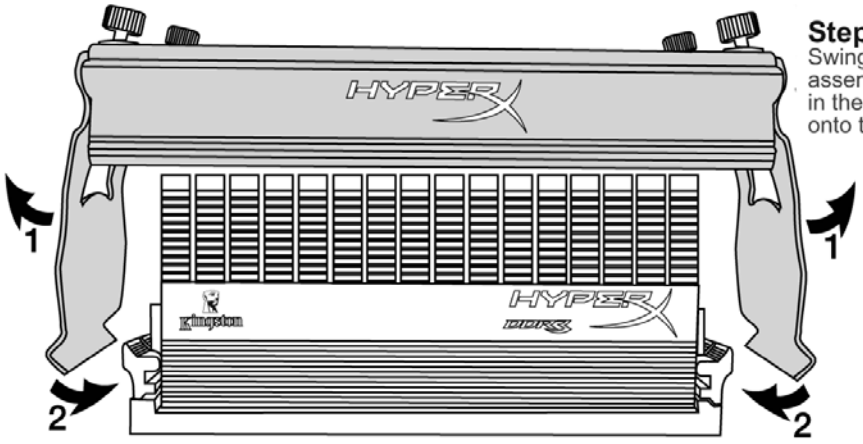
INSTALLATION:



Step #1:
Power the computer system off, disconnect the AC power cord and remove the computer cover.

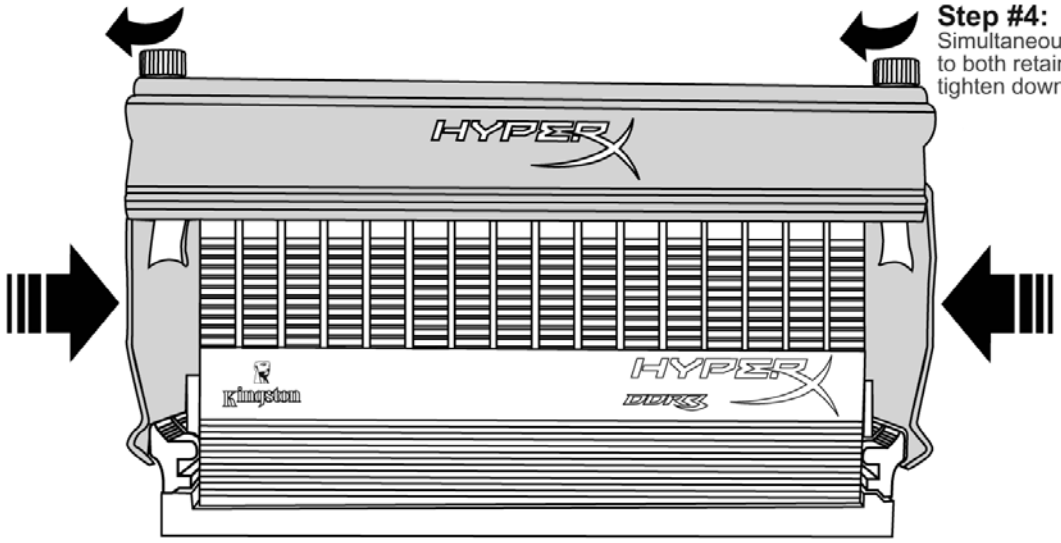


Step #2:
To assemble the HyperX fan, secure the two side brackets with the four thumb screws / washers. Do not tighten the screws completely!

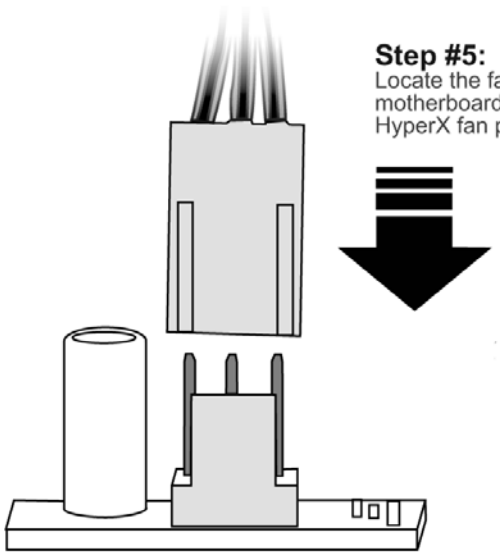


Step #3:
Swing the retaining brackets open and slide the assembly over the HyperX modules as shown in the illustration. Rest the base of the brackets onto the memory socket lock tabs.

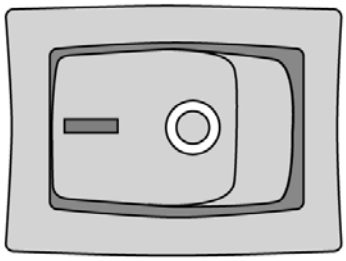
INSTALLATION (cont.):



Step #4:
Simultaneously apply pressure to both retaining brackets and tighten down all four thumb screws.



Step #5:
Locate the fan power source on the motherboard and connect the HyperX fan power cable.



Step #6:
Reconnect the AC power cord and power up the computer to verify fan operation. Replace the computer cover.