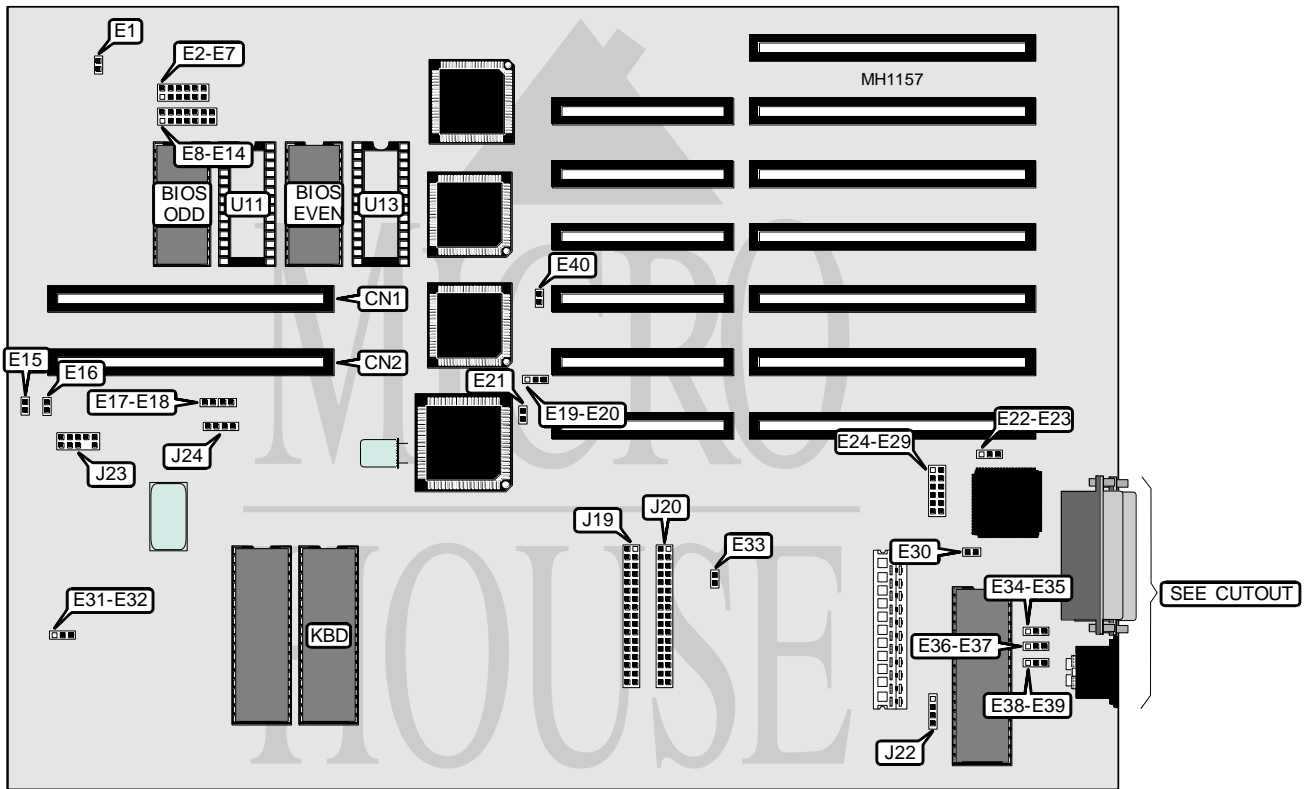


AST RESEARCH, INC. PREMIUM 386/16 (MODEL 202322-001)

Processor	80386DX
Processor Speed	16MHz
Chip Set	AST
Max. Onboard DRAM	8MB (plus 2 or 8MB on external memory card)
Cache	None
BIOS	AST
Dimensions	330mm x 218mm
I/O Options	32-bit external memory/CPU card slot (2), floppy drive interface parallel port, serial port
NPU Options	80387

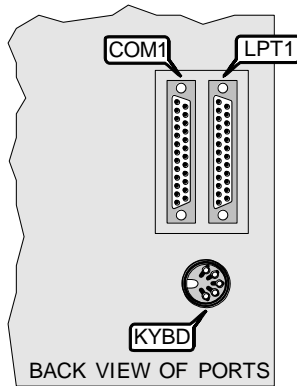


CONNECTIONS			
Purpose	Location	Purpose	Location
32-bit external memory/CPU card	CN1	Front panel switches & LEDs	J23
32-bit external memory/CPU card	CN2	Speaker	J24
Floppy drive interface (A: and B:)	J19	Optional ROM (odd)	U11
Third floppy drive interface	J20	Optional ROM (even)	U13
External battery	J22		

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CONNECTIONS			
Purpose	Location	Purpose	Location
Serial port 1	COM1	Keyboard	KYBD
Parallel port	LPT1		

SERIAL PORT CONFIGURATION			
Serial Port (COM1)	Jumper E22-E23	Jumper E28	Jumper E29
COM1: using IRQ4	pins 1 & 2 closed	Closed	Open
COM2: using IRQ3	pins 2 & 3 closed	Open	Closed

PARALLEL PORT CONFIGURATION				
Parallel Port (LPT1)	Jumper E24	Jumper E25	Jumper E26	Jumper E27
LPT1: using IRQ7	Closed	Open	Closed	Open
LPT2: using IRQ7	Open	Closed	Open	Closed

BIOS TYPE CONFIGURATION			
BIOS Type	Jumper E3	Jumper E4	Jumper E5
27128	Open	Open	Closed
27256	Closed	Closed	Open

OPTIONAL ROM TYPE CONFIGURATION					
ROM Type	Address	Jumper E9	Jumper E10	Jumper E11	Jumper E12
27128	F000-F7FFh	Open	Open	Closed	Open
27128	E800-EFFFh	Open	Open	Open	Closed
27256	E000-EFFFh	Closed	Closed	open	Open

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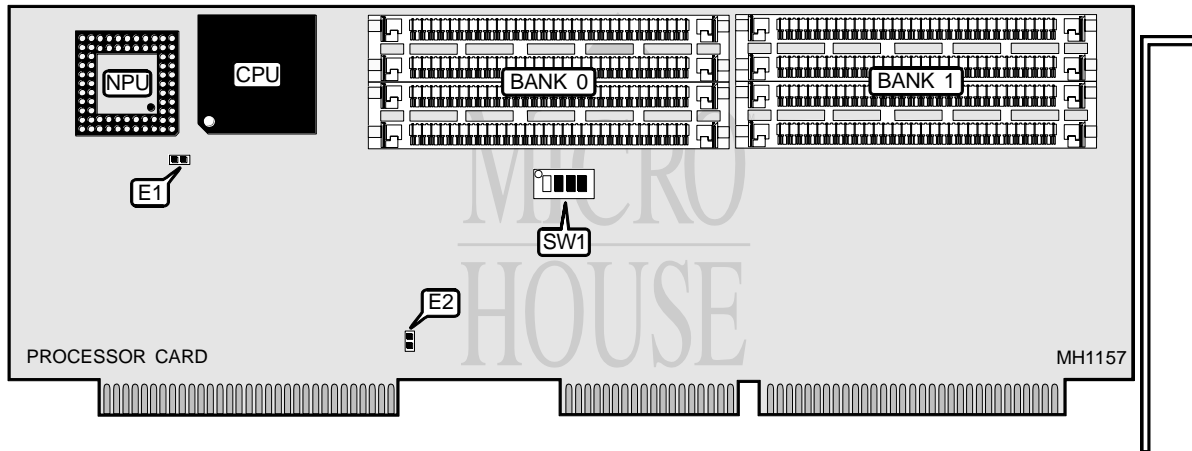
USER CONFIGURABLE SETTINGS		
Function	Jumper	Position
í NPU speed select 8MHz	E1 and E16	Open
	E15	Closed
NPU speed select 5MHz	E1 and E16	Closed
	E15	Open
í BIOS wait state select one	E2	Open
BIOS wait states select zero	E2	Closed
í Latched PROM BIOS disabled	E6	Open
Latched PROM BIOS enabled	E6	Closed
í Latched PROM BIOS (for optional ROMs) disabled	E7 and E14	Open
Latched PROM BIOS (for optional ROMs) enabled	E7 and E14	Closed
í Optional ROM wait state select one	E8	Open
Optional ROM wait states select zero	E8	Closed
í Factory configured - do not alter	E13	Open
í I/O bus wait states select two (at 10MHz operation)	E17	Closed
I/O bus wait state select one (at 10MHz operation)	E17	Open
í Factory configured - do not alter	E18	Open
í Factory configured - do not alter	E19-E20	pins 2 & 3 closed
í Factory configured - do not alter	E21	Closed
í Factory configured - do not alter	E31-E32	pins 1 & 2 closed
í Floppy drive interface enabled	E33	Open
Floppy drive interface disabled	E33	Closed
í Early Address Latch Enabled (#EALE) signal	E40	Closed
Buffered Address Latch Enable (#BALE) signal	E40	Open

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USER CONFIGURABLE SETTINGS		
Function	Jumper/Switch	Position
í NPU enabled	E1	Closed
NPU disabled	E1	Open
í Factory configured - do not alter	E2	Open
í Parity check enabled	SW1/switch 4	Open
Parity check disabled	SW1/switch 4	Closed

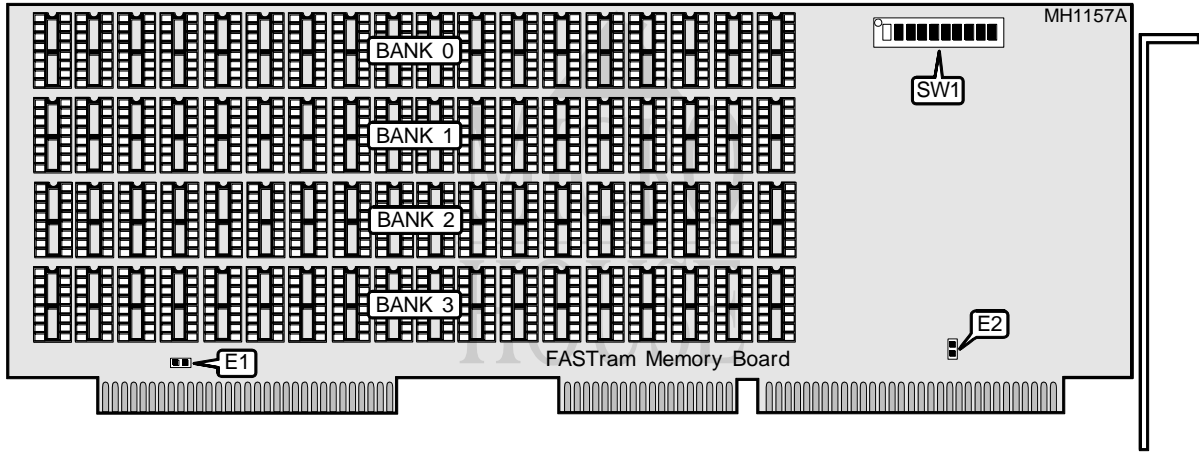
DRAM CONFIGURATION					
Size	SW1/switch 1	SW1/switch 2	SW1/switch 3	Bank 0	Bank 1
1MB	open	open	open	(4) 256K x 9	NONE
2MB	closed	open	open	(4) 256K x 9	(4) 256K x 9
4MB	open	closed	open	(4) 1M x 9	NONE
5MB	closed	open	closed	(4) 256K x 9	(4) 1M x 9
8MB	closed	closed	closed	(4) 1M x 9	(4) 1M x 9

Note: On the FASTram Memory Board (when used), SW1/switch 5 should be in the open position and SW1/switch 6 to SW1/switch 10 should be left in their default positions.

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USER CONFIGURABLE SETTINGS FOR FASTRAM MEMORY BOARD		
Function	Jumper/Switch	Position
í Parity check enabled	E1	Closed
Parity check disabled	E1	Open
í Wait states select zero	E2	Closed
Wait state select one	E2	Open
í Page mode disabled	SW1/switch 5	Closed
Page mode enabled	SW1/switch 5	Open
í Board installed select first FASTram board installed	SW1/switch 6	Closed
Board installed select second FASTram board installed	SW1/switch 6	Open

BASE I/O ADDRESS CONFIGURATION FOR FASTRAM MEMORY BOARD				
Base I/O Address	SW1/switch 7	SW1/switch 8	SW1/switch 9	SW1/switch 10
0208h	Closed	Closed	Closed	Closed
0218h ¹	Open	Closed	Closed	Closed
0258h ²	Open	Closed	Open	Closed
0268h	Closed	Open	Open	Closed
02A8h	Closed	Open	Closed	Open
02B8h	Open	Open	Closed	Open
02E8h	Closed	Open	Open	Open

Note ¹ : This setting is recommended when this is the first FASTram Memory Board installed.
 Note ² : This setting is recommended when this is the second FASTram Memory Board installed.

DRAM CONFIGURATION FOR FASTRAM MEMORY BOARD				
Size	Bank 0	Bank 1	Bank 2	Bank 3
512KB	(18) 41256	NONE	NONE	NONE
1MB	(18) 41256	(18) 41256	NONE	NONE
1.5MB	(18) 41256	(18) 41256	(18) 41256	NONE
2MB	(18) 41256	(18) 41256	(18) 41256	(18) 41256

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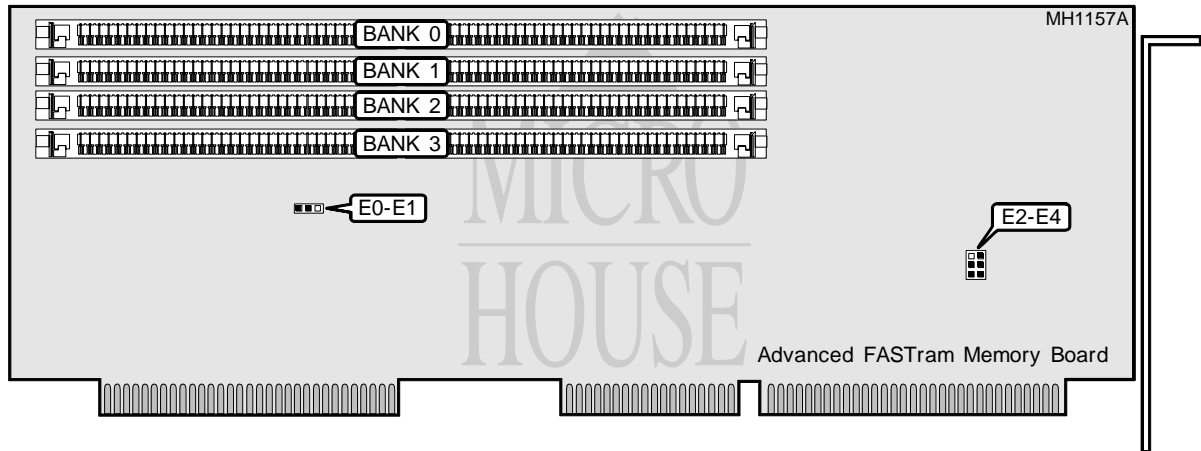
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DRAM SWITCH CONFIGURATION FOR FASTRAM MEMORY BOARD				
Recognized by System	SW1/switch 1	SW1/switch 2	SW1/switch 3	SW1/switch 4
128KB	Closed	Closed	Closed	Closed
256KB	Open	Closed	Closed	Closed
384KB	Closed	Open	Closed	Closed
512KB	Open	Open	Closed	Closed
640KB	Closed	Closed	Open	Closed
768KB	Open	Closed	Open	Closed
896KB	Closed	Open	Open	Closed
1024KB	Open	Open	Open	Closed
1152KB	Closed	Closed	Closed	Open
1280KB	Open	Closed	Closed	Open
1408KB	Closed	Open	Closed	Open
1536KB	Open	Open	Closed	Open
1664KB	Closed	Closed	Open	Open
1792KB	Open	Closed	Open	Open
1920KB	Closed	Open	Open	Open
2048KB	Open	Open	Open	Open

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USER CONFIGURABLE SETTINGS FOR ADVANCED FASTRAM MEMORY BOARD		
Function	Jumper	Position
í Factory configured - do not alter	E0-E1	pins 2 & 3 closed
í Board installed select first FASTram board installed	E2	Open
	E4	Closed
Board installed select second FASTram board installed	E2	Closed
	E4	Open
í Memory installed select as expanded	E3	Closed
Memory installed select as paged	E3	Open
Note: Parity, wait states, size, and base I/O address are set using the software configuration utility.		

DRAM CONFIGURATION FOR ADVANCED FASTRAM MEMORY BOARD				
Size	Bank 0	Bank 1	Bank 2	Bank 3
512KB	(2) 256K x 9	NONE	NONE	NONE
1MB	(2) 256K x 9	(2) 256K x 9	NONE	NONE
1.5MB	(2) 256K x 9	(2) 256K x 9	(2) 256K x 9	NONE
2MB	(2) 256K x 9	(2) 256K x 9	(2) 256K x 9	(2) 256K x 9
2MB	(2) 1M x 9	NONE	NONE	NONE
3MB	(2) 256K x 9	(2) 256K x 9	(2) 1M x 9	NONE
4MB	(2) 1M x 9	(2) 1M x 9	NONE	NONE
5MB	(2) 256K x 9	(2) 256K x 9	(2) 1M x 9	(2) 1M x 9
6MB	(2) 1M x 9	(2) 1M x 9	(2) 1M x 9	NONE
8MB	(2) 1M x 9	(2) 1M x 9	(2) 1M x 9	(2) 1M x 9