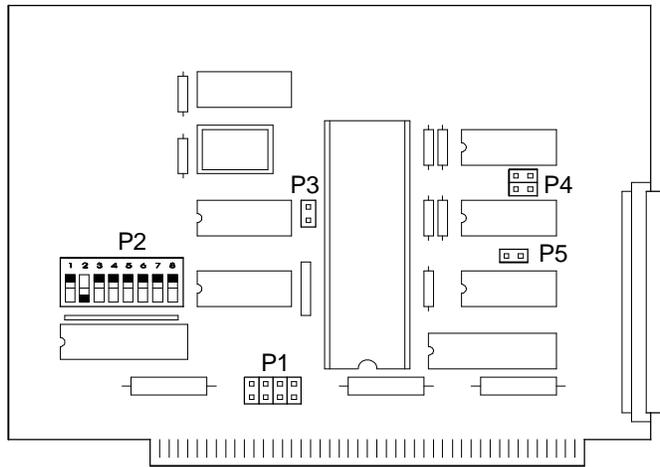


COMMUNICATION BOARDS

SIC 25-232 IF 613 RS 232-C Synchronous

ACE 16450
(286/386 CPU)

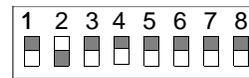


G

JUMPERS

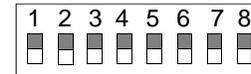
JUMP.	POS.	FUNCTION
P1	1 - 2	Interrupt 3 (Default COM2)
	3 - 4	Interrupt 4 (COM1)
	5 - 6	Interrupt 5
	7 - 8	Interrupt 2
P3	IN	Open emitter TTL
	OUT	Tri-state TTL (Default)
P4	1 - 2	RxD/TxD normal (Default)
	3 - 4	TxD pin 2, RxD pin3
	1 - 3	RxD/TxD exchange
	2 - 4	TxD pin3, RxD pin2
P5	IN	High hysteresis receiver
	OUT	Low hysteresis receiver (Default)

DIP-SWITCH P2



ON

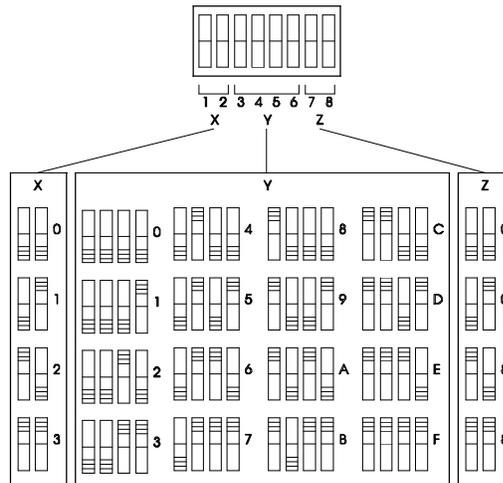
Address 2F8 (COM2) Default



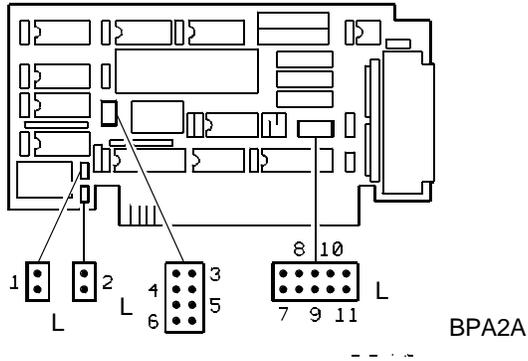
ON

Address 3F8 (COM1)

DIP-SWITCH P2 FOR ANY OTHER ADDRESS



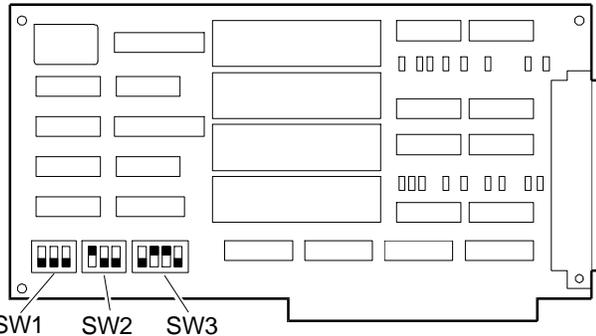
SIC 25-234 IF353 B - IF353 A RS 232-C/C.L. Asynchronous



JUMPERS

JUMPER	POSITION	FUNCTION
L1 - L2	OUT IN	Dedicated interrupt Default Shared interrupt
L3	IN	Interrupt 5
L4	IN	Interrupt 4
L5	IN	Interrupt 3
L6	IN	Interrupt 2
L7 - L11	IN OUT	Current Loop interface RS 232 interface

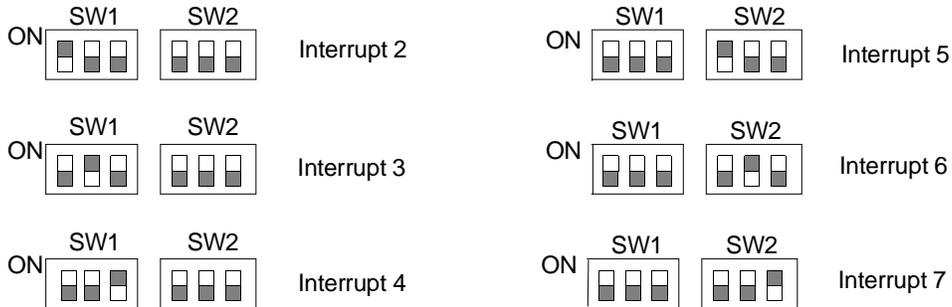
NOTE: IF353A - For ACE 8250(CPU 8086/ 8088).
 IF353B - For ACE 16450(CPU 286/386).



EUE1A



DIP-SWITCH SW1 - SW2



DIP SWITCH SW3

SWITCH	POSITION	FUNCTION
1	OFF	Ports 1 and 2 addresses compatible with MS-DOS COM1 COM2. Ports 3 and 4 addresses set via switch 2.
	ON	Ports 1,2,3,4 addresses set via switch 2.
2	OFF	Port1 1A0, port2 1A8, port3 1B0, port 4 1B8.
	ON	Port1 2A0, port2 2A8, port3 2B0, port 4 2B8.
3	OFF	Two boards installed in the system. Also on the other board this switch must be set OFF.
	ON	One board installed.
4	OFF	Not used.

PORT ADDRESSES

MODE	PORTS	ADDRESS
COMPATIBLE	Port 0	3F8 - 3FF
	Port 1	2F8 - 2FF
EXPANDED	Port 2	2A0 - 2A7
	Port 3	2A8 - 2AF
	Port 4	2B0 - 2B7
	Port 5	2B8 - 2BF
	Port 6	1A0 - 1A7
	Port 7	1A8 - 1AF
	Port 8	1B0 - 1B7
	Port 9	1B8 - 1BF

INSTALLATION WITH SCO XENIX

COM1: IRQ4 Channels 2 - 5 Channels; tty 1a, tty 1b, tty 1c, tty 1d
COM2: IRQ3 Channels 6 - 9 Channels; tty 2a, tty 2b, tty 2c, tty 2d

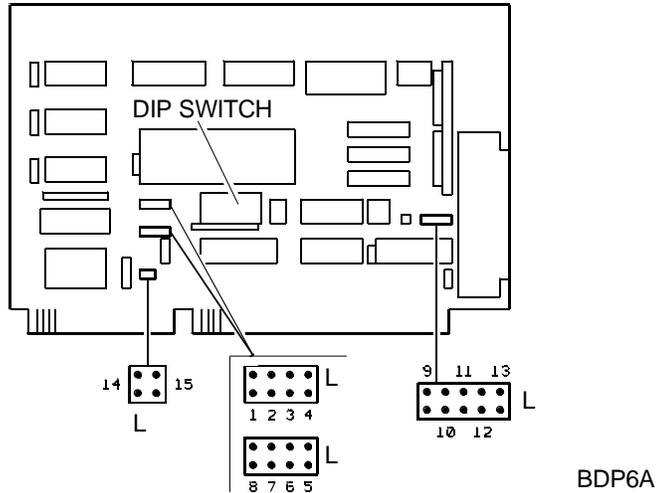
Board must be set as COM2; if it is set as COM1 the system board's serial port will be cut out.

EXAMPLE for SCO XENIX

COM1: SW1 3 ON all the rest OFF
 SW2 all OFF
 SW3 2 and 3 ON all the rest OFF
COM2: SW1 2 ON all the rest OFF
 SW2 all OFF
 SW3 3 ON all the rest OFF

SIC 2635 IF 378 RS 232/C.L.

ACE 16450 (CPU 286/386)



JUMPERS

L1 - L8 INTERRUPT LEVELS							
L1	L2	L3	L4	L5	L6	L7	L8
IRQ2	IRQ3	IRQ4	IRQ5	IRQ10	IRQ11	IRQ12	IRQ15

L14, L15 Interrupt management

L14, L15 IN: Shared interrupt
 L14, L15 OUT: Exclusive interrupt

L9, L10, L11, L12, L13 Interface selection

All IN: Current Loop
 All OUT: RS 232 C

DIP-SWITCH

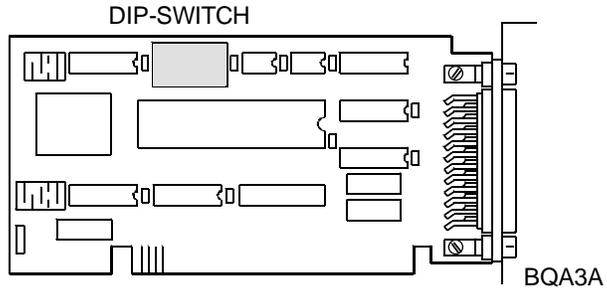
SELECTION OF I/O ADDRESSES (RANGE 000 - 3F8) OFF = ACTIVE 1							
1	2	3	4	5	6	7	8
Don't Care	Least significant digit (0 or 8)	Intermediate digit (from 0 to F)				Most significant digit (from 0 to 3)	

Example: If address 2F8 is used, switches must be set as follows:

1	2	3	4	5	6	7	8
XX	OFF	OFF	OFF	OFF	OFF	ON	OFF
XX	8	F				2	

SIC-1945 IF328 RS-232C/L.

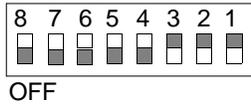
ACE 8250 (CPU 8086/8088)



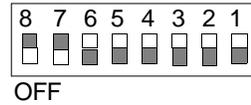
Install the board as Second serial port (COM2), IRQ = 3, I/O address 2F8

G

DIP-SWITCH



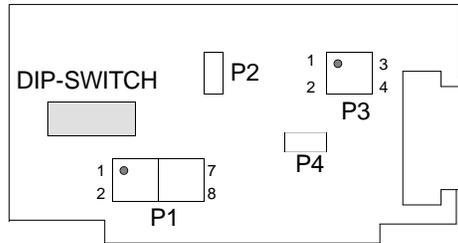
Current Loop



RS 232 C

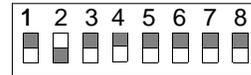
SIC-2482 IF297 RS-232 C

ACE 8250
(CPU 8086)



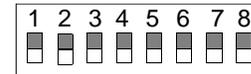
JUMPERS

JUMP.	POS.	FUNCTION
P1	1 - 2	Interrupt 3 (Default Com2)
	3 - 4	Interrupt 4 (Com1)
	5 - 6	Interrupt 5
	7 - 8	Interrupt 2
P2	IN	Open collector TTL
	OUT	Tri-state TTL (Default)
P3	1 - 2	RxD/TxD normal (Default)
	3 - 4	
	1 - 3	RxD/TxD exchange
	2 - 4	
P4	IN	High hysteresis receiver
	OUT	Low hysteresis receiver (Default)



ON

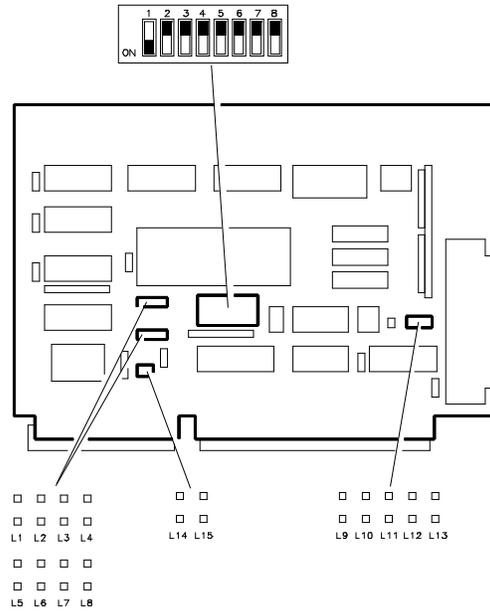
Address 2F8 (COM2) Default



ON

Address 3F8 (COM1)

SIC 2635 Serial Interface Board



AEB9A

B04BU DIP-SWITCH BLOCK

This DIP-Switch block allows mapping I/O address space reserved to board. I/O address is made up of three digits in hexadecimal code. I/O address range is 000H to 3F8H. 1 to 7 DIP-Switch position from defines the value of the three address digits, according to the following convention.

- DIP-Switch 7 and 8 Define the most significant value of board address
- DIP-Switch 3 to 6 Define the intermediate value of board address
- DIP-Switch 2 Defines the least significant value of board address
- DIP-Switch 1 Indifferent.

The following tables show all possible DIP-Switch positions according to the three address digits.

MOST SIGNIFICANT DIGIT			INTERMEDIATE DIGIT				LEAST SIGNIFICANT DIGIT			
VALUE	DIP-SWITCH		VALUE	DIP-SWITCH				VALUE	DIP-SWITCH	
	8	7		6	5	4	3		2	1
0	ON	ON	0	ON	ON	ON	ON	0	ON	-
1	ON	OFF	1	ON	ON	ON	OFF	8	OFF	-
2	OFF	ON	2	ON	ON	OFF	ON			
3	OFF	OFF	3	ON	ON	OFF	OFF			
			4	ON	OFF	ON	ON			
			5	ON	OFF	ON	OFF			
			6	ON	OFF	OFF	ON			
			7	ON	OFF	OFF	OFF			
			8	OFF	ON	ON	ON			
			9	OFF	ON	ON	OFF			
			A	OFF	ON	OFF	ON			
			B	OFF	ON	OFF	OFF			
			C	OFF	OFF	ON	ON			
			D	OFF	OFF	ON	OFF			
			E	OFF	OFF	OFF	ON			
			F	OFF	OFF	OFF	OFF			

L1, L2, L3, L4, L5, L6, L7, L8 JUMPERS

These jumpers allow interrupt level to be selected.

L1	L2	L3	L4		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L1	Interrupt 2 level
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L2	Interrupt 3 level
				L3	Interrupt 4 level
				L4	Interrupt 5 level
L1	L2	L3	L4	L5	Interrupt 10 level
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L6	Interrupt 11 level
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L7	Interrupt 12 level
				L8	Interrupt 13 level

G

L14 AND L15 JUMPERS

These jumpers allow interrupt handling to be selected.

To allow correct interrupt mode handling (exclusive) these two jumpers **must be not present**

L9, L10, L11, L12, L13 JUMPERS

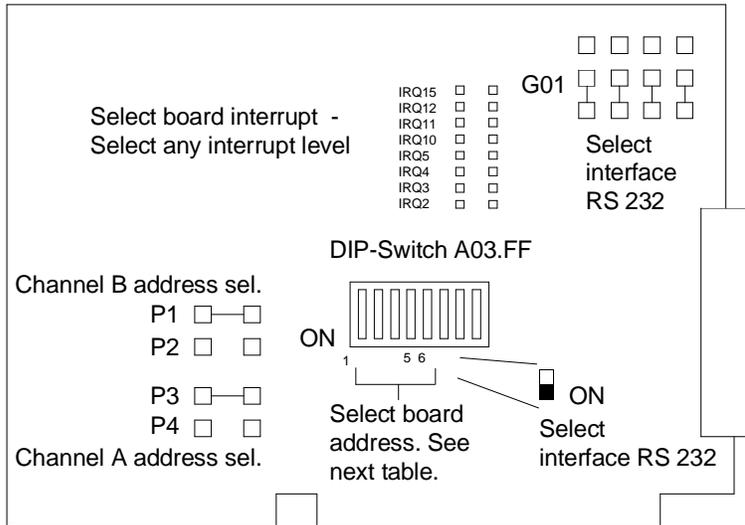
These jumpers allow interface type to be selected (RS-232 or Current Loop)

L9	L10	L11	L12	L13	
<input checked="" type="checkbox"/>	Current loop interface type				
L9	L10	L11	L12	L13	
<input type="checkbox"/>					
<input type="checkbox"/>	RS 232 interface type				

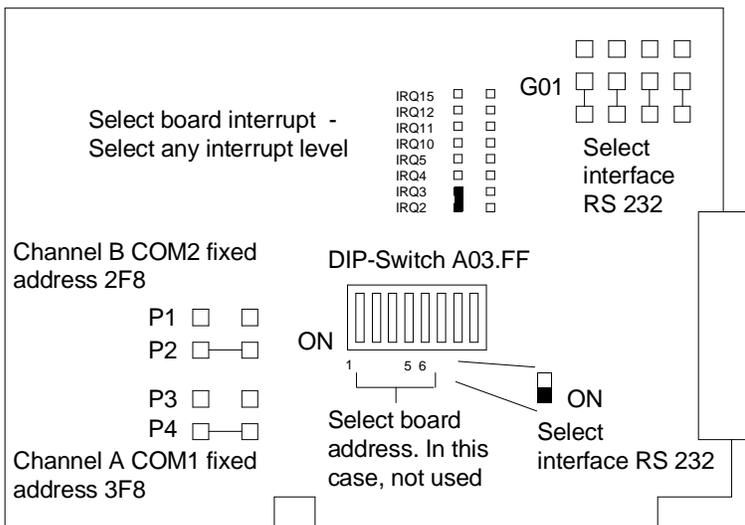
SIC 4 X 2636 BUF MULTIPOINT SERIAL INTERFACE BOARD

Possible configurations of this board are:

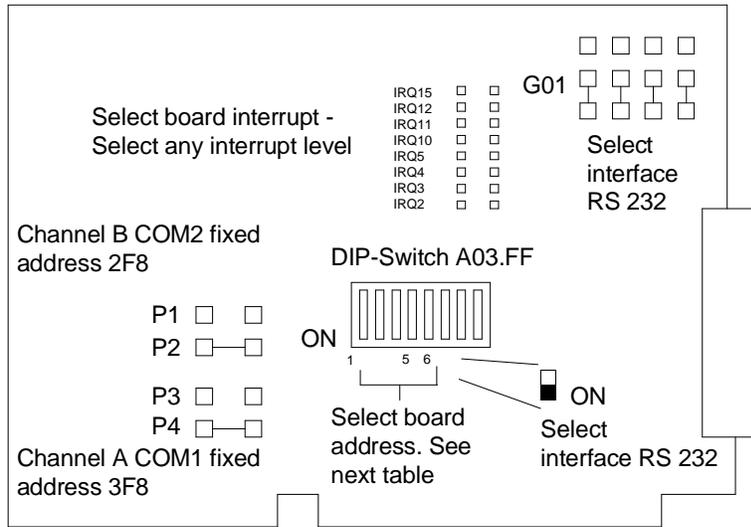
- Four RS232 interface channels - Board addressing chosen between all possible addressings.



- Channels A and B used as COM1 (fixed address 3F8) and COM 2 (fixed address 2F8) only, channels C and D not used.

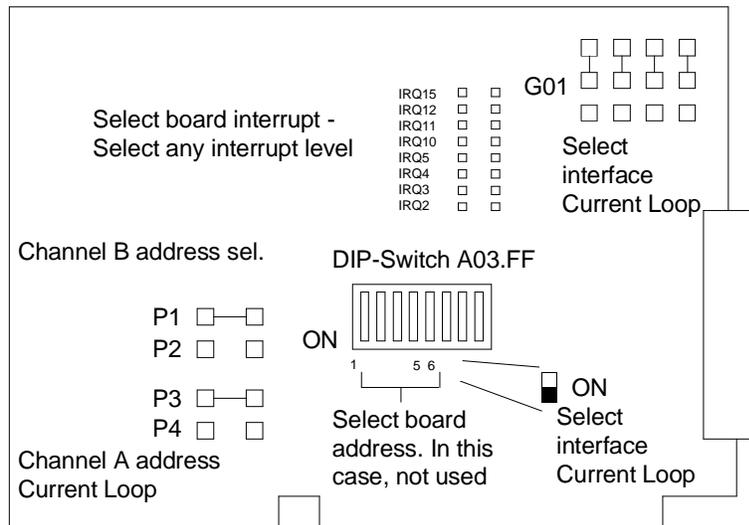


3. Channels A and B are used as RS 232 interface at fixed addresses COM 1 (3F8) and COM 2 (2F8), channels C and D are used as RS 232 interface at selectable addresses.



G

4. Channel A with Current Loop interface.



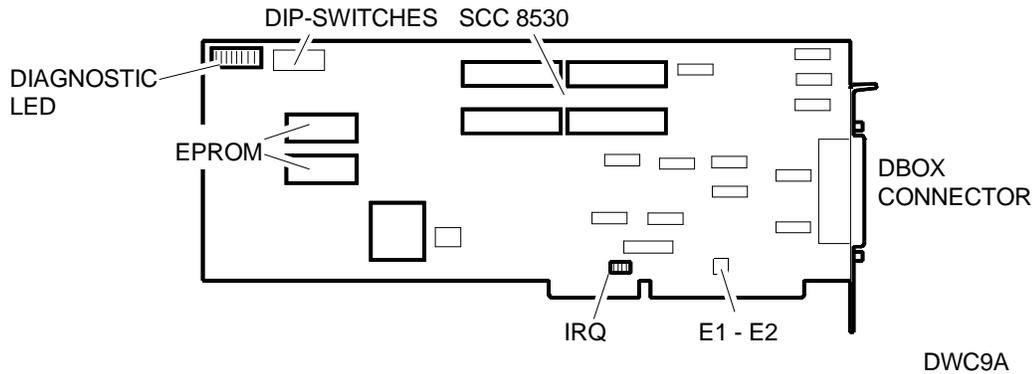
Board base address can be selected by setting DIP-Switches of **DIP-Switch A03.FF** block. The first serial channel will be allocated at board base address, the other three channels at successive addresses, having jumps of 8 bytes. Example: If board base address is 260H, serial channels addresses will be 260H - 268H - 276H - 284H.

Board base addresses are shown in the table below.

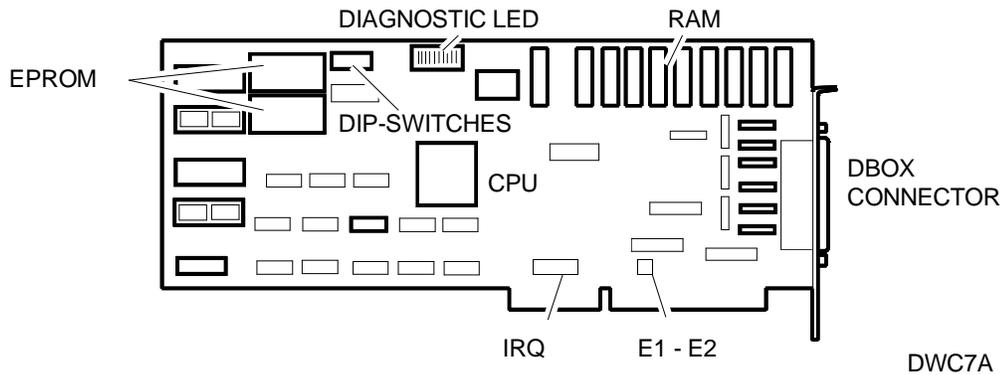
ADDRESS	DIP-SWITCH				
	1	2	3	4	5
000H	ON	ON	ON	ON	ON
020H	OFF	ON	ON	ON	ON
040H	ON	OFF	ON	ON	ON
060H	OFF	OFF	ON	ON	ON
080H	ON	ON	OFF	ON	ON
0A0H	OFF	ON	OFF	ON	ON
0C0H	ON	OFF	OFF	ON	ON
0E0H	OFF	OFF	OFF	ON	ON
100H	ON	ON	ON	OFF	ON
120H	OFF	ON	ON	OFF	ON
140H	ON	OFF	ON	OFF	ON
160H	OFF	OFF	ON	OFF	ON
180H	ON	ON	OFF	OFF	ON
1A0H	OFF	ON	OFF	OFF	ON
1C0H	ON	OFF	OFF	OFF	ON
1E0H	OFF	OFF	OFF	OFF	ON
200H	ON	ON	ON	ON	OFF
220H	OFF	ON	ON	ON	OFF
240H	ON	OFF	ON	ON	OFF
260H	OFF	OFF	ON	ON	OFF
280H	ON	ON	OFF	ON	OFF
2A0H	OFF	ON	OFF	ON	OFF
2C0H	ON	OFF	OFF	ON	OFF
2E0H	OFF	OFF	OFF	ON	OFF
300H	ON	ON	ON	OFF	OFF
320H	OFF	ON	ON	OFF	OFF
340H	ON	OFF	ON	OFF	OFF
360H	OFF	OFF	ON	OFF	OFF
380h	ON	ON	OFF	OFF	OFF
3A0H	OFF	ON	OFF	OFF	OFF
3C0H	ON	OFF	OFF	OFF	OFF
3E0H	OFF	OFF	OFF	OFF	OFF

AT8/AT16 MULTIPORT BOARD - For the M6-620

- The **AT8 (MUX1708)** board allows the management of up to 8 async ports through an 8-port expansion box.



- The **AT16 (MUX1716)** board allows the management of up to 16 async ports through a 16-port expansion box.



The AT8 and AT16 multiport boards are multiple I/O controllers used for connecting terminals, printers and modems to the systems. Each board is installed inside the basic module and requires a distribution box with 8 or 16 asynchronous channels for the connection of terminals, printers and any other RS-232 module.

To enhance performance during data transfers with the system, this board is equipped with a 10 MHz 80186 CPU, a 64 KB Dual Port RAM and a 64 KB EPROM.

DISTRIBUTION BOX (DBOX)

The distribution box for the AT8 multiport board is supplied with the board itself and has the purpose of distributing the signals to the board. This box does not contain intelligent circuitry.

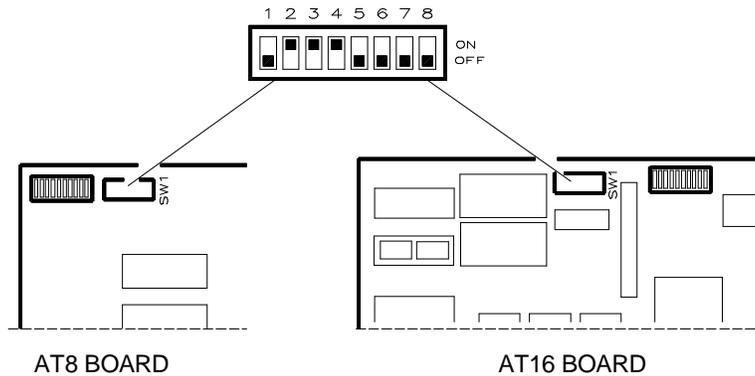
The distribution box for the AT16 multiport board is powered at low voltage by the multiport board and is equipped with a microcontroller capable of driving 16 RS-232 lines.

Both multiport boards are equipped with a 62-pin D-shell connector to which the distribution boxes connect by means of the appropriate cable. The distribution box is equipped with 8 or 16 8-pin RJ45 RS-232 interface connectors.

BOARD ADDRESS

The multiport boards have eight DIP-switches used for:

- 1) diagnostic purposes
- 2) addressing the board's Dual Port memory.



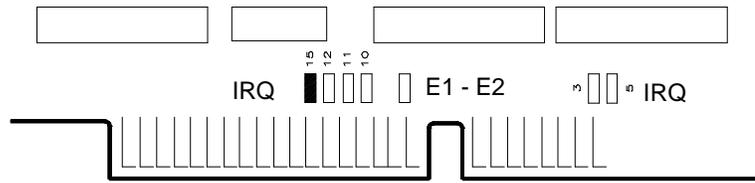
DWF5A

- If **switches 7 and 8** are set to OFF, the diagnostics are not run on the board and the board's base address is the one specified by the setting of **switches 1-6**.
- If **switches 7 and 8** are set to ON, the diagnostics are run on the board and the position of **switches 1-6** determines the test number.
- If the boards are mapped within the **512-640 KB** range, address 8000:0 is assigned to the first board, address 8400:0 to the second, address 8800:0 to the third and address 8C00:0 to the fourth. In case the board's are mapped within the 16th megabyte, each board will have to be mapped at an address which is selected from the seven possible choices indicated in the following table.

DIP-SWITCH (ADDRESS)						DIAG. DIP-SWITCH		MEGABYTE	SEGMENT
1	2	3	4	5	6	7	8		
off	off	off	off	off	off	off	off	0	8000:0
on	off	off	off	off	off	off	off	0	8400:0
off	on	off	off	off	off	off	off	0	8800:0
on	on	off	off	off	off	off	off	0	8C00:0
on	off	off	on	on	on	off	off	F 16 TH MB	0800:0
off	on	off	on	on	on	off	off	F 16 TH MB	2400:0
on	on	off	on	on	on	off	off	F 16 TH MB	5000:0
off	off	on	on	on	on	off	off	F 16 TH MB	8C00:0
on	off	on	on	on	on	off	off	F 16 TH MB	A800:0
off	on	on	on	on	on	off	off	F 16 TH MB	6400:0
on	on	on	on	on	on	off	off	F 16 TH MB	CC00:0

NOTE: When the AT8 and AT16 boards are used with the UNIX operating system, the AT16 boards must be mapped at higher addresses than the AT8 boards.

INTERRUPT CHANNEL (JUMPER P4) AND JUMPER E1-E2



The multiport boards use channel 15 (by default) for interrupt requests (IRQ15).

This value must be changed if another board already uses this channel.

AT8 and AT16 multiport boards share the same interrupt line.

This interrupt line cannot be shared with other non-Intelliport boards. The interrupts are selected via jumpers and the following can be set:

IRQ3, IRQ5, IRQ10, IRQ11, IRQ12, and IRQ15.

When installing more than one AT8/AT16 multiport board within the 0 megabyte, the first board must always have jumper **E1-E2** installed, while this jumper must not be installed on the other boards. Jumper E1-E2 enables the multiport boards to perform 16-bit transfers.

When more than one board is installed in Megabyte F, jumper **E1-E2** must be installed on all boards.

G