CHANNEL ADDRESSING

Channels 1 Through 4

Addressing of the first four channels is fixed by connection of the channel to the selected 584 I/O port

Auxiliary power supplies, where necessary due to cable length or channel 3/4 hookup, have connections as below.

Channels 5 Through 32

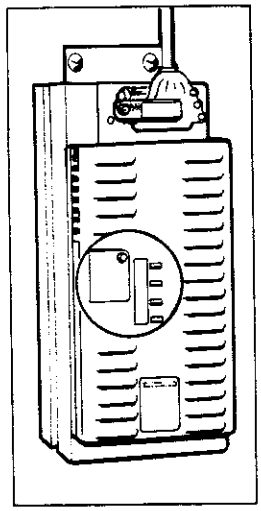
All of the above channels are driven by a single J200 which communicates with a P451 modem/aux. P.S. at every odd numbered channel (i.e. 5, 7, 9, etc.) that has been installed.

The address of each odd numbered channel depends upon the setting of DIP switches at each P451 (shown below). The address of even numbered channels, where present, depends only on the address of the P451 that the even channel (P421) is attached to.

NOTE: The 584L may optionally have all remote channels (1-32).

P451 Dip Switch Location and Addressing

DIP switches behind the front cover plate are address configured as below.



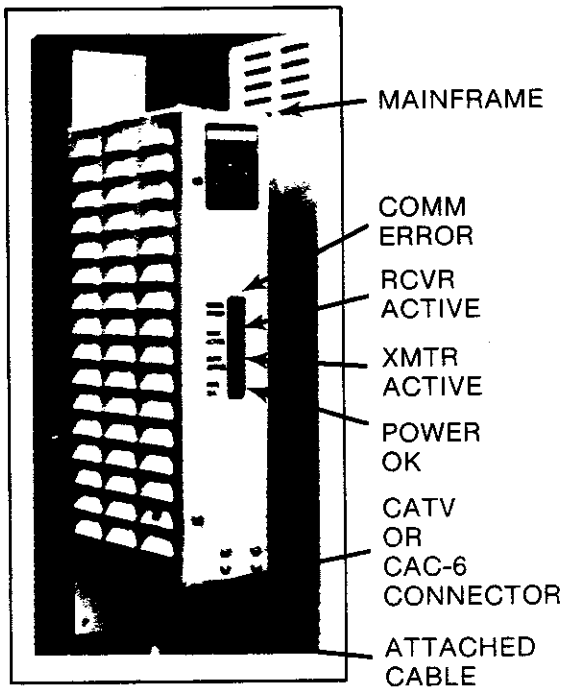
P451 DIP SWITCH SETTINGS				CHANNEL NUMBER ASSOCIATED	
S4	S3	S2	S1	P451	P421
0	0	0	0	(ILLEGAL ADDRESS)	
0	0	0	1	5	6
0	0	1	0	7	8
0	0	1	1	9	10
0	1	0	0	11	12
0	1	0	1	13	14
0	1	1	0	15	16
0	1	1	1	17	18
1	0	0	0	19	20
1	0	0	1	21	22
1	0	1	0	23	24
1	0	1	1	25	26
1	1	0	0	27	28
1	1	0	1	29	30
1	1	1	0	31	32
1	1	1	1	(ILLEGAL ADDRESS)	
(1 = closed, 0 = open on the Dip Switch Settings)					

NOTE: Unused switches S5 through S8 should be left open.

CHANNEL ADDRESSING

CHANNELS 5 THROUGH 32 — REMOTE HARDWARE FEATURES

J200 REMOTE I/O SYSTEM EXPANDER



The J200 Remote I/O System Expander is an interface device that allows the Mainframe to operate a remote I/O system (up to 14 drops of two channels each-channels 5 through 32).

It is connected to its own port on the Mainframe by fixed cable, and contains four status lights:

COMM ERROR — blinks to show communication error between J200 and P451

RCVR ACTIVE — blinks when transmitting data

RCVR ACTIVE — blinks when receiving data

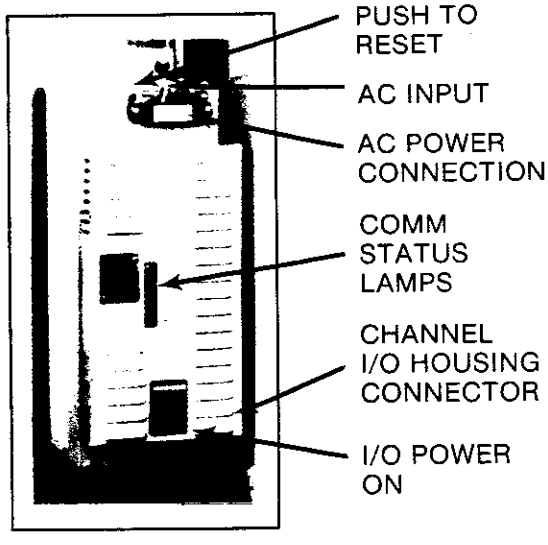
XMTR ACTIVE — blinks when transmitting data

POWER OK — lights when power is being received from the Mainframe

There are no switches on the J200.

At the bottom front there is a receptacle for CATV or CAC-6 connection. The bottom rear connection comes with cable attached and connector for communication to the J200 portion on the Mainframe.

P451 REMOTE I/O POWER SUPPLY



The P451 is a remote interface and power supply. The indicator lights on the front panel show the status of communications during operation when lit:

READY — P451 is ready to communicate with the Mainframe via the J200.

COMM ACTIVE — Data is being received from the J200

S200 ERROR — Unsuccessful communication between the P451 and attached I/O

COMM ERROR — The P451 is not communicating with the J200.

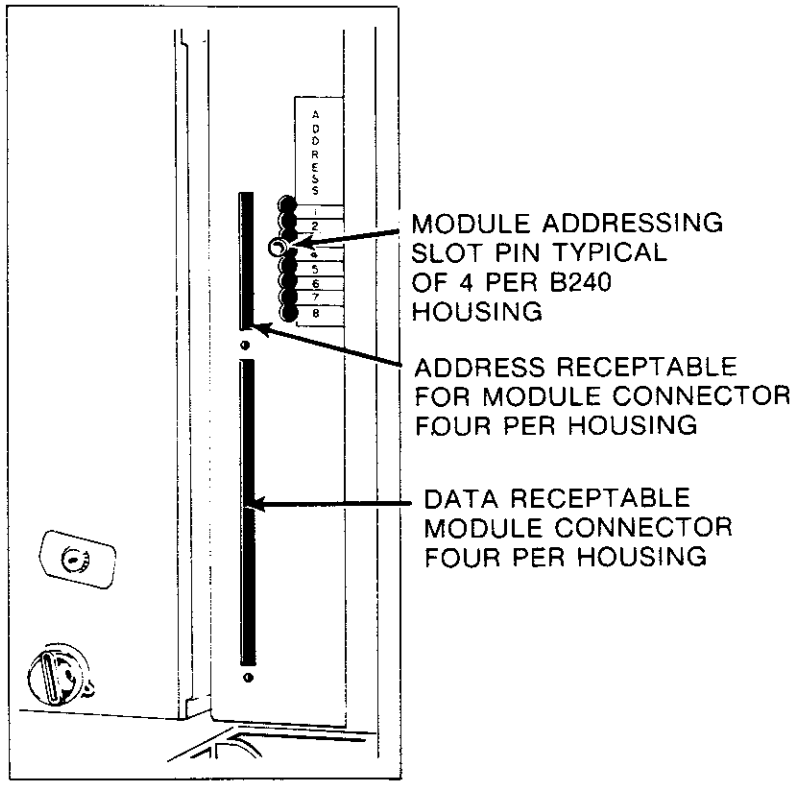
The bottom of the P451 contains the communication ports.

200 SERIES MODULE ADDRESSING

B240 Standard Housings

A single channel of I/O has a maximum of eight input and eight output modules. These sixteen modules can be plugged into four B240 housings — four modules to a housing. Each of the four module positions in a housing have an addressing slot pin that can be set to any address, one through eight.

Therefore, each of the eight input modules can be set up to reside at any address, one through eight. Also, each of the eight output modules can be set up to reside at any address, one through eight. Input versus output addressing in formation is carried inside the module.



SAMPLE CONFIGURATIONS

LEGAL

I 1	I 2	I 3	I 5
O 1	O 4		I 6
O 2	O 5	I 7	
O 3	O 6	O 7	O 8

ILLEGAL

I 1	I 2	I 3	I 4
I 4	I 5	I 6	I 7
O 1	O 2	O 3	O 4
O 5	O 6	O 7	O 8

200 SERIES MODULE ADDRESSING

B241 Half Housings

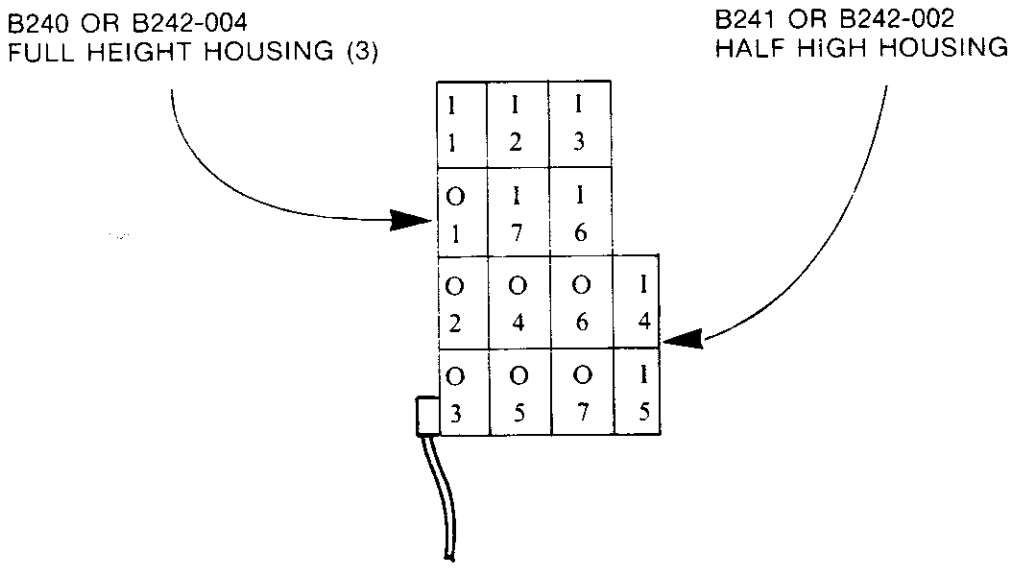
The B241 housing is addressed in the same fashion as B240 housings except that it carries only two modules per housing. B241 is used when less than a full channel will be installed.

B242-004

This housing accepts four modules, but only those of the intrinsically safe type (B273 input modules). Addressing is identical to B240.

B242-002

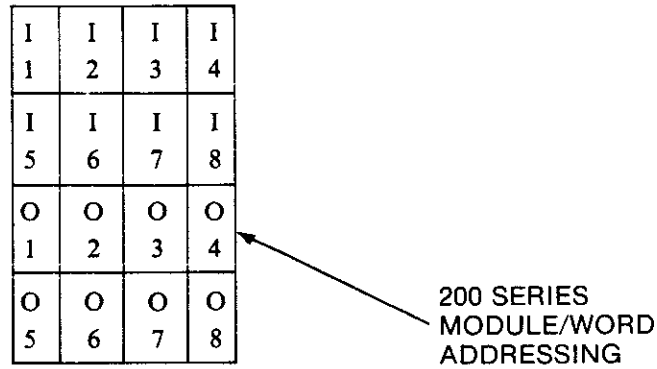
This is a housing for two intrinsically safe modules only. It also is addressed with standard slot pins and is only used when one or two I.S. modules are used.



500 SERIES MODULE ADDRESSING

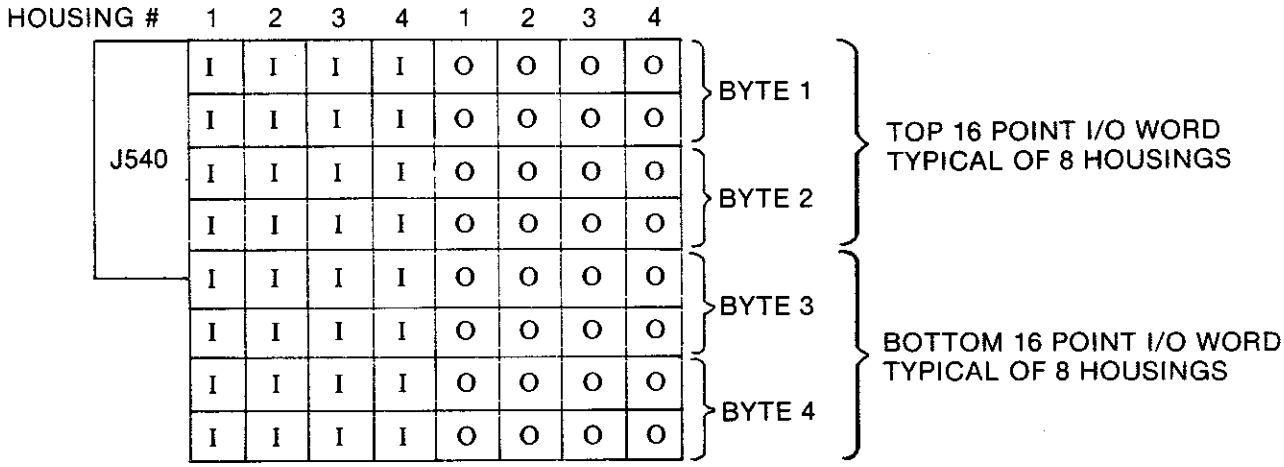
584 I/O Read and Write

The 584 normally reads or writes a 16 point I/O word from/to a 200 series input or output module that may carry any address, one through eight.



J540 With 500 Series I/O

500 Series modules each have four I/O points. The I/O points are addressed by housing number (1 through 4) and 16 point word position, within each of the eight receptacle housings. The top four modules per housing make up the top word and the bottom four the bottom word.

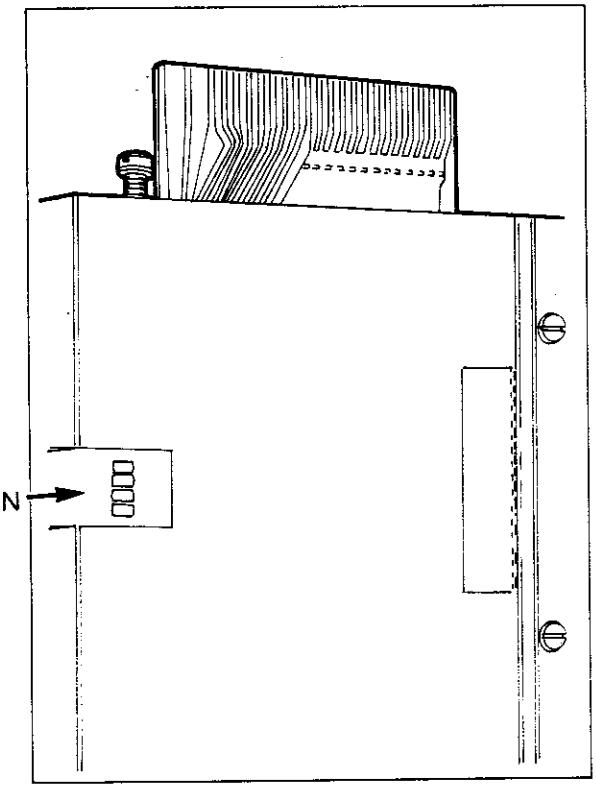


The J540 converts the housing top/bottom word position addressing scheme to eight 16 point input and eight 16 point output words.

500 SERIES MODULE ADDRESSING

B545 STANDARD HOUSINGS

A single channel of I/O has a maximum of 32 input and 32 output modules. These 64 modules can be plugged into eight B545 housings.



Since there are eight housings and half of the total housing space must be devoted to inputs, half to outputs, any two housings may be assigned the same address from one to four. This is done by closing only one of the four housing switches labeled "1", "2", "3", or "4". Input versus output selection is done within the modules.

SAMPLE CONFIGURATIONS

LEGAL J540

HOUSING # 1	2	3	4	4	2	3	1
I	I	I	O	I	O	O	O
I	I	I	O	I	O	O	O
I	O	I	O	I	I		O
I	O	I	O	I	I		O
	O	I	I	O	I		O
I	O	I	I	O	I	O	O
I	O	I	I	O	I	O	O
I	O	I	I	O	I	O	O

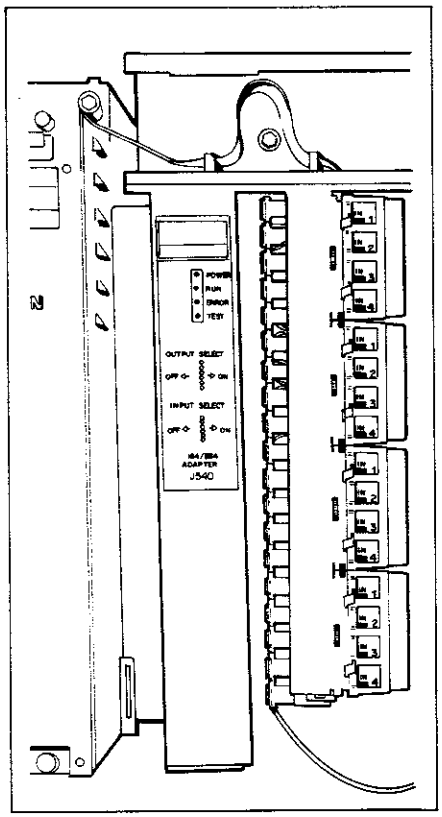
ILLEGAL J540

HOUSING # 4	3	(2)	1	1	(2)	(2)	4
I	I	I	I	O	O	O	O
I	I	I	I	O	O	O	O
I	O	I	I	O	O	O	O
I	O	I	I	O	O	O	O
I	I	I	O	I	O	I	O
I	I	I	O	I	O	I	O
(O)	O	I	O	I	O	I	(O)
(O)	O	I	O	I	O	I	

500 SERIES MODULE ADDRESSING

J540 — 200 Versus 500 Addressing Correlation

The face of the J540 adaptor presents the operator with two DIP switches, eight positions each.



The upper DIP switch selects the J540 to convert 500 series OUTPUT addressing to simulate the eight 200 series output slot pins. The lower DIP switch selects the J540 to convert 500 series INPUT addressing to simulate the eight 200 series input slot pins.

The table below shows the addressing conversion directly.

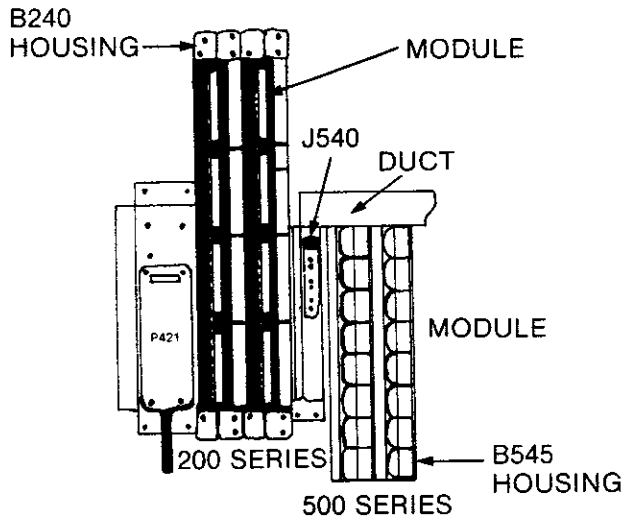
200 Series Slot Pin	Upper/Lower Dip Sw. #	500 Series Housing No.	16 Point Word Position
8	8	4	Bottom
7	7	4	Top
6	6	3	Bottom
5	5	3	Top
4	4	2	Bottom
3	3	2	Top
2	2	1	Bottom
1	1	1	Top

MIXED 200/500 MODULE ADDRESSING

200 and 500 Series I/O Combined Configuration

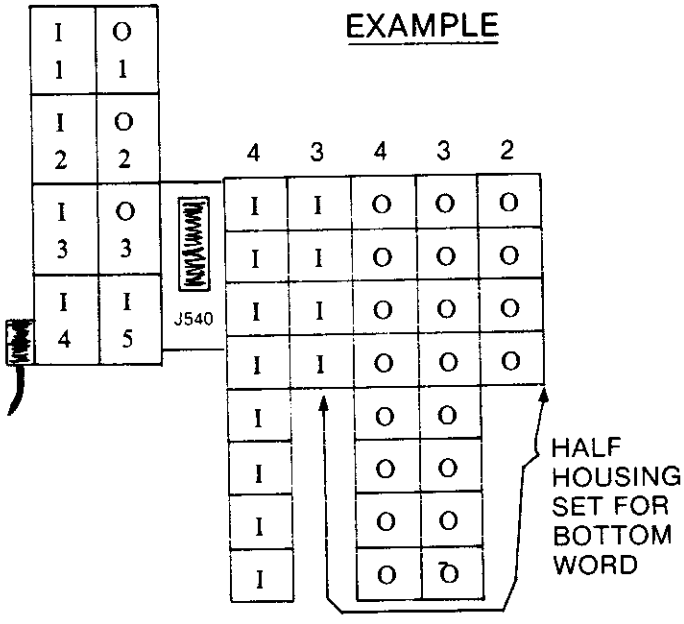
Both 200 and 500 Series I/O housings (with modules) can be combined to make up to a full channel configuration.

Any combinations of I/O (within specifications) can be used directly with the 584, or attached to a P421, P451, P452, or P453. However, a J540 must be associated with the 500 Series I/O.



Setup at the J540

Input/output addresses used at the 200 series housings must be selected OFF at the I/O DIP switches on the J540. Remaining addresses can be ON, with 500 housings addressed accordingly.



DIP SW#	OUTPUT	INPUT
8	ON	ON
7	ON	ON
6	ON	ON
5	ON	OFF
4	ON	OFF
3	OFF	OFF
2	OFF	OFF
1	OFF	OFF

500 SERIES MODULE ADDRESSING

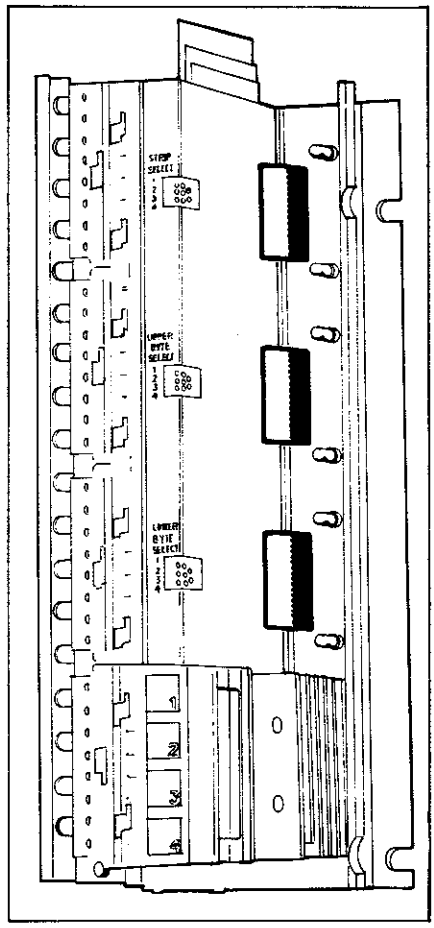
B546 Half High Housings

B546 half high housings are available for situations where four or less I/O modules will be installed in a housing (see page 9-8).

These half housings are housing-addressed with the standard four switch package. But, there are two additional four switch packages that select byte position for the two 8 point bytes. the byte position switches effectively determine either top or bottom 16 point word position.

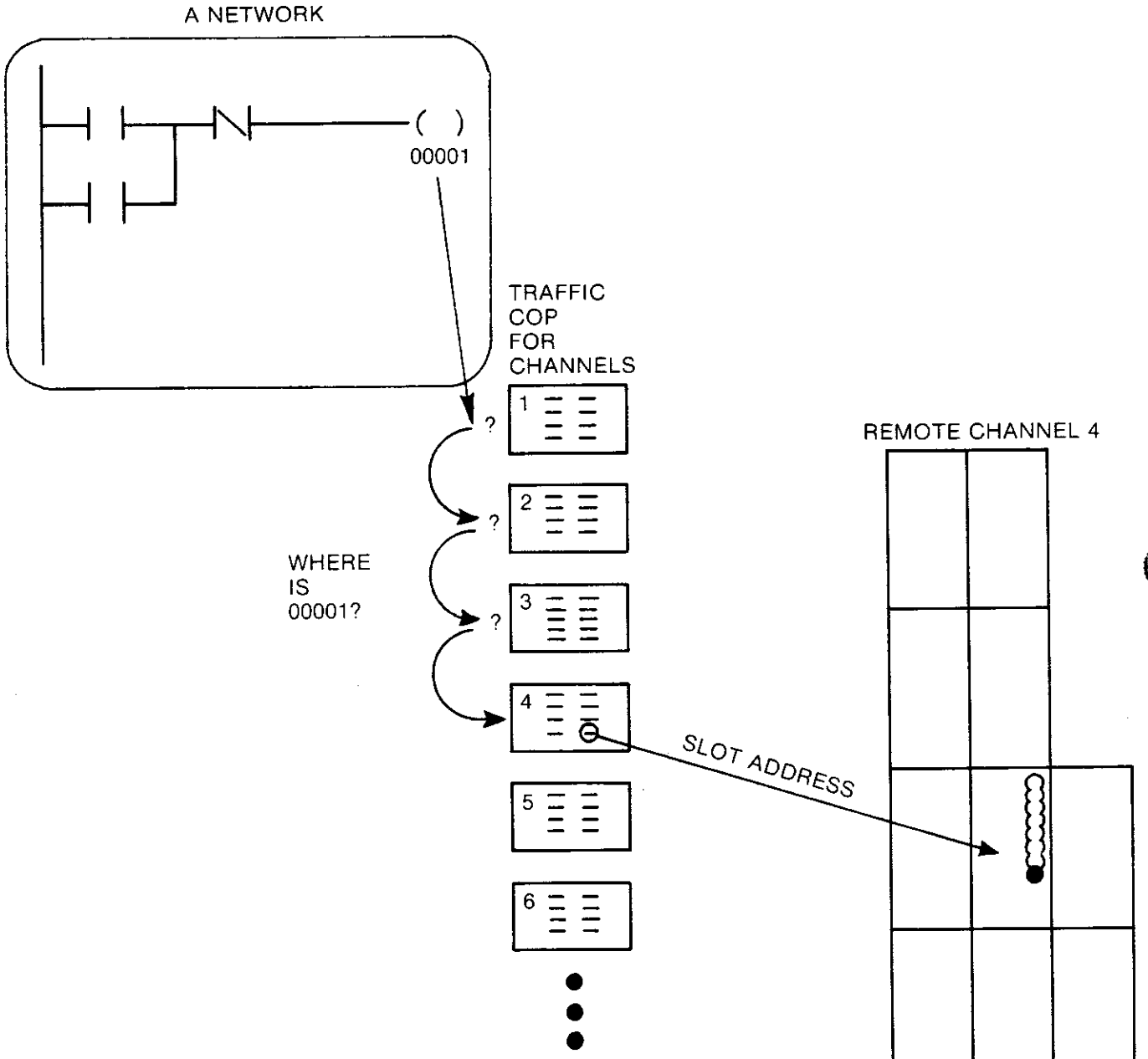
If the upper byte switch is set to "1" and the lower byte is set to "2", then the housing is set for top word position only. If the upper byte switch is set to "3" and the lower byte to "4", then the housing is set for bottom word only.

Again, see page 9-8 for an example of a half housing set up for the bottom word.



I/O ADDRESSING

The 584 I/O addressing scheme is designed to be exceptionally flexible. The 'Traffic Cop' is used to 'Direct Traffic', or information between the I/O and the logic. Those reference numbers which are entered in the traffic cop directly control outputs and receive inputs.



I/O REFERENCE NUMBERS

0XXXX = DISCRETE OUTPUTS
1XXXX = DISCRETE INPUTS
3XXXX = REGISTER INPUTS
4XXXX = HOLDING REGISTERS & OUTPUT REGISTERS