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REVISION	
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REVISION:	NAME	SIGNATURE	DATE
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EN #: E90638			

HISTORY:

REV LETTER:	DATE	CHANGES MADE
A	9/09	INITIAL RELEASE

I. Purpose

The EX600 process I/O in the P-700iA process control enclosure requires a valid Ethernet IP address in order to communicate with the R-30iA controller. This procedure is used to configure the IP address in the SMC EX600 for a P-700iA robot system.

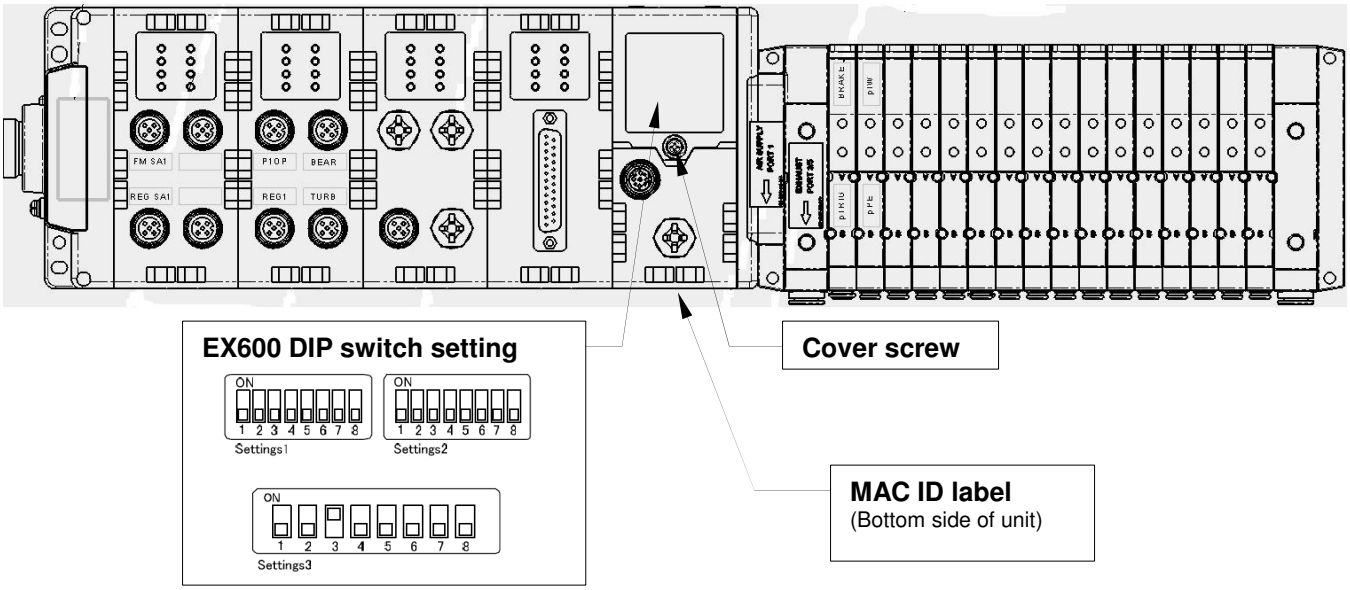
II. Requirements

1. PWIII computer connected to the P-700iA system Ethernet network.
   OR
   Laptop computer connected to the P-700iA system Ethernet network.

2. HMS AnyBus IPconfig software loaded on the computer to be used for setup.
   <<Download AnyBus IPconfig>>

III. Procedure

1. Confirm proper EX600 DIP switch settings prior to setting up the IP Address.



2. Loosen screw that holds the cover for the DIP switch settings and confirm the following switch settings:

Settings 1: Internal Parameters – All OFF

P-700 Default	No 1	No 2	No 3	No 4	No 5	No 6	No 7	No 8
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Setting switch1	Description
No.1	Manifold configuration memory
No.2	Baud rate setting of Internal bus communication
No.3	
No.4	Reserve
No.5	
No.6	
No.7	
No.8	IP address setting of byte3.bit0

Settings 2: IP Address – All OFF = Remote Control (setting by software)

P-700 Default	No 1	No 2	No 3	No 4	No 5	No 6	No 7	No 8
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Settings2

Setting range in address "Y" (1 to 254)

№1	№2	№3	№4	№5	№6	№7	№8	address
1	1	1	1	1	1	1	1	DHCP mode
0	1	1	1	1	1	1	1	254
1	0	1	1	1	1	0	1	253
:	:	:	:	:	:	:	:	:
0	1	0	0	0	0	0	0	2
1	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	Remote Control

Settings 3: IP Address – Valve Output Size and Diagnostic Configuration

Verify the number of solenoids connected to the EX600 and set switches No 1 and No 2 according to the table below. (32 outputs = No 1 and No 2 OFF – default)

P-700 Default	No 1	No 2	No 3	No 4	No 5	No 6	No 7	No 8
	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF

Setting3

V_SEL switch: A function to select the number of points occupied by valve outputs.

Select the output points (size) occupied by the SI unit.(LSB first)

Setting3		Description	SI unit Output data size
No.1	No.2		
OFF	OFF	Occupied bit for valve output is 32	4byte(Factory default)
OFF	ON	Occupied bit for valve output is 24	3byte
ON	OFF	Occupied bit for valve output is 16	2byte
ON	ON	Occupied bit for valve output is 8	1byte

Note) Change to the occupied valve point setting to more than the connected number of valves.

Settings 3: IP Address – Valve Output Size and Diagnostic Configuration (setup detail)

The FRA default is to use Input data, System diagnostics, and Unit diagnostics. (No 3 = ON, No 4 = OFF – default value, mode 2 diagnostics)

P-700 Default	No 1	No 2	No 3	No 4	No 5	No 6	No 7	No 8
	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF

Diagnostics switches: Mapping of diagnostic data to input data

Setting switch3		Mode	Description	Diagnostic size to be set to the input
No.3	No.4			
OFF	OFF	0	Input data only (factory setting)	0 byte
OFF	ON	1	Input data + System diagnostics	4 byte
ON	OFF	2	Input data + System diagnostics + Unit diagnostics	6 byte
ON	ON	-	Reserve	-

HOLD/CLEAR switch: Switch to set Hold/Clear of output at Fieldbus communication error or during idling. This setting can be made invalid (over-ridden) by the parameter.

Setting switch3 No.5	Description
OFF	Clears the output at Fieldbus communication error or during idling. (factory setting)
ON	Hold the output at Fieldbus communication error or during idling.

Communication setting : Communication speed & method is set by auto or manual.

Setting switch3 No.6	Communication setting
OFF	Auto: The communication setting is automatically selected.
ON	MANUAL: The communication setting follows by the settings2 No.2 and No.3.

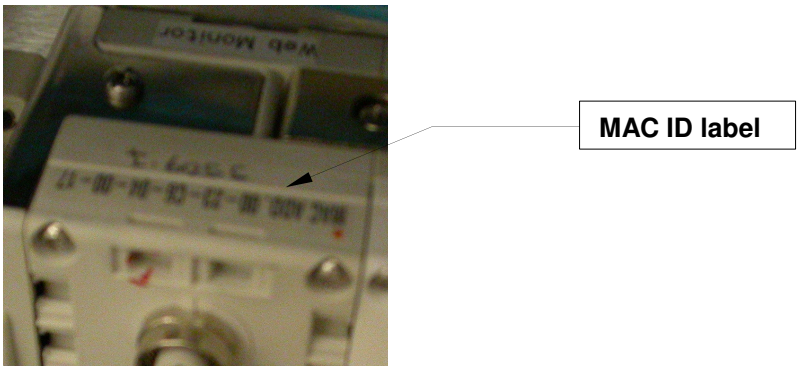
Communication speed :Communication speed is selected. However, when the communication setting is automated, this setting becomes invalid.

Setting switch3 No.7	Communication speed
OFF	10Mbps (factory setting)
ON	100Mbps

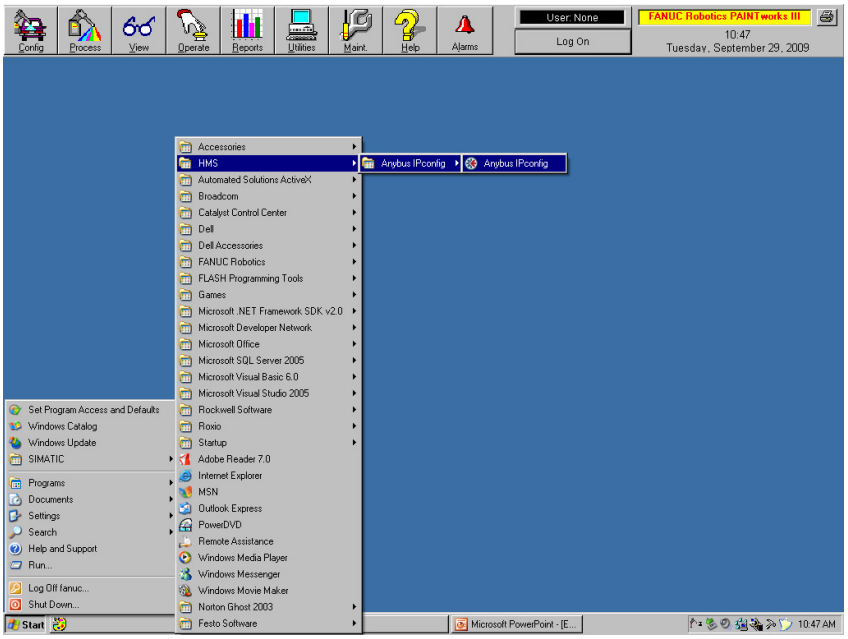
Communication method : Communication method is selected. communication setting is automatically, this setting becomes invalid.

Setting switch3 No.8	Communication method
OFF	Half duplex (factory setting)
ON	Full duplex

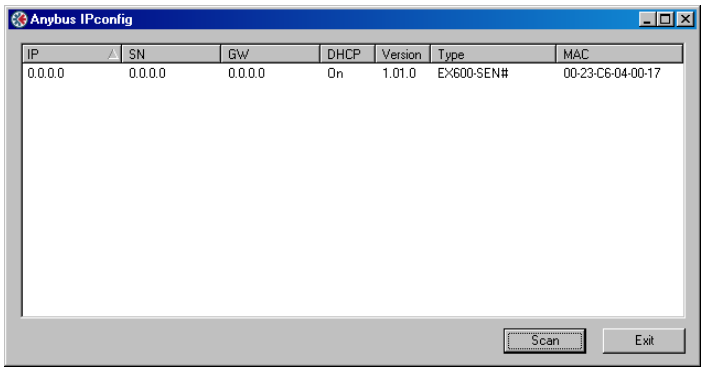
3. Record the MAC ID for each SMC EX600 module to be setup with an IP Address. The MAC ID is labeled on the bottom of each SMC Ethernet/IP module. See image below.



4. Once the EX600 hardware configuration has been completed, open the HMS AnyBus IPconfig software.



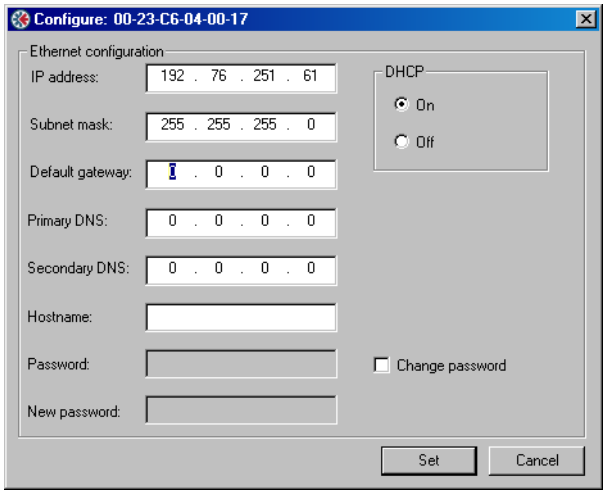
5. Upon opening the HMS AnyBus IPconfig software you will see the following screen.



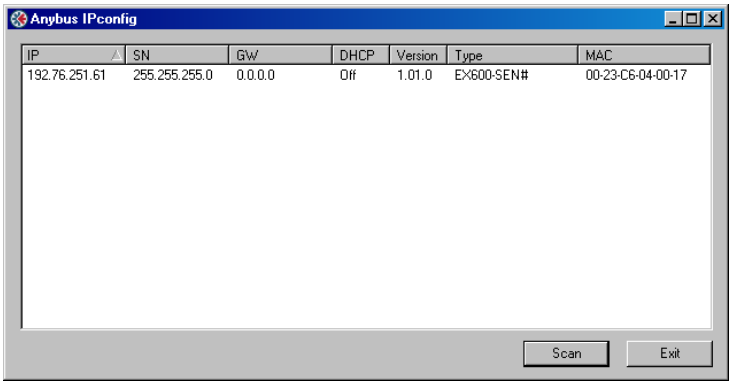
6. Double click on the EX600 in the list, which has the MAC ID that you would like to configure. If the MAC ID does not show up in the list, then press the SCAN button.

If the MAC ID for the EX600 still does not appear in the list, then verify that the EX600 is powered, and the communication cables are properly installed and connected.

7. In the following screen, enter the IP address and Subnet mask for the robot you are setting up and click the DHCP = OFF selection. Press the SET button, when complete.



8. Once the save has been completed, the new IP address, Subnet mask, and DHCP setup will be shown.



9. Complete IP address configuration for each of the EX600 modules in your cell or system.

10. The EX600 IP address setup is now complete.