SUPERPORT™ CARD

USER'S MANUAL

DOC-233
Rev. 1.1

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notes

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CHAPTER 1 | INTRODUCTION

SuperPort[TM] Input and Output cards are used to send signals from the computer (using MED-PC, for example) to devices in the chamber and vice versa. Signals such as a command to turn on a light or a response reading from a lever press are sent to specific outputs or received from specific inputs based on the jumper setting of the Superport™ card.
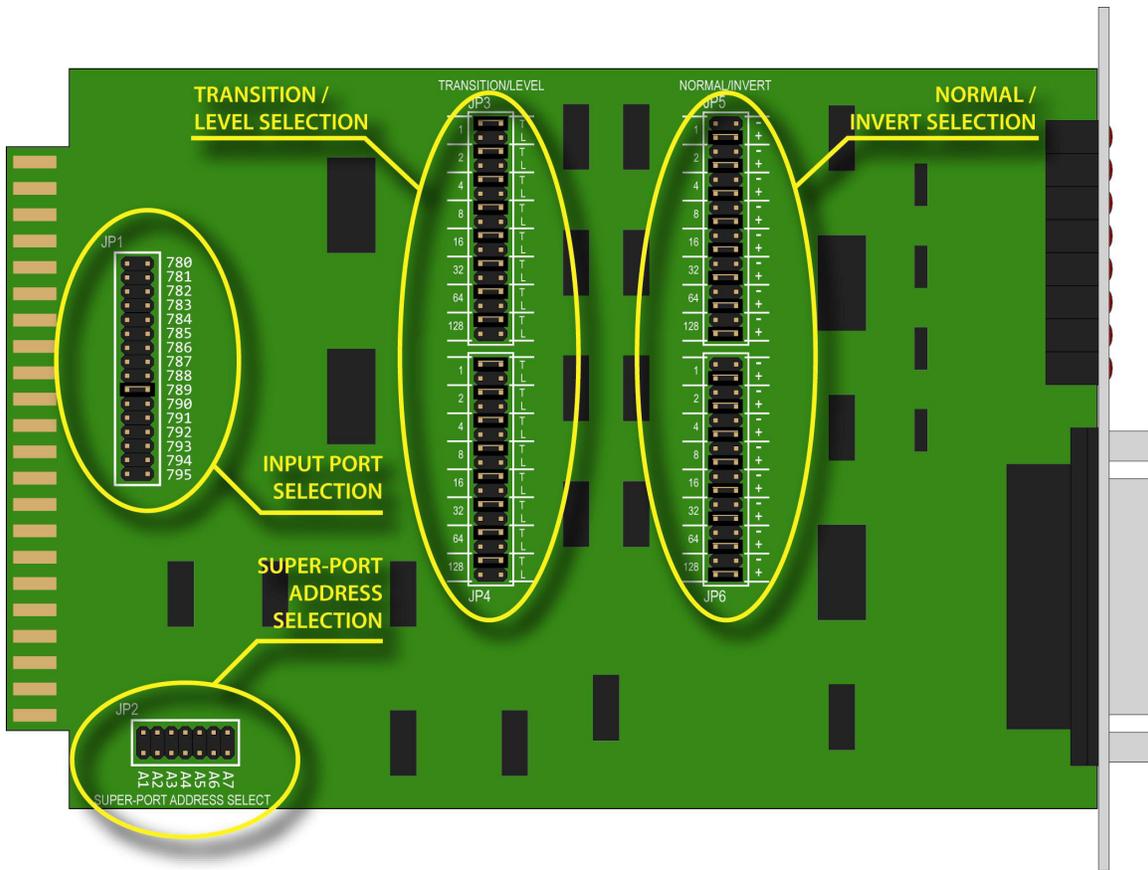
SuperPort[TM] cards are shipped from the factory with all of the jumpers in the correct locations when they are purchased as part of a system.

If the card is relocated to a different chamber or the mode of operation changes, then the jumper settings will need to be modified to accommodate these changes. The jumper settings are described in this user manual.

Note: Locations of jumpers may vary from illustrations in this manual.

SuperPort[TM] Input Cards

Figure 1-1 – Example of a SuperPort[TM] Input Card

Input Port Selection

JP1 is used to select the input port. SuperPort Input Cards always have a jumper on Port 789, as shown in Figure 1-1.

SuperPort Address Selection

JP2 is used to set the SuperPort Address. Table 1-1 indicates the jumper locations that correspond to each card number. An example of a SuperPort Input Card addressed as card 6 is shown in Figure 1-2.

Table 1-1 - SuperPort Offset Settings

Card #	JP2 Jumpers
1	NONE
2	A1
3	A2
4	A1, A2
5	A3
6	A1, A3
7	A2, A3
8	A1, A2, A3
9	A4
10	A1, A4
11	A2, A4
12	A1, A2, A4
13	A3, A4
14	A1, A3, A4
15	A2, A3, A4
16	A1, A2, A3, A4

Figure 1-2 – SuperPort Input Card Addressed as Card 6
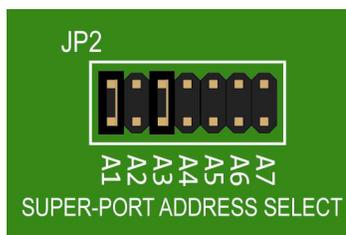
Transition and Level Input Settings

JP3 and JP4 are used for this setting and are labeled **L** for Level or **T** for Transition. The default jumper placement is Transition, as shown in Figure 1-1.

Table 1-2 – Card Numbers and Corresponding Jumper Numbers

Input #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Jumper #	1	2	4	8	16	32	64	128	1	2	4	8	16	32	64	128
	JP3								JP4							

Transition

This setting provides a single input, no matter how long the input is held. When used with a response lever, for example, this requires the animal to both press and release the lever before another response could be detected. The input may occur on either the press or the release depending on the switch contact (normally open or normally closed) and the input setting (Normal or Invert). Because the input of the card is filtered against switch bounce and latched until polled by the computer, even the shortest contact (or contact break if in Invert mode) will not be missed.

Level

This setting results in an input being detected each time the card is polled, for as long as the input is maintained. (In MED-PC® this occurs on each interrupt and is determined by the resolution setting when Med PC is installed. See the MED-PC® manual for details). This may be desirable when using photobeams, or when timing how long a response lever is held.

Normal and Inverted Input Settings

JP5 and JP6 are used for this setting are labeled **+** for Normal and **–** for Inverted. The default jumper placement is Normal (+), as shown in Figure 1-1.

Table 1-3 – Card Numbers and Corresponding Jumper Numbers

| Input #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Jumper #	1	2	4	8	16	32	64	128	1	2	4	8	16	32	64	128
	JP5								JP6							

Normal

This setting is designed to work with a normally open contact, such as those found in response levers, and will cause an input to occur when the response lever is pressed or the switch contact is closed.

Invert

This setting is designed to work with normally closed contacts, such as those found in pigeon keys, and produces a response when the key is pressed. This setting should be used if an input should occur when a normally open response lever is released or a switch contact is opened. Also use with photobeam inputs if an input is desired when the beam is uninterrupted instead of broken.

SuperPort^{TM} Output Cards

Figure 1-3 – SuperPort^{TM} Output Card
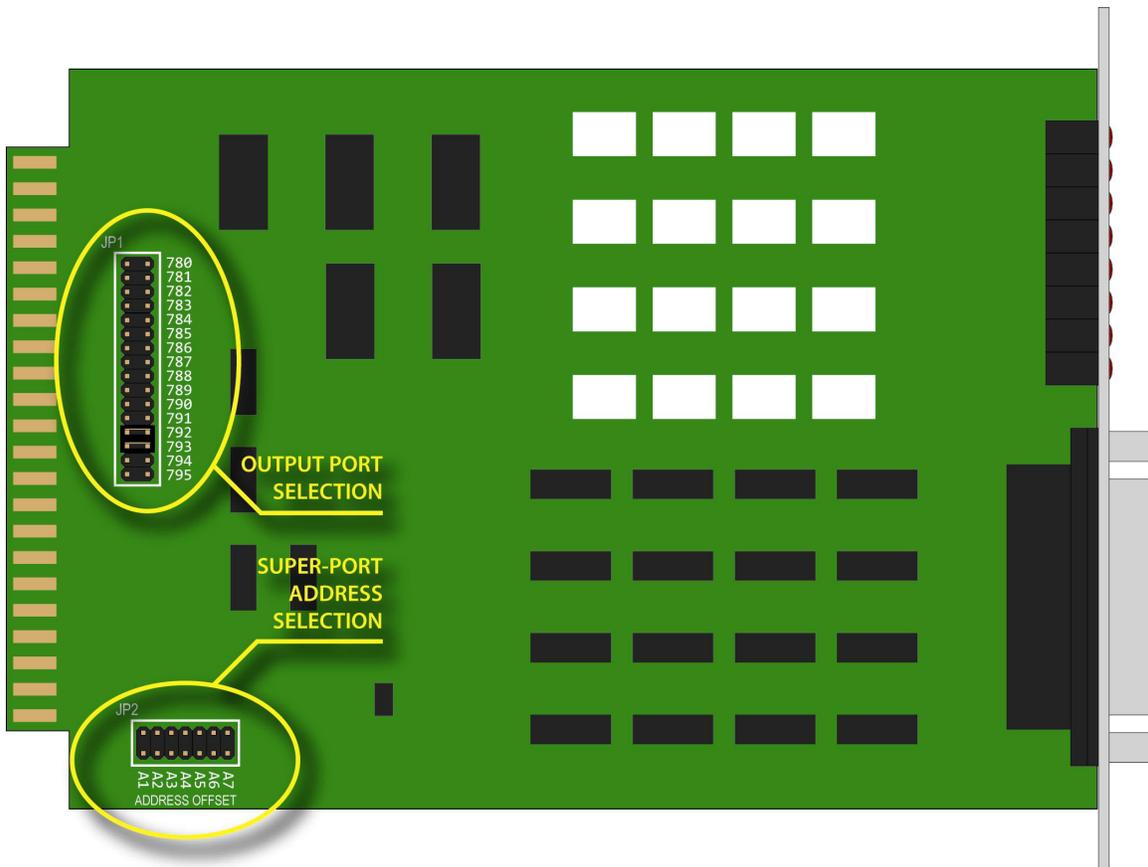
Output Port Selection

JP1 is used to select the output port. SuperPort Output Cards always have jumpers on Ports 792 and 793, as shown in Figure 1-3.

SuperPort Address Selection

JP2 is used to set the SuperPort Address. The address is set in the same manner as the SuperPort Input Cards. Table 1-1 indicates the jumper locations that correspond to each card number.

Appendix A | Contact Information

Please contact MED Associates, Inc. for information regarding any of our products.

Visit our website at www.med-associates.com for contact information.

For technical questions, email support@med-associates.com.