

Configuring Non-701X Series Cards for Model 7001/7002 Switch Systems

Introduction

This addendum explains configuring cards originally designed for the Model 705/706 Scanners with newer mainframes, such as the Model 7001/7002 Switch Systems. It supersedes descriptions in the non-701X card manuals concerning the programming of pole mode, channels/crosspoints, and settling time.

In general, the Model 7001/7002 mainframes detect (on power-up) Model 701X series cards that are installed. If using older cards, you must assign a model number to the appropriate slots.

After Model 7001/7002 mainframes are configured for any non-701X series cards, relay closures on these cards can be programmed from the front panel or IEEE-488 bus. Switch and multiplexer cards are programmed by slot and channel (S!C), while matrix cards are programmed by slot, row, and column (S!R!C).

Card configuration

The CARD CONFIG MENU of the Model 7001/7002 Switch Systems configures the card slots. Press the CARD CONFIGURATION key to display the following:

CARD CONFIG MENU

TYPE #-OF-POLES CARD-PAIR ►

◀ DELAY READ-I/O-CARD

TYPE

Use TYPE to assign a model number for each non-701X series card installed in the mainframe. The model number assignment determines the relay settling time and front panel relay status display. From the CARD CONFIG MENU, perform the following steps to assign a model number to a slot:

1. With the ◀ and ► keys, place the cursor on TYPE and press ENTER. The model number for the presently selected slot is displayed. For example, with a Model 7002 mainframe:

SET CARD TYPE NONE

SLOT-#1 #2 #3 #4 #5 ►

◄ SLOT-#6 #7 #8 #9 #10

A flashing “#5” would indicate that slot 5 is assigned to be empty (NONE). To check assignments for other slots, simply use ◄ or ► .

2. Move the cursor to the desired slot number and press ENTER. An example display follows:

SLOT 5 CARD: NONE

3. Assign a model number to the slot. For example, if a Model 7062 is installed in slot 5, use ◄ or ► to scroll to “7062”.
4. With the model number assignment displayed, press ENTER.
5. When finished, use EXIT to back out of the menu structure. Note that the relay status display changes to show the channel or crosspoint configuration of the card.

#-OF-POLES

While installed in Model 7001/7002 mainframes, two of the non-701X series cards (7056 and 7156) can have their pole configuration changed. The following table shows the pole configuration for all non-701X cards.

Card	1-pole	2-pole	4-pole
7052	N/A	4 rows by 5 columns	N/A
7053	N/A	10 channels	N/A
7054	10 channels	N/A	N/A
7056	20 channels	10 channels	N/A
7057A	N/A	10 channels	N/A
7058	10 channels	N/A	N/A
7059	N/A	10 channels	N/A
7061	10 channels	N/A	N/A
7062	10 channels	N/A	N/A
7063	10 channels	N/A	N/A
7064	N/A	20 channels	N/A
7065	4 rows by 5 columns	N/A	N/A
7066	N/A	10 channels	N/A
7067	N/A	N/A	10 channels
7152	N/A	4 rows by 5 columns	N/A
7153	N/A	4 rows by 5 columns	N/A
7154	N/A	10 channels	N/A

Card	1-pole	2-pole	4-pole
7156	20 channels	10 channels	N/A
7158	10 channels	N/A	N/A
7164	N/A	20 channels	N/A
7166	N/A	10 channels	N/A
7168	N/A	8 channels	N/A
7169A	20 channels	N/A	N/A
7402	N/A	10 channels	N/A

From the CARD CONFIG MENU, perform the following steps to check or change the pole configuration of a switching card:

1. Place the cursor on #-OF-POLES and press ENTER. The following is displayed for a Model 7002 mainframe:

SELECT # OF POLES

SLOT-#1 #2 #3 #4 #5 ►

◄ SLOT-#6 #7 #8 #9 #10

2. Move the cursor to the desired slot number and press ENTER. The pole configuration for that slot is displayed. For example, if you selected slot 7, the following is displayed:

OF POLES SLOT-7

1-POLE 2-POLE 4-POLE

The flashing menu item indicates which pole configuration is presently selected.

3. To retain the present pole configuration, press ENTER or EXIT. To change the pole configuration, move the cursor to the desired selection and press ENTER. Note that you cannot select an invalid pole configuration.
4. When finished, use EXIT to back out of the menu structure.

CARD-PAIR

This menu item lets you pair cards so that corresponding channels/crosspoints operate together as a pair. For example, with a Model 7002 mainframe, closing channel 2 of slot 1 also closes channel 2 of slot 6. Card pair can only be enabled for cards that are similar (multiplexer or matrix) and have the same number of channels.

From the CARD CONFIG MENU, perform the following steps to check or change card pair:

1. Place the cursor on CARD-PAIR and press ENTER to display the card pair selections. For example, with a Model 7002 mainframe:

CHOOSE CARD PAIR

1&6 2&7 3&8 4&9 5&10

2. Move the cursor to the desired card pair and press ENTER. If you select card pair 1&6, the following message is displayed:

SET CARD PAIR 1&6

OFF ON

The flashing menu item indicates the state of card pair for the two cards.

3. To retain the state, press ENTER or EXIT. To change the state, move the cursor to the desired selection and press ENTER.
4. When finished, use EXIT to back out of the menu structure.

DELAY

This user-programmed delay (1ms to 99999.999s) is the time delay between channel/crosspoint closures during a scan. It is in addition to the internally set relay settling time delay.

From the CARD CONFIG MENU, perform the following steps to set a delay:

1. Place the cursor on DELAY and press ENTER to display the following message:

SET DELAY FOR: ▶

◀LOT-#1 #2 #3 #4 #5

SLOT-#6 #7 #8 #9 #10

2. Move the cursor to the desired card slot and press ENTER. If you select slot 6 and it presently is set for a one second delay, the following message is displayed:

(06) DELAY=00001.000 ◀ ▶

3. To change the delay period, use ◀ and ▶ and the numeric keypad to key in a new value, then press ENTER.
4. When finished, use EXIT to back out of the menu structure.

Additional information on configuring switch cards can be found in “Card configuration” in Section 4 of the Model 7001 and 7002 Instruction Manuals.