

NetworX[™] Series NX-1710E Single Door Control

Installation and Startup Manual

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Symbol Legend

Warning	Indicates a procedure, practice, condition, or statement that, if not strictly observed, could result in personal injury. * This symbol indicates electrical warnings and cautions.
A Caution	Indicates a procedure, practice, condition, or statement that, if not strictly observed, could result in damage to or destruction of equipment or property. ** This symbol indicates general warnings and cautions.
ø	Indicates an essential or important procedure, instruction, condition, or statement.
Note	
¢	Indicates a user tip. Provides helpful information that is not normally defined in regular use,
Тір	but from an experienced user.
Ċ	
Enter	Indicates a key or button should be pressed to enter data.

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I. GENERAL DESCRIPTION

The NetworX NX-1710E is a single door control module used to expand the capabilities of the NetworX control panels.

- Flash-based microprocessor for reprogramming ability via In-Circuit Serial Programming[™] header
- +5 VDC and +12 VDC outputs
- 4-position dip switch which allows addressing of up to 16 modules on the NetworX bus
- Box tamper switch tied to tamper terminal
- One zone input to be connected to a door contact for monitoring the door zone.
- On-board relay with Normally Open, Normally Closed, and Common terminals for use in switching power on MagLocks or other door locking mechanisms
- 8Kb of non-volatile RAM for storing programming and card data
- Two sets of terminal inputs/outputs for interfacing with one or two Wiegand card readers:
 - 1 buzzer and 2 LED outputs
 - o 1 tamper and 1 egress input
 - 2-wire Wiegand bus interface. Æ Readers must be able to "speak" Wiegand. The following are supported Weigand formats:
 - ✓ 26-bit standard Weigand
 - ✓ 27-bit Tecom ASC
 - ✓ 35-bit HID Corporate 1000
 - ✓ 40-bit with facility code (4001)
 - ✓ 40-bit without facility code (4002)

II. BOARD LAYOUT



III. WIRING TERMINALS

To install the card reader, simply wire it into the system. Refer to the following wiring table for details.

For the purpose of these instructions, the term "door control" refers to the NX-1710E module, and the term "reader" refers to the specific card reader attached to the system.

		DESCRIPTION											
	DATA	Connect to the NetworX control panel DATA terminal. Data-signaling terminal to all the devices on the bus.											
	СОМ	Connect to the NetworX control panel COMMON terminal. Supplies the common side of the power to the door control module.											
	POS	Connect to NetworX control panel AUX POWER + terminal. Supplies power to the door control module.											
	+12	ower to reader module, if required.											
	+5	Power to reader module, if required.											
	СОМ	Connect to common terminal of box tamper.											
	TMPR	Box Tamper											
	N/C	Normally closed relay contact to activate door strike.	Rating:										
	С	Closed relay contact to activate door strike.	5A 125, 277V AC										
	N/O	Normally open relay contact to activate door strike.	5A 30V DC										
	A-EG	Egress input. To use this feature, connect the normally open egress s terminal and COM .	witch between this										
	A-TM	Tamper input (from Reader "A")											
ir "A"	A-LR	Red LED (LED2) control (to Reader "A"). Open collector output. If available, connect to LED control on reader.											
Reade	ble, connect to LED												
_	A-BZ	Buzzer control (to Reader "A").											
	A-D1	Wiegand Data 1 terminal (from Reader "A").											
	A-D0	Wiegand Data 0 terminal (from Reader "A").											
	COM	Common dry contact											
	B-EG	Egress input. To use this feature, connect the normally open egress s terminal and COM .	witch between this										
	B-RM	Tamper input (from Reader "B")											
, , ,	B-LR	Red LED (LED2) control (to Reader "B"). Open collector output. If availab control on reader.	ble, connect to LED										
Reade	ble, connect to LED												
	B-BZ	Buzzer control (to Reader "B").											
	B-D1	Wiegand Data 1 terminal (from Reader "B").											
	B-D0	Wiegand Data 0 terminal (from Reader "B").											
	COM	Common terminal.											
	DOOR	Door contact (requires 3.3K end-of-line resistor). Connect											

IV. ENROLLING

The NetworX control panels have the ability to automatically find and store in memory the presence of all keypads, zone expanders, wireless receivers, output modules, and any other device on the keypad buss. This allows these devices to be supervised by the control panel. To enroll the devices, enter the Program Mode using the procedure outlined in the control panel Installation Manual. When the Program Mode is exited, the NX-8 control will automatically enroll the devices. The enrolling process takes about 12 seconds, during which time the Service LED will illuminate. User codes will not be accepted during the enrolling process. Once a module is enrolled, if it is not detected by the control, the Service LED will illuminate.

V. ADDRESSING

The first thing that must be decided is the address of this particular relay/output module. This is the address that will be selected when programming the auxiliary devices. To set the addresses use the table below. Refer to Table V-1 that follows for possible addresses.

The door control unit must be powered down and powered back up in order to read new or modified dip switch settings.

Bus Address	Dip Switch Setting							
	1	2	3	4				
128								
129	ON							
130		ON						
131	ON	ON						
132			ON					
133	ON		ON					
134		ON	ON					
135	ON	ON	ON					

Table V	/-1
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Bus Address	Dip Switch Setting							
	1	2	3	4				
136				ON				
137	ON			ON				
138		ON		ON				
139	ON	ON		ON				
140			ON	ON				
141	ON		ON	ON				
142		ON	ON	ON				
143	ON	ON	ON	ON				

VI. PROGRAMMING

USING THE LED KEYPAD

ENTERING THE PROGRAM WODE		
~ * 8		Enters the Program Mode.
		Stay, Chime, Exit, Bypass & Cancel LEDS
~ •		will lidsi. If the "Go To Program Code" is valid the
Go To Program Code		"Service" I ED will flash and the five function
		LEDs will illuminate steady. You are now in the
Factory Default is		Program Mode and ready to select the module
		address.
ENTERING THE MODULE ADDRESS		
Scan a card.		
~ AQQ #	••••	Enter the module address. Refer to Table V-1
		for the address.
(example only)		waiting for a programming location to be
		entered.
PROGRAMMING A LOCATION		
If an attempt is made to	program an	invalid entry for a particular segment, the
keypad sounder will emit a	triple error l	beep (beep, beep, beep), and remain in that
segment awaiting a valid e	entry.	
To Enter a Location:		
∽ [u] #	••••	The Armed LED will flash. If the location is
\sim [location] π		valid, the "Armed" LED will extinguish, the
		Ready LED Will illuminate, and the Zone
		of this location
L		

To Change Location Data:		
C [→] [changed data]	•••••	The "Ready" LED will flash to indicate a data change in process and will continue until the data is saved
∽ ★	•••••	The new data is saved. The keypad will increment and display the next segment's data
NOTE: Repeat these steps until the last se	gment is reache	ed.
	-	
To Exit a Location:		Fritz frame this is a stime. The "Deads" I FD will
∽ #		extinguish. The "Armed" LED will illuminate waiting for a new programming location to be entered.
To Review The Data:		
C [location] #		The Armed LED will flash. If the location is valid, the "Armed" LED will extinguish, the "Ready" LED will illuminate, and the zone LED's will show the data for the first segment of this location.
~~ ¥	• • • • • •	(Do not enter data.)
• •		The next segment is displayed. Each time * is pressed, the data of the next segment will be displayed for review.
Shortcuts: 👉 🚺	Previous loo	cation.
	Same locat	ion.
The second se	Next seque	ntial location.
		Exits this programming level.

USING THE LCD KEYPAD

All steps required for programming are the same as the aforementioned LED keypad. The LCD keypad display will prompt you for the data required. While in the programming mode, and not in a location, the number in parenthesis is the location you were previously changing. For example, if the display reads "Enter location, then # (5)", it is reminding you that location 5 was the last location you programmed. In feature selection data, the numbers of the enabled features will be displayed. The features **not** enabled will display a hyphen (-).

PROGRAMMING DATA TYPES

- a) Numerical Data
 - Numerical data can take on values from 0-255 or 0-15 depending on the segment size.
- b) Feature Selection
 - Feature selection data is used to turn features on or off.

VII. USER CARDS

Adding and de-activating users is done through a combination of entering information at the keypad and scanning cards. Before a card can be entered, one reader on the system must be programmed with User Card Programming enabled (Location 3, Segment 1, Option 1, page 14).



It is recommended that only **<u>one</u>** reader on the system be enabled to modify user cards and that this reader be located near a keypad. This reader will transfer information to all other readers in the system once programming is finished.

Once a reader is enabled to modify users, it must be placed into one of the following five modes:

- Add One User
- Add Multiple Users w/ Auto-Increment 2)
- 3) Activate One User
- 4) De-Activate One User
- Delete/Reset One User. 5)

Modifying users on a card reader is similar to modifying user codes at a keypad.

🛋 Must be a master user in order to modify user card information.



IMPORTANT NOTES

Adding or de-activating user cards from a reader will cause the code for User Number 2 to become invalid. Therefore, it will need to be re-entered after all user cards are programmed into the readers.

By default, user cards are <u>added</u> and activated. In order to add a user card and de-activate it at the same time, scan and hold the card to be added until two beeps are sounded at the reader.



ADDING MULTIPLE USERS WITH AUTO-INCREMENT								
	•••••	Accesses Activation mode						
Garage Control Cont	••••	If a valid user number is entered, LED1 (Green) on any enabled readers will begin to flash.						
Scan the card designated for the user entered in the previous step.		If the user card is not already in the system, it will be added and mapped to the entered user number and LED1 (Green) will continue flashing indicating that the next user card can be scanned for the next user number. If the card is already in the system, the reader will triple beep and LED1 (Green) will continue flashing; the user number is not incremented in this case.						
Continue scanning user cards until the desired number of cards has been added.	•••••	After about 30 seconds without a card being scanned, all the readers in the system will be updated with the new user card information.						

IMPORTANT NOTE

Activating / De-activating / Resetting Users -- If User Number 0 is entered, the desired function will be performed on the user associated with the card scanned.







VIII. PROGRAMMING LOCATIONS

Solution For the purpose of these instructions, the term "door control" refers to the NX-1710E module, and the term "reader" refers to the specific card reader attached to the system.

LOCATION 0 READER "A" SCAN FUNCTIONS & OPTIONS

(8 segments of binary data) Location 0 is used to select the particular function(s) that are activated when a card is scanned at Reader "A". More than one function may be selected. If more than one function is selected, they will execute in order from function 1 to function 8.

Functions 1-6 will be performed based on the user's authority as programmed by the [*] [6] function (refer to keypad user manual).

Segment 1 Single Scan Function

Program the functions that are performed when a card is scanned {one beep}.

- LED1 "On" to send Code Entry function to the control panel.
- LED2 "On" to activate the Armed Away mode.
- LED3 "On" to activate the Armed Stay mode.
- LED4 "On" to send the Disarm function to the control panel.
- LED5 "On" to send Auxiliary Function #1 to the control panel.
- LED6 "On" to send Auxiliary Function #2 to the control panel.
- LED7 "On" to broadcast an X-10 function (see Location 241 for programming).
- LED8 "On" to send a Request-to-Exit (RTE); and to activate the onboard relay. (Default is "On")

Segment 2 Triple Scan Function

Program the functions that are performed when a card is scanned three times {three beeps}. The descriptions of the options are the same as for Single Scan Function (Segment 1 above). Default is **1**.

Segment 3 Reader Options:

- LED1 "On" if tamper is inverted.
- LED2 "On" if tamper is enabled.
- LED3 "On" if reader buzzer is to follow typical keypad buzzing.
- LED4 "On" if reader automatically issues a beep when the card is scanned. Enabling this option prevents the door control from issuing another beep. (Default is "On")
- LED5–8 Reserved.

Segment 4 LED1 (Green) Options:

- LED1 "On" to follow Ready status of system. (Default is "On")
- LED2 "On" to toggle with the relay / open collector output activation. (Default is "On")
- LED3 "On" if inverted.
- LED4–8 Reserved.

Segment 5 LED2 (Red) Options:

- LED1 "On" to follow Armed status of system. (Default is "On")
- LED2 "On" to toggle with the relay / open collector output activation.
- LED3 "On" if inverted.
- LED4–8 Reserved.

Segments 6 – 8 Reserved

LOCATION 1 READER "B" SCAN FUNCTIONS & OPTIONS

(8 segments of binary data) Location 1 is used to select the particular function(s) that are activated when a card is scanned at Reader "B". More than one function may be selected. If more than one function is selected, they will execute in order from function 1 to function 8.

Functions 1-6 will be performed based on the user's authority as programmed by the [*] [6] function (refer to keypad user manual).

Segment 1 Single Scan Function

Program the functions that are performed when a card is scanned {one beep}.

- LED1 "On" to send Code Entry function to the control panel.
- LED2 "On" to activate the Armed Away mode.
- LED3 "On" to activate the Armed Stay mode.
- LED4 "On" to send the Disarm function to the control panel.
- LED5 "On" to send Auxiliary Function #1 to the control panel.
- LED6 "On" to send Auxiliary Function #2 to the control panel.
- LED7 "On" to broadcast an X-10 function (see Location 241 for programming).
- LED8 "On" to send a Request-to-Exit (RTE); and to activate the onboard relay. (Default is "On")

Segment 2 Triple Scan Function

Program the functions that are performed when a card is scanned three times {three beeps}. The descriptions of the options are the same as for Single Scan Function (Segment 1 above). Default is **1**.

Segment 3 Reader Options:

- LED1 "On" if tamper is inverted.
- LED2 "On" if tamper is enabled.
- LED3 "On" if reader buzzer is to follow typical keypad buzzing.
- LED4 **"On" if reader automatically issues a beep when the card is scanned.** Enabling this option prevents the door control from issuing another beep. (Default is "On") LED5–8 Reserved.

Segment 4 LED1 (Green) Options:

- LED1 "On" to follow Ready status of system. (Default is "On")
- LED2 "On" to toggle with the relay / open collector output activation. (Default is "On")
- LED3 "On" if inverted.
- LED4-8 Reserved.

Segment 5 LED2 (Red) Options:

- LED1 "On" to follow Armed status of system. (Default is "On")
- LED2 "On" to toggle with the relay / open collector output activation.
- LED3 "On" if inverted.
- LED4-8 Reserved.

Segments 6 – 8 Reserved

LOCATION 2 PROGRAMMING THE X-10 ADDRESS FOR THE SCAN FUNCTIONS

(6 segments of numerical data)

Segment 1

Program a number from 0 -15 to represent the corresponding X-10 *Module Number* from the following table. Default is **0**.

Module	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seg 1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Segment 2 House Code

Program a number from 0-15 to represent the corresponding X-10 *House code* from the following table. Default is **0**.

X-10 ADDRESS CODES								
0=A	12=M							
1=B	5=F	9=J	13=N					
2=C	6=G	10=K	14=O					
3=D	7=H	11=L	15=P					

Segment 3 Reader "A" Single Scan Function

Module Number

Program the X-10 function that is performed when a card is scanned {one beep} at Reader "A". This location only needs to be programmed if Location 0, Segment 1, Option 7 is set. Use the following table. Default is 2.

Function #	Function performed	Function #	Function performed	
0	All units off	4	Dim	
1	All lights on	5	Bright	
2	On	6	All lights off	
3	3 Off		Reserved	

Segment 4 Reader "A" Triple Scan Function

Program the X-10 function that is performed when a card is scanned three times {three beeps} at Reader "A". The descriptions of the function codes are the same as for Single Beep Scan Function. This location only needs to be programmed if Location 0, Segment 2, Option 7 is set. Use the above table. Default is **3**.

Segment 5 Reader "B" Single Scan Function

Program the X-10 function that is performed when a card is scanned {one beep} at Reader "B". This location only needs to be programmed if Location 0, Segment 1, Option 7 is set. Use the following table. Default is 2.

Segment 6 Reader "B" Triple Scan Function

Program the X-10 function that is performed when a card is scanned three times {three beeps} at Reader "B". The descriptions of the function codes are the same as for Single Beep Scan Function. This location only needs to be programmed if Location 0, Segment 2, Option 7 is set. Use the above table. Default is **3**.

LOCATION 3 PROGRAMMING THE OPTIONS AND DOOR CONTROL PARTITIONS

(4 segments of binary data)

Segment 1 LED1 - LED2 - LED3 - LED4 - LED5 - LED6 -	 Init Options: "On" if door control module is enabled for User Card Programming. "On" if tamper is enabled. "On" if disabling on-board zone. "On" if reader is 40-bit with facility code format (4001). Set if reader is CASI 9xx/840/845 Clear if Smart Reader (820/825) or Dual Tech Reader (1000/1010) "On" if an RTE from a scanned card is to be logged as Code Entry. "On" if an RTE from a zone or the egress input is logged as Code Entry. 			
	o Reserved.			
Segment 2	Door Options			
LED1 -	"On" if locking mechanism is a Maglock or Drop Bolt.			
LED2 -	"On" if access is allowed regardless of Armed status of the system.			
LED3 -	"On" if the door is not to be latched unlocked during an open schedule.			
LED4 -	"On" if onboard open collector output only triggers during an open schedule.			
LED5 -	"On" it onboard open collector output only triggers during a close schedule.			
	"On" if Forced Entry Alarm is logged.			
	"On" If access allowed without an RTE.			
LED0 -	Reserved.			
Segment 3	Enabling the Schedules for the Onboard Open Collector Output:			
LED1 -	"On" if driver follows Schedule 1. (Default is "On")			
LED2 -	"On" if driver follows Schedule 2. (Default is "On")			
LED3 -	"On" if driver follows Schedule 3. (Default is "On")			
LED4 -	"On" if driver follows Schedule 4. (Default is "On")			
LED5 -	"On" if driver follows Schedule 5. (Default is "On")			
LED6 -	"On" if driver follows Schedule 6. (Default is "On")			
LED7 -	"On" if driver follows Schedule 7. (Default is "On")			
LED8 -	"On" if driver follows Schedule 8. (Default is "On")			
Segment 4	Door Control Partition:			
LED1 -	"On" if door control is in Partition 1. (Default is "On")			
LED2 -	"On" if door control is in Partition 2. (Default is "On")			
LED3 -	"On" if door control is in Partition 3. (Default is "On")			
LED4 -	"On" if door control is in Partition 4. (Default is "On")			
LED5 -	"On" if door control is in Partition 5. (Default is "On")			
LED6 -	"On" if door control is in Partition 6. (Default is "On")			
LED7 -	"On" if door control is in Partition 7. (Default is "On")			
LED8 -	"On" if door control is in Partition 8. (Default is "On")			

LOCATION 4 PROGRAMMING THE ZONES

(2 segments of numerical data)

Segment 1 Door Shunt Zone

Program the zone that will be monitored as a door for access control. This location must be programmed with a valid zone for monitored access control functions to work properly. (Default is **0**)

Additionally, this zone must be configured in the control panel as a Door Shunt zone by programming an unused Zone Type Characteristic in locations 111-169 (Seg 4, Opt 4).

Segment 2 Request To Exit (RTE) Zone

Program the zone that will be monitored to signal an RTE. If this segment is programmed with a valid zone and the zone is faulted, the reader will activate its onboard open collector output and send the RTE. (Default is **0**)



Additionally, this zone must be configured in the control panel as an RTE zone by programming an unused Zone Type Characteristic in locations 111-169 (Seg 4, Opt 3).

LOCATION 5 PROGRAMMING THE VARIOUS READER TIMERS

(4 segment of numerical data)

Segment 1 Scan Time

Enter the amount of time required to hold a card between beeps to activate the functions programmed in Location 0, Segments 2 and 3. This timer is timed in 1/100-second increments from 0 to 2.55 seconds. (Default is **100 =** 1 second).

Segment 2 Relay Active Time

Enter the amount of time the onboard open collector output is energized once activated. This timer is timed in 1-second increments from 0 to 255 seconds. (Default is **10** = 10 seconds).

Segment 3 Door Fault Warning Time

Enter the amount of time a monitored zone (see Location 4, Segment 1) must be faulted before sounding a warning (local buzzer). The door fault warning is timed in 1-second increments from 0 to 255 seconds. (Default is **30** = 30 seconds).

Segment 4 Door Fault Alarm Time

Enter the amount of time a monitored zone (see Location 4, Segment 1) must be faulted before sending an alarm condition to the control panel. The door fault alarm is timed in 1-second increments from 0 to 255 seconds. (Default is 60 = 60 seconds).

LOCATION 6 PROGRAMMING THE OPENING TIME FOR SCHEDULE 1

(2 segments of numerical data)

Segment 1 Program the hour of the opening time in 24-hour format. (Default is 8 = 8:00 AM)Segment 2 Program the minutes after the hour of the opening time for Schedule 1. (Default is 0)

LOCATION 7 PROGRAMMING THE CLOSING TIME FOR SCHEDULE 1

(2 segments of numerical data)

Segment 1Program the hour of the closing time in 24-hour format. (Default is 20 = 8:00 PM)Segment 2Program the minutes after the hour of the closing time for Schedule 1. (Default is 0)

LOCATION 8 PROGRAMMING THE DAYS FOR SCHEDULE 1

(1 segment of binary data)

lay.
C

- LED2 = "On" if schedule is active on Monday.
- LED3 = "On" if schedule is active on Tuesday.
- LED4 = "On" if schedule is active on Wednesday.
- LED5 = "On" if schedule is active on Thursday.
- LED6 = *"On" if schedule is active on Friday.*
- LED7 = "On" if schedule is active on Saturday.
- LED8 = "On" if schedule is disabled on holidays.

LOCATIONS 9 - 29 PROGRAMMING THE SCHEDULES 2 - 8

Locations 9 – 29 are used to program the opening times, closing times, and days for Schedules 2 - 8. Each schedule has three locations that are programmed with the same steps as Schedule 1 described previously. Refer to Schedule 1 (Locations 6 - 8 above) for specific instructions.

Location 9 – Opening Time for Schedule 2 Location 10 – Closing Time for Schedule 2 Location 11 – Days for Schedule 2 Location 12 – Opening Time for Schedule 3 Location 13 – Closing Time for Schedule 3 Location 14 – Days for Schedule 3 Location 15 – Opening Time for Schedule 4 Location 16 – Closing Time for Schedule 4 Location 17 – Days for Schedule 4 Location 18 – Opening Time for Schedule 5 Location 19 – Closing Time for Schedule 5 Location 20 – Days for Schedule 5

Location 21 – Opening Time for Schedule 6 Location 22 – Closing Time for Schedule 6 Location 23 – Days for Schedule 6 Location 24 – Opening Time for Schedule 7 Location 25 – Closing Time for Schedule 7 Location 26 – Days for Schedule 7 Location 27 – Opening Time for Schedule 8 Location 28 – Closing Time for Schedule 8 Location 29 – Days for Schedule 8

LOCATION 30 PROGRAMMING THE DATE OF HOLIDAYS IN JANUARY

(8 segments of numerical data) Program the day of the month in January that the Opening time in a schedule is suppressed. For example, if the opening should not occur on January 1, program a "1" in Segment 1. This feature can be repeated up to a maximum of 8 holidays per location (month). (Default is **No holidays**)

LOCATIONS – 31 - 41 PROGRAMMING THE DATE OF HOLIDAYS FROM FEBRUARY TO DECEMBER

(8 segments of numerical data) Locations 31 - 41 are used to program the day of each month, from February to December, in which the Opening time in a schedule is suppressed. Each location will accommodate up to a maximum of 8 holidays, and programmed with the same steps as Location 30 described previously.

Location 31 – February holidays Location 32 – March holidays Location 33 – April holidays Location 34 – May holidays Location 35 – June holidays Location 36 – July holidays Location 37 – August holidays Location 38 – September holidays Location 39 – October holidays Location 40 – November holidays Location 41 – December holidays

LOCATION 42 ACTIVATION DATA FOR USER CARDS 1 - 120

(15 segments of binary data)

This location is used to select which user cards 1 through 120 are activated. If the LED is "on", the card is active. Each segment has 8 LEDs corresponding to the 8 possible user cards. Example: Segment 4, LED 2 indicates that user card 26 is active.

User Cards 1 - 8
User Cards 9 - 16
User Cards 17 - 24
User Cards 25 - 32
User Cards 33 - 40
User Cards 41 - 48
User Cards 49 - 56
User Cards 57 - 64

 Segment 9
 User Cards 65 - 72

 Segment 10
 User Cards 73 - 80

 Segment 11
 User Cards 81 - 88

 Segment 12
 User Cards 89 - 96

 Segment 13
 User Cards 97 - 104

 Segment 14
 User Cards 105 - 112

 Segment 15
 User Cards 113 - 120

I ED2 = Card 2
LED3 = Card 3
LED4 = Card 4
LED5 = Card 5
LED6 = Card 6
LED7 = Card 7
LED8 = Card 8

LOCATION 43 PROGRAMMING ACTIVATION DATA FOR USER CARDS 121 - 240

(15 segments of binary data)

This location is used to select which user cards 121 through 240 are activated. If the LED is "on", the card is active. Each segment has 8 LEDs corresponding to the 8 possible user cards. Example: Segment 15, LED 8 indicates that user card 240 is active.

Segment 1	User Cards 121 - 128	Segment 9	User Cards 185 - 192	
Segment 2	User Cards 129 - 136	Segment 10	User Cards 193 - 200	
Segment 3	User Cards 137 - 144	Segment 11	User Cards 201 - 208	
Segment 4	User Cards 145 - 152	Segment 12	User Cards 209 - 216	
Segment 5	User Cards 153 - 160	Segment 13	User Cards 217 - 224	
Segment 6	User Cards 161 - 168	Segment 14	User Cards 225 - 232	-
Segment 7	User Cards 169 – 176	Segment 15	User Cards 233 - 240	
Seament 8	User Cards 177 - 184			_

LED1 = Card 1
LED2 = Card 2
LED3 = Card 3
LED4 = Card 4
LED5 = Card 5
LED6 = Card 6
LED7 = Card 7
LED8 = Card 8

LOCATION 44 CODE ENTRY LOGGING PARTITION

(2 segments of numerical data)

This location programs the partition that is logged with the Code Entry message and sent when the following conditions are met:

> An RTE scan function is selected (Location 0, Segment 1/2, Option 8); and

"RTE from a scanned card is to be logged as Code Entry" is enabled (Location 3, Segment 1, Option 5). Entering a 0 (zero) will send the lowest valid partition of the reader. Entering 1-16 will send the entered value as the partition. (Default is 0.)

Segment 1Code Entry Logging Partition for Reader "A"Segment 2Code Entry Logging Partition for Reader "B"

SYSTEM NOTES

IX. PROGRAMMING WORKSHEETS

Sefaults are shown in *bold italics*.

SEG	DESCRIPTION
LO	CATION 0 – READER "A" SCAN FUNCTIONS & OPTIONS
1	SINGLE SCAN FUNCTION
	1 = "On" to send Code Entry function to the control panel.
	2 = "On" to activate the Armed Away mode.
	4 = "On" to send the Disarm function to the control panel.
	5 = "On" to send Auxiliary Function #1 to the control panel.
	6 = "On" to send Auxiliary Function #2 to the control panel.
	$7 = 0n^{2}$ to broadcast an X-10 function (see Location 2). $8 = 0n^{2}$ to send a Request To Exit (RTE); and activate the onboard relay
2	TRIPLE SCAN FUNCTION
	1 = "On" to send Code Entry function to the control panel.
	2 = "On" to activate the Armed Away mode.
	4 = "On" to serve the American to the control panel.
	5 = "On" to send Auxiliary Function #1 to the control panel.
	6 = "On" to send Auxiliary Function #2 to the control panel.
	 I = On to broadcast an X-10 function (see Loc 2). = "On" to send an RTE & activate the ophoard open collector output
3	READER OPTIONS
	1 = "On" if tamper is inverted.
	2 = "On" if tamper is enabled.
	 Grin in reader buzzen is to follow typical keypad buzzing. 4 = "On" if reader automatically issues a beep when a card is scanned.
	5-8 Reserved.
4	LED1 (GREEN) OPTIONS
	1 = "On" to follow Ready status of system. $2 = "On" to found with the relay (open collector output activation)$
	3 = "On" if inverted.
	5-8 Reserved.
5	LED2 (RED) OPTIONS
	2 = "On" to togole with the relay / open collector output activation.
	3 = "On" if inverted.
69	4-8 Reserved.
0-0	
LO	CATION I - READER B SCAN FUNCTIONS & OFTIONS
1	1 = "Op" to send Code Entry function to the control panel
	2 = "On" to activate the Armed Away mode.
	3 = "On" to activate the Armed Stay mode.
	4 = "On" to send the Disarm function to the control panel.
	5 - On to serie Auxiliary Function #1 to the control panel. 6 = "On" to send Auxiliary Function #2 to the control panel.
	7 = "On" to broadcast an X-10 function (see Location 2).
0	8 = "On" to send a Request To Exit (RTE); and activate the onboard relay.
2	1 = "On" to send Code Entry function to the control panel
	2 = "On" to activate the Armed Away mode.
	3 = "On" to activate the Armed Stay mode.
	4 = "On" to send the Disarm function to the control panel.
	6 = "On" to send Auxiliary Function #2 to the control panel.
	7 = "On" to broadcast an X-10 function (see Loc 2).
2	8 = "On" to send an RTE & activate the onboard open collector output.
3	1 = "On" if tamper is inverted
	2 = "On" if tamper is enabled.
	3 = "On" if reader buzzer is to follow typical keypad buzzing.
	4 = "On" it reader automatically issues a beep when a card is scanned.
1	

SEG		DESC					
4	, 4 LED1 (GREEN) OPTIONS						
	 1 = "On" to follow Ready status of system. 2 = "On" to toggle with the relay / open collector output activation. 3 = "On" if inverted. 4-8 Reserved 						
5	LED2 (RED) OPTIONS 1 = "On" to follow Armed stat 2 = "On" to toggle with the relay 3 = "On" if inverted. 4-8 Reserved	t us of system. v / open collector output a	activation.				
6-8	RESERVED						
LO	CATION 2 – X10 ADDRESS						
1	MODULE NUMBER						
	0 = Module 1 4 =	Module 5 Module 6	8 = Module 9	12 = Module 13			
	$2 = Module 3 \qquad 6 =$	Module 7	9 = Module 10 10 = Module 11	13 = Module 14 14 = Module 15			
	3 = Module 4 7 =	Module 8	11 = Module 12	15 = Module 16			
2	HOUSE CODE	_					
	0 = A $4 =$ $1 = P$ $5 =$	E	8 =	12 = M 13 - N			
	2 = C 6 =	G	9 – 5 10 = K	13 = N 14 = O			
	3 = D 7 =	Н	11 = L	15 = P			
3	READER "A" SINGLE SCAN	•		0			
	0 = AII UNITS OTT 2 = 1 = AII lights on 3 = 3 = 3 = 3 = 3 = 3 = 3 = 3 = 3 = 3	Off	4 = DIM 5 = Bright	6 = All lights off 7 = All others = Reserved			
4	READER "A" TRIPLE SCAN		o – Blight				
	0 = All units off 2 =	On	4 = Dim	6 = All lights off			
F	1 = All lights on 3 =	Off	5 = Bright	7 = All others = Reserved			
Э	0 = All units off 2 =	On	4 = Dim	6 = All lights off			
	1 = All lights on $3 =$	Off	5 = Bright	7 = All others = Reserved			
6	READER "B" TRIPLE SCAN						
	0 = All units off $2 =$	On Off	4 = Dim 5 = Pright	6 = All lights off			
1.00			5 – Bright	7 - All others - Reserved			
1	UNIT OPTIONS						
-	1 = "On" if enabled for User	Card Programming					
	2 = "On" if tamper enabled						
	3 = "On" if on-board zone is disabled						
	4 = "On" if reader is 40-bit w/facility code format						
~ Set if reader is CASI 9xx/840/845							
	~ Clear if Smart Reader (820/825) or Dual Tech Reader (1000/1010)						
	b = 0 ii an RTE from a so	anneu caru is to be lo	ut is to be logged as Code	Entry			
	7-8 = Reserved	ne or the egress lipt	at is to be logged as could	y			
2	DOOR OPTIONS						
	1 = "On" if locking mechanis	m is a Maglock or Dr	op Bolt.				
	2 = "On" if access is allowed	I regardless of Armed	status of the system.				
	3 = "On" if the door is not to	be latched unlocked	during an open schedule.	dulo			
	4 = 0 II II onboard open col	lector output only trig	jyers during an open sche	uule.			
	5 = "On it onboard open collector output only triggers during a close schedule. 6 = "On" if Forced Entry Alarm is logged						
	7 = "On" if access allowed without an RTE.						
8 = Reserved.							
3	3 ENABLING THE SCHEDULES FOR THE ONBOARD OPEN COLLECTOR OUTPUT						
	1 = "On" if driver follows S	Schedule 1.					
	2 = "On" IT driver follows S	schedule 2.					
	3 = 0 in arriver follows $3 = 0$ if driver follows $3 = 100$	Schedule J.					
	5 = "On" if driver follows S	Schedule 5					
	6 = "On" if driver follows S	Schedule 6.					
	7 = "On" if driver follows Schedule 7.						
L	8 = "On" if driver follows \$	Schedule 8.					

DES DES	CRIPTION
4 READER PARTITION	
1 = "On" if door control is in Partition 1	
2 = "On" if door control is in Partition 2 3 = "On" if door control is in Partition 3	
4 = "On" if door control is in Partition 4	
5 = "On" if door control is in Partition 5	
6 = "On" if door control is in Partition 6	
7 = "On" if door control is in Partition 7	
8 = "On" if door control is in Partition 8	
LOCATION 4 – PROGRAMMING THE ZONES	
1 DOOR SHUNT ZONE	Default = 0
Additionally, this zone must be configured in the configured in	ntrol panel as a Door Shunt zone by programming an unused
2 REQUEST TO EXIT (RTE) ZONE	Default = 0
 Additionally, this zone must be configured in the 	control panel as an RTE zone by programming an unused
Zone Type Characteristic in locations 111-169 (Seg 4	, Opt 3).
LOCATION 5 – READER TIMERS	
1 Scan Time (1/100 seconds)	Default = 100 (1 second)
 2 Relay Active Time (seconds) 3 Deer Fault Warning Time (seconds) 	Default = 10 Default = 20
4 Door Fault Alarm Time (seconds)	Default = 50 Default = 60
LOCATION 6 – OPENING TIME FOR SCHEDULE 1	
1 Hour of Opening (24-hr format)	Default = 8 (8 AM)
2 Minutes after Hour of Opening	Default = 0
LOCATION 7 – CLOSING TIME FOR SCHEDULE 1	
1 Hour of Closing (24-hr format)	Default =20 (8 PM)
2 Minutes after Hour of Closing	Default = 0
LOCATION 8 – DAYS FOR SCHEDULE 1	
1 = "On" if schedule is active on Sunday.	
2 = "On" if schedule is active on Monday.	
3 = "On" if schedule is active on Tuesday.	
5 = "On" if schedule is active on Thursday.	
6 = "On" if schedule is active on Friday.	
7 = "On" if schedule is active on Saturday.	
8 = "On" if schedule is disabled on holidays.	
LOCATION 9 – OPENING TIME FOR SCHEDULE 2	
1 Hour of Opening (24-hr format)	Default = 8 (8 AM)
	Detault = 0
1 Hour of Closing (24 hr formet)	Default = 20 (9 DM)
2 Minutes after Hour of Closing	Default = 20 (o PW) Default = 0
LOCATION 11 – DAYS FOR SCHEDULE 2	Donan - V
1 = "On" if schedule is active on Sunday	
2 = "On" if schedule is active on Monday.	
3 = "On" if schedule is active on Tuesday.	
4 = "On" if schedule is active on Wednesday.	
5 = "On" if schedule is active on Thursday.	
7 = "On" if schedule is active on Saturday.	
8 = "On" if schedule is disabled on holidays.	
LOCATION 12 – OPENING TIME FOR SCHEDULE 3	
¹ Hour of Opening (24-hr format)	Default = 8 (8 AM)
2 Minutes after Hour of Opening	Default = 0
LOCATION 13 – CLOSING TIME FOR SCHEDULE 3	
1 Hour of Closing (24-hr format)	Default =20 (8 PM)
2 Minutes after Hour of Closing	Default = 0

မ်ိဳးက DEs	SCRIPTION
LOCATION 14 – DAYS FOR SCHEDULE 3	
 1 = "On" if schedule is active on Sunday. 2 = "On" if schedule is active on Monday. 3 = "On" if schedule is active on Tuesday. 4 = "On" if schedule is active on Wednesday 5 = "On" if schedule is active on Thursday. 6 = "On" if schedule is active on Saturday. 8 = "On" if schedule is disabled on bolidays. 	
LOCATION 15 – OPENING TIME FOR SCHEDULE 4	
 Hour of Opening (24-hr format) Minutes after Hour of Opening 	Default = 8 (8 AM) Default = 0
LOCATION 16 – CLOSING TIME FOR SCHEDULE 4	
 Hour of Closing (24-hr format) Minutes after Hour of Closing 	Default =20 (8 PM) Default = 0
LOCATION 17 – DAYS FOR SCHEDULE 4	
 1 = "On" if schedule is active on Sunday. 2 = "On" if schedule is active on Monday. 3 = "On" if schedule is active on Tuesday. 4 = "On" if schedule is active on Wednesday 5 = "On" if schedule is active on Thursday. 6 = "On" if schedule is active on Friday. 7 = "On" if schedule is active on Saturday. 8 = "On" if schedule is disabled on holidays. 	
LOCATION 18 – OPENING TIME FOR SCHEDULE 5	
 Hour of Opening (24-hr format) Minutes after Hour of Opening 	Default = 8 (8 AM) Default = 0
LOCATION 19 – CLOSING TIME FOR SCHEDULE 5	
 Hour of Closing (24-hr format) Minutes after Hour of Closing 	Default = 20 (8 PM) Default = 0
LOCATION 20 – DAYS FOR SCHEDULE 5	
 1 = "On" if schedule is active on Sunday. 2 = "On" if schedule is active on Monday. 3 = "On" if schedule is active on Tuesday. 4 = "On" if schedule is active on Wednesday 5 = "On" if schedule is active on Thursday. 6 = "On" if schedule is active on Friday. 7 = "On" if schedule is active on Saturday. 8 = "On" if schedule is disabled on holidays. 	
LOCATION 21 – OPENING TIME FOR SCHEDULE 6	
 Pour of Opening (24-nr format) Minutes after Hour of Opening 	Default = 0 $Default = 0$
LOCATION 22 – CLOSING TIME FOR SCHEDULE 6	
 Hour of Closing (24-hr format) Minutes after Hour of Closing 	Default =20 (8 PM) Default = 0
LOCATION 23 – DAYS FOR SCHEDULE 6	
 1 = "On" if schedule is active on Sunday. 2 = "On" if schedule is active on Monday. 3 = "On" if schedule is active on Tuesday. 4 = "On" if schedule is active on Wednesday 5 = "On" if schedule is active on Thursday. 6 = "On" if schedule is active on Friday. 7 = "On" if schedule is active on Saturday. 8 = "On" if schedule is disabled on holidays. 	
LOCATION 24 – OPENING TIME FOR SCHEDULE 7	
 Hour of Opening (24-hr format) Minutes after Hour of Opening 	Default = 8 (8 AM) Default = 0

DESCRIPTION								
LOCATION 25 – CLOSING TIME FOR SCHEDULE 7								
1 Hour of Closing (24-br format) Default =20 (8 PM)								
2 Minutes after Hour of Closing		Defa	ult = 0	,			-	
LOCATION 26 - DAYS FOR SCHED								
1 - "Op" if schodulo is acti		dav						
2 = "On" if schedule is action of the schedule is action of the schedule is a schedu	1 = On it schedule is active on Sund							
3 = "On" if schedule is a	tive on T	luosdav						
4 = "On" if schedule is a	ctive on V	Nednesd	av					
5 = "On" if schedule is a	ctive on 1	Thursday						
6 = "On" if schedule is a	ctive on I	Friday.	-					
7 = "On" if schedule is acti	ve on Sat	urdav.						
8 = "On" if schedule is disa	bled on h	olidays.						
LOCATION 27 – OPENING TIME FO	R SCHEDI	JLE 8						
1 Hour of Opening (24-hr form:	at)		Dofa	ult = 8 (8)	Δ <i>M</i>)			
2 Minutes after Hour of Openin	a() IO		Defau	u = 0	- 19			-
\downarrow OCATION 28 – CLOSING TIME FO			Dena	ant o				
			D. (14 20 (0	DW			
 Hour of Closing (24-hr formal Minutes after Hour of Closing 	t)		Defau	uit = 20 (8)	PIVI)			-
			Derat	unt - 0				
LOCATION 29 - DAYS FOR SCHED								
1 = "On" if schedule is acti	ve on Sur	nday.						
2 = "On" if schedule is a	ctive on I	londay.						
3 = "On" if schedule is a	ctive on l	uesday.						
4 = On if schedule is a	ctive on N	veanesa	ay.					
5 = "On" if schedule is a	clive on	i nursuay Fridov	•					
0 = 0 if schedule is active $7 = "0n"$ if schedule is active $7 = 0$		-nuay.						
7 = 0 If it schedule is done	ve on Sat	uluay. olidave						
LOCATION 30 - HOLIDAYS IN JAN		ondays.	Dofoult	- 0				
			Derault	-0				
LOCATION 31 - HOLIDATS IN FEB	KUAR I		Default	= 0				
LOCATION 32 – HOLIDAYS IN MAR	СН		Default	= 0				
LOCATION 33 – HOLIDAYS IN APR	IL		Default	= 0				
LOCATION 34 - HOLIDAYS IN MAY			Default	= 0				
LOCATION 35 – HOLIDAYS IN JUN								
LOCATION 36 - HOLIDAYS IN JULY	(Default = 0						
	LICT							
LOCATION 37 - HOLIDAYS IN AUG			Default = 0					
LOCATION 38 – HOLIDAYS IN SEP	TEMBER		Default	= 0				
LOCATION 39 – HOLIDAYS IN OCT	OBER		Default	= 0				
LOCATION 40 - HOLIDAYS IN NOV	EMBER		Default	= 0				
LOCATION 41 – HOLIDAYS IN DEC	EMBER		Default	= 0				
LOCATION 42 – ACTIVATION DATA	FOR USE	R CARDS	1 - 120	•				
L EDs	1	2	3	4	5	6	7	8
1 User Cards 1 - 8	1	2	3	4	5	6	7	8
2 User Cards 9 - 16	9	10	11	12	13	14	15	16
3 User Cards 17 - 24	17	18	19	20	21	22	23	24
4 User Cards 25 - 32	25	26	27	28	29	30	31	32
⁵ User Cards 33 – 40	33	34	35	36	37	38	39	40
6 User Cards 41 – 48	41	42	43	44	45	46	47	48
7 User Cards 49 – 56	User Cards 49 – 56 49 50 51 52 53 54 55 56						56	
8 User Cards 57 – 64 57 58 59 60 61 62 63 64						64		
9 User Cards 65 – 72 65 66 67 68 69 70 71 72						72		
10 User Cards 73 – 80	10 User Cards 73 74 75 76 77 78 79 80						80	
11 User Cards 81 82 83 84 85 86 87 88						88		
12 User Cards 89 – 96	89	90	91	92	93	94	95	96
13 User Cards 97 – 104	97	98	99	100	101	102	103	104
14 User Cards 105 – 112	105	106	107	108	109	110	111	112
15 User Cards 113 - 120	113	114	115	116	117	118	119	120

SEG	DESCRIPTION									
LOCATION 43 – ACTIVATION DATA FOR USER CARDS 121 – 240										
	LEDs	1	2	3	4	5	6	7	8	
1	User Cards 121 - 128	121	122	123	124	125	126	127	128	
2	User Cards 129 - 136	129	130	131	132	131	134	135	136	
3	User Cards 137 - 144	137	138	139	140	141	142	143	144	
4	User Cards 145 - 152	145	146	147	148	149	150	151	152	
5	User Cards 153 – 160	153	154	155	156	157	158	159	160	
6	User Cards 161 – 168	161	162	163	164	165	166	167	168	
7	User Cards 169 – 176	169	170	171	172	173	174	175	176	
8	User Cards 177 – 184	177	178	179	180	181	182	183	184	
9	User Cards 185 – 192	185	186	187	188	189	190	191	192	
10	User Cards 193 – 200	193	194	195	196	197	198	199	200	
11	User Cards 201 – 208	201	202	203	204	205	206	207	208	
12	User Cards 209 – 216	209	210	211	212	213	214	215	216	
13	User Cards 217 – 224	217	218	219	220	221	222	223	224	
14	User Cards 225 – 232	225	226	227	228	229	230	231	232	
15	User Cards 233 – 240	233	234	235	236	237	238	239	240	
LOCATION 44 – CODE ENTRY LOGGING PARTITION										
1	Code Entry Logging Partition	for Read	er "A"	Defa	ult = 0					
2	Code Entry Logging Partition for Reader "B"				ult = 0					

X. ORDERING INFORMATION

PART # DESCRIPTION

Single Door Control Module
Proximity Card Reader
NX-8E Control, NX-148E LED Keypad, 40VA Transformer
NX-8 Control, NX-148E LED Keypad, 40VA Transformer
NX-6 Control, NX-148E LED Keypad, 40VA Transformer

XI. GLOSSARY

TERM

DESCRIPTION

Request To Exit (RTE)	A zone can be programmed to monitor an open door. The RTE activates the onboard open collector output and sends a message on the buss. (Refer to Loc 0, Pa 11)
Scan	To "present" or pass a card or FOB within sensing range of the card reader module.
Sinale Beep	An audible indicator (beep).
Single Scan	When a user card is scanned and held at the reader for 1 beep, the reader will perform the functions as programmed in Loc 0, Pg 11
Triple Beep	An audible indicator (beep, beep, beep).
Triple Scan	When a user card is scanned three times at the reader, the reader will perform the functions as programmed in Location 0 & 1, Pgs 11 & 12

XII. FCC INFORMATION

The NX-1710E module has not received any FCC approvals yet.

XIII. UNDERWRITERS LABORATORIES INFORMATION

The NX-1710E module has not received any UL listings yet.

XIV. SPECIFICATIONS

DIMENSIONS	Approx. 3.25"W x 6.00"L x 1"D
OPERATING POWER	12 VDC, Supplied by NX-4, NX-6, NX-8, NX-8E, or NX-320E
CURRENT DRAW	40mA Standby with Green LED 110mA Maximum
OPERATING TEMPERATURE	32 to 120 degrees F
SHIPPING WEIGHT	< 1 lb.



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