



NX-588E USB Flash Programmer Installation Instructions

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Introduction

This is the GE *NX-588E USB Flash Programmer Installation Instructions*. The NX-588E is a device that can store NetworX (NX) alarm panel configuration files within its own nonvolatile memory. This capability allows you to quickly upgrade panels based on settings that you can fully customize with the NX-588E and the DL900 software, including:

- Create and customize up to four alarm programming worksheets, with the DL900 software.
- Download alarm configurations directly to any NX panel, using your PC's USB port. (Before you could only connect through the serial port.)
- Store alarm panel configurations to the NX-588 to update any NX panel in the field.
- Transfer any stored files to any identical panel.
- Store one copy of the firmware for certain NetworX flashable modules and all V2 control panels. You can download this firmware from the website.

System requirements

- PC running *NXProg.exe* and/or DL900 (download software for Windows) with available USB port
- Microsoft Windows 2000 or Windows XP
- NX-588E USB flash programmer module
- Any NX control panel or module with power applied
- Drivers for the NX-588E



CAUTION: You must be free of static electricity before handling circuit boards. Wear a grounding strap or touch bare metal to discharge static electricity.

Installation

Before you can use your NX-588E, you will have to program it. To program your NX-588E, do the following:

1. Go to www.gesecurity.com/networxflash and download the NX-588E driver, *NX588E.inf*, along with any files required to upgrade the NetworX modules.

Note: A password is required. If you do not have one, you will need to create one.

2. Save the file to your PC.
3. Plug in the NX-588E.

Windows 2000

If you are using Windows 2000, do the following:

1. Plug the NX-588E into your PC's USB port.
2. When the *Found new hardware* wizard starts up, click **Next**.
3. Select *Display a list of the known drivers for this device so that I can choose a specific driver*, and click **Next**.
4. Select *Ports (Com & LPT)*, and click **Next**.
5. Click **Have disk**.
6. Click **Browse** and navigate to the location where you saved the *NX588E.inf* file.
7. Click **OK**, and then click **Next**.
8. Click **Finish**.

Windows XP

If you are using Windows XP, do the following:

1. Plug the NX-588E into your PC's USB port.
2. When the *found new hardware* wizard starts up, select *No, not at this time*, and click **Next**.
3. Select *Install from a list or specific location (advanced)*, and click **Next**.
4. Select *Don't search. I will choose the driver to install*, and click **Next**.
5. Select *Ports (Com & LPT)*, and click **Next**.
6. Click **Have disk**.
7. Click **Browse** and navigate to the location where you saved the *NX588E.inf* file.
8. Click **OK**, and then click **Next**.
9. A screen appears indicating that the driver has not passed a Windows certification test. Select **Continue anyway**.
10. Click **Finish**.

Programming your NX-588E

Program your NX-588E so the settings you choose in the DL900 software download onto your NX-588E and onto the control panel. You can do this directly from your PC or first to your NX-588E and then on to your control panel.

Using the DL900 software to connect to your panel

To directly download a configured template to the control panel, use the NX-588 as an interface by doing the following:

1. Connect the NX-588E to the PC's USB port.
2. Connect the cable, from the NX-588E to a NetworX panel using alligator clips:
 - Red to POS
 - Black to COM
 - Green to DATA
3. Start the DL900 download software.
4. Select the account to use.
5. Select **Download/Direct connect**. You can also use the tool bar or the **F11** key.

Note: DL900 software version 2.20 or newer autodetects the NX-588E.
6. A DL900 window displays when the NX-588E is detected. If you don't want the window to display in the future select the *Do not show this screen again* option and click **OK**.
7. Download as normal.

Writing DL900 files to the NX-588E

To write data from the DL900 to the NX-588E, do the following:

1. Connect the NX-588E to the PC's USB port.
2. Start the DL900 download software.
3. Select **Download/Write panel data to 586/588**. The system warns you that this will overwrite user codes (if you have changed them).
4. A DL900 window displays indicating NX-588E detection. If you don't want the window to display in the future select the *Do not show this screen again* option and click **OK**.
5. Select the location in the NX-588E where you want the data stored. This overwrites the existing data and does not prompt you in the future.

A screen prompts you that the data is being read. The process is complete when this screen closes.

Note: Programming information for the modules is *not* read or written to or from the NX-588E.

Reading data from the NX-588E to the DL900

To read data from the NX-588E to the DL900, do the following:

1. Connect the NX-588E to the PC's USB port.
2. Select **Download/Read panel data from 586/588** to start the DL900 download software.
3. A DL900 window displays indicating NX-588E detection. If you don't want the window to display in the future select the *Do not show this screen again* option and click **OK**.
4. Select the location, in the NX-588E, where you want to retrieve data from.

A screen prompts you that the data is being read. The process is complete when this screen closes.

Note: Programming information for the modules is *not* read or written to or from the NX-588E.

Uploading a configuration file to the alarm panel

To upload a configuration file directly from the NX-588E to the panel, without a computer, do the following:

1. Attach the cable to the proper terminals on the NX panel using three alligator clips. See [Using the DL900 software to connect to your panel](#) on page 1.
2. If you have a keypad installed in *partition 8, keypad 8*, you must remove it during this operation.
3. Enter *, **8** on a partition 1 keypad.
4. Enter the 4- or 6-digit program code. (Default is 9713.)
5. Enter **2, 5, 5, #** when prompted for the device number.
6. Enter **0, #** when prompted for the location. See *Table 1* for a complete list of tasks and results.
7. To read (store the NX panel configuration into a file on the NX-588E), do the following:
 - a. Enter **1, ***.
 - b. Enter the number of the file (1 to 4) in which you wish to save it.
 - c. Enter ***, #**.

Table 1. Segment 1 tasks and results

Task	Result
0	Idle condition.
1	Command—read panel configuration into a file.
2	Command—write a file configuration into the panel.
10	Result—working.
11	Result—invalid command; installer entered a value other than 1 or 2.
12	Result—invalid file number; installer entered a file number other than 1 to 4.
13	Result—incorrect panel type; the panel and file types do not match.
14	Result—incorrect access code; the panel and file access code do not match.
15	Result—timeout; the requested command had no data exchange for 3 seconds.
16	Result—aborted; the previous command was aborted by attempting another command.
17	Result—panel type not supported.
18	Result—panel type not loaded from bus (retry).
20	Result—transfer successful; the previous read or write command was successful.

The DS5 LED flashes as the system runs the command. Once the command is successful, the keypad chimes. For LED locations, refer to *Figure 1*, and for LED descriptions, refer to *Table 2* on page 3.

8. To write (copy a file from the NX-588E to the NX panel), do the following:
 - a. Enter **2, ***.
 - b. Enter the number of the file to copy (1 to 4)*, **#**.

The DS5 LED flashes as the system runs the command. Once the command is successful the keypad sounder chimes.

Note: A triple-beep sounds if any error occurs during step 7 or step 8. You can review the results in the [Reviewing segments and tasks for location 0](#) on page 3.

Figure 1. LED locations

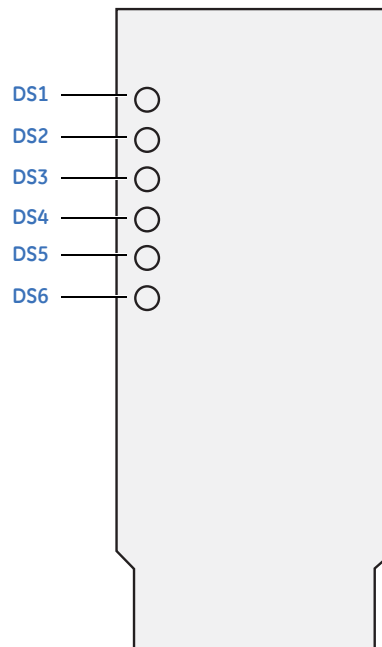


Table 2. LED descriptions

LED	Description
DS1	Bus action <ul style="list-style-type: none"> Flashes when connected to NetworX bus
DS2	USB <ul style="list-style-type: none"> Off = no USB Flashes = in progress Steady = USB attached
DS3	Receiving USB
DS4	Sending USB
DS5	Waiting for bus response
DS6	Programming/error <ul style="list-style-type: none"> Flashes slowly (once per second) = programming in progress Flashes rapidly (three times per second) = error Steady = programming successful

Reviewing segments and tasks for location 0

The only location you will use on the NX-588E is Location 0. The seven segments have the following functions:

Segment 1. Sets the task to perform (read or write) and displays the result of the task requested (see *Table 1*).

Segment 2 . This stores the file number for the requested read or write command, a valid value between 1 and 4. This segment is always set to 0 after any command, so you don't accidentally overwrite a file.

Segments 3 through 6. Indicates the panel type stored in files 1 through 4 respectively. The results include the following:

- 0 to 3 applies to the standard NetworX panels (NX-4, NX-6, NX-8)
- 4 applies to the NX-8E panel
- 10 applies to the NX-4V2 panel
- 11 applies to the NX-6V2 panel
- 12 applies to the NX-8V2 panel

Segment 7. Not used.

Upgrading the NX-4V2, NX-6V2, NX-8V2

When upgrading a control panel, all auxiliary outputs will deenergize. Do not be concerned with any sound that comes from either the auxiliary outputs or relays, just disconnect the auxiliary outputs before you upgrade.

Writing from the PC to the NX-588E

To write firmware from the PC to the NX-588, do the following:

- Connect the NX-588E to the USB port.
- Double-click the shortcut to *NXProg.exe*. The NX-588E must be connected before this step or the application needs to be closed and restarted to work properly.

The application automatically selects the COM port where the NX-588E is installed.

- Select **Open file** and find the desired file.
- Select **Transfer file**.

The DS6 LED on the NX-588E flashes slowly (once per second). The *NXProg* application indicates, in a prompt above the status bar, whether the firmware was successfully written or not. Refer to *Figure 1* on page 2 for LED descriptions, or *Troubleshooting* on page 4 for error descriptions.

- When you finish, remove the NX-588E from the computer.

Writing firmware from your computer to the panel

To write firmware to a control panel or module from the NX-588E with a computer connected, is first write the file to the NX-588E, then write it to the control panel or module.

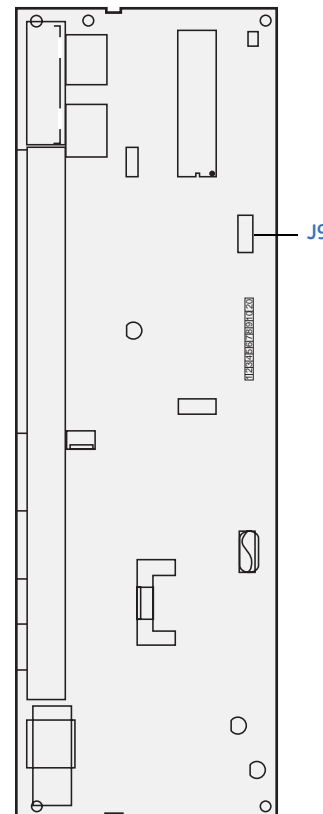
- Connect the NX-588E to the USB port.
- Double-click the shortcut to *NXProg.exe*. The NX-588E must be connected before this step or the application must be closed and restarted to work properly.
The application automatically selects the COM port where the NX-588E is installed.
- Select *Open file* and select the file you require.
- Select *Transfer file*. The DS6 LED on the NX-588E flashes slowly (once per second).

The *NXProg* application indicates, in a prompt above the progress bar, whether the firmware was successfully written or not. Refer to *Figure 1* on page 2 for LED descriptions or *Troubleshooting* on page 4 for error descriptions.

To flash the file from your computer, do the following:

- Attach the 5-pin cable of the NX-588E to the control panel's or module's J9 program connector (*Figure 2*).

Figure 2. J9 programming connector



Note: For boards with a nonkeyed program connector, PIN 1 is located by the designator (J9) on the circuit board.

2. If the panel/module is not already powered up, connect to AC (not battery only) before starting the flash process.
3. Select *Upgrade* to upgrade the firmware. The DS6 LED flashes as the firmware is written.
The DS6 LED becomes solid when the upgrade is complete, and flashes three times per second if the upgrade fails. The *NXProg* application indicates, in a prompt above the progress bar, whether the firmware was successfully written or not. (See [Troubleshooting](#) on page 4 for a list of error descriptions.)
4. When you finish, remove the NX-588E from the computer and the control panel.

Writing firmware from the NX-588E to the panel

To write firmware to a control panel or module from the NX-588E directly to the panel, do the following:

1. Connect the NX-588E to the USB port.
2. Double-click the shortcut to *NXProg.exe*. The NX-588E must be connected before this step or the application needs to be closed and restarted to work properly.
The application automatically selects the COM port where the NX-588E is installed.
3. Select *Open file* and find the file desired.
4. Select *Transfer file*.

The DS6 LED flashes slowly (once per second). The *NXProg* application indicates, in a prompt above the progress bar, whether the firmware was successfully written or not. (See [Figure 1](#) on page 2 for LED descriptions, or [Troubleshooting](#) for error descriptions.)

To flash the file from your computer, do the following:

1. Disconnect the NX-588E from the computer.
2. Attach the 5-pin cable of the NX-588E to the control panel or module's J9 program connector ([Figure 2](#) on page 3).
3. If the panel/module is not already powered up, connect to AC (not battery only). The DS6 LED flashes slowly (once per second).
When the upgrade is complete, the DS6 LED becomes solid. If the upgrade fails, the DS6 flashes quickly.
4. When you finish, remove the NX-588E from both the computer and the control panel.

Troubleshooting

Table 3 lists error codes and their descriptions. Shaded cells indicate a condition that requires you to call tech support.

Table 3. Error descriptions

Failure text	Description
Connect (OP)	Could not open USB comport. Make sure the NX-588E is connected and drivers are installed properly before starting <i>NXProg</i> .
Connect (IP)	COM port associated with PC's USB is invalid. Make sure the NX-588E is connected and drivers are installed properly before starting <i>NXProg</i> .
Version	Version of NX-588E is not compatible with version of <i>NXProg</i> . Upgrade <i>NXProg</i> and/or NX-588E firmware.
Connect (SP)	Could not initiate programming with NX-588E.
Transfer (PM)	Error in transfer of program memory.
Transfer (ID)	Error in transfer of ID memory.
transfer (EE)	Error in transfer of EEPROM memory.
Transfer (CL)	Error in transfer of configuration memory.
Verify (PM)	Error in verifying transfer of program memory.
Verify (ID)	Error in verifying transfer of ID memory.
Verify (EE)	Error in verifying transfer of EEPROM memory.
Verify (CL)	Error in verifying transfer of configuration memory.
Disconnecting	Error disconnecting from NX-588E.
Connect (GMV)	NX-588E memory map version not compatible. Upgrade <i>NXProg</i> and/or NX-588E firmware.
Connect (GID)	Not connected to an NX-588E.
Connect (GFV)	NX-588E firmware version not compatible. Upgrade <i>NXProg</i> and/or NX-588E firmware.
Flash (SF)	Could not start the update firmware process.
anceled	Updating canceled.
Flash (01)	Flashed an unknown chip. Connected to correct product?
Flash (02)	Trying to flash a different chip. Connected to correct product?
Flash (03)	Flash program memory invalid.
Flash (04)	Flash ID memory invalid.
Flash (05)	Flash configuration memory invalid.
Flash (06)	Verifying flash failed; bad checksum.
Flash (07)	NX-588E does not have a complete file loaded. Reload file.
Flash (08)	Trying to update firmware of unknown product.
Flash (09)	Not connected or incorrectly connected.
Flash (10)	Internal EEPROM failed.
Flash (11)	Initial configuration failed.
Flash (12)	Processor failed to enter programming.
Flash (13)	Could not store needed code data.

Note: The 5-pin connector is not keyed, so if the NX-588E doesn't power up immediately, unplug the connector and connect it the other way.

Technical support

Toll-free: 888.GESECRity (888.437.3287 in the US, including Alaska and Hawaii; Puerto Rico; Canada).
Outside the toll-free area: Contact your local dealer.