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To maintain the quality of our publications, we need your comments on the accuracy, clarity, organization, and value of this book.

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Preface

Audience

This book is written for hardware installers/service personnel, system integrators, and field engineers.

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Safety Requirements

The NCR 5932–6670 USB Compact Alphanumeric Keyboard conforms to all applicable legal requirements. To view the compliance statements see the NCR RealPOS Terminals Safety and Regulatory Statements (B005-0000-1589).
References

NCR 5932-6xxx PS/2 104-Key Programmable POS Keyboard (B005-0000-1569)
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<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Jan 2011</td>
<td>First issue</td>
</tr>
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Chapter 1: Introduction

Overview

The NCR 5932-6670 USB Compact Alphanumeric Keyboard is a 105-key point-of-sale (POS) keyboard that provides maximum flexibility through its complete set of alpha, numeric and programmable function keys. It also provides superior compatibility through its support of the latest Object Linking and Embedding for Retail POS (OPOS) and JavaPOS to enable you to support the application and the operating system of your choice.

Its primary use is in high-performance checkout areas of general merchandise and food distribution sales. This keyboard is designed with sealed membranes that are specifically created to repel spilled liquids and withstand extreme conditions in retail environments.

It is supported on the NCR terminals RealPOS 80XRT, RealPOS 70XRT, RealPOS 40, and RealPOS 22. It is also supported on other POS terminals and workstations configured as standard personal computers (PCs).

Note: RealPOS 25–7610 and RealPOS 40–7600 have the same motherboard.

Note: RealPOS 50–7611 and RealPOS 60–7601 have the same motherboard.
Features

The keyboard includes the following features:

- 32 Programmable Function Keys
- Key Clicks and Error Tones
- External Universal Serial Bus (USB) Port
- Keyboard Status Indicator
- Glide Pad

32 Programmable Function Keys

The 32 programmable functions keys can be programmed to perform functions specific for the POS terminal operation through the configuration software. See the “Programmable Key Window” section in the “Configuration” chapter of this user guide for more information.

Key Clicks and Error Tones

The frequency and the volume of the tones can be changed through the configuration utility.

The tone indicator includes the following the characteristics:

- Resonant Frequency: 2400 Hz
- Power Rating: 300 mW
- Sound Pressure Level: 85 dB Minimum (Measured at 10 cm)

External USB Port

The keyboard provides an external USB port.
Keyboard Status Indicator

The keyboard status indicator displays the current state of the keyboard. The indicator is composed of light-emitting diodes (LEDs) with the following functions:

- **Num Lock Indicator**–Emits green light when the number pad is in number mode.
- **Caps Lock Indicator**–Emits green light when alpha keys are in caps mode.
- **Scroll Lock Indicator**–Emits green light when the arrow keys are in scroll mode.
- **Power Indicator**–Emits green light when the keyboard is generally working properly.

The status indicator LEDs do not emit any light when the POS terminal is off.

Glide Pad

The glide pad provides a mouse-type pointing device.
Dimensions

Keyboard–1.1 kg (2.4 lbs)
Chapter 2: Installation

Environmental Conditions

Physical Environment

This section lists the physical and electrical environments required for the NCR 5932–6670 USB Compact Alphanumeric Keyboard.

Warning: Condensation may occur when keyboard is transferred from cold areas to warm areas during shipment. If condensation has occurred, ensure that the keyboard has undergone a drying process before its use.

Operating Range

<table>
<thead>
<tr>
<th>Condition</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>5°C to 45°C (40°F to 113°F)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>10% to 90% T</td>
</tr>
<tr>
<td>Barometric Pressure</td>
<td>15.2 to 0.2 psi up to a maximum of 9,850 feet</td>
</tr>
</tbody>
</table>

Storage Range

<table>
<thead>
<tr>
<th>Condition</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range</td>
<td>-10°C to 50°C (14°F to 120°F)</td>
</tr>
<tr>
<td>Temperature Change</td>
<td>15°C (27°F) per hour maximum</td>
</tr>
<tr>
<td>Humidity Range</td>
<td>10% to 90% Relative Humidity</td>
</tr>
</tbody>
</table>

Transit Range

<table>
<thead>
<tr>
<th>Condition</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range</td>
<td>-40°C to 60°C (-40°F to 140°F)</td>
</tr>
<tr>
<td>Temperature Change</td>
<td>20°C (68°F) per hour maximum</td>
</tr>
<tr>
<td>Humidity Range</td>
<td>5% to 95% Relative Humidity</td>
</tr>
</tbody>
</table>
Electrical Environment

The electrical environment required for the keyboard module is listed as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage</td>
<td>$V_{IN}$</td>
<td>4.75</td>
<td>5.5</td>
<td>V</td>
</tr>
<tr>
<td>Supply Current</td>
<td>$I_{IN}$</td>
<td></td>
<td>150</td>
<td>mA</td>
</tr>
</tbody>
</table>

**Note:** The keyboard is not sensitive to power supply rise time.
Cable Connection

The NCR 5932-6670 USB Compact Alphanumeric Keyboard connects to the POS terminal through a USB interface. A USB cable with Standard A plug on one end and Standard B plug on the other end is required for use with this keyboard.

The Standard A plug is connected to the POS terminal and the Standard B plug is connected to the keyboard. It also provides an additional USB port for Standard A plugs.

The following NCR cables can be used to establish connection between the NCR 5932-6670 USB Compact Alphanumeric Keyboard and the POS terminal.

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5–meter USB cable</td>
<td>1432-C376-0015</td>
</tr>
<tr>
<td>2.5–meter USB cable</td>
<td>1432-C377-0025</td>
</tr>
<tr>
<td>4–meter USB cable</td>
<td>1432-C378-0040</td>
</tr>
</tbody>
</table>
## Keyboard Connector Pin Outs

### Standard A

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+5V DC Power Supply</td>
</tr>
<tr>
<td>2</td>
<td>Data –</td>
</tr>
<tr>
<td>3</td>
<td>Data +</td>
</tr>
<tr>
<td>4</td>
<td>Ground</td>
</tr>
<tr>
<td>Shell</td>
<td>Shield</td>
</tr>
</tbody>
</table>

### Standard B
Chapter 3: **Configuration**

**System Requirements**

Before you configure the NCR 5932–6670 USB Compact Alphanumeric Keyboard, ensure that it is connected to the POS terminal and ensure that you comply with the following requirements.

**Keyboard Connection**

The NCR 5932–6670 USB Compact Alphanumeric Keyboard requires a high-speed or full-speed USB port for connection.

**Operating System**

NCR 5932-6670 USB Compact Alphanumeric Keyboard requires an operating system of Windows XP or higher.

**Note:** Contact your local NCR 5932–6670 USB Compact Alphanumeric Keyboard supplier for a copy of the configuration software.
Configuration Access

The NCR 5932–6670 USB Compact Alphanumeric Keyboard is configured using the Windows® graphical user interface (GUI) configuration software. The GUI interface configuration software permits you to do the following during configuration:

- Detect NCR 5932–6670 USB Compact Alphanumeric Keyboard
- Set the keyboard configurations to the flash memory in the keyboard or RAM
- Set the keyboard to factory default state
- Set the key mapping and/or keyboard configuration with the configuration data file
- Generate configuration data file
- Define the key mappings
- Define the keyboard configurations
- Define programmable keys
- Manage speaker control

Downloading the Configuration Software

1. Go to the NCR support website (www.ncr.com).
2. Select Support.
3. Select Drivers and Patches.
4. Select Retail Support Files.
5. Select NCR RealPOS and SelfServ Peripherals.
7. Select 5932.
8. Locate and select appropriate file under the corresponding section for NCR 5932–6670 USB Compact Alphanumeric Keyboard.
9. Follow on-screen instructions to download the configuration software.

Note: For concerns regarding the configuration software installation, please contact your local NCR 5932–6670 USB Compact Alphanumeric Keyboard supplier.
Default Physical Key Layout

The unlabeled function keys provide the functionality equivalent to F1 to F6 as follows (See the “Key Position Number” section in this chapter.):

- P12 = F1
- P13 = F3
- P14 = F5
- P15 = F6
- P16 = F2
- P17 = F4
**Key Position Number**

**Note:** The key position number is based on the IBM PS/2® keyboard standard key position number. However, keys P1–P31 and N1–N7 are unique in the NCR 5932-6670 USB Compact Alphanumeric Keyboard.
GUI Configuration Software

Launching GUI Configuration Software

1. Locate sjkbcfg_win32.exe file specified during the configuration software download.

2. Select sjkbcfg_win32.exe file. The NCR 5932-6670 USB Compact Alphanumeric Keyboard main window displays.

Main Window
The configuration software automatically obtains data from the NCR 5932–6670 USB Compact Alphanumeric Keyboard when connected.

The Information section of the main window provides the following information:

Application Information—This section indicates the current version of application and the name of the manufacturer.

Firmware Information—This section indicates the current version of the keyboard. The Firmware Version is displayed after the “Connect and Get All Data” button is selected.
View

The View section of the main window displays and permits access to the following keyboard utilities.

**Speaker Control**
Select the Speaker control checkbox to activate the Speaker control window. Deselect the checkbox to hide the Speaker control window. See “Speaker Control Window” section in this chapter for more information.

**Keyboard Configuration**
Select the Keyboard configuration checkbox to activate the Keyboard configuration window. Deselect the checkbox to hide the Keyboard configuration window. See “Keyboard Configuration Window” section in this chapter for more information.

**Programmable Key**
Select the Programmable Key checkbox to activate the Programmable Key window. Deselect the checkbox to hide the Programmable Key window. See “Programmable Key Window” section in this chapter for more information.
**Sentinel Table**
Select the Sentinel Table checkbox to activate the Sentinel Table window. Deselect the checkbox to hide the Sentinel Table window. See “Sentinel Table Window” section of this chapter for more information.

**Key Mapping Table**
Select the Key Mapping Table checkbox to activate the Key Mapping Table window. Deselect the checkbox to hide the Key Mapping window. See “Key Mapping Table Window” section in this chapter for more information.

**Keyboard**
Select the Keyboard checkbox to activate the Keyboard window. Deselect the checkbox to hide the Keyboard window. See “Keyboard Window” section in this chapter for more information.

**KeyMapping Table Value Definition**
Select the KeyMapping Table Value Definition checkbox to activate the KeyMapping Table Value Definition window. Deselect the checkbox to hide the KeyMapping Table Value Definition window. See “KeyMapping Table Value Definition Window” section in this chapter for more information.
Control

The Control section of the main window permits you to view, set and reset the keyboard mode.

**Get Keyboard Status**
Select **Get Keyboard Status** to view the current keyboard status.

**Repeat**
If you want to set the program to read the keyboard status every second, select the Repeat checkbox before you select the Get Keyboard Status button. This action prompts the program to read the keyboard status every second until you select the Stop to get KBD Status button. If you want the program to read the keyboard status only once, deselect the Repeat checkbox before you select the Get Keyboard Status button.

**Stop to Get KBD Status**
Select **Stop to get KBD Status** to stop the program from reading the Keyboard Status.

**Reload Configurations and Key Mapping from Keyboard**
Select **Reload configurations and key mapping from keyboard** to prompt the program to read all the keyboard configurations and key mappings from keyboard.
Reset Keyboard to Factory Default State
Select Reset keyboard to factory default state to reset the keyboard to its factory default state.

Write All Configuration and Key Mapping to Flash Memory
Select Write all configuration and key mapping to Flash memory to prompt the program to write all the configurations and the key mappings to the flash memory.
File

The File section of the main window permits you to browse and save different keyboard files.
**Browse**

Select the ("browse") button to locate a configuration data file from the POS terminal.

After following window displays, select **Open**.
Save
Select **Save** to save the current configurations and key mappings to the specified file.
**SaveAs**

Select **SaveAs** to save the current configurations and key mappings as a new file.

The following window displays.
Connect

Select **Connect** to detect NCR 5932–6670 USB Compact Alphanumeric Keyboard.

![Image of Sejin 105 USB POS Keyboard configuration window]

If NCR 5932–6670 USB Compact Alphanumeric Keyboard is not detected, this window displays.

![Image of Warning dialog box]

Not Found Keyboard

OK
Connect and Get All Data

Select **Connect and Get All Data** to detect NCR 5932–6670 USB Compact Alphanumeric Keyboard and to obtain all configurations and key map data.
Apply All Configuration and Key Mapping to Keyboard

Select **Apply all configuration and key mapping to keyboard** to apply all the set parameters to the keyboard. The parameters that you set is only applicable until the POS terminal shuts down. The parameters returns to its original value when the POS terminal reboots. To keep the settings, write the configuration to the flash memory. See the “Write all configuration and key mapping to Flash memory” section in this chapter for more information.
Exit

Select Exit to close the program.
Speaker Control Window
Speaker Information

Control Code
The Control Code field permits you to change Speaker Control parameters such as frequency, volume and duration of key-click sound, error beep sound, and immediate tone generations.

Do one of the following actions to change Speaker Control Code parameters:

- Select Control Code dropdown arrow and select the desired speaker operation mode.

![Speaker control interface](image)
Enter a value directly in the Control Code field. The control code values are listed below.

<table>
<thead>
<tr>
<th>Control Code Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No operation</td>
</tr>
<tr>
<td>1</td>
<td>Sound error tone</td>
</tr>
<tr>
<td>2</td>
<td>Sound immediate</td>
</tr>
<tr>
<td>3</td>
<td>Set key click parameters</td>
</tr>
<tr>
<td>4</td>
<td>Set error tone parameters</td>
</tr>
<tr>
<td>5</td>
<td>Custom input</td>
</tr>
</tbody>
</table>

**Note:** Values entered should be in hexadecimal format.

**Note:** The Sound Error Tone control code takes no parameters and disregards the inputs for the frequency, volume, and duration parameters. When received by the keyboard, it initiates an error tone with pre-configured frequency, volume, and duration. The new tone immediately overrides the prior or existing tone.

**Note:** Key clicks or error tone can be disabled by setting key click duration to zero. Key clicks are sounded on all keys except modifier keys (Control, Shift, and Alt). See the “Keyboard Configuration Window” section in this chapter for more information.
**Frequency**

You may manually enter values from “0” to “255” for the frequency parameter input, “0” having the highest sound frequency and “255” having the lowest sound frequency.

**Note:** Values entered should be in hexadecimal format.
**Duration**
You may manually enter values from “0” to “255” for duration parameter input, “0” having no sound duration and “255” having a sound duration 1.02 seconds. Duration is measured in 250ths of a second in this configuration utility.

![Speaker control interface](image)

**Note:** Values entered should be in hexadecimal format.
**Volume**
You may manually enter values from “0” to “15” for the volume parameter input, “0” having the lowest sound volume and “15” having the loudest sound volume.

**Note:** Values entered should be in hexadecimal format.
Control

Get Speaker Control
Select Get Speaker Control to prompt the program to read and display the current keyboard parameters.

Set Speaker Control
Select Set Speaker Control to apply the set parameters to the keyboard. The speaker control parameters that you set is only applicable until the POS terminal shuts down. The speaker control parameters returns to its original value when the POS terminal reboots. To keep the settings, write the configuration to the flash memory. See the “Write all configuration and key mapping to Flash memory” section in this chapter for more information.
Keyboard Configuration Window

This window provides two tabs that permit keyboard configuration modifications.

Page 1 Tab

The Page 1 tab permits you to define options for the following parameters:

- Numeric keypad layout
- Double key error detection
- Auto detection of blocking keys
- Speaker control parameters
- Ctrl+Alt+Del protection
- Glide pad parameters and external USB port lock
Page 2 Tab

The Page 2 tab permits you to define options for MSR control. This keyboard has provisions for a single MSR but does not currently contain an MSR.
Page 3 Tab

The Page 3 tab permits you to define options for blocking keys.

**Note:** Disable the auto detection blocking keys before you define the blocking keys options. The blocking keys option is only applicable when the auto detection of blocking keys option is disabled. When the auto detection of blocking keys option is enabled, the keyboard firmware during keyboard operation dynamically defines the options.
Control

Get Keyboard Configuration
Select Get Keyboard configuration to prompt the program to read and display the current keyboard configuration.

Set Keyboard configuration
Select Set Keyboard configuration to apply the set configuration to the keyboard. The keyboard configuration that you set is only applicable until the POS terminal shuts down. The keyboard configuration returns to its original value when the POS terminal reboots. To keep the settings, write the configuration to the flash memory. See the “Write all configuration and key mapping to Flash memory” section in this chapter for more information.


Programmable Key Window

![Programmable Key Window](image)

Description Table

The Description Table displays modifier keys and usage codes for the 32 POS specific programmable keys.

The Right Modifier keys and Left Modifier keys sections of the description table permit you to select the combination of modifier keys (GUI, Alt, Shift, and Ctrl).

The Usage code section of the description table permits you to assign the usage ID value. Do one of the following actions to assign the usage ID values:

- Enter the values manually.
- Drag the values from the Usage ID field in the Key mapping table value definition window.

Note: The keyboard generates the defined key sequence for the programmable key depression once you define a programmable key.
Control

Get Programmable key
Select Get Programmable key to prompt the program to read and display the current programmable keys information.

Set Programmable key
Select Set Programmable key to apply the set programmable keys information to the keyboard. The programmable keys information that you set is only applicable until the POS terminal shuts down. The programmable keys information returns to its original value when the POS terminal reboots. To keep the settings, write the configuration to the flash memory. See the “Write all configuration and key mapping to Flash memory” section in this chapter for more information.
Key Mapping Table window

Warning: This section is for advanced users and developers. Improper settings may cause an unexpected keyboard operation.

Description Table

The Description Table displays the key mapping status of key matrix table in the keyboard.

This table permits you to define the key functions of the keyboard. This window provides a more flexible but riskier alternative method of defining key functions compared to the Keyboard window.

You may define key functions in the Keyboard window to minimize the possibility of improper settings. See “Keyboard Window” section in this chapter for more information.

You can assign a value in the table value field by typing keyboard or by dragging from Key mapping table value definition window. When dragging the data from Key mapping table value definition window, you must get the data from in the table value field. N/A items cannot be selected.
Control

Get Key Mapping Table
Select Get Key Mapping Table to prompt the program to read and display the current key mapping information.

Set Key Mapping Table
Select Set Key mapping table to apply the set key mapping information to the keyboard. The key mapping information that you set is only applicable until the POS terminal shuts down. The key mapping information returns to its original value when the POS terminal reboots. To keep the settings, write the configuration to the flash memory. See the “Write all configuration and key mapping to Flash memory” section in this chapter for more information.
Keyboard Window

View Option

The View Option section provides the following view modes:

**Key position number**—Select *Key position number* view mode if you want to see the keyboard layout with key position number on each cap. The key position number always keeps its original position regardless of key mapping modifications.
**Layout**—Select **Layout** view mode, if you want to see the keyboard layout with the key name on each cap. The key name changes depending on the key mapping modifications.
**Usage ID**—Selected **Usage ID** view mode if you want to see the keyboard layout with Usage ID value on each cap. The Usage ID value changes depending on the key mapping modifications.
**Numeric Option**

The View Option section permits you to set the numeric pad mode and the “0” configuration.

**Numeric Pad Mode**

Select one of the following numeric pad modes:

- **Telephone**—Select **Telephone** to set the numeric pad in a telephone keypad layout mode.

- **Calculator**—Select **Calculator** to set the numeric pad in a calculator keypad layout mode.
“0” Configuration

Select one of the following “0” configuration modes:

Single 0—Sets the key positions #99 and #N7 as two separated single-width keys. This option sets the keyboard to generate separate key codes from each key.

Note: This option only works when the auto detection of blocking keys option is disabled. The configuration software automatically disables the auto detection of blocking keys option. You can enable the auto detection of blocking keys option in the keyboard configuration window. See the “Keyboard Configuration Window” section in this chapter for more information.
Wide 0–Sets the key positions #99 to “0” and #N7 to “undefined” for a double-width key.

**Note:** This option only works when the auto detection of blocking keys option is disabled. The configuration software automatically disables the auto detection of blocking keys option. You can enable the auto detection of blocking keys option in the keyboard configuration window. See the “Keyboard Configuration Window” section in this chapter for more information.

**Information**

The information section of the Keyboard window displays the usage ID value and key name when you select one of the keys.

**Usage ID value**

This field displays the HID usage ID value of the selected key.
Key
This field displays the key name of the selected key. It permits you to change the key name and the usage ID value through the following steps:

1. Select dropdown arrow to view key list
2. Select the desired key. The key name and the usage ID is assigned to the selected key.

Right/Left
This option is activated if you select one of upper 32 programmable POS key area which are P0–P31. Right means right side of the modifier keys and Left means left side of the modifier keys. When this option activated, you can define the combination of modifier keys for the selected key.

For example, if the Alt and Shift checkboxes are selected and the F1 key is assigned for the selected key, the keyboard generates Alt+Shift+F1 key combination for the selected key depression.
Control

Apply
Select Apply to set key mapping information to the keyboard.

The following configurations are also applied to the keyboard:

- Programmable keys information for the upper 32 programmable POS keys
- Calculator and telephone numeric keypad layout
- Double and single wide 0 option

Note: The key mapping information that you set is only applicable until the POS terminal shuts down. The key mapping information returns to its original value when the POS terminal reboots. To keep the settings, write the configuration to the flash memory. See the “Write all configuration and key mapping to Flash memory” section in this chapter for more information. The key mapping information other than upper 32 programmable POS key area is always stored into the Flash memory.

Reload
Select Reload to prompt the program to read and display the current key mapping information.
**Double High Key Configuration**

You can configure the keys P0–P31, located in the upper 32 programmable POS key section of the keyboard layout, as either double height key or single height key through the following steps:

1. On the row that you want to configure, right-click on the button that you desire to define.

2. Select one of the following key blocking pattern:
   - **0000**–Defines the keys on the row as four single-height keys.
   - **100**–Defines the upper two keys on the row as one double-height key and the lower two keys on the row as two single-height keys.
010–Defines the middle two keys on the row as one double-height key, the upper key on the row as a single-height key and the lower key on the row as a single-height key.

001–Defines the lower two keys on the row as one double-height key and the upper two keys on the row as two single-height keys.

11–Defines the upper two keys on the row as one double-height key and the lower two keys on the row as one double-height key.
Key Mapping Value Definition Window

The Key Mapping Definition Window displays the hexadecimal table value, HID usage ID and the key (usage) name of each key.

<table>
<thead>
<tr>
<th>Table value (Hex)</th>
<th>HID Usage ID (Hex)</th>
<th>Usage Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>00</td>
<td>Null key (No code generation) Unused matrix position</td>
</tr>
<tr>
<td>01</td>
<td>01</td>
<td>Keyboard Error Rollover (Do not use)</td>
</tr>
<tr>
<td>02</td>
<td>02</td>
<td>Keyboard POST Fail (Do not use)</td>
</tr>
<tr>
<td>03</td>
<td>03</td>
<td>Keyboard Error Undefined (Do not use)</td>
</tr>
<tr>
<td>04</td>
<td>04</td>
<td>Keyboard a and A</td>
</tr>
<tr>
<td>05</td>
<td>05</td>
<td>Keyboard b and B</td>
</tr>
<tr>
<td>06</td>
<td>06</td>
<td>Keyboard c and C</td>
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<td>07</td>
<td>07</td>
<td>Keyboard d and D</td>
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<td>08</td>
<td>08</td>
<td>Keyboard e and E</td>
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<td>09</td>
<td>Keyboard f and F</td>
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<tr>
<td>0A</td>
<td>0A</td>
<td>Keyboard g and G</td>
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<td>0B</td>
<td>Keyboard h and H</td>
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<tr>
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<td>0C</td>
<td>Keyboard i and I</td>
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<td>Keyboard j and J</td>
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<td>0E</td>
<td>0E</td>
<td>Keyboard k and K</td>
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<tr>
<td>0F</td>
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<td>Keyboard l and L</td>
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<td>Keyboard m and M</td>
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<td>11</td>
<td>Keyboard n and N</td>
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<td>Keyboard o and O</td>
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<td>13</td>
<td>13</td>
<td>Keyboard p and P</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>Keyboard q and Q</td>
</tr>
</tbody>
</table>
Safety Reminders

Carefully follow these safety requirements before servicing the keyboards.

The keyboard does not contain any user serviceable parts and should only be serviced by a qualified service technician.

Before servicing the keyboard, plug your ground strap into a proper grounding outlet. Failure to do so may damage it. Also, disconnect the power cord from the POS terminal to which the keyboard is connected and disconnect the cables from the POS terminal to the keyboard.

To protect the internal circuitry from damage, unplug the power cord and then momentarily press the power switch to drain the power supply capacitance.

The power cord is used as the main disconnect device. Ensure that the socket outlet is located or installed near the equipment and is easily accessible.

The keyboard should only be powered by a Safety Extra Low Voltage (SELV) power supply source with an available power level of 5 amperes or less, and suitable for the country of installation. The power source must be certified by the appropriate safety agency for the country of installation.

If the peripheral does not have a fuse, it must be powered by an SELV power supply source.

If the peripheral has a fuse, replace only with the same type and ratings of fuse for continued protection against risk of fire.
Cleaning

Perform the following actions to clean NCR 5932–6670 USB Compact Alphanumeric Keyboard:

1. Turn off the POS terminal properly.
2. Unplug the cable from the keyboard.
3. Spray liquid cleaner (such as window cleaner spray or a product designed for cleaning office computer equipment) onto a soft cloth to wipe the keys and keyboard housing clean. Do not spray liquid cleaners directly onto the keyboard.
4. Let the keyboard dry completely.
5. Use either a “canned air” type office supply cleaning equipment or a small vacuum to remove dust or foreign objects between the keys.
6. Plug in the keyboard cable. Keyboard is now ready for use.
Troubleshooting Tips

NCR offers both on–site and mail–in service for the NCR 5932–6670 USB Compact Alphanumeric Keyboard. Before calling for service or mailing in your unit for repair, read the following troubleshooting tips to ensure the keyboard needs repair. These tips include actions that can be used to correct specific problems without the aid of a trained technician.

Keyboard Is Not Working

<table>
<thead>
<tr>
<th>Probable Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard is not powered</td>
<td>Check POS terminal power</td>
</tr>
<tr>
<td>Keyboard cable is not connected</td>
<td>Connect cable to keyboard and connect keyboard cable to the keyboard port (USB) of the POS terminal</td>
</tr>
</tbody>
</table>

Some Keys on the Keyboard Are Not Working

<table>
<thead>
<tr>
<th>Probable Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard cable is not connected</td>
<td>Connect keyboard cable to PC keyboard port and back of keyboard</td>
</tr>
<tr>
<td>Keyboard is configured incorrectly</td>
<td>Reconfigure keyboard through configuration software</td>
</tr>
</tbody>
</table>

Some Keyboard Are Not Working Properly

<table>
<thead>
<tr>
<th>Probable Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard is configured incorrectly</td>
<td>Reconfigure keyboard through configuration software</td>
</tr>
</tbody>
</table>