



1 and 2 Switch Scanning Quick Reference Guide for NuVoice® Software

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STEP 1: DECIDE ON NUMBER OF SWITCHES

1 Switch vs. 2 Switches: The number of switches, switch placement, and type of switch are areas that should be assessed by professionals who have experience helping individuals with complex physical disabilities. In general, two switches work best for individuals who have two natural movements that can be used to activate two separate switches. The primary advantage is that there is no timing element; the learner is in complete control. By contrast, one switch works best for individuals who do not have a clear second movement, or for whom fatigue is a significant consideration, or for individuals who simply work best reproducing the same movement repeatedly with a timing element.

STEP 2: CONNECT SWITCHES TO ACCENT®

If you are using one or two wired switches, plug the switch(es) into Switch Port A (and B) on the back of your device. The port will be marked with the letter A or B.

For Freedom Switch™: If you are using one or two wireless Freedom Switches, follow the instructions that came with your switch(es) to connect the switch(es) via radio frequency.

For CoreScanner™: Use the Setup Wizard to select the access method, scan type, and pattern. Skip to step 5.

STEP 3: SET ACCESS METHOD TO 1 OR 2 SWITCHES

1. Select **Tools**, then **Toolbox**.
2. Select **Access Method Menu**.
3. Select **Choose Different Access Method**.
4. Select **1 Switch** or **2 Switch**.

STEP 4: SELECT SCAN TYPE AND PATTERN

Many different types of scanning appear on the screen. There are two decisions you have to make before you make a selection: **A)** the type of scanning, and **B)** the scan pattern.

A) TYPE

There are three types of scanning: **auto**, **hold**, and **step**.

Auto = Once the scan is started with the click of a switch, the scan box moves across the keys automatically at a desired speed. The next click of the switch will stop the scan and select the scan box that is highlighted. This type of scanning requires fewer clicks of the switch; however, the user needs to be able to attend to the scan box and time a switch click.

Hold = Press and hold down the switch to move the scan box across the keys automatically at a desired speed. This type of scanning requires that a user be able to press and sustain a hold on a switch and time a switch release.

Step = Click a switch each time you want the scan box to advance. This type of scanning requires more clicks of the switch (more motor movements). However, the primary advantage is that there is no timing element; the learner is in complete control. If using 1 switch, the act of not activating the switch for a set interval will result in selection of the highlighted scan box. If using 2 switches, switch A advances the scan box and switch B makes the selection (switch A = "the mover", switch B = "the chooser").

B) PATTERN

There are 5 basic types of scan patterns: row/column, column/row, quarter row/column, quarter column/row, and linear.

Row/column: First scans the grid in rows. Once a row is selected, it then scans each individual key in that row. First the grid is scanned from top to bottom via rows. Then the row is scanned from left to right via individual keys. This type of scan pattern allows a user to get to the bottom right hand corner of the grid more quickly.

Column/row: First scans the grid in columns. Once a column is selected, it then scans each individual key in that column. First the grid is scanned from left to right via columns. Then the column is scanned from top to bottom via individual keys.

This type of scan pattern allows a user to get to the bottom right hand corner of the grid more quickly.

Quarter row/column: First scans the grid in four blocks (quarters) and then the message window moving clockwise. Once a block is selected, the block is then scanned via row/column as described above. This type of scan pattern allows a user to get to the bottom right hand corner of the grid most quickly.

Quarter column/row: First scans the grid in four blocks (quarters) and then the message window moving clockwise. Once a block is selected, the block is then scanned via column/row as described previously. This type of scan pattern allows a user to get to the bottom right hand corner of the grid most quickly.

Linear: Each key is scanned one by one moving from left to right and top to bottom. This type of scan pattern requires the most amount of time to get to the bottom right hand corner of the grid; however, it is easy to understand.

Extra Hit: The extra hit designates that once the switch is clicked, you need to select it again to get the auto scan to start again.

Once you have settled on the **A) TYPE** and **B) PATTERN**, make those selections on the screen.

For example, 1 Switch Auto Scan, Quarter Row/Column. This means that after the first switch click, the scan will advance automatically at a desired time, first scanning in quadrants, then by rows, and then finally by individual keys.

STEP 5: ADJUST SETTINGS

There are a variety of settings that can be adjusted to change how and when switches react. The following is an explanation of those settings in the Access Method Menu.

SCANNING SPEED (1 switch only) [DEFAULT = 1.0]

During an auto or hold scan, the speed at which the scan box advances. The higher the number the slower the scan box advances. This is a commonly adjusted setting.

ACCEPTANCE TIME [DEFAULT = .01]

Acceptance time is the amount of time the switch is held until it activates (.01 to 5.0). This should almost always be at its lowest (shortest) setting. However, raising this number can help accommodate accidental switch activations.

RELEASE TIME [DEFAULT = .01]

Release time is the amount of time that must pass after a switch activation before a subsequent switch activation will be accepted (.01 to 5.0). Because those new to switch scanning often unintentionally hit the switch multiple times, raising this number is a common adjustment.

AUTO REPEAT [Default = OFF]

When Auto Repeat is turned ON, a user can select the same key multiple times by maintaining touch on the switch for the selected period of time (without having to scan back around to the same key again). This is especially helpful when wanting to select the same letter twice or when using Unity® Sequenced or LAMP Words for Life® Transition/Full vocabularies. A typical auto repeat time matches your scan speed.

PREDICTIVE SELECTION [Default = ON]

When turned ON, blank keys will be skipped over during the scan pattern.

ACTIVATION DELAY (1 switch only) [Default = 1.0]

Allows the single switch, automatic scanner to “un-select” after a switch activation if it was made in error. This requires a fairly rapid “double hit” on the switch. If activation delay is desired, set it to match the scan speed. Otherwise this setting can remain turned “off”.

SCAN AUTO RESTART [Default = ON]

If using auto, once a key is activated, the scan will automatically restart.

NUMBERS OF RESCANS (1 switch only) [Default = 3]

The number of times the scan pattern will repeat until it times out. The more accurate the user, the fewer number of rescans required.

USE SCREEN AS A SWITCH (1 switch only)

[Default = OFF]

Rather than using a switch connected to the device, the user can use the screen as a switch.

CANCEL TIME (2 switches only) [Default = 5]

Allows the scan to restart if no selection is made within the given time frame. Note that this will restart the scan within the selected screen—it will not provide an escape route to restart the entire scan pattern from home.

HIGHLIGHT SETTINGS

[Default = OUTLINE/MEDIUM/ RED]

The feedback that appears on the scan box during the scan pattern. As the default, a red outline appears around the scan box.

Highlight Styles:

Choose between OUTLINE, INVERT, OUTLINE AND INVERT, FILL, and OUTLINE AND FILL.

Outline Width:

Choose between VERY THIN, THIN, MEDIUM, THICK, and VERY THICK.

Outline Color: A rainbow of choices. Adjust to your liking.

Fill Color: A rainbow of choices. Adjust to your liking.

SET CUSTOM SWITCH TIMES [Default = OFF]

If using more than one switch, you can adjust the acceptance time and release time of each switch.

MODIFY SCAN PATTERN

NOT FOR USE WITH CORESCANNER

If you want to create a custom scan pattern for the home screen, a specific page, or for the default, do that in this section. You can also designate the order in which the following areas get scanned: keys, word prediction, text area, and user/tools keys.

FREEDOM SWITCHES

If you are using a radio frequency wireless switch, you can connect it to the device by using **Connect Freedom Switch** and **Disconnect ALL Freedom Switch**.

ADDITIONAL SETTINGS IN THE TOOLBOX

AUDITORY PROMPTS [Default = OFF]

If you would like the device to call out the label or content of each scan box, turn auditory prompts ON.

1. Select **Tools**, then **Toolbox**.
2. Select **Auditory Prompt Menu**.
3. Select Auditory Prompts **ON**.
4. The prompt can either be the **Label** or **Content** of the key. Set accordingly.
5. Prompts can come out of the main speakers of the device or earphones/small speakers. To use earphones or small speakers, turn earphones **ON** and connect a set of earphones or small speakers for the auditory prompts.

To select an auditory prompt voice:

1. Select **Tools**, then **Toolbox**.
2. Select **Speech Menu**.
3. Select **Auditory Prompt Voice**.
4. Select **Change Voice** and choose a voice.
5. Rate and volume can be adjusted for some voices.
6. Select **Test Speech** to hear a sample of the voice.
7. Select **OK**, then **OK** again.
8. Select **Go to Home**.

SCAN BEEPS

This setting controls whether a “beep” is heard as the scan box advances.

1. Select **Tools**, then **Toolbox**.
2. Select **Feedback Menu**.
3. Use arrows to turn off or adjust volume of the beep from 1-5
4. Select **OK** and then select **Go to Home**.

KEY PADDING

Provides additional space around each key.

1. Select **Tools**, then **Toolbox**.
2. Choose **Feedback Menu**.
3. Choose **Skin Options**.
4. Set **Key Padding** (1-20). The larger the number the more space around each key.