Braillewriter Information

(Adapted from *Building on Patterns,* Second Edition, *Prekindergarten: Reference Volume,* pp. 14-18.)

Note: The type of braillewriter discussed in this program has the functions of the standard Perkins Brailler®. If you are using another device with 6-key entry for making the dots, adjust the directions as necessary.

Young braille learners are highly motivated by electronic devices such as notetakers that produce refreshable braille. If possible, it is recommended that as kindergarteners they receive exposure to this type of technology at the same time they are learning to use a traditional braillewriter. Electronic notetakers can be more comfortable for a young child's hands due to their smaller size and the ease of pressing the keys. In addition, they provide auditory feedback that enables the child to correct errors and work more independently. Although the research is limited at this point, Bickford and Falco (2012) conducted one study with slightly older children (6–8 years) and found no differences in oral reading fluency between beginning readers using traditional paper braille and those using an electronic notetaker with a 20-cell refreshable display. Students easily transitioned between paper braille and electronic braille and demonstrated learning in both conditions. Bickford and Falco caution, however, that the study pointed to no clear advantage for electronic braille over paper braille. It should also be noted that paper braille provides young children with information about formatting (headings, indenting, spacing between lines of text) and opportunities to develop skill in tracking multiple lines of text on a page using efficient hand movements.

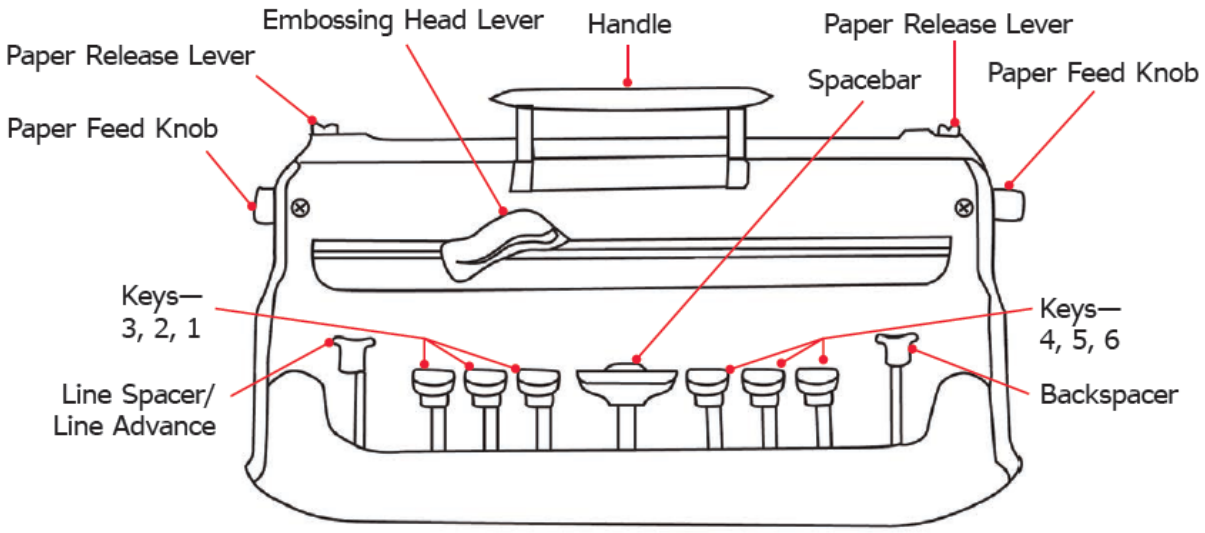
For children who are physically unable to press down the keys of the standard Perkins Brailler®, electronic and light-touch versions are available. For children with other specific needs, you might investigate other machines (for example, a one-handed machine or one with extended keys). However, most children can and will develop sufficient strength to use a standard braillewriter. Frequent short practice sessions throughout the day are usually more effective in building children's strength for brailling than a single longer session once a day.

Guided Exploration of a Braillewriter

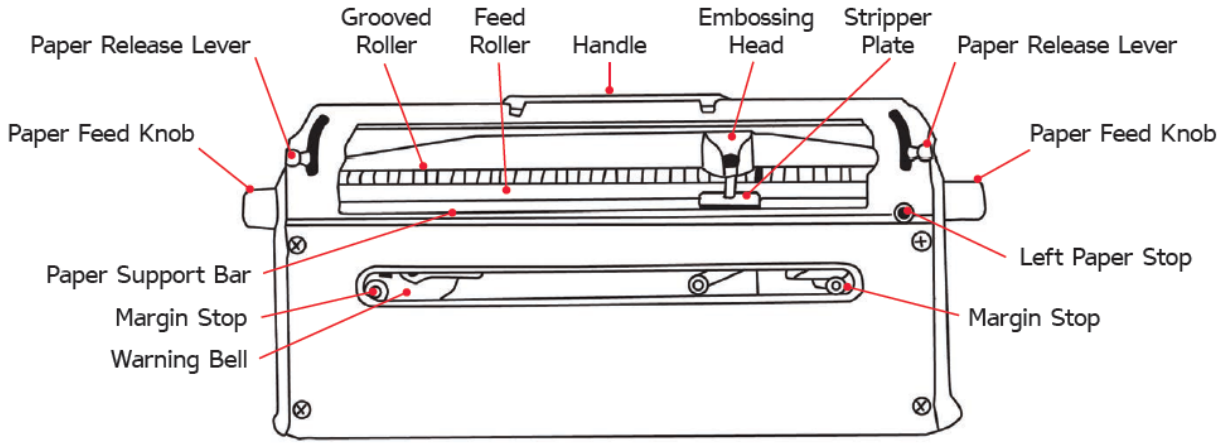
Position the braillewriter for the child's use with the child's forearms waist high for good leverage on the keys. Standing can be a good position for a small child when writing, depending on table height. A seated position is also fine as long as there is foot support and the chair height allows for positioning the braillewriter at approximately waist level.

Let the child examine a braillewriter with paper in it. Use the diagrams to name the braillewriter parts as they touch them. Although children are not expected to master (remember and be able to recall) the names for the parts of the braillewriter, it is certainly appropriate to use them with the child so that they can become familiar with this terminology.

Standard Perkins Brailler® and APH Light-Touch Perkins Brailler® Front View



Standard Perkins Brailler® and APH Light-Touch Perkins Brailler® Back View



Finger Placement for Small Hands

Correct finger placement on the braillewriter helps to build muscle memory, minimize mistakes, and increase writing speed. However, small children often don't have the strength and dexterity to use a braillewriter in the same way older students and adults do. If typical finger placement doesn't work, the following strategies maintain generally correct hand and finger placement while allowing independent writing.

spacebar—use the index finger (instead of the thumb)

capital sign—bring the left hand over to help the right ring finger

dots 3 and 6—use the neighboring middle finger to help the ring finger press down; also helpful with the 1-3 and 4-6 key combinations

These strategies are meant to be temporary. Monitor the child's strength and dexterity and encourage typical finger placement as soon as possible.

Braille Paper Size and Orientation

During early *BOP-K* lessons, most writing activities will require only a half sheet of braille paper. Half-sheets are easier for little hands to manage and provide additional practice loading and unloading the braillewriter. As the child masters paper loading and writing tasks increase in length, they can switch to using full sheets (8.5 x 11 inches) for their writing in *BOP-K*.

Learning to Load Paper

The child will need lots of practice to learn to load paper independently.

Teach other adults (school staff, parents) how to load paper; do not expect the adults to master it the first time, either. Photocopy the directions in Lesson 1 onto cardstock and affix the directions directly to the side of the braillewriter, which encourages others to use it in your absence. Attach the instructions with loops of tape or poster tack so that anyone can pull them off to read and then put them back.

You may also want to share a link to the video Perkins Brailler: Inserting Paper, a demonstration of how to load paper into the braillewriter, with anyone who works with the child.

Occasionally, the braillewriter may jam as the user is loading the paper. The short video How to Fix a Paper Jam in a Braillewriter addresses solutions to common problems.

Double Line Advance (or Double Spacing)

At the pre-k level through mid-first grade, the child will use double line advances for ease of reading. Teach the child to always press the line advance twice before moving the embossing head so they won't accidentally write over the previous line.

When to Write: Encourage Writing Throughout the Day

A braillewriter should always be available for the child to use—not only when the TSVI is present—just as pencil and paper are always available to the child's sighted peers. Additional braille writing activities familiarize the child with the braillewriter and strengthen their fingers for later writing activities. It will be helpful to teach the child's parents, school staff, and other adults to load paper and write on the braillewriter. Encourage the classroom teacher and others to permit the child to practice on the braillewriter—essentially to scribble. The child should be able to "read back" their scribbling, just like children who are sighted do; making up words and spelling is a natural part of the reading process for children with visual impairments, too. Encourage siblings and classmates to have supervised practice on the braillewriter as well.

Storage

Carefully consider where the braillewriter, paper, and *BOP-K* Student Kit will be stored. It is important to find a place designated for it that is easily accessible to your student. The location of the materials and equipment should not exclude opportunities to use them for typical interactions, including play, throughout the day. A young child will likely have difficulty carrying a braillewriter and will need some help. While it will be

important to be careful with this material and equipment, it will also be important to encourage classroom sharing and interacting with braille.

Reference

Bickford, J. O., & Falco, R. A. (2012). Technology for early braille literacy: Comparison of traditional braille instruction and instruction with an electronic notetaker. *Journal of Visual Impairment & Blindness, 106* (10), 679-693. https://doi.org/10.1177/0145482X1210601012