

BERNINA⁺



BERNINA Embroidery Software 6
ArtLink

USER MANUAL

BERNINA ARTlink

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NOTE

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CHAPTER 1

INTRODUCTION

Welcome to BERNINA ARTlink, the leading embroidery design application for home users. BERNINA ARTlink is an MS Windows-based product incorporating many of the conventions with which most PC users are already familiar.



First-time users

If you are new to BERNINA ARTlink, you'll be pleased with its flexible capabilities, the ease with which you can open and edit designs.

You should familiarize yourself with **Basic Procedures**. Here you will learn how to start the application, open a design, print designs, and send designs to your BERNINA embroidery machine. The chapter **Viewing & Selecting Designs** also provides an overview of the design viewing modes in BERNINA ARTlink.

BERNINA ARTlink documentation

BERNINA ARTlink documentation includes:

- ▶ Onscreen User Manual
- ▶ Onscreen Help

User Manual

The User Manual is produced in onscreen form. The onscreen version is accessed from the Help menu.

Onscreen Help

Onscreen Help is accessed from the Help menu in BERNINA ARTlink.

Conventions used in the manual

The following conventions are adopted and used throughout the manual.

Commands

In this manual, commands on a menu or submenu are referred to by both the menu and command names. For example the 'Show All' command in the 'View' menu is referred to as **View > Show All**.

Dialog boxes

Dialog boxes are referred to as 'dialogs' and are shown in the manual only if they provide important information on using BERNINA ARTlink. The screen images provided are intended to be representations, not exact duplicates of the layouts generated by the software.

Keyboard conventions

Instruction	Symbol	Action
Click		Click the left mouse button.
Right-click		Click the right mouse button.
Double-click		Click the mouse button twice without moving the mouse.
Click OK	 or 	Click OK with the mouse or press the Enter key on the keyboard to complete the action.

Shortcut	Description
Ctrl + S	While holding down the Control key (Ctrl), press the lowercase letter S key.
Ctrl + Shift + H	While holding down the Control key (Ctrl), press Shift and the H key.
For a complete list of keyboard shortcuts, refer to the Quick Reference Guide.	

Viewing information onscreen

Select **Help Topics** (Help menu) to view onscreen help.

Select **Onscreen Manual** (Help menu) to view the onscreen manual.

Select **Bernina International Home Page** (Help menu) to view the Bernina International Web Page.

Select **Bernina of America Home Page** (Help menu) to view the Bernina of America Web Page.

Select **Embroidery Online** (Help menu) to view the Embroidery Online Web Page.

Onscreen user documentation is provided in the form of an Onscreen Manual and Onscreen Help.

Viewing Onscreen Help

Onscreen Help provides quick access to general information on BERNINA ARTlink features and step-by-step instructions.

To view Onscreen Help

- 1 Select **Help > Help Topics** to open the main Help window.
- 2 Click **Contents** to display the main list of topics. Topics are grouped under high-level headings with 'book' icons.
- 3 Double-click a book to view the list of topics, then double-click a topic.



Tip Alternatively, click **Find** and enter keywords to search on a specific subject.

Viewing the Onscreen Manual

You can view the Onscreen Manual using Adobe Acrobat™ Reader. The Onscreen Manual lets you quickly search for the information you need using standard Acrobat Reader features.

To view the Onscreen Manual

- ▶ Select **Help > Onscreen Manual**.



Note If BERNINA ARTlink is not running, you can open the Onscreen Manual directly from Windows Explorer. To do this, navigate to the ..\Program Files\BERNINA\ARTlink 6\BIN folder, and double-click **UserManual.pdf**.

Linking to the BERNINA® websites

You can access sales and support information about the products easily from within the software.



Note You must have a correctly configured web browser on your system together with web access.

To link to the BERNINA® website

- ▶ Connect to your Internet Service Provider (ISP).
- ▶ Select **Help > BERNINA Web Page**.

You are directly connected to the BERNINA® homepage at:

- ▶ Bernina International - <http://www.bernina.com/>
- ▶ Bernina of America - <http://www.berninausa.com/>
- ▶ Embroidery Online - <http://www.embroideryonline.com>

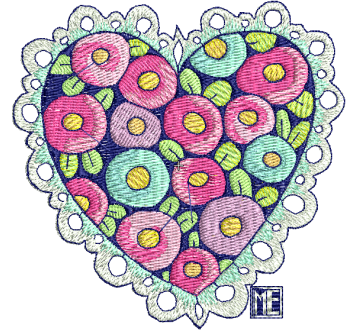
CHAPTER 2

BASIC PROCEDURES

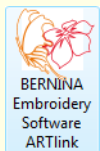
To start using BERNINA ARTlink, you need to know the basic procedures, such as starting up, opening designs, and saving. Once you start BERNINA ARTlink, you use commands or icons, and dialogs to complete your tasks. You select commands in the same way as other MS Windows® applications – from menus or toolbars.

BERNINA ARTlink opens a range of native ART files, as well as some other embroidery file formats, from computer hard disk, floppy disk or CD ROM. BERNINA ARTlink gives you a wide range of standard factory-supplied hoops to select from. Grid lines help you accurately align or size embroidery objects.

This section describes how to start BERNINA ARTlink and access the available commands and tools. It covers basic procedures to do with opening and saving design files. It also explains how to activate hoops and grids.



Starting BERNINA ARTlink



Double-click to start BERNINA ARTlink.

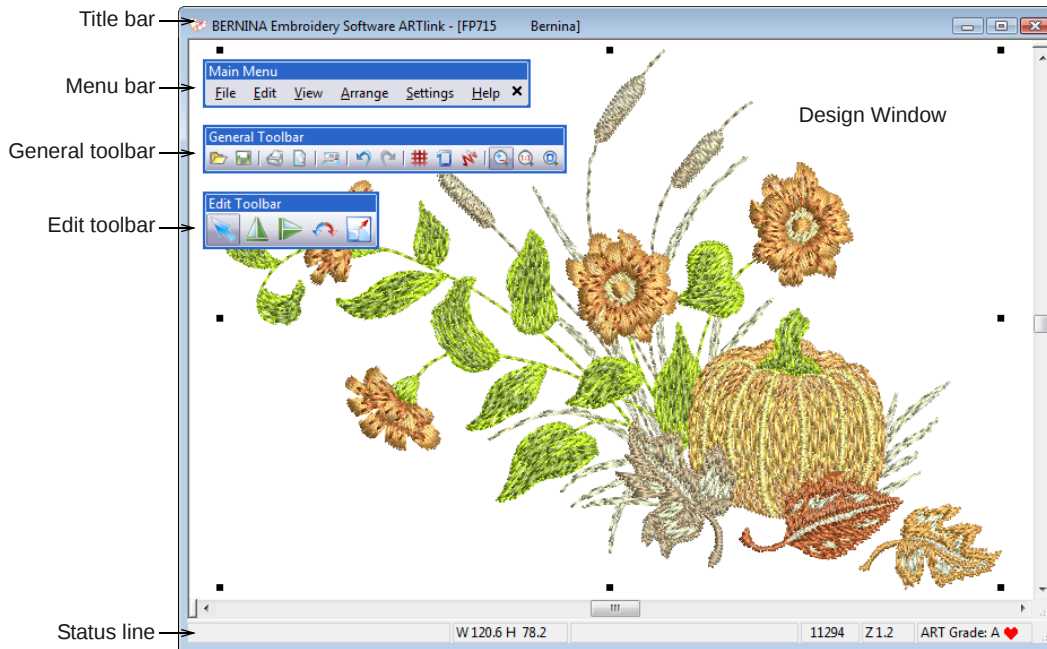
BERNINA ARTlink can be opened via the desktop icon or MS Windows® Start menu.

To start BERNINA ARTlink

- ▶ Double-click the BERNINA ARTlink shortcut icon on the MS Windows® desktop.

Alternatively, select **Programs > BERNINA ARTlink > BERNINA Embroidery Software ARTlink** from the **Start** menu.

BERNINA ARTlink opens with a new, blank design (Design1). The screen image below displays an 'exploded' view of **all** toolbars in BERNINA ARTlink.



Note Toolbars are dockable left, right, top and bottom, and can be 'floated' anywhere on screen.

- ▶ Customize the design window by showing or hiding the grid, changing the grid dimensions, and showing and hiding toolbars. See [Displaying the grid](#) for details.

The Status Line provides valuable information about the current design:

- ▶ **W** and **H** indicators tell you the design width and height respectively.

Use the left mouse button to W 98.5 H 78.1 X=-11.1 Y= 11.9 L= 16.3 A

- ▶ Next to these are the measurement indicators, **X**, **Y**, **L** and **A**. See [Measuring distances on-screen](#) for details.

W 98.5 H 78.1 X=-11.1 Y= 11.9 L= 16.3 A= 133 16288 Z

- ▶ Next to the measurement indicators are the **Total Stitch Count** indicator and **Zoom Factor** indicator. See also [Zooming in and out](#).

11.1 Y= 11.9 L= 16.3 A= 133 16288 Z 1.1 ART Grade: A

- ▶ On the far right is the **File Type** indicator. BERNINA ARTlink native ART designs are classified in four grades depending on how the

file was created. See [Working with design files](#) for details.

11.1 Y= 11.9 L= 16.3 A= 133 16288 Z 1.1 ART Grade: A

Using commands and tools

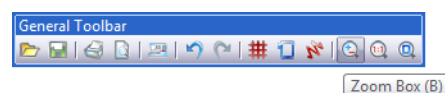
Once you start BERNINA ARTlink, you use commands or icons, and dialogs to complete your tasks. You select commands in BERNINA ARTlink in the same way as other MS Windows® applications – from menus or toolbars. Keyboard shortcuts are also available for the most frequently used commands. See [BERNINA ARTlink Shortcut Keys](#) for details.

Selecting commands from toolbars

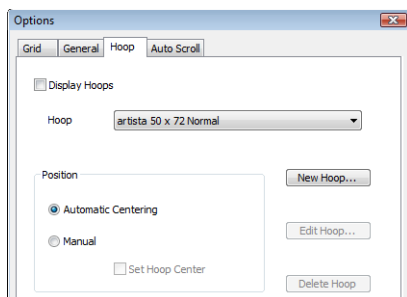
Toolbars provide quick and easy access to BERNINA ARTlink commands. Click a toolbar button to activate a command or, where applicable, right-click to set its properties.

To select commands from toolbars

- ▶ Hover the pointer over an icon to see its name in a 'tooltip'.



- ▶ Click the icon to activate the command.
- ▶ Right-click to adjust settings or activate the secondary command.
 - ▶ If the icon has both left and right-click commands, the name is split with a slash (/). For example, the **Scale by 20% Down/Up** icon lets you scale objects down by 20% when you click it, or scale objects up by 20% when you right-click.
 - ▶ For many tools, right-click accesses current command settings. For example, **Show Hoop** displays or hides the hoop when you click, or opens the **Options > Hoop** dialog when you right-click. See **Hoops and grids** for details.



Undoing and redoing commands



Use Undo (General toolbar) to undo a command.



Use Redo (General toolbar) to reapply a command which has been 'undone'.

You can undo the effects of most commands. If you change your mind, you can redo them again. BERNINA ARTlink remembers the last few commands you used.

To undo and redo a command

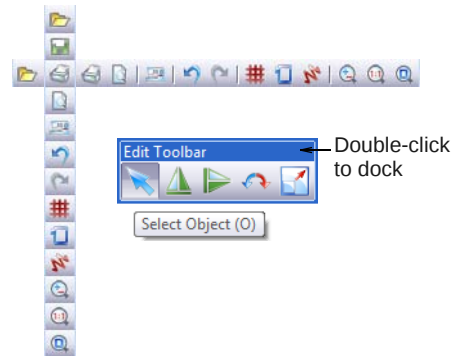
- ▶ To undo a command, click the **Undo** icon.
When BERNINA ARTlink cannot remember more commands, **Undo** is dimmed.
- ▶ Click the **Redo** icon to re-apply an 'undone' command.

Moving and docking toolbars

Toolbars provide quick and easy access to BERNINA ARTlink commands. Toolbars are 'dockable'. This means you can move them around the Design Window.

To move or dock a toolbar

- ▶ To move a toolbar to a more convenient location, click and drag it:
 - ▶ Toolbars are dockable left, right, top and bottom.
 - ▶ They can be 'floated' anywhere on screen.



- ▶ To dock it in its normal position, double-click the toolbar title.

Working with design files

By default BERNINA ARTlink saves designs to the current 'ART' file format. This format contains all information necessary both for stitching a design and for later modification. BERNINA ARTlink opens a range of native ART files from computer hard disk, floppy disk or CD ROM. You can save designs in various ART formats as well as BERNINA ARTlink templates.

ART files

Native ART designs, called 'ART Grade A', contain a complete set of design information in a single file – object outlines and properties, actual stitches, thread colors, a picture icon and comments. There are three other grades of ART file, depending on how the ART file was created – Grade B is more reliable than Grade C, but not as good as Grade A format, and Grade D is the least reliable. It goes without saying that only ART Grade A files provide 100% perfect scaling and transformation.

File source	Description
Art Grade A	Pure ART file created in BERNINA ARTlink-based software. These files contain pure ART objects, outlines and stitches.

File source	Description
	Art Grade B Designs read from outline format such as GNC and saved in ART format. Such designs cannot be read directly in BERNINA ARTlink but once converted to ART in other software, BERNINA ARTlink reads them as Grade B designs.
	Art Grade C Designs read from stitch files – SEW, PCS, PES, etc – where stitches have been converted to objects.
	Art Grade D Designs read from stitch files – SEW, PCS, PES, etc – where stitches have NOT been converted to objects.



Tip For information about the source of a design file, refer to the **Open** dialog or the **Design Properties** dialog. See **Viewing design information** for details.

Opening designs



Use Open (General toolbar) to open an existing design.

BERNINA ARTlink opens a range of native ART files in addition to the current ART format. Native ART designs are classified in four grades depending on how the file was created.

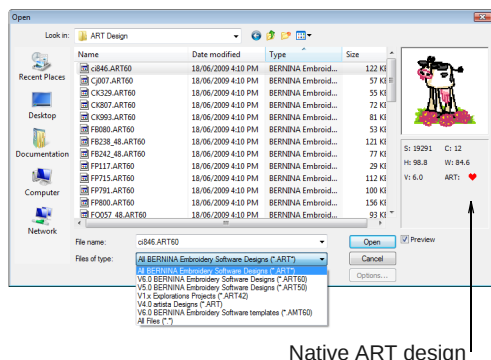


Caution You cannot open ART files created with a later version of the software to the one you are running. If you attempt to, you will be prompted to update your system to the current version.

To open a design

- 1 Click the **Open** icon.

The **Open** dialog opens.



Native ART design

- 2 Select a folder from the **Look In** list.



Note You can read designs stored on floppy disk or CD as well as computer hard disk.

- 3 If the design is not in the current ART format, select a file type from the **Files of Type** list.
- 4 Select a design or designs.
 - ▶ To select a range, hold down **Shift** as you click.
 - ▶ To select multiple items, hold down **Ctrl** as you click.
- 5 Select the **Preview** checkbox to preview the design (for supported file formats) together with design data. This includes stitch and color numbers, design height and width, and software version number.
- 6 Click **Open**.



Note You can also read designs from your embroidery machine memory. See **Reading designs from machine** for details.

Saving designs



Use Save (General toolbar) to save the current design.

Not all files will be saved as pure ART format. BERNINA ARTlink saves designs in the same grade of ART file that was opened. Saving a design records its file name, location and format, and updates it with any changes you make. When you save an existing design under a new name, to a different location or format, you create a copy of the original design. See also **Writing designs to machine**.

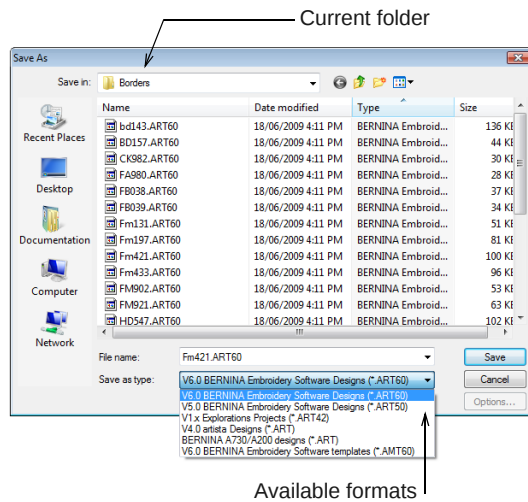


Tip Save your designs early and often. Do not wait until you finish working. To save changes to an existing file but preserve the original, use **Save As**. Once you have saved a design, every time you click **Save** on the toolbar the file will be updated.

To save a design

- 1 Click the **Save** icon.

If this is the first time you have saved the design, the **Save As** dialog opens.



- 2 Select the folder where you want to save the design from the **Save In** list.
- 3 Enter a name for the design in the **File name** field.
- 4 Select a file format from the **Save as type** list.
- 5 Click **Save**.



Note You can also write designs to your embroidery machine memory. See also [Writing designs to machine](#).

Hoops and grids

Fabrics should be hooped before stitching out on the machine. BERNINA ARTlink gives you a wide range of standard factory-supplied hoops to select from. Grid lines help you accurately align or size embroidery objects.

Displaying the hoop

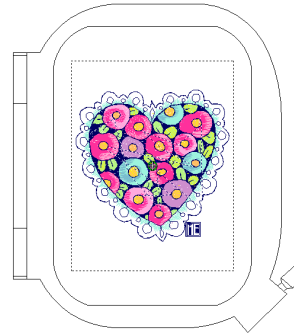


Click Show Hoop (General toolbar) to view the hoop. Right-click to change the settings.

The large hoop is displayed when you open BERNINA ARTlink. The hoop represents the embroidery hoop that you connect to your BERNINA embroidery machine. As you position objects, the hoop position adjusts automatically so that it is always centered around objects in the window. See also [Hooping Designs](#).

To display the hoop

- Click the **Show Hoop** icon to turn on the hoop display.



- Click the **Show Hoop** icon again to turn off the hoop display.

Displaying the grid



Click Show Grid (General toolbar) to show or hide the grid. Right-click to change the Grid settings.

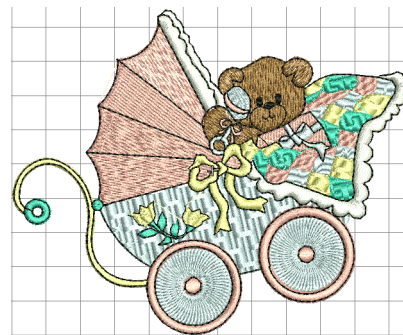
Use grid lines to help accurately align or size embroidery objects. You can show or hide the grid.



Tip You can change the grid spacing, select a reference point and turn **Snap to Grid** on or off in the **Options** dialog. See [Setting grid options](#) for details.

To display the grid

- Click the **Show Grid** icon to turn on the grid display.



- Click the **Show Grid** icon again to turn off the grid display.

Measuring distances on-screen

Use Measure (View menu) to measure distances on-screen.

Measure the distance between two points on screen using the **Measure** command. This command displays coordinates, distance and angle of the mouse pointer from a point corresponding to the center of a hoop in an empty design. View the measurements in the Status Line or in a tooltip. See [Interpreting pointer position values](#) for details.



Tip For more accurate results, zoom in before you measure. The measurement is always the actual size, and is not affected by the zoom factor.

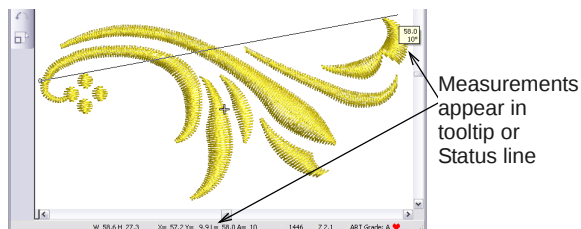
To measure a distance on-screen

- 1 Select **View > Measure** or press **M**.
- 2 Click the start point.
- 3 Move the pointer to the end point and hold the mouse still.

The following information displays in the **Status Line**:

- ▶ Position coordinates of the end point (**X=**, **Y=**).
- ▶ Length of the measured line (**L=**).
- ▶ Angle of the line relative to the horizontal (**A=**).

Measurements are shown in millimeters or inches, depending on the option selected in the MS Windows® Control Panel. See your Windows documentation for more information.



Tip If activated, length and angle measurements will also appear in a tooltip. See [Hiding the Measure tooltip](#) for details.

- 4 Press **Esc** once to recreate the first measuring point.
- 5 Press **Esc** twice to exit measuring mode altogether.

CHAPTER 3

VIEWING & SELECTING DESIGNS

BERNINA ARTlink provides many viewing features to make it easier to work with your design. Zoom in on an area to see more detail or view the design at actual size. Preview a design in different colors on different backgrounds. Even show or hide needle penetration points.



Before even opening BERNINA ARTlink or your design, you can check the software version number and other design information for ART files directly from MS Windows® Explorer. You can view stitching details about a design in the Design Properties dialog. Also the Print Preview provides essential design information, including a design preview, the size of the design, color sequence and any special instructions.

This section explains the design viewing modes available in BERNINA ARTlink as well as the various design viewing settings. It also explains how to obtain and customize information about your designs.

Design viewing modes

BERNINA ARTlink provides a number of distinct viewing modes. You can also zoom in on an area to see more detail, view the design at actual size, as well as zoom out to see the whole design. You can show a graphical representation of what the final embroidery will look like with Artistic View.

BERNINA ARTlink provides two views – ‘Design’ and ‘Artistic’. Use Design View to open designs and view stitches and stitching sequence. Artistic View offers a graphical representation of what the final embroidery will look like. The design is shown more realistically than in Design View. All editing commands are available in Artistic View.

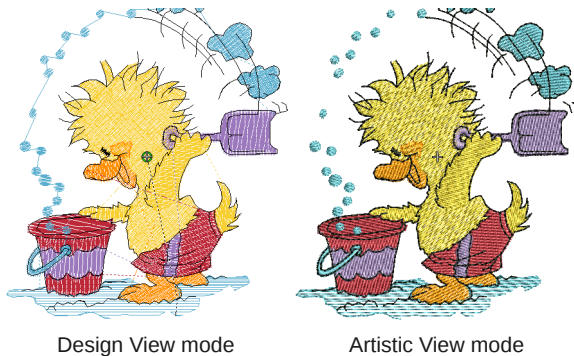
Switching design views



Click Show Artistic View (General toolbar) to toggle artistic or design view on/off.

To switch design views

- Click the **Show Artistic View** icon to toggle between 'Design' and 'Artistic' views.



- Alternatively, press **T** on the keyboard to toggle between views.



Tip Use **Artistic View** together with a background fabric to see how your design will look when stitched out. See [Changing backgrounds](#) for details.

Zooming in and out



Click **Zoom Box** (General toolbar) to zoom in and out of the Design Window. Use it also to zoom in on bounded areas of the screen.



Click **Show All** (General toolbar) to show the whole design.



Click **Show 1:1** (General toolbar) to show the design at the correct size.

Magnify your view of the design by zooming in on individual stitches or details, or zoom out to display more of the design in the window. The current zoom factor is shown at the lower right corner of the screen. See also [BERNINA ARTlink Shortcut Keys](#).



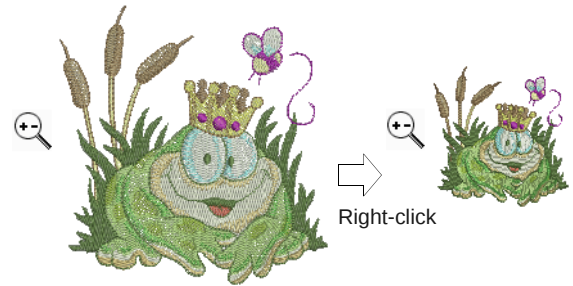
Note To make sure your design is being displayed at the correct size, calibrate your monitor. See [Calibrating the monitor](#) for details.

To zoom in and out

- Click the **Zoom Box** icon or press shortcut letter **B**.

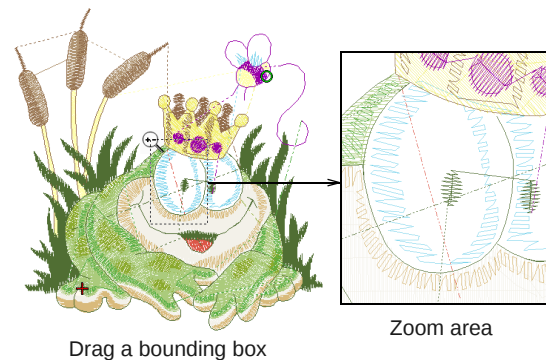
The cursor becomes a magnifying glass.

- Right-click in the Design Window to zoom out – the view zooms out to half the previous screen magnification, centered at the point you clicked.

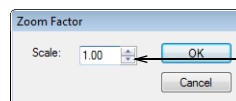


Tip The Status Line displays the current 'zoom factor'. See [Starting BERNINA ARTlink](#) for details.

- Left-click in the Design Window to zoom in – the view zooms to twice the previous screen magnification, centered at the point you clicked.
- Left- or right-click-and-drag a bounding box around the zoom area. Release the mouse to view the entire boxed area on screen.



- To display the whole design, click **Show All**. Alternatively, select **View > Show All**, or press **0**.
- To display the design at actual size, click **Zoom 1:1**.
- To display the design at a particular scale, press **F** on the keyboard. Enter a scale as a percentage of the actual size, and click **OK**.



Enter scale

- Press **Esc**, **Enter** or **Spacebar** keys to exit **Zoom** mode.

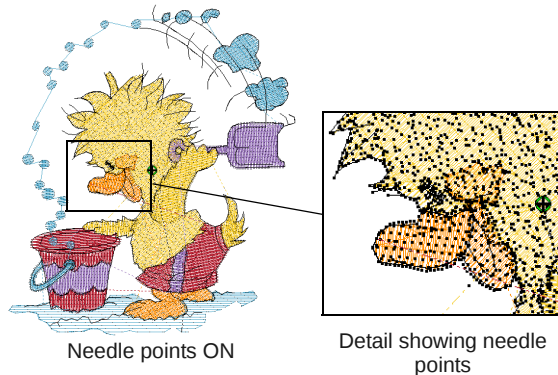
Viewing needle points

Select **Needle Points** (View menu) to show or hide the needle points in a design.

In Design View, you can show or hide needle points. For example, you may want to view needle points to select stitches for editing.

To view needle points

- ▶ To show or hide needle points, select **View > Needle Points**.



Viewing stitching sequence

When working with embroidery designs, you need to understand the stitching sequence. You can check a design's stitching sequence by 'traveling' through it by stitches, colors or objects. You can also check the sequence by slowly redrawing your design on screen. BERNINA ARTlink simulates stitching out by changing stitches from black to their allocated thread colors as they are 'stitched'.

Traveling to the start or end of a design

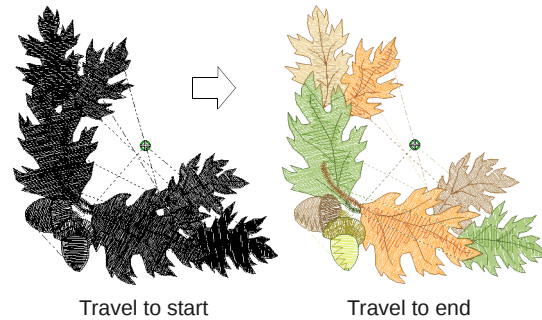
Press Home key to travel to the start of a design.
Press End key to travel to the end of a design.

Use the keyboard shortcuts to travel quickly to the start or end of the stitching sequence.

To travel to the start or end of a design

- ▶ To travel to the start of the design, press the **Home** key.

The entire design is displayed in black.



- ▶ To travel to the end of the design, press the **End** key.

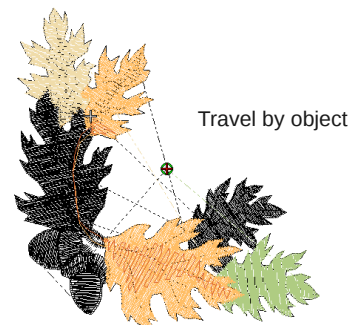
The design is displayed in the selected thread colors.

Traveling by object

Use the keyboard shortcuts to travel through the design by object.

To travel by object

- ▶ Travel to the start of the design, by pressing the **Home** key.
- ▶ To travel to the next object, press **Ctrl+T**.



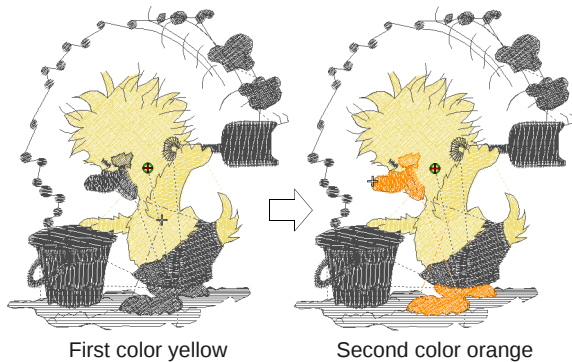
- ▶ To travel to the previous object, press **Shift+T**.

Traveling by color

Use the keyboard shortcuts to travel through the design by color.

To travel by color

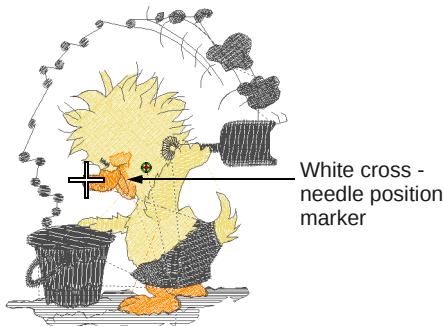
- ▶ To travel to the previous color, press the **Page Up** key.



- ▶ To travel to the next color, press the **Page Down** key.

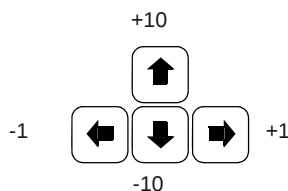
Traveling by stitches

Use the arrow keys to travel through the design one or more stitches at a time. The current needle position is indicated by a large white cross or 'needle position marker'. Initially, this is located at the end of the design. When you travel through stitches, the needle position marker moves accordingly. The current stitch number appears in the **Status Line**. See also [Viewing the stitching sequence slowly](#).



To travel by stitches

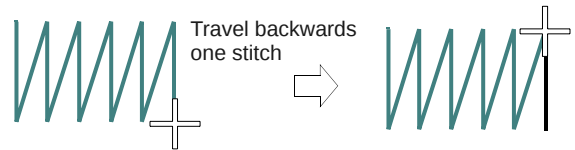
- 1 Ensure that **Select Object** is not selected, then press the arrow keys to travel by 1 or 10 stitches.



- ▶ Press the left or right arrow key to travel 1 stitch backward or forward.

- ▶ Press the up or down arrow key to travel 10 stitches backward or forward.

- 2 Press the **+** or **-** keys located on the keypad to travel by 100 stitches. The **+** key moves you forward, while the **-** key moves you backwards.



Tip If you travel outside the visible area, press the **C** key to center the current stitch on the screen.

Viewing the stitching sequence slowly

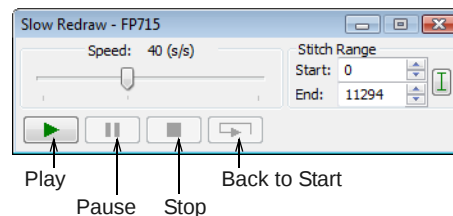
You can check a design's stitching sequence by slowly redrawing your design on screen.



Note **Slow Redraw** cannot be used with **Artistic View**.

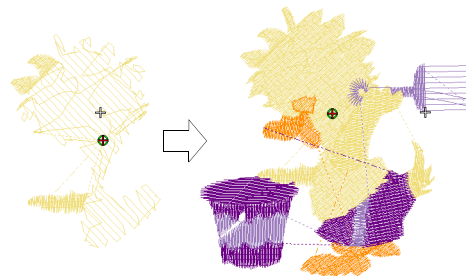
To view the stitching sequence slowly

- 1 Select **View > Slow Redraw** or press **Shift+R**. The **Slow Redraw** dialog opens.



- 2 Use the slider bar to set the redraw speed.
- 3 Click the **Play** button.

The design is redrawn on screen according to the stitching sequence.



- 4 Click **Stop** to stop.

The remainder of the design is redrawn.

Summary of travel shortcut keys

To travel	Press or select
to the start of design	Home key
to the end of design	End key
1 stitch backward	left arrow key
1 stitch forward	right arrow key
10 stitches backward	up arrow key
10 stitches forward	down arrow key
100 stitches forward	+ (on keypad)
100 stitches backward	- (on keypad)
to the previous color	Page Up key
to the next color	Page Down key
to next object	Ctrl + T
to previous object	Shift + T

Selecting designs



Click Select Object (Edit toolbar) as necessary (generally activated by default), and click objects to select.

Select your design to apply changes. You can cancel all selections in the design.

To select designs

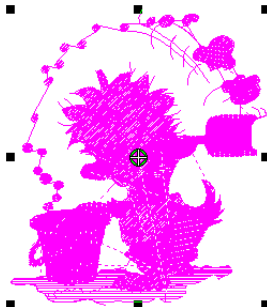
- 1 Click the **Select Object** icon.
- 2 Click the design.

When you click an object, selection handles appear around it. You can click anywhere within these extents to click and drag the design.

Selection handles appear around the entire design.



Design unselected



Design selected

- ▶ To deselect, press **Esc**.

To deselect designs

- ▶ Cancel a selection using any of the following methods.
 - ▶ Press **Esc**.
 - ▶ Click an empty area of the background.

Changing backgrounds

Select Thread Colors (Settings menu) to change background colors.

In BERNINA ARTlink, you can change the background color of the Design Window to match the color of your fabric. Or you can select a background fabric for more realistic previews and presentations. The background is saved with the design.



Orange background



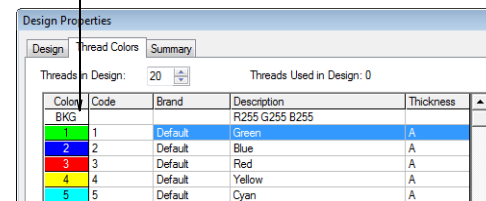
Blue background

To change the background

- 1 Select **Settings > Thread Colors**.

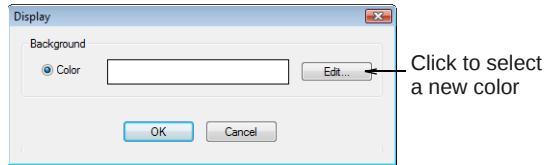
The **Design Properties > Thread Colors** dialog opens.

Double-click to change background colors

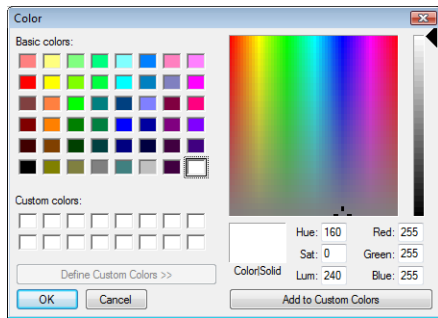


- 2 Select **BKG** from the list.
- 3 Click the **Edit** button.

The **Display** dialog opens.



- 4 Click the **Edit** button.
- 5 Select a color from the **Color** dialog.



- 6 Click **OK**.
The background is saved with the design.

Viewing design information

BERNINA ARTlink provides information about designs in a variety of ways and formats. Before even opening BERNINA ARTlink or your design, you can check the software version number and other design information for ART files directly from MS Windows® Explorer. You can view stitching details in the **Design Properties** dialog. The **Print Preview** tool provides essential design information, including a design preview, the size of the design, color sequence and any special instructions.

Viewing design information

Use Design Properties (File menu) to view stitching details about a design.

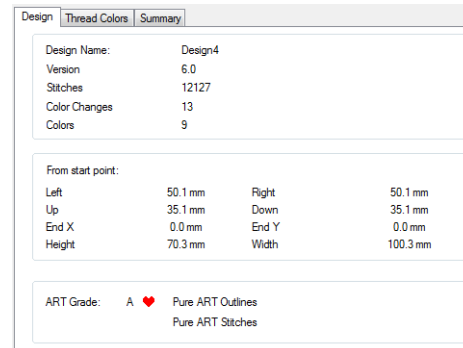
You can check software version number and other design information through the **Design Properties** dialog. Stitching details are also provided. Most of the fields cannot be modified directly.

To view design information

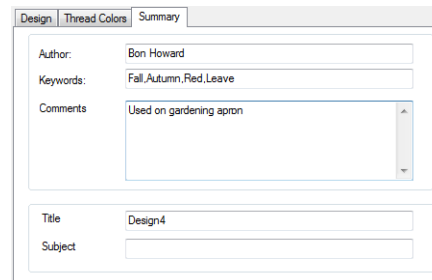
- 1 Select **File > Design Properties**.

The **Design Properties > Design** tab opens. This tab contains information about height and width

and stitch count and colors. The data is extracted from the design and cannot be modified.



- 2 Select the **Summary** tab to view or enter summary information about the design.



- 3 Click a field and enter any text which will help you identify the design at a later date.



Note Information from this tab is included on the Print Preview as well as the **Summary** tab of the **Windows Properties** dialog. See **Previewing designs** for details.

- 4 Click **OK**.

Previewing designs

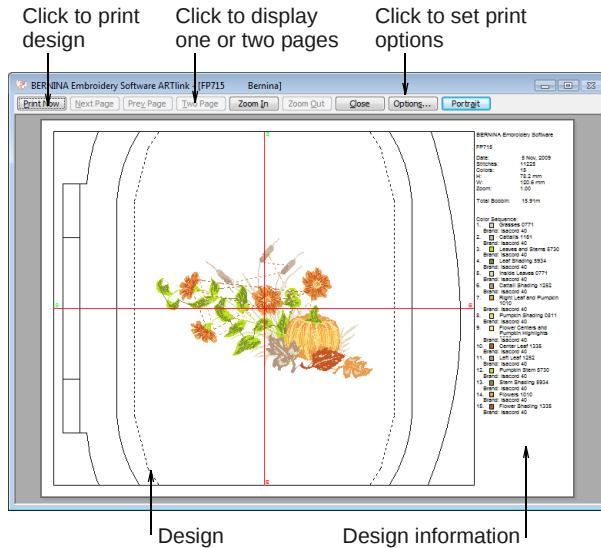
Click Print Preview (General toolbar) to preview the print preview on-screen.

The **Print Preview** contains a design preview and essential design information, including the size of the design, color sequence and any special instructions. See also **Printing designs**.

To preview designs

- 1 Click the **Print Preview** icon.

The design preview displays in a preview window.



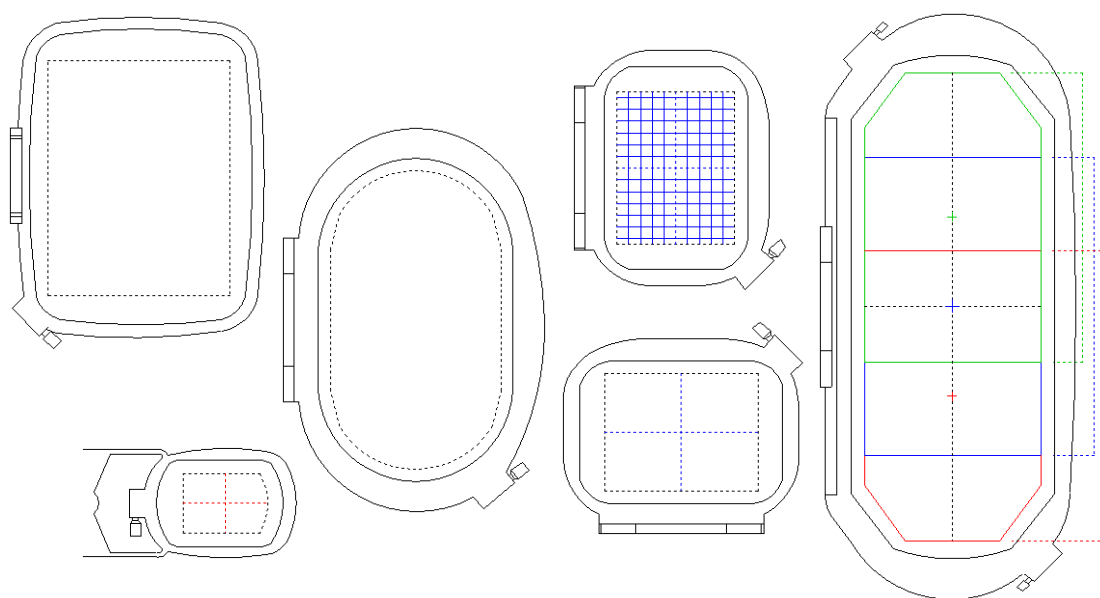
2 Adjust the view as required:

- ▶ To change the orientation of the paper, click **Landscape** or **Portrait**.
- ▶ To change the information that displays, and set printing preferences, click **Options**. See also **Setting print options for embroidery**.
- ▶ Click **Zoom In** to read the design information or view the design preview more closely. Large designs may be displayed over a number of pages.
- ▶ To print the design, click **Print**.
- ▶ To close the print preview, click **Close**.

CHAPTER 4

HOOPING DESIGNS

Fabrics must be hooped before stitching out on the machine. BERNINA ARTlink allows you to select from a wide range of standard factory-supplied hoops. If you have a hoop which does not appear in the list, you can define a custom hoop from scratch or based on a standard hoop. See also [Displaying the hoop](#).



This section describes how to choose and display hoops in BERNINA ARTlink. It covers creating and modifying custom hoops. It also deals with hooping large designs.

Selecting hoops

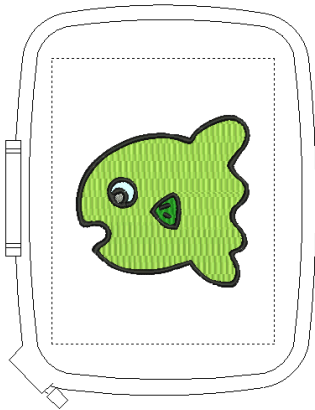
Whenever you create a new design, a single hoop representing the embroidery hoop you connect to your embroidery machine appears by default in the middle of the Design Window. As you position objects, the hoop position adjusts automatically so that it is always centered around objects in the window. The **Show Hoop** tool allows you to toggle hoop display on or off. A range of hoop sizes and orientations is available for a wide variety of design types.

Changing hoops



Click Show Hoop (General toolbar) to turn hoop display on or off. Right-click to change hoop settings.

From the range of hoop sizes available, select the smallest hoop which will accommodate your design. This will hold the fabric tight while stitching.

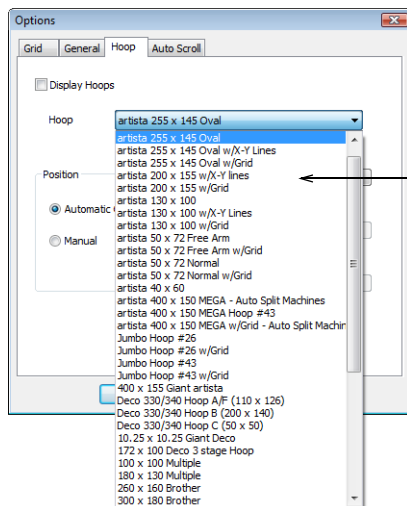


Note When you choose a new hoop, it becomes the 'current' hoop until changed in the present or a future session.

To change hoops

- 1 Right-click the **Show Hoop** icon or select **View > Hoop**.

The **Options > Hoop** dialog opens.



- 2 Select a hoop from the **Hoop** list.
- 3 If you want a significant point of the design to be stitched in a particular part of the hoop, select **Manual** and select **Set Hoop Center**.
- 4 Click **OK**.

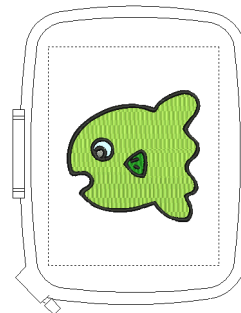
If you selected **Set Hoop Center**, click where you want the center to be in the design window.

Setting hoop centers

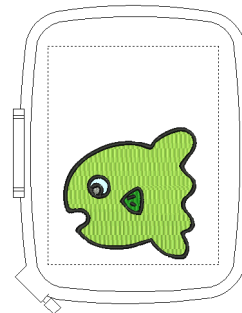


Click **Show Hoop** (General toolbar) to turn hoop display on or off. Right-click to change hoop settings.

By default, BERNINA ARTlink ensures that your design is always centered in the hoop. However, you can use the manual option if you need to digitize in another part of the hoop. You can also change the center position of the hoop.



Automatic Centering

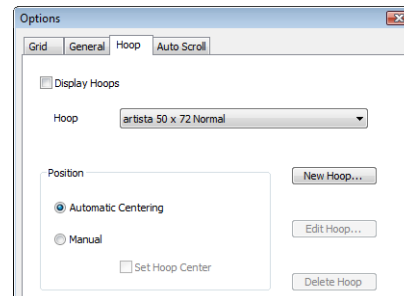


Manual

To set the hoop center

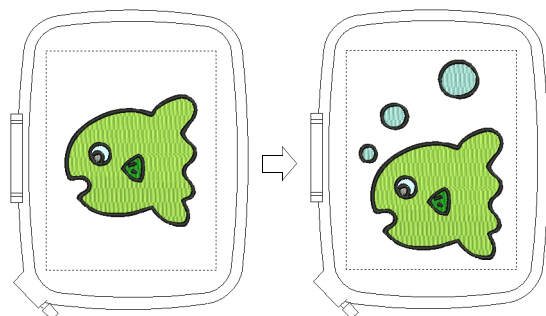
- 1 Right-click the **Show Hoop** icon or select **View > Hoop**.

The **Options > Hoop** dialog opens.



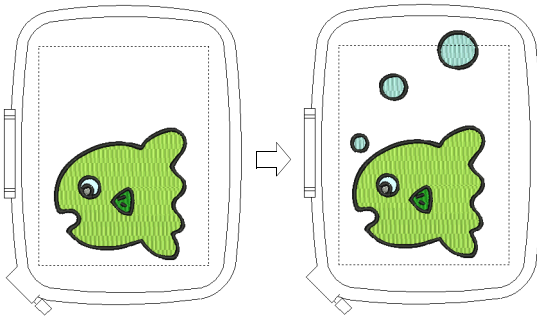
- 2 In the **Position** panel, select how to center the hoop.

► **Automatic Centering**: the hoop moves so that the design is always in the center.



- **Manual:** the hoop remains in its original position.

Select **Set Hoop Center** to change the hoop position.



- 3 Click **OK**.

If you selected **Set Hoop Center**, click in the Design Window where you want the center to be.

Defining custom hoops

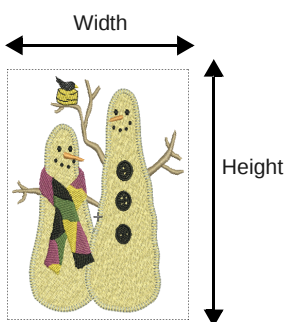
If you are using a hoop size that is not in the hoop list, you can define your own hoops and save them for later use. You can create or edit four types of hoop – rectangular, oval, sliding and 3-position.

Defining rectangle hoops



Click Show Hoop (General toolbar) to turn hoop display on or off. Right-click to create hoops.

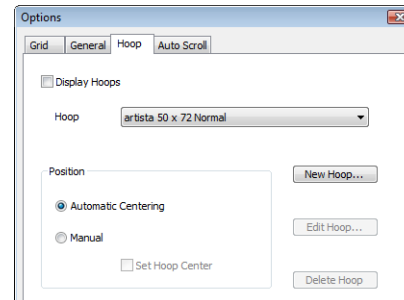
Rectangle hoops are displayed as dotted black lines. You can set the height and the width of the rectangle according to the dimensions of the hoop you are using.



To define a rectangle hoop

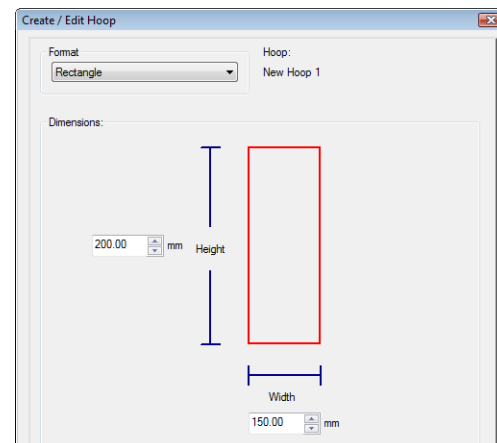
- 1 Right-click the **Show Hoop** icon or select **View > Hoop**.

The **Options > Hoop** dialog opens.

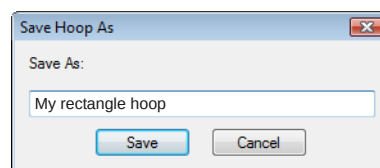


- 2 Click **New Hoop**.

The **Create/Edit Hoop** dialog opens.



- 3 In the **Format** panel, select **Rectangle**.
 - 4 In the **Dimensions** panel, enter the **Height** and the **Width** of the rectangle hoop.
 - 5 Click the **Save Hoop As** button.
- The **Save Hoop As** dialog opens.
- 6 Enter a hoop name.



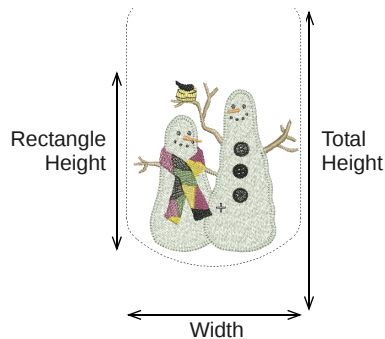
- 7 Click **OK** and **Save Hoop**.

Defining oval hoops



Click Show Hoop (General toolbar) to turn hoop display on or off. Right-click to create hoops.

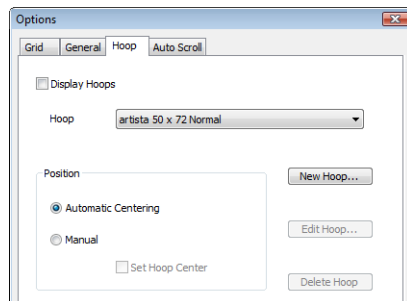
Oval hoops are displayed as black dotted outlines. You can set the height and the width of the oval according to the dimensions of the hoop you are using.



To define an oval hoop

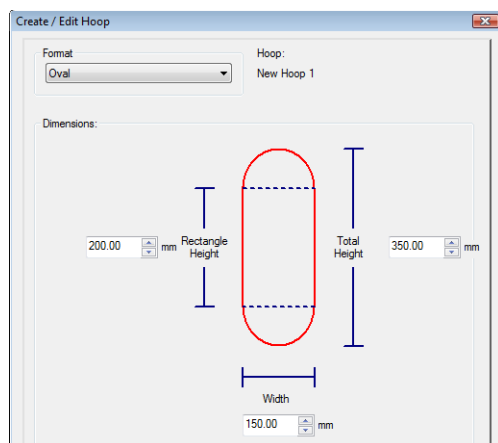
- 1 Right-click the **Show Hoop** icon or select **View > Hoop**.

The **Options > Hoop** dialog opens.



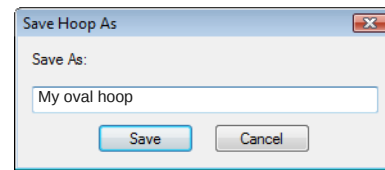
- 2 Click **New Hoop**.

The **Create / Edit Hoop** dialog opens.



- 3 In the **Format** panel, select **Oval**.
- 4 In the **Dimensions** panel, enter the **Rectangle Height**, **Total Height** and the **Width** of the oval hoop.
- 5 Click the **Save Hoop As** button.
The **Save Hoop As** dialog opens.

- 6 Enter a hoop name.



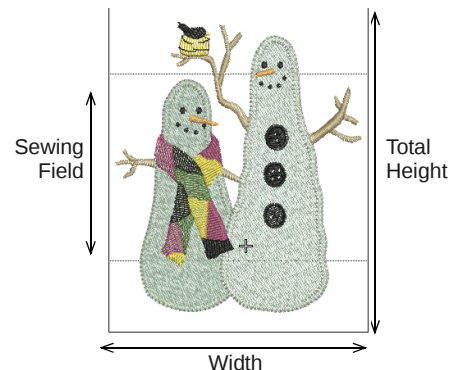
- 7 Click **OK** and **Save Hoop**.

Defining sliding hoops



Click **Show Hoop** (General toolbar) to turn hoop display on or off. Right-click to create hoops.

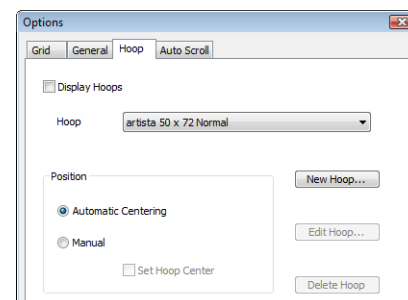
Sliding hoops are special hoops with adjustable frames to accommodate unusual size designs. You can set the height and the width of the hoop as well as the sewing field within according to the dimensions of the hoop you are using.



To define a sliding hoop

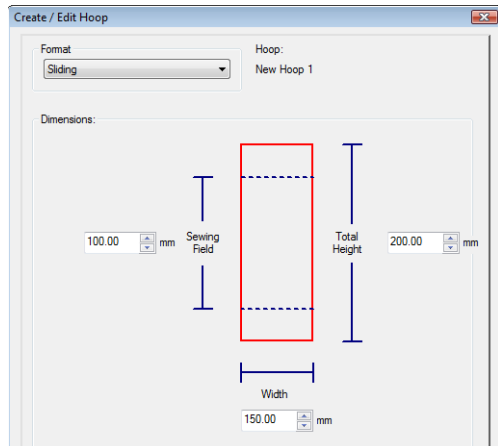
- 1 Right-click the **Show Hoop** icon or select **View > Hoop**.

The **Options > Hoop** dialog opens.



- 2 Click **New Hoop**.

The **Create / Edit Hoop** dialog opens.

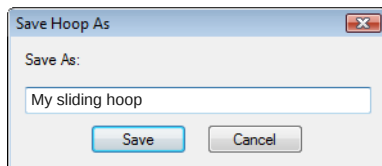


- 3 In the **Format** panel, select **Sliding**.
- 4 In the **Dimensions** panel, enter the **Sewing Field**, **Total Height** and **Width** of the hoop.



Note It is best to enter the total height of the hoop first. If the sewing field is larger than the default total height, the size will go back to a smaller size.

- 5 Click the **Save Hoop As** button.
The **Save Hoop As** dialog opens.
- 6 Enter a hoop name.



- 7 Click **OK** and **Save Hoop**.

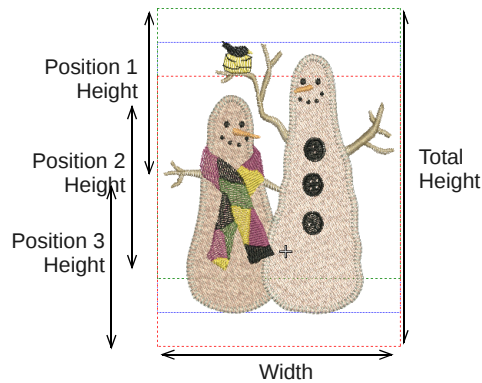
Defining 3-position hoops



Click Show Hoop (General toolbar) to turn hoop display on or off. Right-click to create hoops.

3-position hoops allow large designs to be split manually and stitched without the usual registration problems. Unlike sliding hoops, the sewing fields are in fixed positions with known dimensions, making it easy to register objects stitched in each position. In the software, they are displayed as three dotted rectangles. The top rectangle is green, the middle, blue and the bottom, red. You can define your own

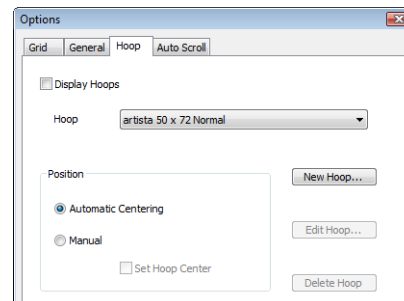
3-position hoop according to the dimensions of the hoop you are using.



To define a 3-position hoop

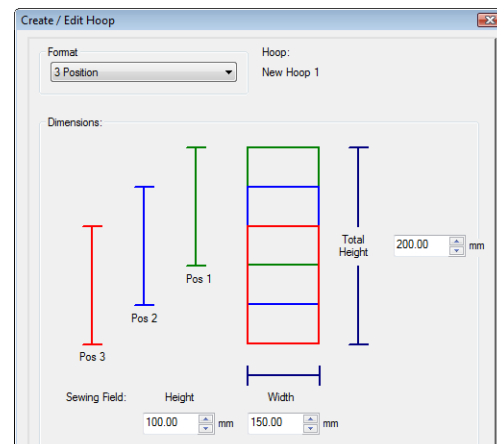
- 1 Right-click the **Show Hoop** icon or select **View > Hoop**.

The **Options > Hoop** dialog opens.



- 2 Click **New Hoop**.

The **Create / Edit Hoop** dialog opens.

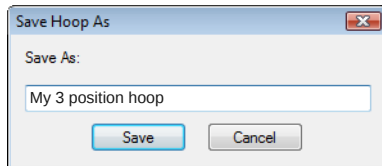


- 3 In the **Format** panel, select **3-Position**.
- 4 In the **Dimensions** panel, enter the **Total Height**, the heights for **Position 1**, **2** and **3**, followed by the hoop **Width**.



Note It is best to enter the total height of the hoop first. If the sewing field is larger than the default total height, the size will default to a smaller size.

- 5 Click the **Save Hoop As** button.
The **Save Hoop As** dialog opens.
- 6 Enter a hoop name.



- 7 Click **OK** and **Save Hoop**.

Modifying custom hoops

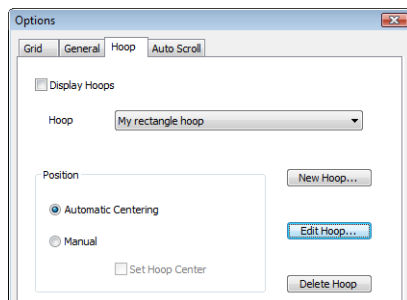


Click Show Hoop (General toolbar) to turn hoop display on or off. Right-click to edit hoops.

You can change the height and width of new hoops as required. Only custom hoops can be modified.

To modify a custom hoop

- 1 Right-click the **Show Hoop** icon or select **View > Hoop**.
The **Options > Hoop** dialog opens.



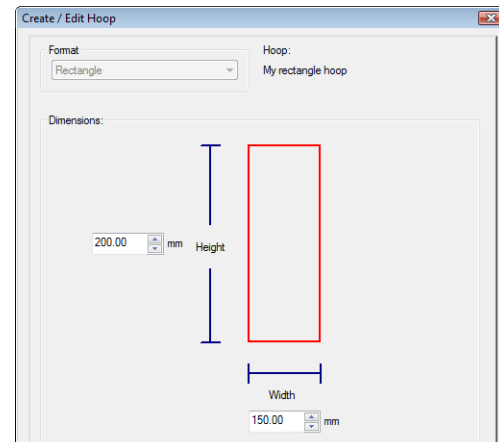
- 2 In the **Hoop** list, select the custom hoop.
Both **Edit Hoop** and **Delete Hoop** buttons are activated.



Note To delete a hoop, click **Delete Hoop** and click **OK** to confirm.

- 3 Click **Edit Hoop**.

The **Create /Edit Hoop** dialog opens.



- 4 Enter the new dimensions.
- 5 Click the **Save Hoop** button.

Setting automatic start and end points

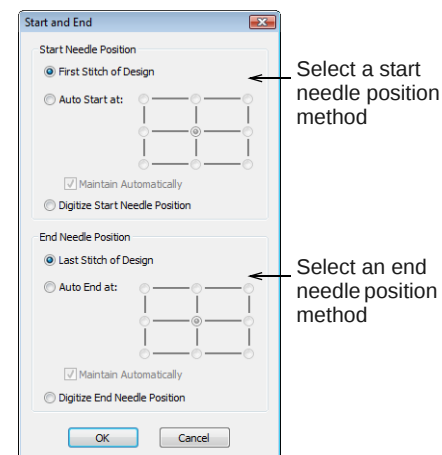
Use Start and End (Arrange menu) to set the start and end points of the design.

Before stitching, some embroidery machines require you to position the starting needle exactly above the first needle penetration point. This reduces the chance of the needle hitting the side of the hoop. Use automatic **Start and End** to set the positions of first and last stitches in a design.

To set automatic start and end points

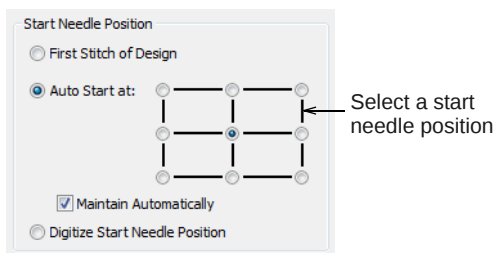
- 1 Select **Arrange > Start and End**.

The **Start and End** dialog opens.



- 2 Select a **Start Needle Position** method:

- ▶ **First Stitch of Design:** The start point is set to the first stitch in the design.
- ▶ **Auto Start at:** The start point is automatically maintained at a specified point in the design. Choose from the available options:



- ▶ **Digitize Start Needle Position:** You are prompted to manually mark the start and end points.



3 Select an **End Needle Position** method:

Method	Description
Last Stitch of Design	The end point is set to the last stitch in the design.
Auto End at	The end point is automatically maintained at a specified point in the design.
Digitize End Needle Position	You are prompted to manually mark the end point.

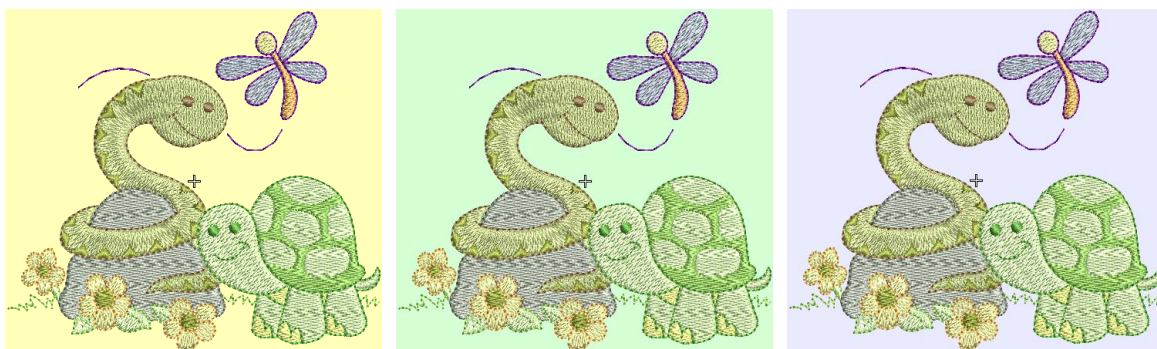
- 4 Select the **Maintain Automatically** checkbox (the default) to automatically maintain start and/or end needle positions.
- 5 Click **OK**.

Connecting stitches will be inserted as required before the first and after the last stitches in the design.

CHAPTER 5

THREAD COLORS & CHARTS

When your design was digitized, thread colors were selected for each object from a color palette. The color palette contains a selection of thread colors tailored for each design. This color scheme represents the actual thread colors in which a design will be stitched.



You can preview a design in different colors and on different backgrounds. In effect, you can preview multiple color schemes. You can also print multiple color schemes, design backgrounds, and icons of color blocks with the print preview.

For each color scheme, you can select colors from commercial thread charts containing a range of colors from different thread manufacturers, or define your own. To save time when setting up new color schemes, you can create your own thread charts, using the most frequently used colors. You can add, edit and delete threads from a thread chart, or rename or delete the chart itself. In BERNINA ARTlink you can search for particular threads by various criteria.

This section describes how to match your own thread colors, and create new thread charts, as well as modifying thread charts and background colors.

Matching thread colors

In BERNINA ARTlink you can search for particular threads manually by various criteria. Thread color matching lets you to find and change a thread color based on closest match in one or several thread charts.

Searching for thread types

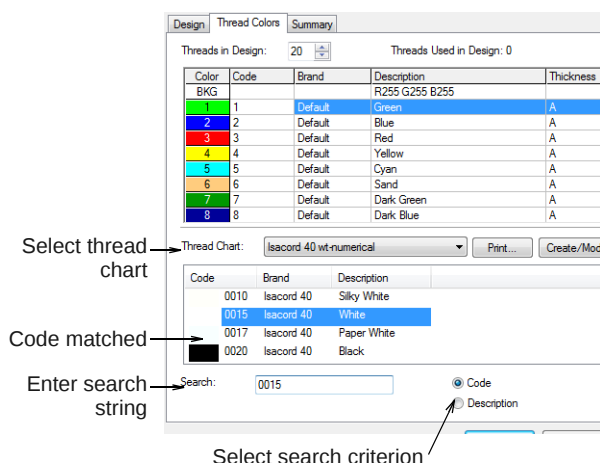
Select Thread Colors (Settings menu) to search for a thread.

You can search for a thread by code or description in the **Thread Colors** dialog.

To search for a thread type

- 1 Select **Settings > Thread Colors**.

The **Design Properties > Thread Colors** tab opens.



- 2 Select the thread chart to be included in the search from the **Thread Charts** list.
- 3 Select the thread criterion to search on – **Code** or **Description**.

Code is the identification number of a thread color in a brand.

- 4 In the **Search** field, enter the first few characters of the required code or description.

The system searches for the closest match and displays them in the thread color list.

Matching threads from different charts

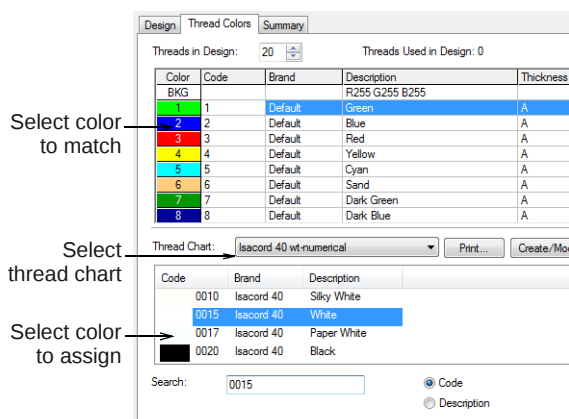
Select Thread Colors (Settings menu) to match threads from different charts.

You can find and change a thread color based on closest match in one or several thread charts. You can also use this method to change all objects of one color to another color. For example, change all light green objects to light blue.

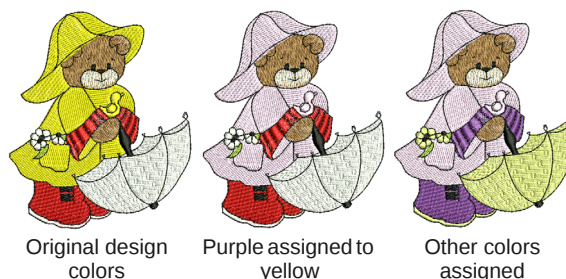
To match threads from different charts

- 1 Select **Settings > Thread Colors**.

The **Design Properties > Thread Colors** tab opens.



- 2 Select a color to match.
- 3 Select the nearest matching thread and assign to the thread palette by clicking **Assign**.
- 4 Repeat until all the colors you intend to use in the design have been matched.



- 5 Click **OK**.

The system assigns selected thread colors to the design.

Creating your own thread charts

Select Thread Colors (Settings menu) to create new thread charts.

Thread charts are lists of pre-defined thread colors. They may be based on commercially available thread charts, or charts you define yourself.

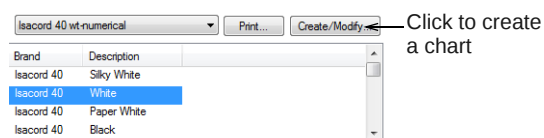
Creating new thread charts

When you create a thread chart, you are creating a store of colors to use in your designs.

To create a new thread chart

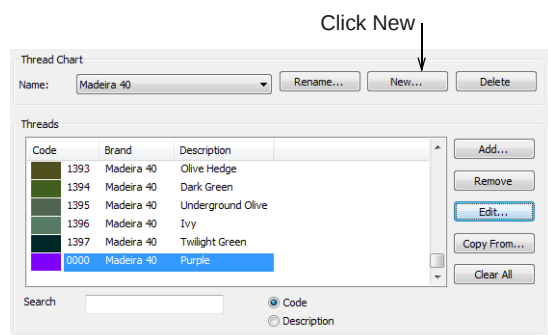
- 1 Select **Settings > Thread Colors**.

The **Design Properties > Thread Colors** tab opens.



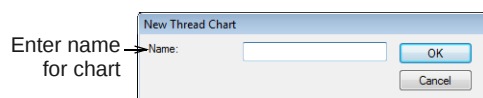
2 Click **Modify Charts**.

The **Modify Thread Chart** dialog opens.



3 Click **New**.

The **New Thread Chart** dialog opens.



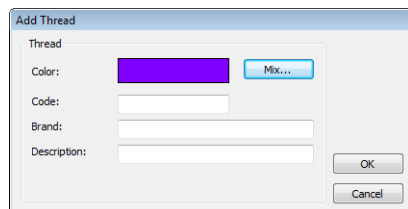
4 Enter a name for the chart and click **OK**.



Note Do not use symbols or punctuation, such as commas, when creating your own color charts or editing existing color charts.

You return to the **Modify Thread Chart** dialog. The new chart is created, ready for you to add thread colors.

5 Click **Add** to open the **Add Thread** box. See [Adding your own colors to thread charts](#) for details.



6 Click **Copy From** to add colors from an existing chart. See [Copying colors between charts](#) for details.

7 Click **OK**.

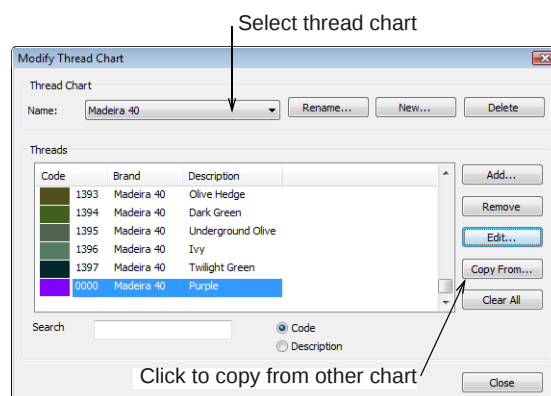
The new chart is created and ready for use.

Copying colors between charts

You can copy colors between different thread charts to create your own charts from existing colors.

To copy colors between charts

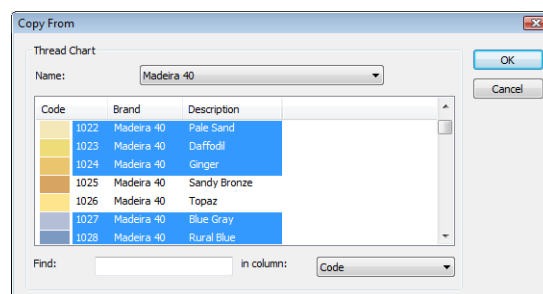
1 Open the **Modify Thread Chart** dialog. See [Creating new thread charts](#) for details.



2 Select a chart from the **Thread Chart > Name** list.

3 Click **Copy From**.

The **Copy From** dialog opens.



4 From the **Name** list, select the thread chart containing the color you want to copy.

5 Select the color you want to copy, then click **OK**. The color is copied to the thread chart, and appears at the bottom of the list.

Adding your own colors to thread charts

You can add colors to thread charts using colors from other charts or colors you mix yourself.

To add your own colors to a thread chart

1 Open the **Modify Thread Chart** dialog. See [Creating your own thread charts](#) for details.

- Click **Add** to add your own colors.
The **Add Thread** dialog opens.
- Mix the thread **display** color. See **Mixing your own thread colors** for details.
- Enter code, brand, and description details for the new thread color.
Code is the identification number of a thread color in a brand.
- Click **OK**.
The new color appears in the **Threads** list.

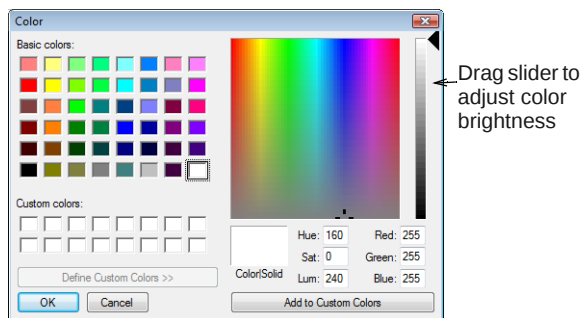
Mixing your own thread colors

You can change the color that displays for a particular thread, or create new thread colors using the **Color** dialog.

To mix your own thread colors

- In the **Add Thread** or **Edit Thread** dialog, click **Mix**.
 - See **Adding your own colors to thread charts** for details.
 - See **Modifying thread details** for details.

The **Color** dialog opens.



- From the **Basic colors** table, select a color that closely matches the color you require.
- Click and drag the cross hairs on the color spectrum to get the exact color you require.
- Drag the slider on the right of the color spectrum to adjust color brightness.
The HLS and RGB values appear in the bottom right-hand corner of the **Color** dialog. Enter these values directly to define exact colors.
- When you have mixed the required color, click **Add to Custom Colors**.
- Click **OK**.
The new color appears in the **Color** preview box.

Modifying thread charts

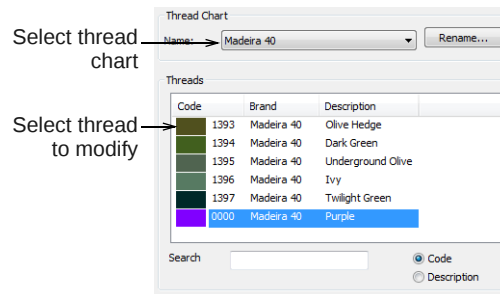
Update existing thread charts by modifying thread details or removing threads. You can also rename or delete thread charts.

Modifying thread details

Change the code, brand or description, brand for an existing thread.

To modify thread details

- Open the **Modify Thread Chart** dialog. See **Creating new thread charts** for details.



- From the **Name** list, select the chart to modify.
- In the **Threads** list, select the thread to modify.
- Click **Edit**.
The **Edit Thread** dialog opens.
- Edit thread details as required. See **Adding your own colors to thread charts** for details.
- Click **OK**.

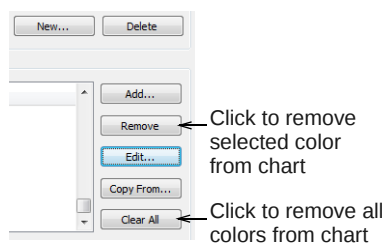
Removing threads from charts

Select Thread Colors (Settings menu) to remove threads from charts.

You can remove obsolete thread colors from thread chart easily, using the **Modify Charts** dialog.

To remove threads from charts

- 1 Open the **Modify Thread Chart** dialog. See [Creating new thread charts](#) for details.



- 2 From the **Name** list, select the chart to modify.
- 3 From the **Threads** list, select the thread (or threads) to remove.
- 4 Click **Remove**.
You are prompted to confirm the removal.
- 5 Click **Yes**.



Tip To delete all the threads from a thread chart, click **Clear All**.

Renaming thread charts

Select Thread Colors (Settings menu) to rename thread charts.

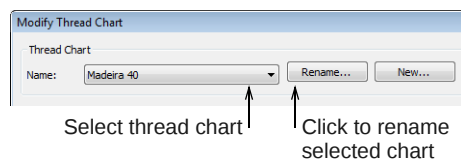
Rename thread charts from the **Modify Thread Chart** dialog.



Tip Select names that will help you remember the charts you need, or that sort frequently used charts to the top of the list.

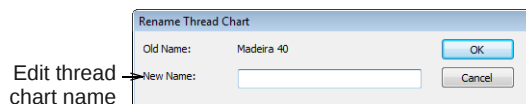
To rename thread charts

- 1 Open the **Modify Thread Chart** dialog. See [Creating new thread charts](#) for details.



- 2 From the **Name** list, select the chart to modify.
- 3 Click **Rename**.

The **Rename Thread Chart** dialog opens.



- 4 Enter the new name for the thread chart, then click **OK**.

Deleting thread charts

Select Thread Colors (Settings menu) to delete thread charts.

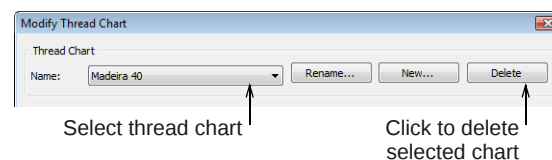
Delete obsolete thread charts from the **Modify Thread Chart** dialog.



Note Be careful when deleting thread charts. If you delete the wrong chart you will need to reinstall BERNINA ARTlink to restore it.

To delete thread charts

- 1 Open the **Modify Thread Chart** dialog. See [Creating new thread charts](#) for details.

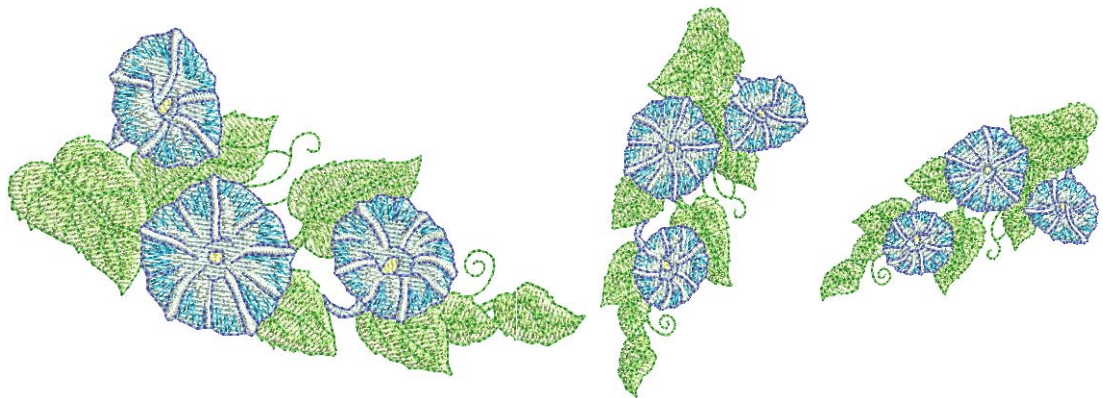


- 2 From the **Name** list, select the chart to delete.
- 3 Click **Delete**.
You are prompted to confirm the deletion.
- 4 Click **Yes**.

CHAPTER 6

ARRANGING & TRANSFORMING DESIGNS

BERNINA ARTlink allows you to change the position, size and orientation of designs by moving, scaling and transforming. You can modify designs directly on-screen.



This section describes how to position designs, as well as how to scale, rotate, skew, and mirror designs.



Note The scalability and stitching quality of a design ultimately depends on its original source – ART Grade A, ART Grade B, ART Grade C, or ART Grade D. Only native ART Grade A designs contain the complete set of design information required for 100% perfect scaling and transformation.

Positioning designs

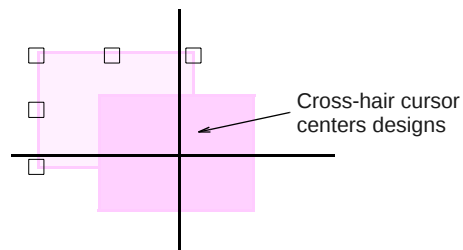


Click Select Object (Edit toolbar) as necessary (generally activated by default), and click objects to select.

Position designs using the mouse to drag them to a new position, or nudging them with the arrow keys.

To position a design

- 1 Select the design to move. See [Selecting designs](#) for details.
- 2 Click and drag it to a new position.
- 3 For more accurate positioning, press the arrow keys to 'nudge' the design into the required position.





Tip Zoom in to make it easier to make small adjustments. The distance the design moves depends on the current zoom factor. The greater the zoom factor, the smaller the distance moved.

Scaling designs

You can scale designs by dragging the selection handles with the mouse. As a design is scaled, the stitch count changes to preserve the current stitch spacing.



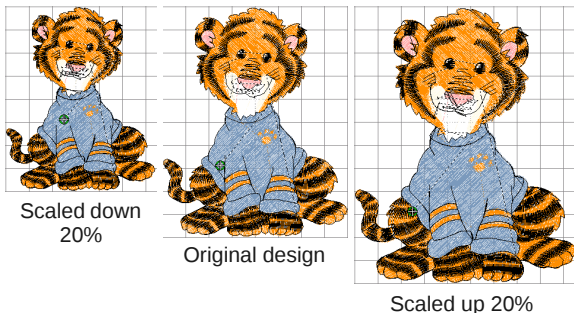
Note Only native ART designs contain the complete set of design information required for 100% perfect scaling and transformation.

Scaling designs using Scale by 20% Down/Up



Click Scale by 20% Down/Up (Edit toolbar) to scale selected designs by 20%.

Use this technique when you need to make very quick changes that do not need to be precise.



To scale designs using Scale by 20 % Down / Up

- 1 Select the design.
- 2 Click the **Scale by 20 % Down / Up** icon.
 - ▶ Click to make the design 20% smaller.
 - ▶ Right-click to make the design 20% bigger.

Scaling designs using click and drag

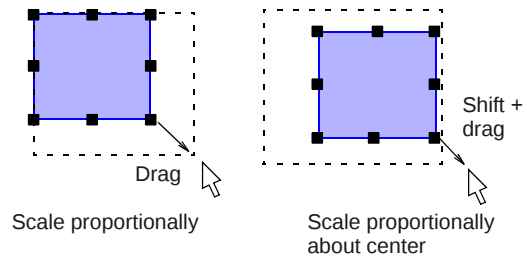


Use Select Object (Edit toolbar) to scale designs using click and drag.

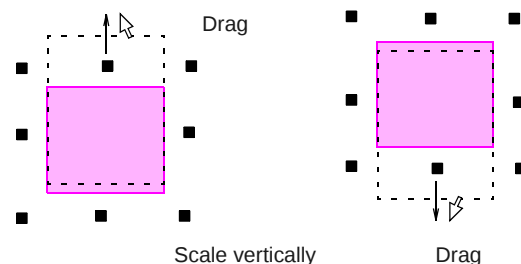
You can change the height and width of a design, or scale it proportionally using the selection handles.

To scale designs using click and drag

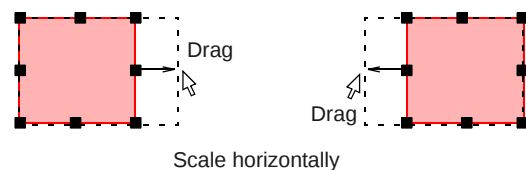
- 1 Select the design.
Eight selection handles display around the design.
- 2 Click and drag a selection handle to resize the design.



- ▶ To scale height and width proportionally, use a corner handle.



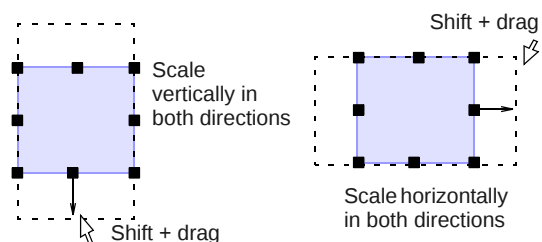
- ▶ To change the height, use the handles at the center-top or center-bottom.



- ▶ To change the width, use the handles at the center-sides.



Tip To resize around a center anchor, hold down **Shift** while you resize. **Ctrl+Shift** resizes height and width simultaneously around a center anchor.



Rotating designs

You can rotate designs directly on-screen using click and drag or the **Rotate CCW / CW** tool.



Rotating designs using Rotate CCW/CW



Use left/right-click Rotate 45 deg CCW/CW (Edit toolbar) to rotate an object or design by 45° in either direction.

Use **Rotate 45 deg CCW / CW** on the **Edit** toolbar to rotate designs by 45° rotations in either direction.

To rotate designs using Rotate 45 deg CCW / CW

- 1 Select the design.
- 2 Select the design with **Select Object**.
- 3 Click **Rotate 45 deg CCW / CW** on the toolbar.
 - ▶ Right-click to rotate 45° clockwise.
 - ▶ Click to rotate 45° counter clockwise.

Rotating designs using click and drag



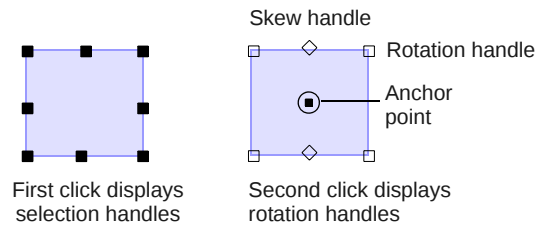
Use **Select Object** (Edit toolbar) to rotate designs using click and drag.

When you select a design, selection handles display at its extremities. If you click the design again, the handles change to rotation handles.

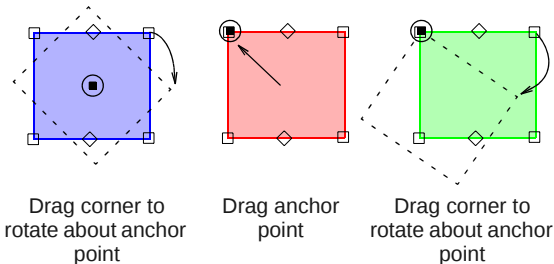
To rotate designs using click and drag

- 1 Select the design.
- 2 Click the design a second time.

Rotation handles appear at the corners of the design and an anchor point displays at the design's center.



- 3 If required, drag the rotation anchor from the center to a new position.
- 4 Click a rotation handle, and drag it clockwise or anti-clockwise. An outline and cross-hairs display as you rotate.



Skewing designs

You can skew designs along the horizontal plane by clicking skew handles and dragging to the required angle.

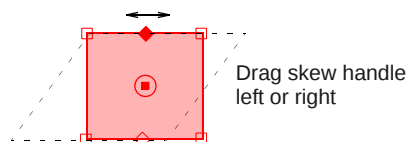


To skew a design

- 1 Select the design.
- 2 Click the design a second time.

Rotation and skew handles appear around the design. Skew handles are diamond-shaped and appear at the center-top and bottom of the design.
- 3 Drag the skew handles left or right.

The design skews along the horizontal plane. An outline and cross-hairs show the change to the design's shape.



Mirroring designs



Click Mirror Horizontal (Edit toolbar) to flip a design horizontally.

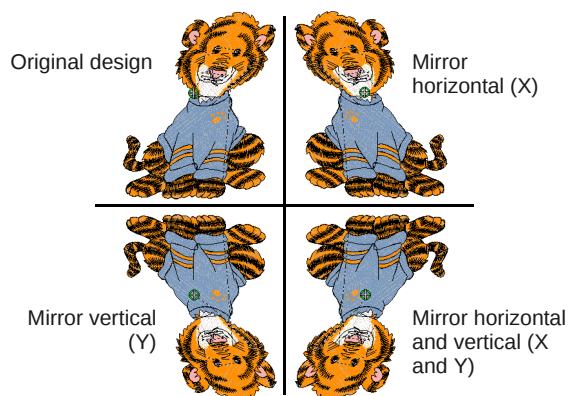


Click Mirror Vertical (Edit toolbar) to flip a design vertically.

You can mirror designs horizontally or vertically using the **Mirror** tools.

To mirror a design

- 1 Select the design.

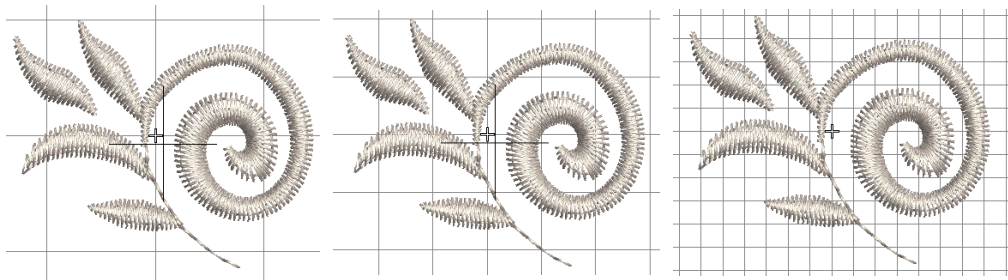


- 2 Click the **Mirror Horizontal** icon to flip horizontally or **Mirror Vertical** to flip vertically.

CHAPTER 7

HARDWARE & SYSTEM SETUP

You will need to connect peripheral devices for use with BERNINA ARTlink. These may include printers and embroidery machines. BERNINA ARTlink lets you adjust various system settings controlling the appearance of designs on screen, display of design information, the behavior of the design window, and other settings.



This section describes how to set up embroidery machines and describes how to calibrate the monitor. It also describes how to change grid spacing and positioning options, and change hoop options. There is also information about how to adjust the pointer position display, and how to set automatic save.

Setting up hardware

Different devices are set up in different ways – some in MS Windows®, via the Control Panel, others within BERNINA ARTlink itself. For instructions on connecting devices to your computer and setting up in MS Windows®, see the documentation for the device as well as your Microsoft MS Windows® documentation.

Peripheral device connection settings

Peripheral devices such as printers are connected to an available 'port' at the front or back of your computer. These may be of either 'serial', 'parallel' or USB type. The software settings need to be configured within the MS Windows® Control Panel.

Serial port settings

PC serial COM ports are male connectors, and can be either 9-pin or 25-pin. They are named COM1, COM2, etc. The number of available ports limits the number of devices you can connect. If additional ports are

required, you can add them. BERNINA ARTlink allows up to 4 serial ports.



Note You must be able to identify the ports on your computer. If in doubt, consult a PC technician.

Parallel port settings

Parallel ports are used to connect your printer and scanner. They are named LPT1, LPT2, etc.

USB port settings

USB – Universal Serial Bus – ports can be used to connect, for example, your embroidery machine.

Setting up embroidery machines

Your BERNINA embroidery machine should be connected to the COM1, COM2, COM3, COM4 or USB port of your computer. See your BERNINA embroidery machine manual for details on connecting the machine to your computer.

Setting up printers

Your printer is connected to a parallel port. BERNINA ARTlink will use the default printer that you have specified through the **Printer** icon in the MS Windows® **Control Panel**. See your printer manual for directions on setting it up properly. See MS Windows® **Help** (select **Windows Start > Help > Index**, then type 'default printer') for directions on how to set up a default printer.

Calibrating the monitor

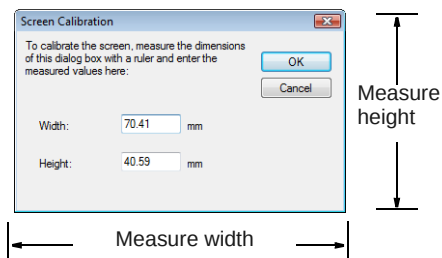
Use Display Setup (Settings menu) to calibrate the monitor.

You need to calibrate your monitor so that designs at 1:1 scale appear at real size. Do this when you first install BERNINA ARTlink or whenever you change your monitor.

To calibrate the monitor

- 1 Select **Settings > Display Setup**.

The **Screen Calibration** dialog opens.



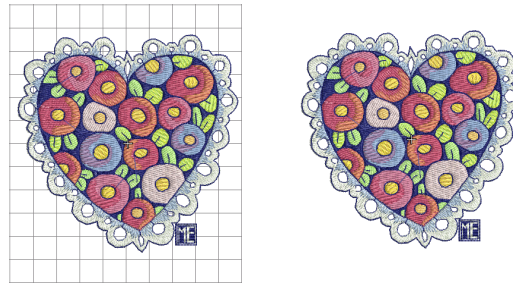
- 2 Measure the height and width of the dialog box.
- 3 Enter the measurement in the **Width** and **Height** fields.
- 4 Click **OK**.

Setting grid options



Right-click Show Grid (General toolbar) to set grid reference point and spacing.

You can turn the grid on or off, change the grid spacing, or set a reference point.

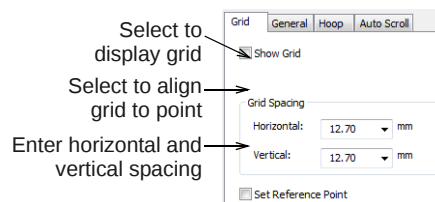


Align the grid with a specific point in the design by setting a reference point – for example, when you want grid lines to intersect the center point of the design, or a horizontal grid line to sit under a particular object.

To set grid options

- 1 Right-click the **Show Grid** icon.

The **Options > Grid** dialog opens.



- 2 Select the **Show Grid** checkbox to display the grid.
- 3 Select the **Set Reference Point** checkbox to align a significant point of the design with a grid line or grid point.
- 4 Enter **Grid Spacing** values for horizontal and vertical grid lines.
- 5 Click **OK**.

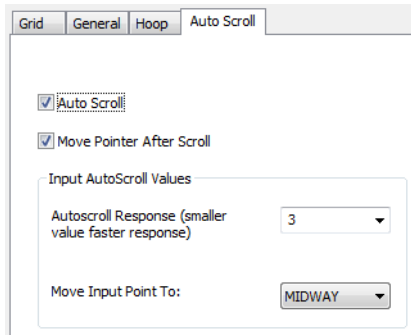
If you selected **Set Reference Point**, mark the reference point on your design. The grid aligns so that horizontal and vertical grid lines intersect at this point.

Setting auto scroll options

Use **Auto Scroll** to scroll the design automatically while you are digitizing. This can be more convenient than using panning or the scroll bars.

To set auto scroll options

- 1 Select **Settings > Options** and select the **Auto Scroll** tab.



- 2 Select the **Auto Scroll** checkbox to apply automatic scrolling.
- 3 Select the **Move Pointer After Scroll** checkbox to move the position of the pointer after each scroll.
- 4 Adjust the **Autoscroll Response** field as required.
Enter smaller values to increase scrolling speed.
- 5 Select the pointer position after scrolling from the **Move Input Point To** list:

Option	Purpose
Center	Center of the window. Use this setting for large movements.
Midway	Halfway between the original pointer position and the center of the window. Use this setting for smaller movements – e.g. when zooming into a small area of the design.
Corner	The edge of the screen. Use this setting for slow scrolling.

- 6 Click **OK**.
The effect of this setting only becomes apparent when you start to digitize. The Design Window automatically scrolls to follow the current cursor position.



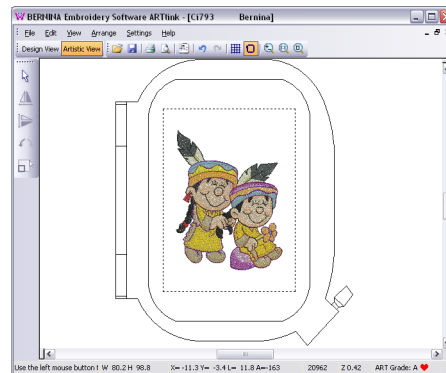
Tip Hold down the **Shift** key to temporarily deactivate **Auto Scroll**.

Setting hoop options



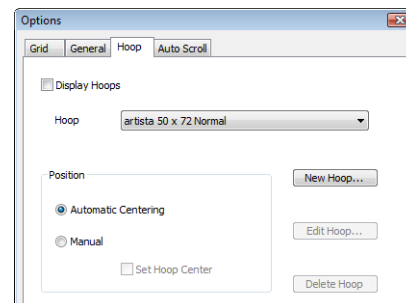
Right-click Hoop (General toolbar) to change the hoop settings.

A range of sizes is available to suit the size of your design as well as a number of embroidery machines. Select the smallest hoop which fits the design from the range of hoop sizes available. This will hold the fabric tight while stitching.



To set hoop options

- 1 Right-click the **Show Hoop** icon.
The **Options > Hoop** tab opens.



Tip Hide the hoop by clearing the **Display Hoops** checkbox.

- 2 Select a hoop from the **Hoop** list.
Select a position in the **Position** panel to center your hoop. See [Setting hoop centers](#) for details.
- 3 Click **New Hoop** to create customized hoops. See [Defining custom hoops](#) for details.
- 4 Click **Edit Hoop** to edit existing hoops. See [Modifying custom hoops](#) for details.
- 5 Click **Delete Hoop** to delete existing hoops.
- 6 Click **OK**.

Setting general options

BERNINA ARTlink lets you adjust various general settings controlling the automatic saving of designs, the position of the pointer on-screen, as well the display of measurements.

Setting automatic save

Select Options (Settings menu) to set automatic save and backup options.

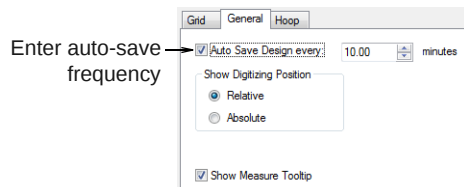
Save your work automatically at regular intervals using **Auto Save** to protect you from losing work in the event of hardware or software failure. A backup file is created every time you save a design. The design will be saved in the BACKUP folder of your BERNINA ARTlink installation. It will have the same name as the original file with the extension **BAK**.



Caution Backup files remain in the BACKUP folder until you delete them. To prevent the folder from using too much hard disk space, delete unwanted files regularly.

To set automatic save

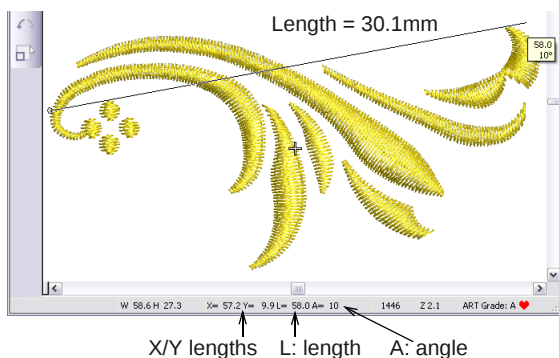
- 1 Select **Settings > Options > General** tab.



- 2 Select the **Save Design** checkbox.
- 3 Enter the auto-save frequency in the **Auto Save Period** field.
- 4 Click **OK**.

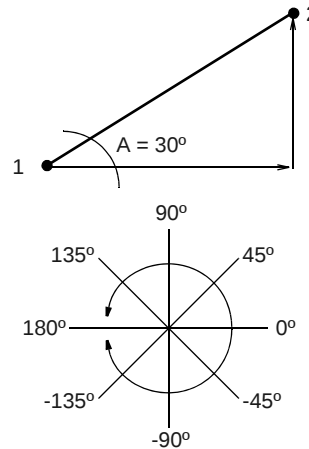
Interpreting pointer position values

The **X** and **Y** values show the horizontal and vertical distance of the pointer from the relative or absolute point. The **L** value is the length of the line connecting the pointer with the previous point, while **A** is the angle of that line, relative to the horizontal.



A negative **X** value indicates that the second point was placed to the left of the first point, while a

negative **Y** value displays when the second point is below the first. Negative angles indicate angles of more than 180° – for example, an angle of -60° is equal to 300°.



Tip You can measure on-screen distances using the values in the **Status Bar**. See **Measuring distances on-screen** for details.

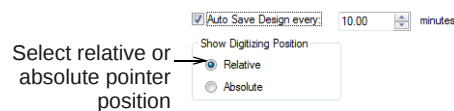
Setting pointer position display options

Select Options (Settings menu) to set pointer position display options.

When you move the mouse, the pointer position is displayed in the **Status Bar** at the bottom of the screen. You can optionally display the pointer position relative to the last digitized point or stitch point, or as an absolute value from the first needle point of the design.

To set pointer position display options

- 1 Select **Settings > Options > General** tab.



- 2 Select a **Relative** or **Absolute** setting for the pointer.

Position	Description
Relative	Shows pointer position relative to the last digitized point or stitch point. Useful while digitizing or editing stitches.
Absolute	Shows pointer position as an absolute value from the first needle point of the design. Useful for checking that the design fits a given area.

- 3 Click **OK**.

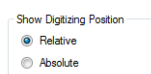
Hiding the Measure tooltip

Select **Options** (Settings menu) to display **Show Measure tooltip**.

The **Measure** tool displays the coordinates, distance and angle of the mouse pointer from a point corresponding to the center of a hoop in an empty design. You can show or hide these measurements using the **Show Measure Tooltip** checkbox.

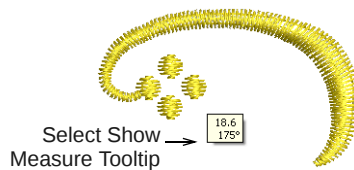
To hide the Measure tooltip

- 1 Select **Settings > Options > General** tab.



Select **Show Measure Tooltip** checkbox.

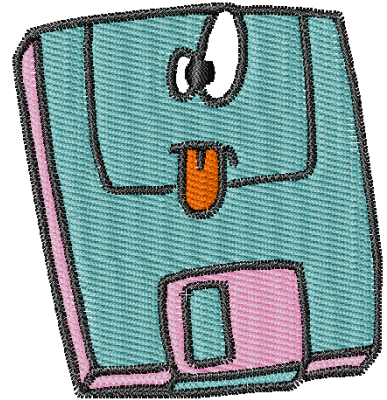
- 2 Select the **Show Measure Tooltip** checkbox to turn on the measure tooltip.



CHAPTER 8

OUTPUTTING & STORING DESIGNS

You can output embroidery designs in a variety of ways – by printing as worksheets, as appliqué patterns, color films, or as thread charts. BERNINA ARTlink also allows you to save your designs as images for use with fabric and garment applications. You can also send them directly to machine for stitching. When you send designs directly to machine, they will be lost when the machine is turned off. Apart from saving to hard disk, floppy disk or archiving to CD, you can also preserve designs by writing them to embroidery machine memory, design card, or USB memory stick.



This section describes how to print worksheets, appliqué patterns, color films, and thread charts. It also deals with sending and writing designs to machine as well as reading them back from machine.

Printing designs

You can create a hard copy of your designs using default or custom printer options. Preview designs before printing. Set print options to display the information you require. If you are using a color printer, you can print in Artistic View. Even print thread charts as a shopping reference when purchasing threads.

Your design displays as it will be printed. Large designs may be displayed over a number of pages if printed at actual size.

Previewing and printing worksheets



Use Print Preview (General toolbar) to preview a design before printing.

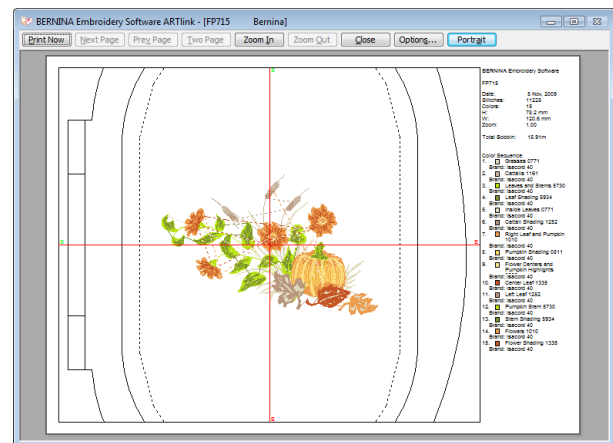


Use Print (General toolbar) to print a design.

Use **Print Preview** to view stitching information. Use it to check the sewing sequence before you stitch out your design. You can create a hard copy of your designs using default or custom printer options.

To preview and print a worksheet

- 1 Click the **Print Preview** icon.



- 2 Use the **Preview** buttons as required:

Field	Description
Next Page	View the next page.
Prev Page	View the previous page.
Two Page	Display two pages in the Preview Window.
Portrait / Landscape	Toggle design display between landscape and portrait views.
Zoom In / Out	Use to examine portions of the design or to read production information.

- 3 Click **Options** to set any **Print Options**. See **Setting print options for embroidery** for details.

- 4 Click **Print Now** to proceed with printing.

The MS Windows® **Print** dialog opens allowing you to choose a printer and adjust any other print settings you require. See also **Setting print options for embroidery**.

- 5 Click **Close** to return to the Design Window.

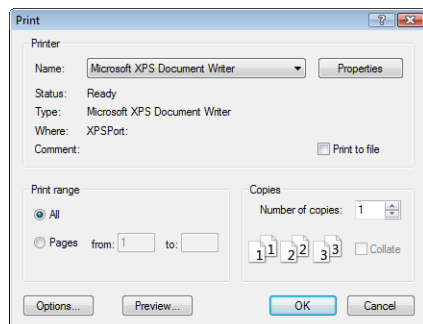
Setting print options for embroidery

Print options provide precise control over your design printout. You can include information about design size, color sequence, and stitch count, together with a picture of the design. There are options to include or exclude start/end point crosshairs, connectors, background color/fabric and the current hoop in Artistic View. Design information includes author, estimated length of upper thread per color and total bobbin usage.

To set print options for embroidery

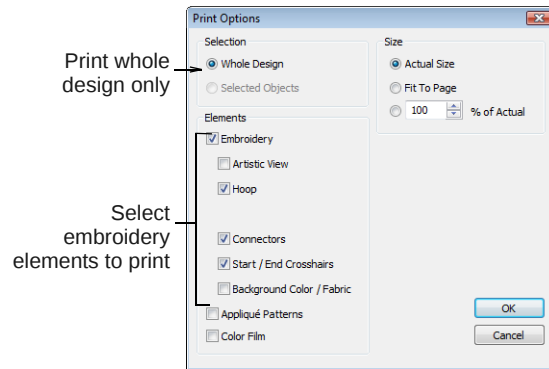
- 1 Select **File > Print**.

The **Print** dialog opens.



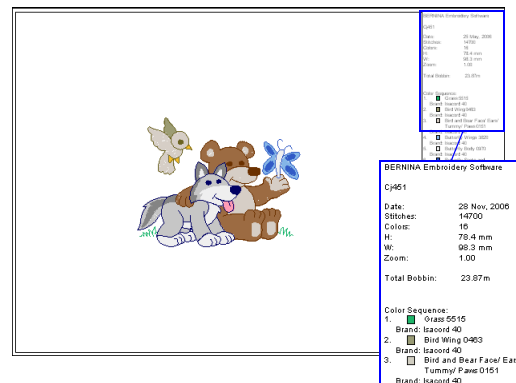
- 2 Select a printer from the **Name** list.
- 3 Type the number of copies you want to print and other printing information.

- 4 Click **Options** to change the size of the picture, the type of view or the items to be included. The **Print Options** dialog opens.



- 5 Select the **Embroidery** option in the **Elements** panel if not already selected.

All embroidery stitches are shown by default in normal (Design View) display mode.

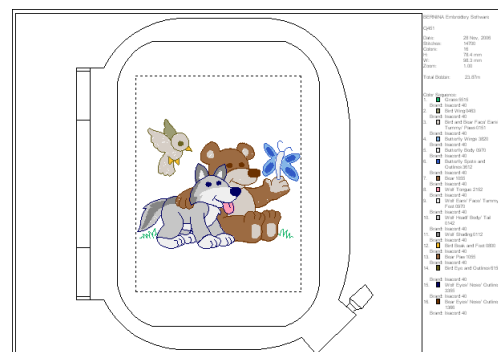


Note The **Selected Objects** option is not available in BERNINA ARTlink.

- 6 Select **Artistic View** to print the design in Artistic View.

- 7 Include other options as required:

► **Hoop**: The hoop is included in the printout.

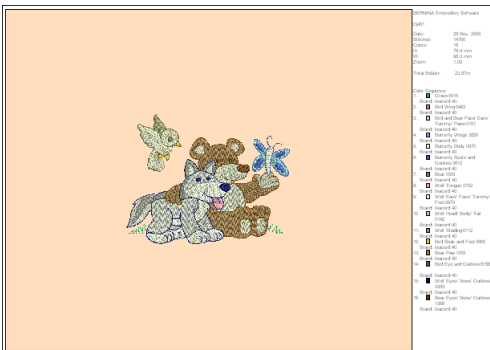


- ▶ **Connectors:** All connecting stitches in the design are displayed even if the current **Selection** option is **Selected Objects**.



Note In Artistic View the **Connectors** option is disabled – i.e. you cannot view connecting stitches in Artistic View.

- ▶ **Start / End Crosshair:** The start/end needle position is included in the printout.
- ▶ **Background Color / Fabric:** The background page is filled with a color according to the current **Background** setting. See **Changing backgrounds** for details.



- 8 Select a size option from the **Size** panel:

- ▶ **Actual Size:** the design is printed at the same size it will be stitched.
- ▶ **Fit to Page:** large designs will be reduced to fit the printing paper, small designs will be enlarged.

- ▶ **% of Actual:** The design view is resized according to this setting.



Actual size



Fit to Page

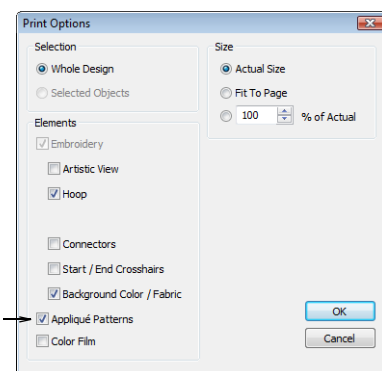
- 9 Click **OK**.

Printing appliqué patterns

Print a copy of the appliqué pattern to use to cut out the fabric pieces. Each appliqué pattern piece is numbered according to the stitching sequence.

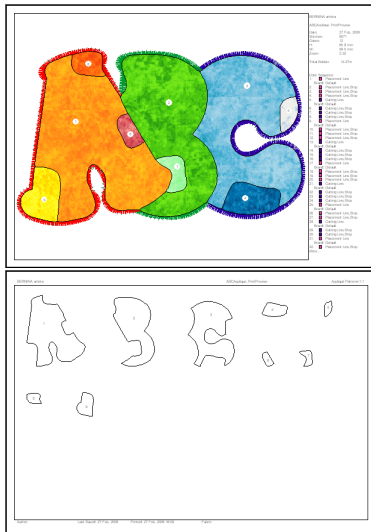
To print an appliqué pattern

- 1 Select **File > Print Preview**.
- 2 Click **Options** icon.
Print Options dialog opens.
- 3 Select the **Appliqué Pattern** checkbox.



- 4 Click **OK**.

Each appliqué pattern piece is numbered according to the stitching sequence.



Appliqué
Assembly page

Appliqué
Patterns page



Note If the **Actual Size** option is selected, both an assembled appliqué layout and individual patterns in the actual size are created on separate pages. If the **Fit to Page** or **% of Actual** options are selected, the assembled appliqué layout is created in the selected size, but individual patterns are still printed in the actual size on separate pages.

5 Click **Print**.

Printing Color Film

The **Color Film** option lets you include a list of color layers in the current design, together with color and stitch information for each layer.

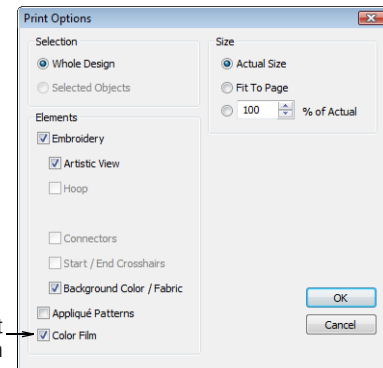
To print a Color Film

1 Select **File > Print Preview**.

2 Click **Options** icon.

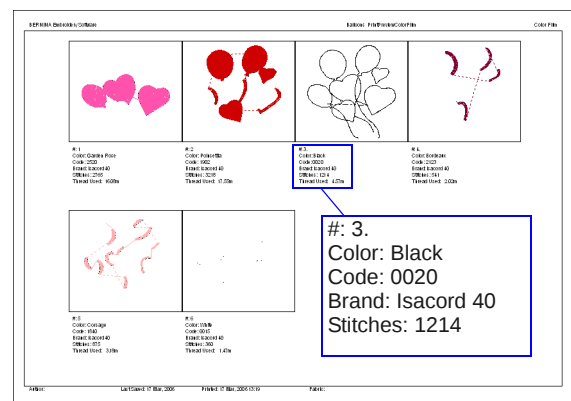
The **Print Options** dialog opens.

3 Select the **Color Film** checkbox.



Select to print
color film

4 Click **OK**.

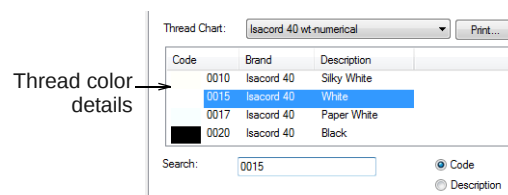


The following information is included:

Field	Description
Number	Number in the stitching sequence.
Color	Color name listed in the associated thread chart.
Code	Thread code for ease of ordering.
Brand	Thread brand – e.g. Isacord 40.
Stitches	Total stitch count for individual color layer.
Thread Used	Total stitch length of the individual color layer in the measurement unit currently set for the system – e.g. 'meters'.



Note The information displayed here is the same as the information displayed in the **Thread Colors** dialog. See **Matching thread colors** for details.



- 5 Click **Print**.

Printing thread charts

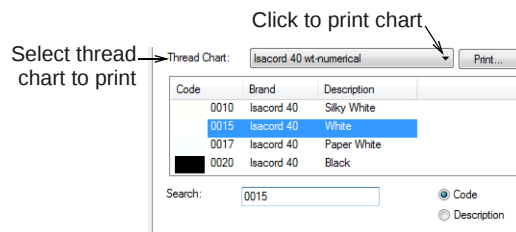
Select **Thread Colors** (Settings menu) to print thread charts.

The **Thread Chart > Print** option allows you to print the thread list in the current thread chart as a shopping reference when purchasing threads.

To print a thread chart

- 1 Select **Settings > Thread Colors**.

The **Design Properties > Thread Colors** dialog opens.



- 2 Select a thread chart from the **Thread Chart** list.
3 Click the **Print** button.

A **Print Preview** page opens displaying a printed form of the selected thread chart in the current sorting order.

Thread Chart: Isacord 40 wt-numerical Printed: 17 February 2006

	Code	Brand	Description	Memo
☐	0010	Isacord 40	Silky White	
☐	0015	Isacord 40	White	
☐	0017	Isacord 40	Paper White	
☒	0020	Isacord 40	Black	
☐	0101	Isacord 40	Eggshell	
☐	0108	Isacord 40	Cobblestone	
☐	0111	Isacord 40	White	
☐	0112	Isacord 40	Leadville	
☐	0124	Isacord 40	Fieldstone	
☐	0131	Isacord 40	Smoke	
☐	0132	Isacord 40	Dark Pewter	

This printable thread chart includes the Thread Chart name, Code, Brand, and Description.

- 4 Use the **Preview** buttons as required:

Field	Description
Next Page	View the next page.
Prev Page	View the previous page.
Two Page	Display two pages in the Preview Window.
Portrait/ Land- scape	Toggle page display between landscape and portrait views.
Zoom In/ Out	Use to examine portions of the thread chart.

- 5 Click **Print Now** to proceed with printing.

The MS Windows® **Print** dialog opens allowing you to choose a printer and adjust any other print settings you require.

- 6 Use the tick boxes in the printed document to mark off any threads you want to purchase. There is also a **Memo** field for notes.
7 Click **Print**.

Stitching out designs



Use **Write to Machine** (General toolbar) to send a design to machine.

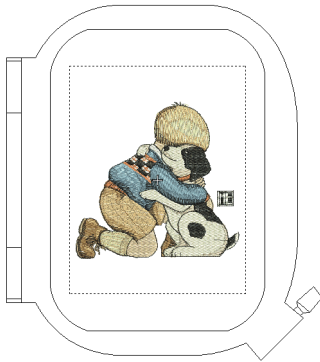
Use **Write to Machine** to send a design directly to your BERNINA embroidery machine ready to stitch. See also **Writing designs to machine**.



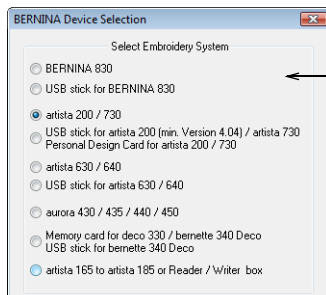
Tip Check the sewing sequence before you stitch a design as you need to know the color sequence. Use **Print Preview** to view stitching information. See **Previewing and printing worksheets** for details.

To stitch out a design

- 1 Open the design and select Design View. See [Opening designs](#) for details.



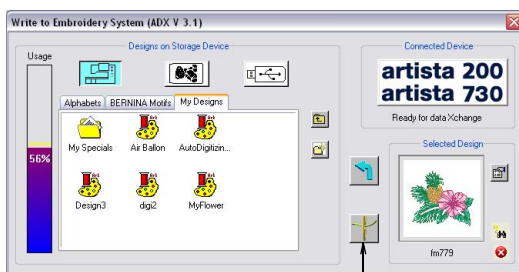
- 2 Check that the design fits the hoop. Use the smallest hoop possible. See [Changing hoops](#) for details.
- 3 Click the **Write to Machine** icon.
If this is the first time you have downloaded a design after turning on the machine or Reader box, the **Bernina Device Selection** dialog opens.



Select embroidery machine type

- 4 Select an embroidery machine type and COM port if prompted to do so.
- 5 Click **OK**.

If the machine connection is working, the **Write to Embroidery System** dialog opens. The name and the thumbnail of your design are displayed.



Click to stitch out selected design

- 6 Click **Stitch out Selected Design**.

The **Writing file(s) to device** dialog displays, followed by a confirmation message. The design is sent to your embroidery machine ready for stitching.



Note When you send designs directly to machine, they will be lost when the machine is turned off. Apart from saving to hard disk, floppy disk or archiving to CD, you can also preserve designs by writing them to a variety of storage devices. Saved designs can then be retrieved for editing. See also [Writing designs to machine](#).

Reading designs from machine

You can read designs into BERNINA ARTlink from a variety of sources, both on your computer and embroidery machine. Once opened, they can be checked or edited before saving to hard disk, or sending to machine for stitchout or storage. When reading designs from machine, three options are available:

- ▶ **Embroidery machine:** Most machines allow designs to be stored to and read from machine memory. This is like having a built-in design card.
- ▶ **Design card:** Designs can also be stored on a design card attached to your embroidery machine.



- ▶ **USB memory stick:** Designs can also be read from a USB memory stick attached to your machine. See also [Writing designs to machine](#).





Note USB memory sticks can also be attached directly to your PC and designs read into BERNINA ARTlink. See **Opening designs** for details.

To read designs from machine

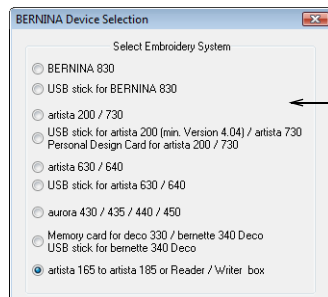
- 1 If you intend to read designs from card or USB stick, insert the storage device in the machine (or Embroidery Card Reader/Writer Box).



Note For connection details, see the instructions which came with your Embroidery Card Reader/Writer Box.

- 2 Select **File > Card / Machine Read**.

If this is the first time you have downloaded a design after turning on the machine or reader box, the **Bernina Device Selection** dialog opens.

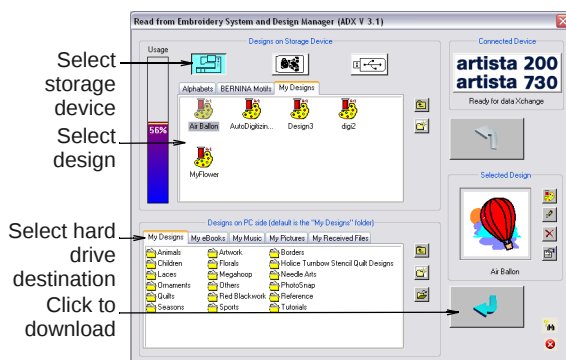


Select device type

- 3 Select an embroidery machine or reader box, as well as COM port if prompted to do so.
- 4 Click **OK**.

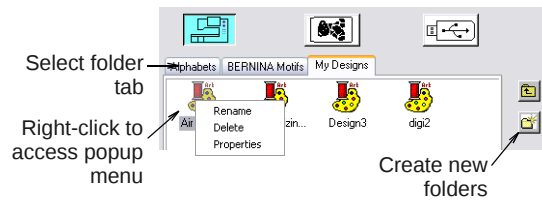
If the machine connection is working, the **Write to Embroidery System** dialog opens. The name and thumbnail image are displayed.

The **Read from Embroidery System and Design Manager** dialog opens.



- 5 Select the required storage source by clicking the corresponding button – embroidery machine, design card, or USB memory stick.

When you select a button, all folders and designs currently stored on the device are displayed.



Tip Right-click the design icon to access a popup menu – use it to rename, delete, or view design properties.

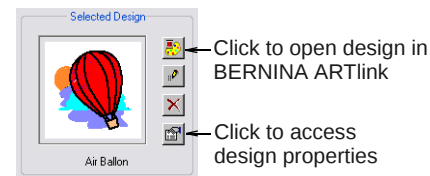
- 6 Click a folder tab (if more than one) and/or folder to locate the design.



Tip Use the icons on the right of the display panel to create new folders or navigate the folder structure.

- 7 Select the design.

A preview image is displayed in the **Selected Design** panel.

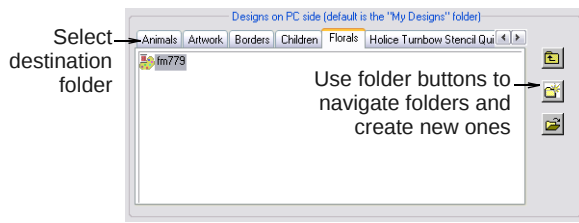


- 8 Use the display panel buttons as required to:

- ▶ Open the design directly into BERNINA ARTlink for editing.
- ▶ Rename the design.
- ▶ Delete the design.
- ▶ Access design properties.



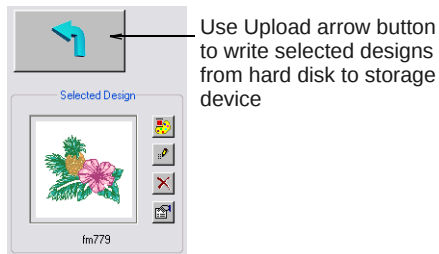
- 9 Select a destination folder on the hard disk where the design is to be stored.



- 10 Click the **Download** arrow button to read the design and save to hard disk.



Note You can write designs of the appropriate format from hard disk to the storage device using the **Upload** arrow button.



Writing designs to machine

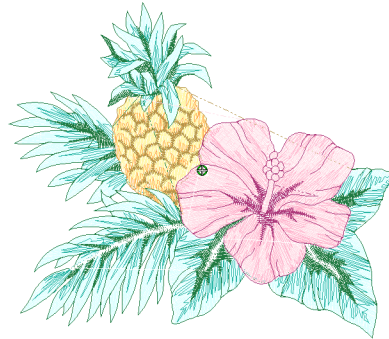


Use Write to Machine (General toolbar) to write (save) a design to machine embroidery machine, design card, or USB memory stick.

If you intend to stitch designs only when the machine is connected to your computer, store them on your PC hard disk. However, you can also use the **Write to Machine** command to save designs for later use, independent of your PC. Designs from any storage device – embroidery machine, design card, or USB memory stick – can then be stitched out as many times as you like. This eliminates the need for the PC to be connected to the machine during stitchout. See your BERNINA embroidery machine documentation for details.

To write designs to machine

- 1 Open the design and select Design View. See **Opening designs** for details.



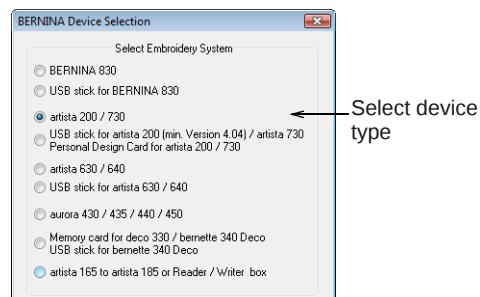
Note The machine (or external Embroidery Card Reader/Writer Box) must be switched on before you insert the card, otherwise designs will not display or be loaded to the machine.

- 2 If you intend to write the design to card or to USB stick, insert the storage device in the machine (or Embroidery Card Reader/Writer Box).

For connection details, see the instructions which came with your Embroidery Card Reader/Writer Box.

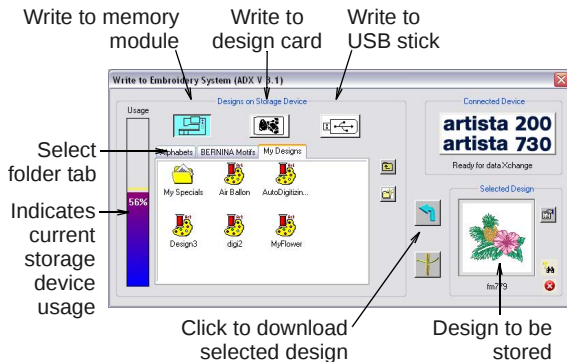
- 3 Click the **Write to Machine** icon.

If this is the first time you have downloaded a design after turning on the machine or reader box, the **Bernina Device Selection** dialog opens.



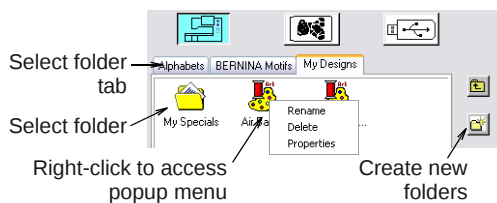
- 4 Select an embroidery machine or reader box, as well as COM port if prompted to do so.
- 5 Click **OK**.

If the machine connection is working, the **Write to Embroidery System** dialog opens. The name and thumbnail image are displayed.



- 6 Select the required storage device by clicking the corresponding button – embroidery machine, design card, or USB memory stick.

When you select a button, all folders and designs currently stored on the device are displayed.



- 7 Click a folder tab (if more than one) and/or folder to select where the design is to be saved.



Tip Use the icons on the right of the display panel to create new folders or navigate the folder structure. Right-click the design icon to access a popup menu – use it to rename, delete, or view design properties.



Caution Make sure the needle arm on your machine is up before downloading designs.

- 8 Click the **Download** arrow button to write the design.

The machine touch screen goes blank while the download takes place. Once the design is saved to

the selected device, you can stitch it at any time without a PC connected to your machine. See your BERNINA embroidery machine documentation for details.

Writing designs directly to USB stick



Use Write to Machine (General toolbar) to write (save) a design directly to a memory stick.

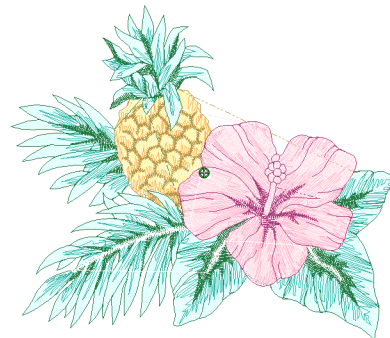
Designs can be saved to a dedicated BERNINA or OESD USB memory stick attached directly to your PC. While you can copy designs directly from your hard disk to memory stick via MS Windows® Explorer, you should do so via BERNINA ARTlink. While saving the design, BERNINA ARTlink automatically converts it to the correct format for stitchout.



Note Other types of memory stick can be used but they are not recognized automatically by the software.

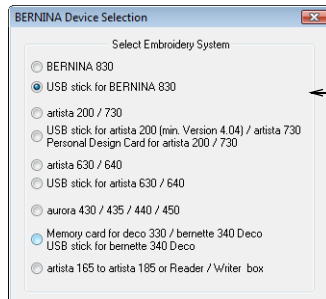
To write a design directly to USB stick

- 1 Open the design and select Design View. See [Opening designs](#) for details.

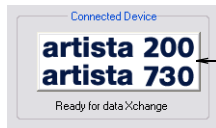


- 2 Insert a BERNINA or OESD USB memory stick directly into a USB port on your PC.
3 Click the **Write to Machine** icon.

If this is the first time you have downloaded a design after turning on the machine or reader box, the **Bernina Device Selection** dialog opens.

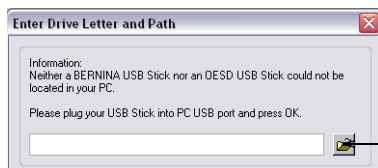


Tip If you are already connected to a embroidery system, click the **Connected Device** button in the **Write to Embroidery System** dialog in order to access the **Bernina Device Selection** dialog. See also [Writing designs to machine](#).



- 4 Select the **BERNINA USB Stick** option and click **OK**.

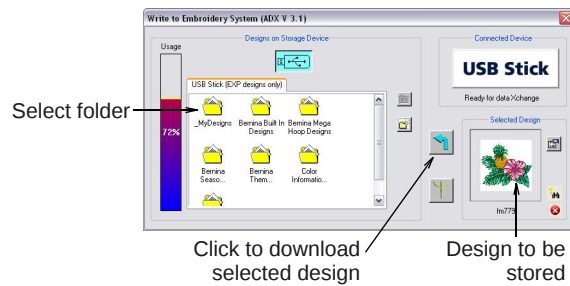
If you have inserted a memory stick other than BERNINA or OESD, the **Enter Drive Letter and Path** dialog opens prompting you for the device location.



- 5 Browse for the device location on your PC as required.

If the machine connection is working, the **Write to Embroidery System** dialog opens. The name and the preview of your design are displayed. Folders

and designs currently saved on the device are also displayed.



- 6 Select the location the design is to be stored.



Tip Use the icons on the right of the display panel to create new folders or move up a level in the folder structure. Right-click design files already stored to access a popup menu – use it to rename, delete, or view design properties.

- 7 Click the **Download** arrow button to write the design to the memory stick.

While saving the design, BERNINA ARTlink automatically converts it to the correct format for stitchout. See the relevant BERNINA ARTlink documentation for details of how to stitch out from a USB memory stick.

APPENDIX A

BERNINA ARTLINK SHORTCUT KEYS

Working with designs

To	Press
Exit the program	[Alt] + [F4]
Open an existing design	[Ctrl] + [O]
Print a design	[Ctrl] + [P]
Save a design	[Ctrl] + [S]

Selecting, moving & deleting designs

To	Press
Delete selected design	[Delete]
Deselect all objects	[Esc] or [X]
Nudge selected designs	[↑] [↓] [←] [→]
Select all objects	[Ctrl] + [A]

Zooming & viewing

To	Press	or
Center current stitch	[C]	[F6]
Redraw the screen	[R]	[F4]
Return to previous view	[V]	[F5]
Show needle points	[.] (period or full stop)	
Show whole design	[0] (Zero)	[F2]
Show/hide connectors	[Shift] + [C]	
Slow Redraw	[Shift] + [R]	
Specify zoom factor	[F]	[F3]
Turn on/off Artistic View	[T]	
Zoom in on a selected area (box)	[B]	[F8]
Zoom out 2x	[Shift] + [Z]	[F10]
Zoom to 1:1 scale (100%)	[1]	

Cancelling & undoing commands

To	Press
Cancel some commands	[Esc]
Redo a command	[Ctrl] + [Y]
Undo a command	[Ctrl] + [Z]

Traveling through designs

To travel	Press	
	Keyb'rd	Keypad *
1 stitch backward	† [←]	[4]
1 stitch forward	† [→]	[6]
10 stitches backward	† [↑]	[8]

* Num Lock OFF † Select Object tool OFF

To travel	Press	
	Keyb'rd	Keypad *
10 stitches forward	† [↓]	[2]
100 stitches backward		[-]
100 stitches forward		[+]
To next color	[PageDown]	[9]
To next object	[Ctrl] + [T]	
To previous color	[PageUp]	[3]
To the end of a design	[End]	[1]
To the start of a design	[Home]	[7]

* Num Lock OFF † Select Object tool OFF

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