### IM-3277

**INSTRUCTION MANUAL** 

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# ABM INTERNATIONAL



# AUTOPILOT

## **USER INTERFACE MANUAL**

Revision - 1 Approved By:

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#### The Startup Screen

The startup screen is the first screen that appears upon running the Pinky GUI (Autopilot) application. The user is given the option to start a new project, or resume a project that was previously saved.



#### 1 Start a New Project

Opens an empty project and displays the viewport screen.

#### 2 Resume Project

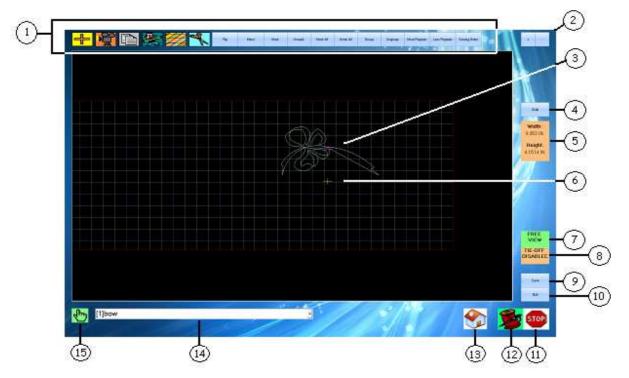
Loads an existing project that was saved to the hard disk, and displays the viewport screen with the project's pattern arrangement.

#### 3 Exit Application

Terminates the Autopilot application and returns to Windows.

#### The Viewport Screen

The viewport screen is where the user arranges patterns to be sewn by the machine. This is also where the machine is controlled with the SEW and STOP commands.



#### 1 Pattern Toolbar

Use this toolbar to add, remove, and manipulate patterns on the screen. (See description.)

#### 2 Zoom In/Zoom Out

Press the (+) button to zoom in on pattern details, and press (-) to zoom out and show more of the sewing area.

#### 3 Viewport

The viewport window shows the arrangement of patterns in the active project, on a virtual representation of the machine's sewing area.

Gridlines are visible to assist in positioning and sizing patterns. They are defined as follows:

blue4 inchesgrayone inchdark grayone quarter inch (only visible at high magnification)redouter edges of the sewing area

Clicking anywhere in the viewport will cause the viewport the center on that location, when the 'Follow Needle' setting is turned off.

#### 4 Grab/Drop

Press 'Grab' to bring the selected pattern to the needle, and drag it to a new position by moving the sew head. Press 'Drop' to secure it in place.

#### 5 Pattern Dimensions

The dimensions panel shows the width and height of the selected pattern, in inches. This represents the actual dimensions on the fabric, if the pattern were to be sewn.

#### 6 Needle Position Crosshair

Shows the current position of the needle. This can be used to observe the progress of the machine as it is sewing patterns.

#### 7 Free View/Needle View

Enable Needle View to keep the viewport centered on the needle position at all times. Switch back to Free View to allow manual scrolling and centering.

#### 8 Tie-Off Toggle

Controls whether the machine ties a knot at the end of each pattern.

#### 9 Save

Stores the current pattern arrangement to the computer's hard disk. A keypad will appear allowing the user to enter a project name.

#### 10 Quit

Returns to the startup screen, where the user can start a new project, or load one that was previously saved.

#### 11 Stop

Forces the machine to immediately stop sewing.

#### 12 Sew

Instructs the machine to begin sewing any patterns that are marked to be sewn (ones that are green in the viewport). If the machine was previously stopped while sewing a pattern, and no changes have been made, the user will be able to continue sewing from where it left off, or backtrack to an earlier point in the pattern.

#### 13 Re-home Machine

Enters a mode where the user can teach the machine a new set of boundaries. The user will have to position the sew head at the FRONT LEFT and REAR RIGHT corners of the desired sewing area.

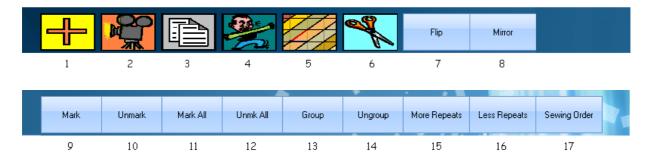
#### 14 Pattern Selection

The pattern selection box shows a listing of all patterns in the active project. Press the small triangle (V) to expand the list, and click on the name of a pattern to select it for manipulation.

Patterns are represented by a unique ID as well as their name, displayed in brackets.

#### 15 Click-and-drag Toggle

Activate click-and-drag mode to allow selection of patterns by clicking on them in the viewport. Clicking once will select a pattern, and clicking that same pattern and dragging it around the screen will reposition it accordingly.



#### The Pattern Toolbar

#### 1 Add

Opens the Add window, from which patterns can be added to the project and placed on the viewport screen.

#### 2 Record

Switches to Recording mode, where the user can create their own designs by moving the sew head. A live preview is displayed on the screen while this mode is activated. To finish recording, and be given the option to save the result, press 'Done'.

#### 3 Copy

Creates a copy of the selected pattern.

#### 4 Stretch

Activates Stretch mode.

Move the sew head to the desired starting point and click "Start Here". (The starting point can be any corner of the area to be stretched over.) Then, move the sew head toward the opposite corner, observing the live preview. When satisfied with the results, press 'Done'.

#### 5 Skew

Activates Skew mode.

Adjust the slider at the bottom of the screen to rotate the pattern clockwise or counterclockwise.

When satisfied, press 'Done'.

#### 6 Cut

Removes the selected pattern from the active project.

#### 7 Flip

Flips the selected pattern upside-down.

#### 8 Mirror

Flips the selected pattern sideways.

#### 9 Mark

Queues the selected pattern to be sewn when the 'Sew' button is pressed.

#### 10 Unmark

Instructs the machine to skip over the selected pattern when the 'Sew' button is pressed.

#### 11 Mark All

Queues all patterns to be sewn when the 'Sew' button is pressed.

#### 12 Unmark All

Instructs the machine to skip over all patterns currently in the project. (Nothing will occur when the user presses 'Sew' unless at least one pattern is marked for sewing!)

#### 13 Group

Activates Group mode.

Select two or more patterns from the Pattern Selection box to attach them endpoint-to-start-point. The patterns can then be manipulated as a single entity.

#### 14 Ungroup

Separates patterns that were previously grouped together, allowing them to be manipulated individually.

#### 15 More Repeats

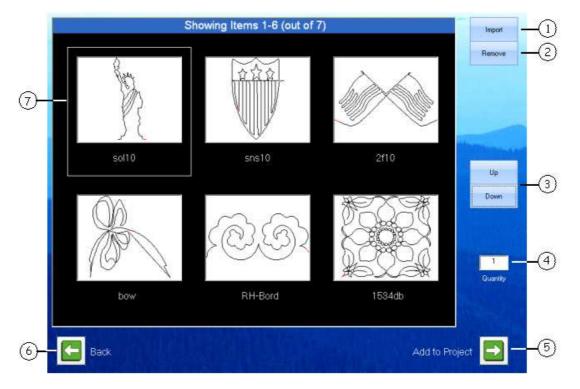
Attaches an additional repeat of the selected pattern to its endpoint. Not effective on groups (must be ungrouped first).

#### 16 Less Repeats

Removes a single repeat from the end of the selected pattern. Not effective on groups (must be ungrouped first).

#### 17 Sewing Order

Select the order in which patterns will be sewn using the selection box or clicking in the viewport with click-and-drag mode enabled.



#### The Add Pattern Screen

#### 1 Import

Opens the Import window, where new patterns can be brought into the application, and made available in the pattern selection box.

#### 2 Remove

Removes the selected pattern from the selection box, deletes any underlying data created by importing the pattern.

#### 3 Up/Down

Scrolls through the available patterns.

#### 4 Quantity

Opens the Quantity dialog, where the user can select how many end-to-end repeats and/or rows they want to add to the project.

#### 5 Add to Project

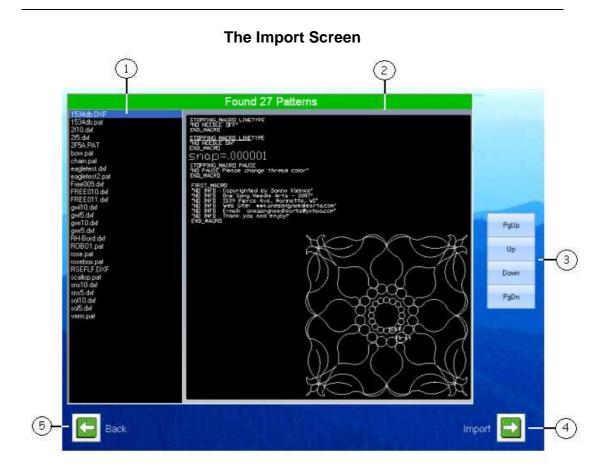
Adds the selected pattern to the project, and returns to the Viewport screen.

#### 6 Back

Returns to the Viewport screen without adding any patterns.

#### 7 Pattern Selection Box

Displays preview images of available patterns, along with their names. Clicking on a pattern's preview will cause it to become selected, as indicated by the white selection box.



#### 1 Pattern Listing

Displays a list of all pattern files in the IMPORT directory.

#### 2 Preview Area

Displays a preview of the selected pattern, if the pattern is in DXF format.

#### 3 Up/Down

Changes the pattern selection to the next/previous item in the list. Use PgUp/PgDn for faster scrolling through the list.

#### 4 Import

Imports the selected pattern into the application. When the operation is completed, a dialog window will be displayed indicating success or failure.

#### 5 Back

Returns to the Add Pattern screen.

#### Notice:

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