

# BUTLER

## QUILTING ROBOT

### **How to Install on the Pinnacle Frame**

## **Table of Contents**

<b>1</b>	<b>Parts</b>
<b>2</b>	<b>Installing the Motor Box</b>
<b>3</b>	<b>Installing the White X-Belt</b>
<b>4</b>	<b>Installing the Black Y-Belt</b>
<b>7</b>	<b>Appendix</b>

**Bag #****Contents****Picture**

3

1-Motor bracket  
2-Small clamps  
2- M5 x 8mm screws  
2-10-24 x 3/8" screws  
3- #10 flat washers.



5

1-Display bracket  
2- 8-32 x 1/2" screws  
4- M6 x 8mm screws  
2- Poly disc

**OR**

1- Display bracket  
2-M3 x 8mm screws



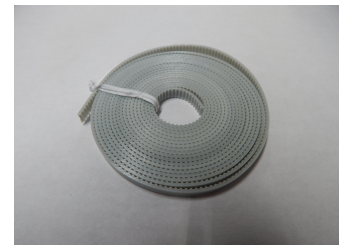
10

Varies by machine



12

1-White belt (12')



14

1 - Black Belt (86")



**Bag #****Contents****Picture**

15

1- Carriage bracket  
1- Y-bracket  
1- Thumb screw  
1- 10-24 x 1/4" screw  
1- Eyebolt  
4- M5 K-lock nut  
2- M5 x 12mm screw



21

1- Idler bracket  
2- Small clamps  
2- 10-24 x 1/2" screws  
1- Shoulder screw  
1- Plastic washer  
1- Pulley  
1- 10-24 K-lock nut



26

5- Plastic Anchors  
2- M5 x 12mm screws  
2- M5 washers  
10-5" Zip ties  
5-10" Zip ties



29

2- Quad-hole brackets  
2- Dual hole brackets  
2- Eyebolts  
4- M5 x 35mm screws  
8- M5 K-lock nuts



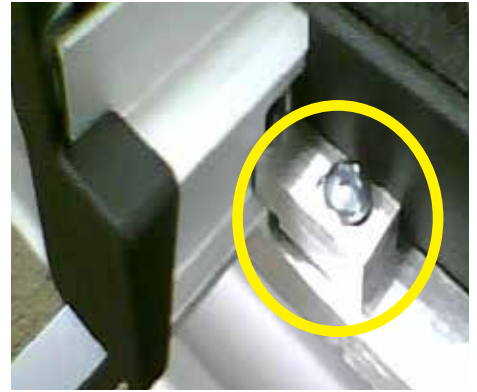


# 1

Mount the motor box bracket to the front of the carriage between the plastic cap and the plastic carriage with the lip of the bracket facing down.

Loosen the screw on each clamp, attach the bracket to the lower lip on both sides of the carriage, and tighten the screws to hold the bracket in place.

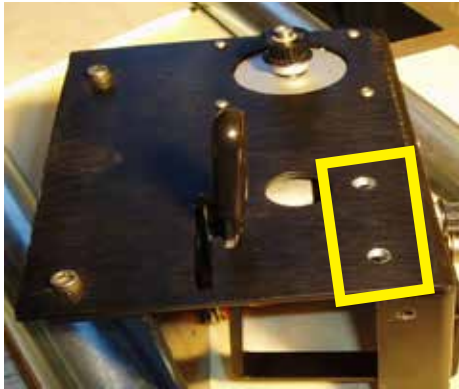
*Use washers to space as needed*



# 2

Take the Butler motor box, and line the two holes on the box with the two holes on the motor box mounting bracket.

Use 10-24 screws and one washer on each screw to fasten the motor box securely in place.



**3** Attach the idler bracket in the same manner as the motor bracket on the rear of the carriage.

Make sure that the idler pulley is on the same side, and inline with the motor box pulley.



# Installing the White X-Belt

**1** Take a quad-hole bracket and a dual-hole bracket.

Mount the bracket so that it is inline with the motor box on the front of the frame.

Attach the brackets with the quad-hole bracket on the inside facing the motor box.

Use two 10-24 x 1/4" screws to clamp the brackets to the frame as pictured.



**Inside view**



**Outside view**

**2** Attach the Eyebolt to the lowest hole on the inner bracket.

Leave one nut on the inside of the eyebolt and use the other nut to secure it to the bracket.

Repeat for the other side.



### 3 Attach the white belt between the two eyebolts.

Use the belt clamps to secure the belt to the eyebolts with the teeth facing up.

Leave some slack left in the line for the following step.

*Note: Refer to Appendix A for help using the belt clamps.*



### 4 Release the tension on the motor box, by unlocking the belt tension lever on the top of the motor box.

Loop the belt through the pulleys on the back of the motor box, by running over the first pulley, under the middle pulley and over the last pulley.

Re-engage the belt lock lever, and adjust the eyebolts as needed to remove excess slack in the belt.





# Installing the Black Y-Belt

- 1 Install the carriage bracket (bag 28) onto the carriage on the same side as the motor box and rear idler pulley.

Use the pre-existing holes on the carriage to mount the carriage bracket using the 10-32 screws.



Image from front.

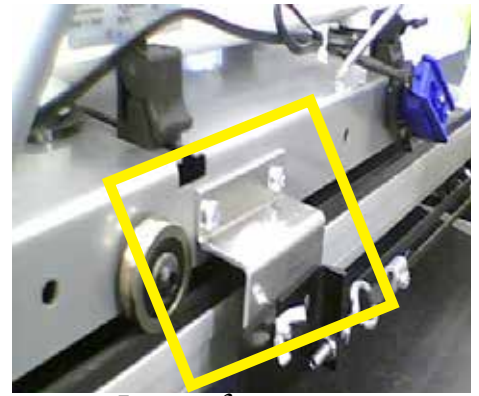


Image from rear.

- 2 Connect the eyebolt to the carriage bracket with the eye facing toward motor box.

Attach the belt using the provided clamps.

Run the belt around the pulley on the motor box with the teeth facing in.

Continue to run the belt back toward the rear idler pulley running the belt behind the carriage bracket.



**3** Loop the belt around the rear idler pulley, and run it back to the carriage bracket.

Attach the belt to the carriage bracket by looping the belt through the slot on the left side, and securing the belt clamp.

Use the eyebolt to tighten the belt as needed.



*Note: The belt may rub against the carriage bracket. This is not a problem, and will not interfere with machine operation.*

**4** **Optional**  
The motor box pulley can be attached cover if desired.

Place the cover over the raised screws on the motor box, and use the M5 nuts to secure the cover.



# Appendix B- Additional help

## Installing cables

Please refer to the Connecting Robot to Quilt Machine instruction set for help installing cables.

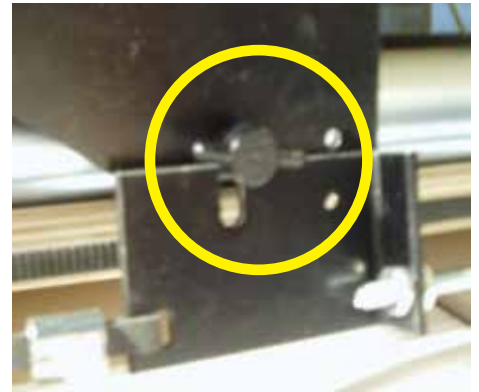
## Power on the robotics

Use the power switch located on the side of the motor box with the ports to power the motor box off and on.

## Disengage belts for free motion

In order to use free motion with the butler connected the belts will need to be disengaged.

To disengage the x-belt, move the locking lever away from the edge of the motorbox.



To disengage the y-belt, loosen the wingnut on the carriage bracket.

You can now use free motion quilting.