Thank you for purchasing Pegasus’ automatic unit.

Study this manual very carefully before beginning any of the procedure and then use the device correctly and safely.

Keep this manual in a convenient place for quick reference when needed.
Applications and performance

Features:
2. SOH-500 Series (Integrated sewing unit for hemming flat sleeves) automates and de-skills a difficult operation in hemming flat sleeves of T-shirts, polo shirts and similar garments, producing uniform products. The operator simply places the fabric on the guide. The unit completes sewing while forming a clean finished hem.
Installation
Installation
Mechanic level

Description of each part

1. Stopper lever
2. Filter regulator
3. Fabric guide (front)
4. Emergency stop button
5. Fabric guide (rear)
6. Foot switch (black)
7. Foot switch (green)
8. Throttle valve
9. Solenoid valve
10. Control board
11. Power switch
12. Fabric sensor (front)
13. Fabric sensor (rear)
14. Binder
15. Sliding board
1. Slide sliding board 2 backward while moving stopper lever 1 in the direction of the arrow.

2. Secure step pin 3 to the table with washer 4, spring washer 5 and nut 6 (four places). Fit rubber cushion 7 onto step pin 3. Then mount the machine head. See the illustration on the right.
19. To install the belt cover

**CAUTION**
Always turn off the power, unplug the machine and then well-qualified technicians should install the belt cover.

21. Place the V belt on the machine pulley. Install upper belt cover 1 with screws 2. Secure lower belt cover 3 to the table with wood screws 4.

22. To install the position detector

**CAUTION**
Always turn off the power, unplug the machine and then well-qualified technicians should install the position detector.


25. Connect GND wire 11 to the machine with screw 12 (see the illustration on the right).

**WARNING**
Be sure to connect the GND wire. Otherwise you may get an electric shock and/or the data programmed may break down.
3. To install the presser foot lift air cylinder

**CAUTION**

Always turn off the power and shut down the air compressor first and then well-qualified technicians should install the presser foot lift air cylinder.

Install presser foot lift air cylinder 1 on the machine with screws 2, spring washers 3 and washer 4.

4. To install the front and rear fabric guards

Install front fabric guard 5 on the machine with screws 6.
Install rear fabric guard 7 on the table with screws 8.
See the illustration on the right.
28. To install the emergency stop button

29. Install emergency stop button 1 on the machine with screws 2 (see the illustration on the right).
Always turn off the power, unplug the machine and then well-qualified technicians should connect relay cords. Match the colors and shapes of the connectors when connecting the relay cords.

Faulty wiring of the relay cords may cause a malfunction. To prevent accidents and damage to the machine, check the relay cords for correct wiring.

To disconnect the locking connector, pull the connector while pressing locking mechanism 1 with your thumb.

Connect the cords by referring to the illustration below.
Installation
Mechanic level

Connecting the air lines

CAUTION
Always turn off the power and shut down the air compressor first and well-qualified technicians should connect the air line.

Before connecting to the air compressor (air source), all the air lines should be connected completely.

WARNING
Improper piping of the air lines may cause a malfunction. To prevent accidents and damage to the machine, check all the air lines for correct piping.

Connect the air lines by referring to the illustration below.

1. Insert the tube completely to the depth of the joint. And check if the air tube can not be removed by pulling it by hand.
2. To remove the air tube from the joint, push the release ring toward the joint and pull out the air tube.
Adjusting the filter regulator

**CAUTION**

To adjust the filter regulator, turn off the power and finish air piping and then turn on the air compressor.

Be sure to drain periodically before drainage level reaches the baffle. Otherwise the drainage will flow into the solenoid valve or air cylinder and may cause trouble. Note that drainage spouts downward with air.

1. **Adjusting air pressure**
   Pull up knob 1 on filter regulator until it clicks. Then set the air pressure at 0.5Mpa. (5kgf/cm²).
   - To increase the air pressure, turn knob 1 clockwise.
   - To decrease the air pressure, turn knob 1 counterclockwise.

2. **Draining the filter regulator**
   Drain the filter regulator by pressing button 3 before drainage level reaches baffle 2.
CAUTION

Always turn off the power, unplug the machine and then well-qualified technicians should thread the machine.

1. Slide sliding board 2 backward while moving stopper lever 1 in the direction of the arrow.
2. Open front cover 3 and side cover 4.
3. Thread the machine by referring to the threading diagram in the instruction manual of the machine.
4. After threading the machine, close front cover 3 and side cover 4. Then slide sliding board 2 back into place.
Basic Adjustment
1. Slide sliding board 2 backward while moving stopper lever 1 in the direction of the arrow.

2. The presser foot is in its up position while foot switch (black) 5 is pressed. Raise the presser foot by pressing foot switch (black) 5. Then position the fabric.

3. The machine runs while foot switch (green) 4 is pressed. Start the machine by pressing foot switch (green) 4. Then adjust the threads’ tension while sewing the fabric. The machine stops when the fabric has gone through fabric edge sensor 3.

4. Slide sliding board 2 back into place after this adjustment is made.
Adjusting the fabric edge

Basic Adjustment
Mechanic level

CAUTION

Always turn off the power, unplug the machine and then well-qualified technicians should adjust the fabric edge.

The following adjustments should be made if the fabric edge protrudes from or retracts into the seams produced by the left needle.

1. Loosen screws 1.

2. To make a standard adjustment, move table board 3 as required in the direction of arrow A and then align end 2 of the guide with the center of the slot on the needle plate (see the illustration).

3. If the fabric edge protrudes from the seams produced by the left needle, move the end of the guide slightly in the direction of arrow B.
   If the fabric edge retracts into the seams produced by the left needle, move the end of the guide slightly in the direction of arrow C.
Adjusting the binder

CAUTION

Always turn off the power, unplug the machine and then well-qualified technicians should adjust the binder.

Adjust the binder if it is difficult to position the fabric under the binder or the hem is not uniformly formed.

1. Loosen screws 1.

2. Move binder 2 in the direction of arrow A. Adjust clearance B between middle plate 3 and binder 2 according to the fabric (3mm is standard).
   - If B is too small for the fabric, it is difficult to position the fabric under the binder.
   - If B is too large for the fabric, the hem is not uniformly formed.

3. Tighten screws 1 after this adjustment is made.
Adjusting the hem width

**Basic Adjustment**

**Mechanic level**

**CAUTION**

Always turn off the power, shut down the air compressor first and well-qualified technicians should adjust hem width.

To adjust the hem width

1. Loosen screws 1 and 4.

2. Slide sliding board 5 in the direction of arrow A.
   Adjust the hem width while referring to the scale at the front or back end of sliding board 5. Tighten screws 4 after this adjustment is made.

3. Align the end of fabric guide 2 with that of binder 3.
   Tighten screws 1.

※ The scale should be used as the reference. To form the hem properly, check the finished hem and then make a fine adjustment.
Adjusting the air blows

Air blow 1
To position the fabric along guide 8. If the air blow is too strong, jamming of the fabric tends to occur. If the air blow is too weak, the hem is not uniformly formed. Adjustment is made by turning knob 4.

Air blow 2
To position the fabric correctly under the binder. If the air blow is too strong or too weak, the fabric is not positioned properly under the binder. Adjustment is made by turning knob 5.

Air blow 3
To remove the fabric when sewing is completed. Adjustment is made by turning knob 6.

To adjust each air blow, loosen nuts 7 first and then turn each knob. To increase the amount of air blow, turn each knob counterclockwise. To decrease the amount of air blow, turn each knob clockwise. Tighten nuts 7 after the adjustment is made.
Basic Adjustment
Mechanic level

Changing the thickness of the fabric

CAUTION

Always turn off the power, unplug the machine and then
well-qualified technicians should change the guides.

1. Remove screws 1, binder 2 and spacers 3.
2. Remove screws 4, guide plates 5 and sliding board 6.
3. Remove screws 7 and bracket 8.
4. Remove screws 9 and guide (front) 10.
5. Remove screws 11 and guide (rear) 12.
6. Change spacers 3, guide (front) 10 and guide (rear) 12 according to the fabric.
7. Install the replacement parts by following a reverse of the procedure mentioned above.

※ Front and rear guides 1.6mm thick are standard. 2mm, 2.5mm and 3.2mm are optional.

※ After changing the guides, readjust the binder (see page 19), fabric edge (page 18) and hem width (page 20).
Adjusting the fabric edge sensor

**CAUTION**

Adjustments to the fabric edge sensor should be made with the power on. To prevent accidents due to the unexpected start of the machine, be extremely careful when performing the procedures.

1. Check to make sure the mode selection switch is turned to L. ON. If it is not, turn it to L. ON.
2. Turn the sensitive volume counterclockwise to a minimum.
3. Turn the sensitive volume clockwise slowly until both the red and green lamps go on.
4. Check to make sure the red lamp goes off while the green lamp goes on with the fabric positioned under the fabric edge sensor. If the red lamp does not go off with the fabric under the fabric edge sensor, turn the sensitive volume counterclockwise until the red lamp goes off.
Sewing
1. Turn on the power.

2. Position the fabric under the binder.

3. Slide the fabric under the presser foot.

4. If you select Auto start, the presser foot automatically descends as soon as fabric edge sensor (front) 1 detects the fabric and then the machine automatically starts sewing. If you select Manual start, pressing the foot switch (green) lowers the presser foot and then the machine automatically starts sewing.

To select Auto or Manual start, see Selecting Auto/Manual start on page 35.

5. If you press the foot switch (green) during sewing, the machine temporarily stops. To restart the machine, press the foot switch (green) again.

If you press the foot switch (green) after the fabric has gone through fabric edge sensor (rear) 2, the machine does not stop.

6. When sewing is completed, the machine stops and the presser foot ascends automatically.
If you press emergency stop button 1 during sewing, the machine instantly stops.

To release the emergency stop:
1. Turn off the power.
2. Turn emergency stop button 1 in the direction of the arrow.
3. Turn on the power.
4. Remove the fabric being sewn by referring to “Before adjusting the threads’ tension” on page 17.
Entering sewing data
Adjusting the machine speed

\[ \text{Machine speed} \]

The machine speed can be adjusted with 99 steps in the range of the minimum to the maximum speeds.

To increase the machine speed by 1 step, press \[ \text{D} \] key.

To decrease the machine speed by 1 step, press \[ \text{C} \] key.

Adjustable in the range from 0 to 99.
**Stopping the machine by stitch counting**

**CAUTION**

The power is on while the data is entered. Therefore, the machine could start unexpectedly. Great care should be taken in entering the data.

Enter the number of stitches from when the fabric has gone through the fabric edge sensor (rear) to when the machine stops.

How many times the keys (↑, ↓) are pressed may depend on the version of the motor controller.

1. Turn on the power. Press ↑ and ↓ keys simultaneously for more than 2 seconds.

2. The display on the left appears.

3. The display on the left appears.

   Enter the number of stitches with C key and/or D key.

   Enter the first digit with D key.

   Enter the second digit with C key.

   Every time each key is pressed, the number changes with 0 to 9.

   Factory-set value: 52

4. Return to the normal mode by pressing ↑ and ↓ keys simultaneously.

   If you press ↓ key more than 12 times, press ↑ key to call up the previous display.

   CCAAUUTTIIOONN

   **<Normal mode>**

   **<Normal mode>**
Entering sewing data
Mechanic level

Adjusting the machine speed at the start of sewing
(Slow Start)

⚠️ CAUTION

⚠️ The power is on while the data is entered. Therefore, the machine could start unexpectedly. Great care should be taken in entering the data.

112 To run the machine at low speed at the start of sewing (Slow Start)

Specify how many times the keys ( , ) are pressed may depend on the version of the motor controller.

113 1. To select Slow Start mode
Specify “with slow start” or “without slow start.”

114 < without slow start >

Turn on the power.
Pressing key calls up the slow start mode. To release this mode, press key again.

115 < with slow start >

116 2. To program the Slow Start stitch counter
Specify the number of stitches for Slow Start.

<Normal mode>

1. Turn on the power. Press keys simultaneously for more than 2 seconds.

2. The display on the left appears.
Select function parameter by pressing key 7 times.

If you press key more than 7 times, press key to call up the previous display.

3. The display on the left appears.
Enter the number of stitches with key.
Factory-set value: 2
Adjustable in the range of 1 to 5 stitches.

Continued on the following page.

30
Adjusting the machine speed at the start of sewing (Slow Start)

Continued from the previous page.

4. Return to the normal mode by pressing \(\uparrow\) and \(\downarrow\) keys simultaneously.

<Normal mode>

Continued on the following page.

3. To program the Slow Start speed regulator
   Enter the number of revolutions for Slow Start.

1. Turn on the power. Press \(\uparrow\) and \(\downarrow\) keys simultaneously for more than 2 seconds.

2. The display on the left appears.
   Select function parameter \(\text{SL}\) by pressing \(\downarrow\) key 6 times.

   If you press \(\downarrow\) key more than 6 times, press \(\uparrow\) key to call up the previous display.

3. The display on the left appears.
   Enter the machine speed with \(\text{A} \rightarrow \text{B} \rightarrow \text{C} \rightarrow \text{D}\) keys.
   Enter the fourth digit with \(\text{A} \rightarrow \text{B} \rightarrow \text{C} \rightarrow \text{D}\) key.
   Enter the third digit with \(\text{B} \rightarrow \text{C} \rightarrow \text{D}\) key.
   Enter the second digit with \(\text{C} \rightarrow \text{D}\) key.
   Enter the first digit with \(\text{D}\) key.
   Every time each key is pressed, the number changes with 0 to 9. Adjustable in the range of 0 to 2999 rpm.
   Factory-set value: 400
Continued from the previous page.

Function Parameter | Machine speed

<Normal mode>

4. Return to the normal mode by pressing ▲ and ▼ keys simultaneously.
Adjusting the machine speed at the end of sewing (Slow Down)

**CAUTION**

The power is on while the data is entered. Therefore, the machine could start unexpectedly. Great care should be taken in entering the data.

To run the machine at low speed at the end of sewing (Slow Down)

- How many times the keys (↑, ↓) are pressed may depend on the version of the motor controller.

1. **To program the Slow Down speed regulator**

   1. Turn on the power. Press ↑ and ↓ keys simultaneously for more than 2 seconds.

   2. The display on the left appears.
      
      Select function parameter  by pressing ↓ key 5 times.
      
      If you press ↓ key more than 5 times, press ↑ key to call up the previous display.

   3. The display on the left appears.
      
      Enter the machine speed with A , B , C , and D keys.
      
      Every time each key is pressed, the number changes with 0 to 9. Adjustable in the range of 0 to 2999 rpm.
      
      Factory-set value: 2500

   4. Return to the normal mode by pressing ↑ and ↓ keys simultaneously.
Entering sewing data
Mechanic level

Adjusting the machine speed at the end of sewing
(Slow Down)

2. To program the Slow Down timing controller
Enter the time from when the fabric has gone through the fabric edge sensor (rear) to when the machine reduces speed.

1. Turn on the power. Press \( \downarrow \) and \( \rightarrow \) keys simultaneously for more than 2 seconds.

2. The display on the left appears.
Select function parameter \( d \), by pressing \( \downarrow \) key 95 times.

If you press \( \downarrow \) key more than 95 times, press \( \uparrow \) key to call up the previous display.

3. The display on the left appears.
Enter the machine speed with \( \rightarrow \), \( \rightarrow \) and \( \rightarrow \) keys.
Enter the third digit with \( \rightarrow \) key.
Enter the second digit with \( \rightarrow \) key.
Enter the first digit with \( \rightarrow \) key.

Every time each key is pressed, the number changes with 0 to 9. (\( \rightarrow \) key changes the number from 0 through 5.)
Adjustable from 0 through 510ms.
Factory-set value: 300

4. Return to the normal mode by pressing \( \uparrow \) and \( \downarrow \) keys simultaneously.
Entering sewing data
Mechanic level

Selecting Auto/Manual start

**CAUTION**

The power is on while the data is entered. Therefore, the machine could start unexpectedly. Great care should be taken in entering the data.

Select Auto or Manual start.

* How many times the keys ( , ) are pressed may depend on the version of the motor controller.

1. Turn on the power. Press and keys simultaneously for more than 2 seconds.

2. The display on the left appears.

Select function parameter by pressing key 69 times.

If you press key more than 69 times, press key to call up the previous display.

3. The display on the left appears.

Displayed on the mode denotes Manual start.

Displayed on the mode denotes Automatic start.

To change Manual to Auto start, press key twice.

To change Auto to Manual start, press key twice.

The factory-set mode is Manual start.

4. Return to the normal mode by pressing and keys simultaneously.
Entering sewing data

Programming the start timer when Auto start is selected

**CAUTION**

The power is on while the data is entered. Therefore, the machine could start unexpectedly. Great care should be taken in entering the data.

If you select Auto start, program the start timer. Enter the time from when the fabric edge sensor (front) has detected the fabric to when the presser foot descends.

How many times the keys (↓, →) are pressed may depend on the version of the motor controller.

1. Turn on the power. Press ↓ and → keys simultaneously for more than 2 seconds.

2. The display on the left appears.
   Select function parameter 121 by pressing ↓ key 121 times.
   How many times the keys (↓, →) are pressed may depend on the version of the motor controller.

3. The display on the left appears.
   Enter the machine speed with ↓, → and → keys.
   Enter the third digit with ↓ key.
   Enter the second digit with → key.
   Enter the first digit with → key.
   Every time each key is pressed, the number changes with 0 to 9. (↓ key changes the number from 0 through 5.)
   Adjustable from 0 through 510ms.
   Factory-set value: 500

4. Return to the normal mode by pressing ↑ and ↓ keys simultaneously.
Adjusting the output counter

1. To program the output counter
To enable the output counting function

<Normal mode>

1. Turn on the power. Press \( \downarrow \) and \( \rightarrow \) keys simultaneously for more than 2 seconds.

2. The display on the left appears.
Select function parameter \( \text{USC} \), by pressing \( \downarrow \) key 6 times.

\( \text{If you press } \downarrow \text{ key more than 6 times, press } \uparrow \text{ key to call up the previous display.} \)

3. The display on the left appears.
Press \( \rightarrow \) key.

4. The display on the left appears.
Select function parameter \( \text{UPC} \), by pressing \( \downarrow \) key twice.

\( \text{If you press } \downarrow \text{ key more than 2 times, press } \uparrow \text{ key to call up the previous display.} \)

5. The display on the left appears.
Press \( \rightarrow \) key.

Continued on the following page.
### Adjusting the output counter

#### 1. Turn on the power. Press \( \uparrow \) and \( \downarrow \) keys simultaneously for more than 2 seconds.

#### 2. The display on the left appears. Select function parameter \( U \) by pressing \( \downarrow \) key 4 times.

If you press \( \downarrow \) key more than 4 times, press \( \uparrow \) key to call up the previous display.

#### 3. The display on the left appears. Then entering is completed. To show “0” or to correct the number on the counter, press \( A \), \( B \), \( C \), and/or \( D \) key. Enter the fourth digit with \( A \) key. Enter the third digit with \( B \) key. Enter the second digit with \( C \) key. Enter the first digit with \( D \) key. Every time each key is pressed, the number changes with 0 to 9.

#### 4. Pressing \( \uparrow \) and \( \downarrow \) keys simultaneously calls up the normal mode display. (Sewing can be performed with the output count shown on the screen.)
Resetting the machine

CAUTION

The power is on while the data is entered. Therefore, the machine could start unexpectedly. Great care should be taken in entering the data.

135 To reset all the settings to the factory-set ones.

<Normal mode>

1. Press , and keys simultaneously for more than 2 seconds.

2. The display on the left appears. Press for more than 2 seconds. The display automatically returns to the normal mode. Entering is completed.

Entering sewing data
Mechanic level

To reset all the settings to the factory-set ones.

1. Press , and keys simultaneously for more than 2 seconds.

2. The display on the left appears. Press for more than 2 seconds. The display automatically returns to the normal mode. Entering is completed.
Troubleshooting
### Troubleshooting

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# Sewing specifications

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# Unit specifications

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<th>Model name</th>
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| Equipped with| W562-08JC X 356 (SOH-530)  
W562-08JB X 248, WT562-08JC X 356 (SOH-540) |
| Measurement  | Width: 990mm Depth: 596mm Height: 1200mm 1440mm (except thread stand) |
| Number of needles | 3 |
| Number of threads | 5 |
| Stitch length  | 1.2 4.4mm |
| Needle space   | 4.8mm, 5.6mm |
| Differential feed ratio | 1:0.5 1:1.3 |
| Presser foot lift | 5mm |
| Machine speed  | 4500rpm |
| Power source  | AC 100V 120V, 200 240V |
| Air pressure  | 0.5MPa (5kgf / cm²) |
| Air consumption | 95l / min (ANR) |
| Power consumption | 550.4w |