

Volume

1



SHIMA DESIGN SYSTEM

Main control editor, Graphic Pattern design and Shima format floppy drive

SES4r Package Guide

MAIN COMMAND EDITOR, GRAPHIC DESIGN AND FLOPPY DRIVE

SES4r Package Guide

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Floppy drive Installation

The quality of Our Shima format drives provides a trouble-free operation for your computer system if properly installed. The following information will guide you thoroughly through an easy step-by-step method for a proper installation of your floppy disk drive.

Your Shima format drive must be handled with care. Avoid applying undue force or abnormal strain to the spindle motor, stepping motor or printed circuit board assembly (PCBA).

It is best to hold the drive by the sides, as indicated by the arrows in figure A. Never loosen the fixing screws of the PCBA.

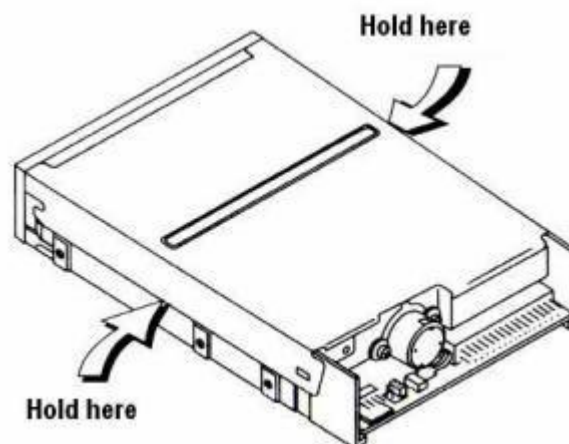


Figure A

Preparing your system

CAUTION: TURN OFF YOUR COMPUTER AND UNPLUG IT FROM THE AC POWER SOURCE BEFORE INSTALLING THE **Shima format FLOPPY DRIVE. FAILURE TO DO SO MAY RESULT IN ELECTRIC SHOCK.**

1. Unplug your computer.
2. Detach all peripheral devices from your computer, such as printer, keyboard, mouse, etc.
3. Remove cover from your computer. Refer to your computer manual for this procedure.
4. If you are replacing a current floppy drive, note the cables that are connected to your floppy disk drive, as these same cables will be required to install your Shima Format drive. The floppy interface cable is the flat ribbon type, and the power connector consists of the 4 separate wires attached to a single connector. See figure B:

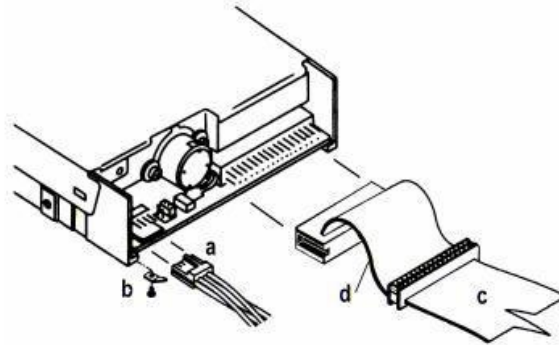


Figure B

- a. Traditional power connector from PC power supply
- b. Ground
- c. Flat ribbon cable
- d. Pin # 1 indicator (red or blue stripe)

Configuring the Shima Format Floppy Disk Drive

1. Use a standard 34-pin IBM PC compatible interface cable (figure C) with a twist in the middle to complete the installation.
2. To configure as your A: drive, connect the Shima Format floppy disk drive to the Connector A: which is the end of the flat ribbon cable as shown in figure C.
3. To configure as your B: drive, connect the Shima Format floppy disk drive to the Connector B: which is the middle connector. See figure C.
4. Connect the ground cable if your system requires it.

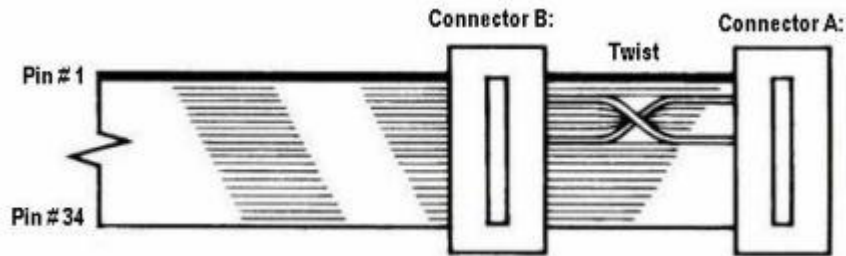


Figure C

Installing the Shima Format Floppy Disk Drive

- 5.** Slide the drive into the available standard 1" high bay.
- 6.** Locate the system's floppy ribbon cable, and connect the red of blue stripe into pin # 1 in the drive, which is located towards the power connector in the drive.
- 7.** Connect the power connector to the drive.
- 8.** Place the screws through each set of holes in the drive.
- 9.** Be sure to make the correct changes to the CMOS BIOS setup after the installation of the drive. Refer to your computer manual for this procedure.

Introduction for SES4r

This Quick installation guide gives step by step instructions for setting up the SES4r package

Step 1: Unpacking

Please make sure the following items are present and undamaged.

- a) **One Floppy drive**
- b) **One Hardware Lock**
- c) **Two floppy diskettes software setup**

Step 2: Hardware installation

2.1 Shut down the computer & unplug the power cord.

2.2 Remove the chassis cover

2.3 insert the floppy drive into an empty room blow or above your existing floppy drive

2.4 Screw floppy drive and make it fixed to computer chassis

2.5 connect the data cable and power cable for floppy drive. The middle connection of data cable is better for new floppy drive. And your computer will recognize it as second floppy drive b:

2.6 Replace the computer chassis cover

2.7 Connect connection cable (both serial and parallel D type connectors) to your computer.

2.8 Reconnect the power cord and switch the computer power on.

Step 3: CMOS setup adjustment

3.1 immediately after power on press several times DEL key to enter CMOS setup

3.2 define second floppy drive as 5, 1/2 and 1.2MB

3.3 save the changes and exit, the computer will reboot again

Step 4: Software setup

4.1 run setup from SES4R setup Diskette and follow instructions

4.2 serial numbers is: 7582-500979

4.3 for installation directory please browse and choose C:\Rayanusa\SES4r

4.4 That's it,

Step 5: Before running SES4r Program

5.1 Setup program has created one shortcut for you on your desk top, one shortcuts to run SES4r using communication serial port COM2:

5.2 To prevent software conflict with your mouse installation. First you have to specify the correct shortcut before running it. Please check which port is in use with your mouse. If your mouse uses PS/2 type port, then it is ok and you can use both. Otherwise if you mouse uses 9 pin D type connector, you must check witch port it is using. If it is using port COM1: then it is ok you have to leave port COM2: for SES4r

Using Package SES4r

Using our package is divided to two sections

I- Using the package as an import and export knitting pattern from or to Shima SES234ff knitting machine

II- Pattern design system it is divided in to two sub division

a- Graphic design

b- Command editor

I – Using the Package as a data import and export



a- connect Hardware lock to parallel port of your computer then run the SES4r pattern design program.

1 – Export operation

a- Choose a floppy diskette and label it as Export diskette this floppy disk will be used to send pattern data to SES234ff machines. Don't write or copy any files when you use it on knitting machines. When you want to use it on knitting machine just do read operation or directory search and always the write protect of diskette must be on when you use it on SES234ff knitting machine.

b- Choose another floppy diskette and label it as import diskette or you can use current SES234ff knitting machines 2HD format diskette this floppy disk will be used to load pattern data from SES234ff knitting machines. Don't write or copy any files when you use it on your computer. When you want to use it on computer just do read operation or directory search and always the write protect of diskette must be on when you use it on computer.

Note:

Question: Why we should have to different diskettes for import and export?

Answer: it is because of different file structure of Shima and Microsoft on floppy diskettes. When you try to read Shima format diskette on your computer or when you read and load knitting pattern on your knitting machine everything is ok. Unless you want to write or save file on diskette which is Shima format then your file structure of diskette will be partially destroyed and when you try to read it back you will see that everything is messed up. And it will generate same result when you use computer diskette to copy or write files on your knitting machine. So you must be aware of using confusion.

2– File operation

a- You can use windows environments and file operation system to copy and paste files like what you do with ordinary floppy diskettes.

b- To save directly from SES4r environment on to floppy diskette it is divided into to section;

1- Command save and load:

2- Graphic pattern save and load:

To load main command knitting controls simply in main screen type [L] key and from the file menu select the desired file and type [enter]

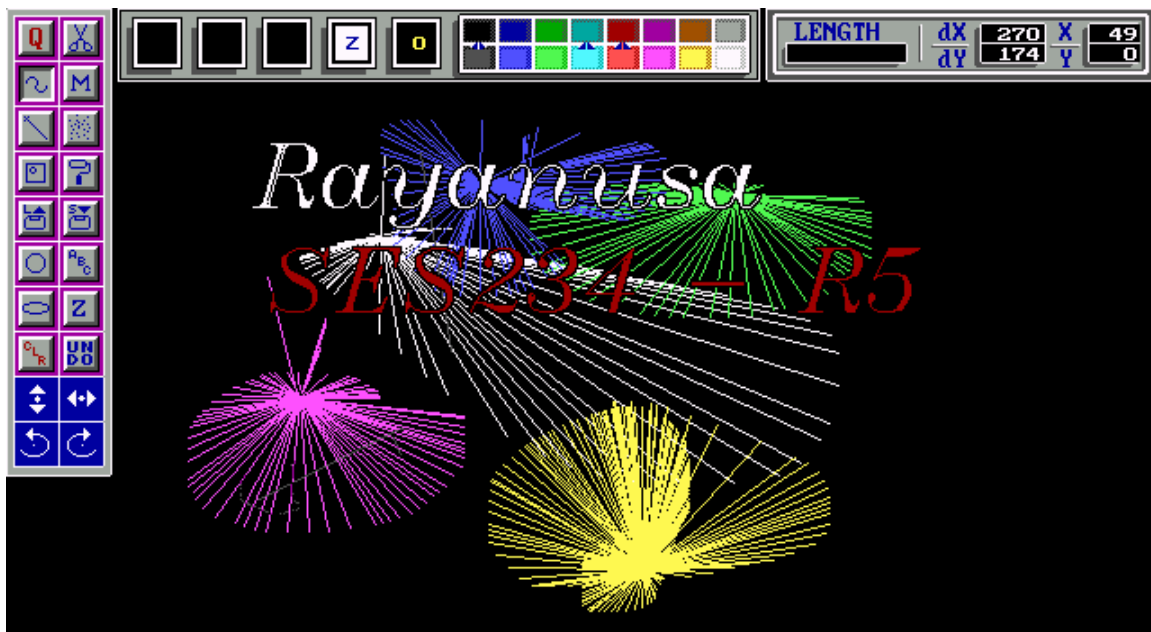
To save modified main command control you need to type [Shift-S] key and from the file selection menu select the file to overwrite of type [tab] key and type an name for your file (please keep in mind that the name of the file should not be more than 6 character and the extension have to be always SHM like: MYFILE.SHM) then type tab key to enable software to save it on the drive. When ever you want to save it on the floppy disk drive a:\ or b:\ must be added to the file name like b:\MYFILE.SHM.

To save graphic pattern that you want to send to your knitting machine you have to convert it from IMG format (that is graphic for mat) to SHM for mat so you have to type [F] key in main screen and follow the instruction above to create SHM file. From windows environment you can copy and past that file into your export diskette. The working directory of SES4r should be at (c:\Rayanusa\SES4r). In file selection menu you can Move up down by cursor key and enter key to choose any file

To load and extract graphic from SHM file in graphic section just type [Shift-1] key and from the file menu choose the file. See graphic section for more detail

Pattern design system

II- Pattern design system it is divided in to two sub division



a – Graphic design

Simply by clicking on **GRAPHICS** icon or pressing **[G]** key you will inter to graphic design section. To quite graphic section you have to click on **Q** icon on the graphic section or by pressing of **[Shift-Q]** keys on your computer keyboard.

Load and save images: your screen is saved all the time so you don't need to save screen all save and load images are load brush and save brush

Load brush:

To load brush click on load icon or simply press [L] key from file selection form select your image file it is attached to your mouse you can move it around and by left clicking you can fix it on screen. You can use cursor keys to move brush to your desired place on screen and by pressing [enter] key it will be fixed.

by clicking on the M icon or by pressing on [Shift-B] you can reload image brush again to your mouse cursor and use it again.

Copy brush:

Select scissors icon or simply press [B] key your mouse cursor will be changed to cross hair cursor. move it to desired corner and press left mouse key or press [enter] key the first corner of brush square will be fixed then move to opposite corner and click again left mouse key or press enter key the a copy of image will be attached to your cursor and you can move it to any desired place on screen and fix it there.

Save brush:

Any time you load a brush or copy brush it is copied to your brush memory then you can save it as an image file in to the hard disk. to save any brush images simply click on save icon or press [S] key and from the save form select an existing file or type a new name for your brush.

b – Command editor

```

SES 234 FF == P02A.SHM
8.MAIN No: 0001 SPEED L END CYCLE : 0001
B KNIT 12345670 | KNIT 12345670 | KNIT 12345670 | KNIT 12345670
  TUCK 12345670 | TUCK 12345670 | TUCK 12345670 | TUCK 12345670
  PATT+1 TEMP+1 | PATT+1 TEMP+1 | PATT+1 TEMP+1 | PATT+1 TEMP+1
  S4 Y.RESET | S3 Y.RESET | S2 Y.RESET | S1 Y.RESET
F KNIT 12345670 | KNIT 12345670 | KNIT 12345670 | KNIT 12345670
  TUCK 12345670 | TUCK 12345670 | TUCK 12345670 | TUCK 12345670
  PATT+1 TEMP+1 | PATT+1 TEMP+1 | PATT+1 TEMP+1 | PATT+1 TEMP+1

P.ADD F0001 B0001 STITCH P
YARN 001 IN OUT ON ADJ. 0
J.ECON 00 CNT UP STITCH P OFF
J.CRS 0000 ABS.J S1 S2 S3 S4
RACK L00.00 1X1RIB MID RACKING
EXTRA RACK 0.00P RACK ADJ. 0
STITCH 22 KT SYSTEM S1
TK.DOWN 02 S.ROLL OFF
SUB 00 STROKE ADJ.0
P.DEV F00 B00 IGNORE BLOCK

```

YARN CARRIER				
ADD		1	8	16
001		*	*	*
	S1	N	7000000000000000	
		D		
	S2	N	7000000000000000	
		D		
	S3	N	7000000000000000	
		D		
	S4	N	7000000000000000	
		D		

The main CTRL is the only component from the knitting pattern that can be edited. First you must select the file.

1 – Load and edit an existing command

a- Choose the file you want to edit from your computer to Machine by clicking on Load icon or simply type [L] key that stands for directory on your keyboard.

b- Move up down by Page Up and Page down keys and Space key to choose CTRL and change the color.

c- File selection form will display again, choose or confirm the file that you want to edit or view the knitting commands.

You will enter to CTRL edit. You see the both format1 and format2 together. You can forward and backward by Page Up and Page down keys. You can move inside data by cursor keys and using space or enter key toggles the content and also you can Use [1] key to set and the [0] key to reset the bit of data.

Alt-I insert a CTRL page

Alt-D Delete a **CTRL** page

Alt-A Append a **CTRL** page to end of Pages

Alt-Z inset a blank **CTRL** page

When you use **Alt-D** to delete a **CTRL** page, it will copy to memory Clipboard and will be used by **Alt-I** and **Alt-A** to insert or append **CTRL** pages. There is no copy command yet.

To enter to yarn window to alter the content just type [tab] to enter and to leave the yarn window and enter to main command type again [tab] key

2 – Save the edited command

a- to save edited command you have to exit command editor by pressing the [Esc] key.

b- click on the **SAVE** icon or simply press [Shift-S] key and from the file select form select an existing file or type a name for your command. The extension of your file name is better to be **.SHM**.

Caution: when saving **CTRL** other component will not be saved. So be careful not to overwrite the original files. If you want to edit any **CTRL** of knitting commands just save it with a new name.


3 – Go directly to edit screen

a- Move up down by **Page Up** and **Page Down** keys and **Space** key to choose **CTRL** and change the color.

b- Just press [Shift-E] key

Pattern Graphic manipulations

Brush work

By typing key 'b' once it is like clicking on  means that you are ready to select an area and mouse cursor will change to cross hair pointer you move it to a corner of an area that you have decided to select and by typing <Enter> key or clicking the left mouse button you can start to block the area by a resizable rectangle, when you have marked the area by typing <Enter> key again or by clicking the left mouse button. The area will be copied to memory and. By slightly moving the cursor you can see the selected area that moves. You can move it to anywhere in the screen and by typing <Enter> or clicking the Left mouse button it will be copied in that place.

By typing 'Esc' key or '.' Key you can remove the brush from the mouse pointer. And by typing Shift-b you can recall the brush to the mouse cursor tip.

The brush in the memory can be saved as file by typing 's' key or when you load any images it will be treated as a brush.

For resizing the brush, when the brush is active and the brush is on the mouse tip, by typing 'b' key the brush will be fixed on the center of screen by a border line around it. Now we are ready to do some changes on our brush.

Color change

Select the color that you want to change it. Then type 'f' key then select the color you want to replace the first color then type 'n' key the colors will be changed.

Base pattern

Anytime before color change process type 'p' and 'b' keys sequentially and select the base pattern file. And during color change process you can replace hat pattern base in place of selected color. First you have to select the color and then type 'f' then type 'p' key the selected pattern base will be inserted in that color.

Resizing the brush

Type 's' key then if you want to enlarge the brush horizontally for each pixel type 'Shift-h' if you like to shrink horizontally for each pixel type 'h' key if you want to enlarge it vertically for each pixel type 'Shift-v' and if you like to shrink it vertically for each pixel type 'v' key. If you type the first key horizontally or vertically you cannot change it to other except you start it from the beginning.

Each time you type a key for enlarging or shrinking the brush only the border will change if you want to see the brush resizing result each time you need to type 'g' key.

Type <enter> to fix the resizing result and then type 'Esc' to release the brush. Now it is ready to use it anywhere.

Rotating the brush

Type 'r' key to enter into rotating process, then type 'c' for clockwise and 'a' for counterclockwise rotation. Each time you type a key for rotating the brush only the border will rotate if you want to see the brush rotating result each time you need to type 'g' key.

Rotating the brush 90 degree

Type 'c' for clockwise and 'a' for counterclockwise

Copy brush with border

To copy brush on screen with a border, you have to type 'b' when the brush is fixed to change with a border.

Flip brush

To flip brush horizontally or vertically, when brush is active and fixed to change with a border, type 'h' to flip horizontally and to flip vertically type 'Shift-v'

FAQ For SHTFD and SES4r packages

I have a picture file in Tiff format how can import into SHTFD

I don't know where the SHTFD\work directory is.

What is the fourth color for Shima Seiki Machine?

The image that I can design in SHTFD is not big enough; I need it to be at least double in length

Please can you explain shortly how can SHTFD be used as a TFD machine?

How can I adjust the baud rate of knitting machine?

What is system requirement for software installation?

What is the best setting for installation?

Q- I have a picture file in Tiff format how can import into SHTFD

A- There is no direct way. Here is the process that I did to import Tiff into SHTFD

1) I loaded the Tiff picture in MS paint and made some edition to reduce the color scheme.

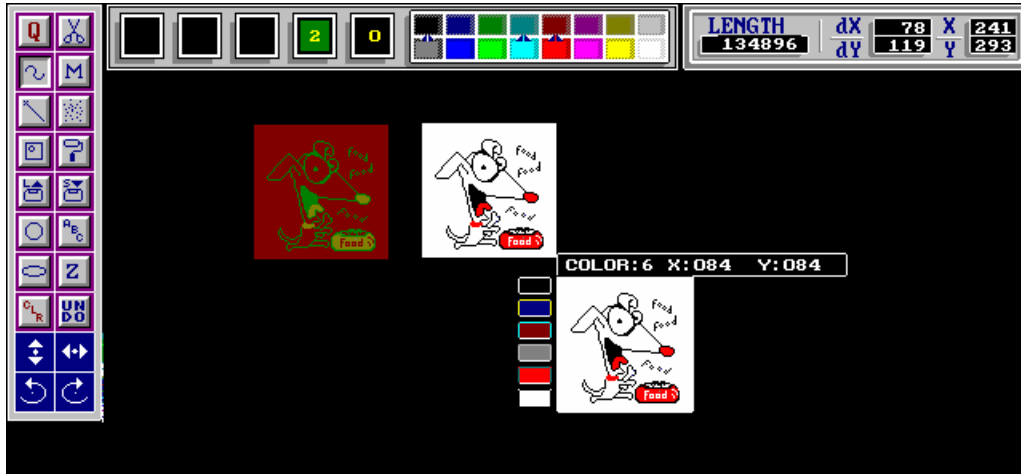
2) I saved it in 16 color BMP format in SHTFD\work directory

3) Running SHTFD in graphic section I loaded the BMP by typing [Shift-L] and try to edit for final release. I will explain later in this document.

4) I saved it in IMG format (this software can save only in IMG format).

5) I connected my laptop to one SEC214 machine and sent it to memory of the machine easily. for this I first in SHTFD main page I typed [I] key, and from the file select menu I selected the IMG file. And then I clicked on Read Icon also it is possible to type [Shift-R] to inter to read operation. After that I selected #4 Commands (type read) and pressed write key to fix it and at

the end pressed TYPE key on the machines keyboard to start transmission. During transmission (you can see the progress of operation on the displayed image on computer screen) after transmission is completed the buzzer of laptop signaled indicating the end of transmission.



Here is a list of attached files.

- 1) (TIFcp.TIF) this is a sample TIF file that we want to process.
- 2) (TIFcp.BMP) this is processed file via MS paint software.
- 3) TIFIMG.IMG this is a final image file created with SHTFD software
- 4) TEST.SHM this is the file that I have received from the machine after I sent it to machine.

The process editing in SHTFD

1) I loaded the (TIFcp.BMP) image file that I had edited and saved in SHTFDWORK directory in 16color BMP format. To load the BMP format graphic images I clicked on load icon  from the left menu and then by






appearing the File load submenu I chose the  icon then from the file selection menu I selected the file (TIFcp.BMP).

I saved it as TIFIMG.IMG by clicking on  save icon from left menu.

I checked the color used in imported image by clicking on  check image file color.

I found out that there is some unwanted color pixel in the image. Then by using Zoom I tried to locate the false colors and changed them to desired color.

Then I used  icon to get new brush image then I saved it again on TIFIMG.IMG file (I wanted to update that). I decided to change colors to fit my requirements for knitting pattern. so when the brush was on the mouse pointer I pressed just [b] key on the keyboard only once(please only once if you press once the image will be frozen on the center of screen ready for many changes like color change ,scale or size change and rotation, if the [b] key is pressed twice it will be fixed on the center of screen surrounded by a border and nothing can do on it and you need to reload the image or use  Multi brush Icon to bring it to the mouse pointer. caution if you press [b] when there is no brush with your mouse it will be like clicking on the  Icon.).

first choose the color to change from the color menu on the top and then press key [F] then choose the target color and press the [N] key the color selected first will be changed to the color selected next.

First I chose the RED and wanted to change it to BROWN the BROWN color in Shima Seiki color palette means code number 3, then I changed the BLACK to GREEN that refers to code number 2, and at the end I changed the WHITE to RED which is code number 1.

Q. I don't know where is the SHTFD\work directory.

A. refer to quick installation guide, at the time of setup you have chosen the drive and path for installation of software. I recommended choosing the c:\Rayanusa\SHTFD for installation directory. If you didn't choose such a directory it probably has installed the software on your program files directory. You can look for it there. Anyhow still you can uninstall the software and install it again by choosing c:\rayanusa for your software. Another way: when program installed it has drop an Icon of shortcut type on your desktop screen. Just right click on it and choose properties then go to Program Tab there is full detail of the path. And write it somewhere and use it to save your MS paint graphic patterns.

Q. What is the fourth color for Shima Seiki Machine?

A. essentially most of Shima Seiki machines like yours (SEC214) uses 8 code for their patterns. And in Shima design system (like Micro SDS) they use color for each code. The colors are as follows:



In our design system we use in the same way. On the graphic page when you choose a color (preferred color are the upper row of the color palette) corresponding code is displayed on (color in action) box you will see the color and a number on it.

Red =1, Green=2, Brown=3, Blue=4, Violet=5, Cyan=6, Gray=7, black=8.



Note!!! What is the [C] I mean the dark gray color?

In zoom section you can use this color for inserting fashion point according to Shima design system code #13. It is useful for SES machines and some SEC machines. Using this color will toggle color the position of mouse pointer. It will not change it to new color.

Q – The image that I can design in SHTFD is not big enough; I need it to be at least double in length.

A- It is easy you can design to or more patterns and save them one by one and then

Now you can combine multiple image files to make a one big SHM file the limits are:

a) Width must be less than 575 needles, height has no limit.

b) Instruction: At the main screen just type [I] key to select first file and then type [J] key to select second file now you can type [F] key to start converting IMG file to SHM file after converting those selected file it will prompt for more files if you answer Yes [y] then you can select the next file. It will continue until you answer no [n] for next file.

Now it is ready SHM file for sending to knitting Machine any time you want.

Q- Please can you explain shortly how can SHTFD be used as a TFD machine?

A- Please let understand what we can do with SHTFD.

1- You can use it as a TFD storage machine

2- A simple and powerful pattern design system for Shima knitting machines.

Let's to know how we can use it as TFD, you can load and save knitting pattern and commands on your PC

A- loading pattern and command to the knitting machines the same as READ function on TFD

I-select your knitting pattern by clicking the "D" key on your keyboard. Select your knitting pattern from the load form by moving up and down by arrow keys and confirm it by Enter key

II- type "Shift-R" keys on keyboard

III- on your knitting machine side you do all the thing like you want to read a pattern from TFD (select function 4 to read)

if you want to cancel reading process it is enough typing "Ctrl-A" on your PC keyboard.

b- Saving pattern and command that is working on the knitting machines

I-again select your knitting pattern by clicking the "D" key on your keyboard. Select your knitting pattern from the load form by moving up and down by arrow keys and confirm it by Enter key

II- type "Shift-W" keys on keyboard

III- on your knitting machine side you do the entire thing like you want to write a pattern to TFD (select function 3 to save)

At the end when you sent all portion of knitting pattern one by one the just type "Esc" Key on your PC keyboard. That is it. You can use this file to read to your knitting machine latter.

Q- How can I adjust the baud rate of knitting machine?

A- You need to adjust the baud rate in your knitting machine. To adjust the knitting machine on 9600 baud rate open the door of left side of the knitting machines computer case just around the connection port inside the machine there is a up-down key change it from 9600 to 4800
Close the cover and run the program again.

To change the baud rate of your knitting machine:

First you have to turn off the electricity

Open the cover in the left side of the controller (knitting machines computer)

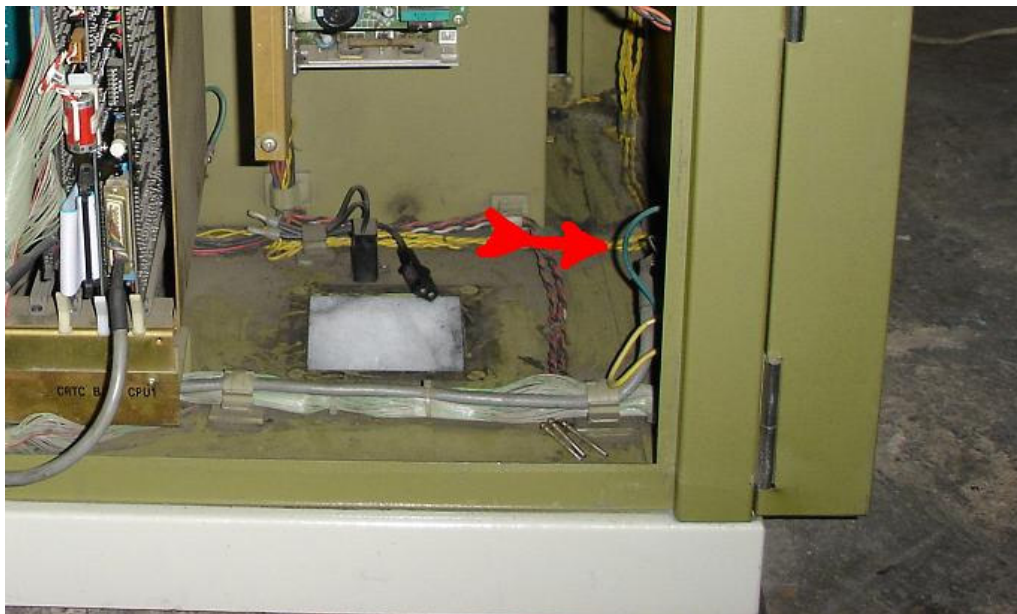
Just around the **TFD** connection from the inside of the controller box there is an **up-down** switch

That switch is baud rate adjustment

You can select **4800** or **9600**

You have to select **4800**

The **red arrow** is the direction where you can find the **Baud rate switch** just around the **TFD connection**. If you don't find such switch then I need you knitting machine model and year of make to follow up the error.



Q- What is system requirement for software installation

A-Please be informed that the System requirements for installing Software are as follow:

IBM compatible AT 80386 up CPU, minimum 1MB RAM and 10 MB Hard disk capacities. Supper VGA graphic display adaptor, VGA display monitor. Optional mouse

Two standard RS232 COM1 (9 pin D type connector) and COM2 (25 pin D type connector) serial ports. If your mouse is connected to PS/2 type connection then you need just one RS232 COM port. (Usually 9 pin male D type connection)

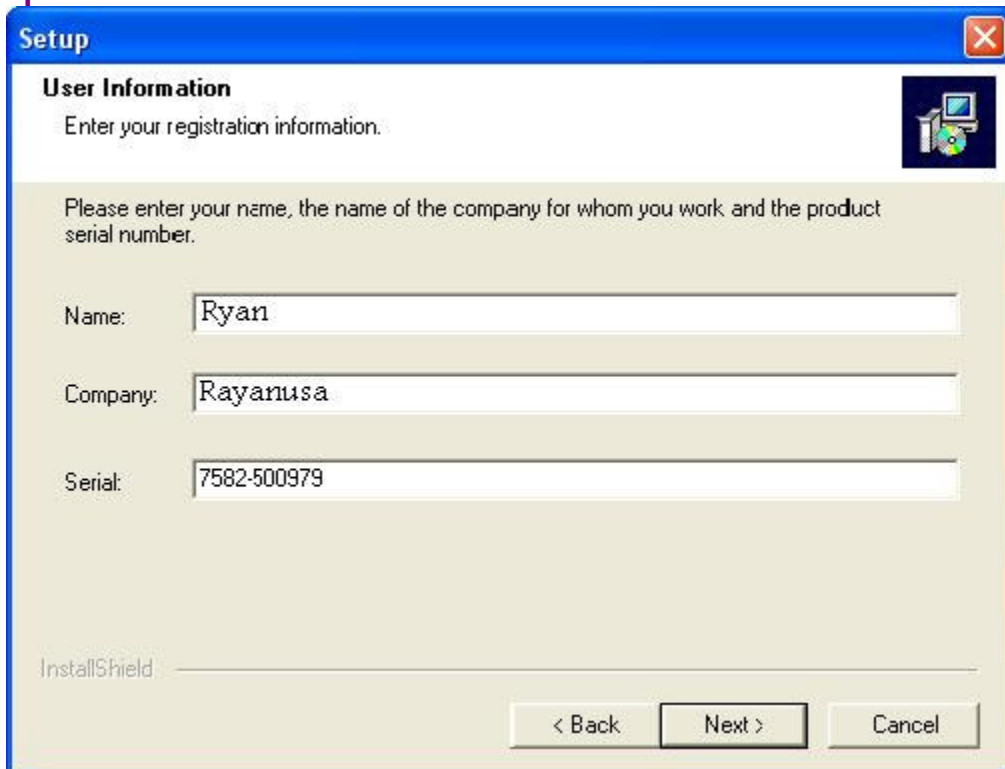
One standard (25 pin D type connector) parallel port

Operating system requirement:

MSDOS 6.20 up, Windows 3.11, Windows 95, Windows 98, platform

Q- What is the best setting for installation?

There are a few things that you have to care for, installing Software.
1-Password please type whole numbers including “ - “ without white space.



2- At the second, you have to consider two thing for choosing directory .

a- You have to choose” C:\ “ drive and the total capacity must be under 2GB, the drive capacity more than 2GB will cause file error running software.

b- Change the drive and folder setting to c:\Rayanusa\SHTFD.

