

Meet the Needs of the SMT Age

Please read this user manual carefully before running



DESTACKER PCB LOADER

SC-460W-BN

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Exordium:

Welcome to use our company's electronic equipment!

This manual provides the user installation, operation, abnormal breakdown diagnosis and maintenance related matters needing attention, in order to ensure the correct installation and operation of the equipment, please read this manual before use, please properly preserved and passed on to the users of the machine.

First-Application range

The layer machine is widely used in PCB transmission, inspection, testing and buffer transfer. It is one of the main devices to connect and buffer the two devices.

It can be separately connected two devices, it can also be used in sections or groups, it can handle PCB boards of specifications in technical parameters.

Second-Main function description (figure 1)

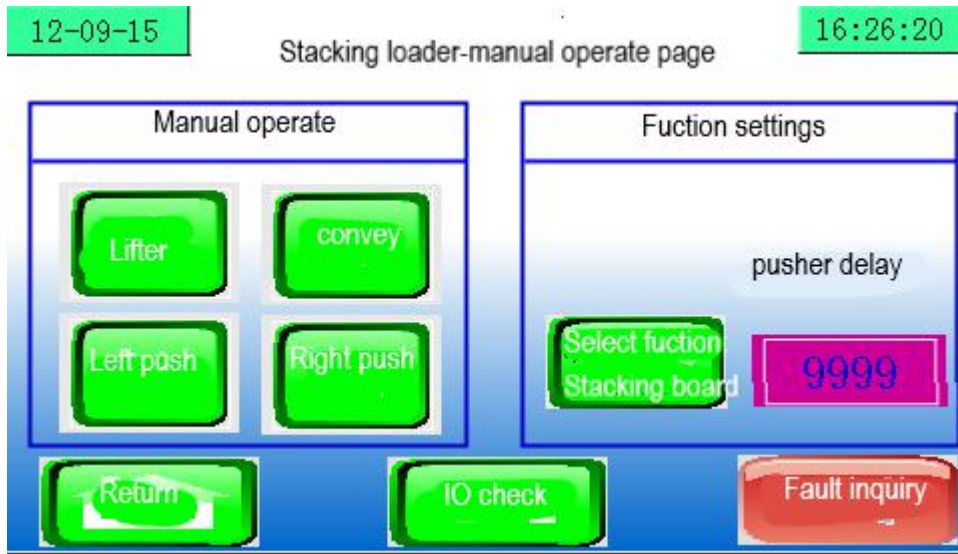


Figure 1 Manual interface

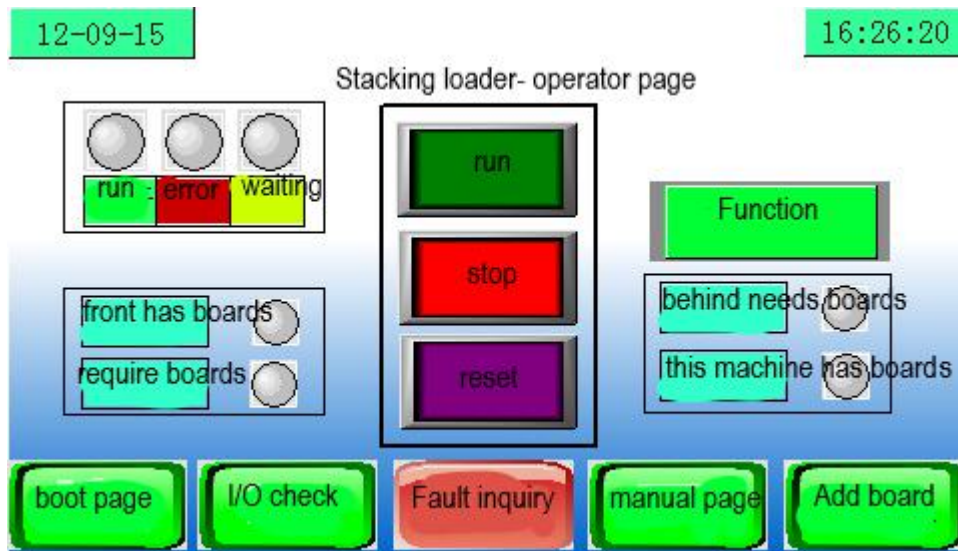


Figure 2 Automatic interface

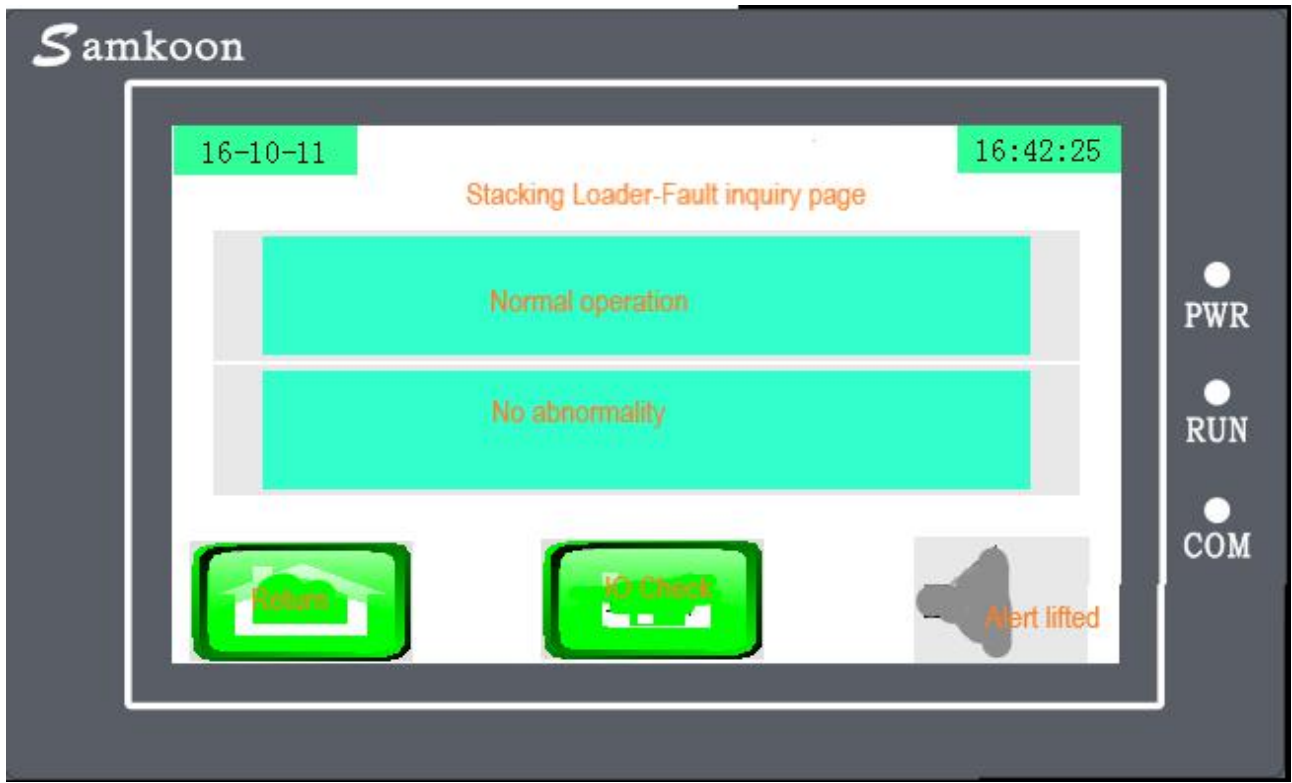


Figure 3 faulty query interface



Figure 4 IO interface

| | |
|-----------------------------|--------------------------------|
| I/O page | Y0 本机需板 require boards |
| Manual page | Y1 本机有板 with boards |
| Return | Y2 接驳传送 Connection transfer |
| X0 前机有板 require boards | Y3 顶升气缸 Jacking cylinder |
| X1 后机需板 behind needs boards | Y4 定轨推刀 stable pusher |
| X2 入口光感 Entry light sensor | Y5 动轨推刀 movable pusher |
| X3 中间光感 Middle light sensor | Y6 运行指示 Running instruction |
| X5 备用输入 alternative input | Y7 故障指示 error indication |
| X6 备用输入 alternative input | Y10 等待指示 waiting indication |
| | Y11-Y17 备用输出 alternative input |

Third:

The layer machine has two functions of layer and straight in, can be set up by the touch screen 'manual interface' (see figure 1).

The layer machine has IO signal interface, it can be connected with the front and rear equipment, in front, middle and rear has a photoelectric switch.

Layer function: when there is a board on the layer (judge the board through the light sensor), it immediately gives the rear equipment a board signal;When the machine needs to be used, the PCB board will sent to the back machine.

Attention: after each board, please confirm with the 'release confirmation' button on the automatic screen of the touch screen (see figure 2).

Direct function: the strap starts to operate when the board reaches the front light sensor position. Disconnect the board need signal after the board full enter the before light sensor. when the board transfer to the after light sensor and rear machine don't need the board temporary, the strap stop rotation immediately, then give a board signal for the rear machine, PCB board is waiting for the layer. when the rear need board, rear board will give a break-make signal, layer motor will stop when the motor transfer the full board to the rear light sensor. If there is a board on the layer, the front equipment will be suspended until the front device can be activated automatically.

Attention: push knife delay is the time the push knife comes out and then the next action.

Fourth- Transmission principle

1. The belt on both sides of the guide rail has 1 step motor drive, motor rotation and stop the supply and demand board signal control of the upper and lower equipment and the light sense detection signal control of the equipment.

2. The guide rail is divided into fixed guide rail and moving guide rail, and the moving guide is adjusted by two guiding shafts to adjust its width (loosen both sides lock handle).

Fifth-Technical parameters

- a) Guide length: 600mm (according to customer requirements).
- b) Guide rail adjustment width range: 50mm~460mm
- c) Transfer speed: 0.2M~9M/min.
- d) Height of PCB board to ground: 940±20

- e) Drive motor: 42stepping motor
- f) Power: 220VAC 50HZ
- g) power consumption is about 40W.
- h) Total weight: 85kg.

Sixth- Machine features

- a) PLC control, action program can be based on customer requirements.
- b) Both ends have light sense.
- c) Have IO signal interface. Connect the before machine signal: C0, Y0 native need board, connect the rear machine signal: X1, 0V rear machine, C1, Y1 native board.
- d) Steel frame structure, rugged and durable, and can be connected with the upper and lower equipment.
- e) Special guide aluminum profile, beautiful shape.
- f) Light sensor position can be set at will.
- g) Can be configured with fluorescent lamp, computer bracket, PCB sample frame, etc.

Seventh- Installation and operation instructions

a) The layer will be installed between the front and rear equipment, and the guide must be aligned with the front and rear equipment, and the width is the same.

b) With the connecting to connect the layer machine with the front and rear equipment reliably.

c) Connect the connecting cable to the front and rear equipment.

d) Connect the anti-static wire to the ground.

e) Power: 220V, 50HZ.

- f) Turn on the power switch.
- g) Adjust the width of the guide rail to smooth the smooth passage of the PCB board.

Eighth- Trouble shooting

- a) When the layer can't operation.
 - i. Check whether turn on the light switch.
 - ii. Check whether the air source is normal.
 - iii. Check whether the PLC indicator is on.
 - iv. Check whether the insurance pipe has been fused.
 - v. Check whether the connection cables are reliable.
 - vi. Whether the front and rear device has interlocking signals.
 - vii. Whether the front light is obstructed by obstruction.
- b) When the stop position is incorrect.
 - i. Check whether the guide rail is too narrow and has a card board phenomenon.
 - ii. Check whether the PLC program is correct.
 - iii. Check whether the light sense position is correct.

Ninth- Maintenance

- a) The layer can only handle rectangular parts. If the parts are non-rectangular, it should be equipped with a rectangular fixture.
- b) No dirt and oil can be found in the light sense, it should be cleaned regularly.
- c) Do not pull connection cable.
- d) When moving, the guide can't bear force and must be applied on the frame.

- e) Leather belt wheel, core shaft, straight bearing and other places should be add a small amount of grease lubrication between 30 to 50 days.
- f) It is necessary to avoid the change of difference temperature between the layer machines.
- g) It is necessary to avoid the PLC close to the stronger alternating magnetic field.
- h) In long-term work, the connection screws may be loose, should be check periodically and lock the screws.
- i) PLC program is easy to be put into PLC before leaving the factory. Non-professional personnel should not change the engineering procedure.

Tenth- Circuit diagram

