EUV POD Barcode Reader
GD-BAR01
V2.0.0
<u>Operation Manual</u>

	Please refer to the modification history on the next page for the revised content.	Review	Check	Author
Revise		Dean	Dean	LI
		Date	2021 / 09 / 01	
		Manual no.		
		Table no.		

This operation manual is aimed at explaining how to use the Barcode reader(GD-BAR01). Before operating this tool, please be sure to read this book carefully, and understand the contents recorded in this book in order to be able to use this tool flexibly. Also, please take care of this book so that it can be taken for reference immediately when necessary.

＜**Who should read this book**＞

The purpose of this book is written on the premise of enabling users to have a deeper understanding of the tool.

Notation of this book

【 】button:　The button displayed on the operation panel and touch screen.

「 」Equipment status:　Indicates the current status of the tool

『 』Indicator:　The indicator lamps displayed on the operation panel and touch screen.

 Danger

With wrong operation, it may cause serious injury to the user and other imminent danger.

 Warnig

With wrong operation, it may cause trouble to the user. or may cause damage to items.

Notice：

This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual,

may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Please read this operation manual carefully and operate correctly under the condition of safety first.

## Warning Labeling Location
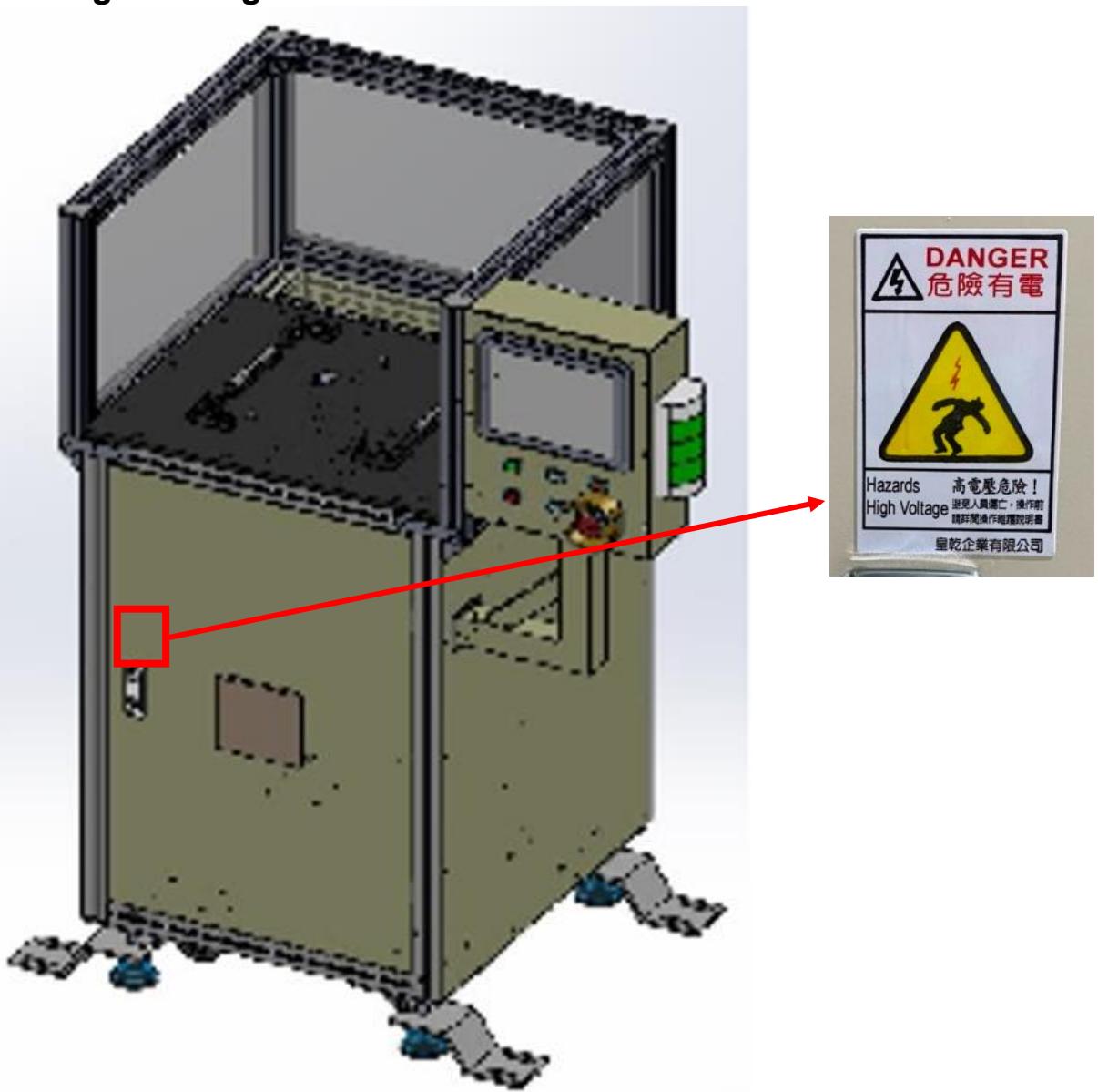
Operational Description

This tool performs the following functions automatically or manually:

1. RFID Reading.
2. Pellicle Detect
3. Mask ID Read
4. EIP ID Read

2. Operation

The maintenance of this equipment must be carried out by trained and qualified personnel. It is strictly forbidden for ordinary operators to operate or disassemble the equipment arbitrarily to avoid dangerous incidents.

（一）Home page
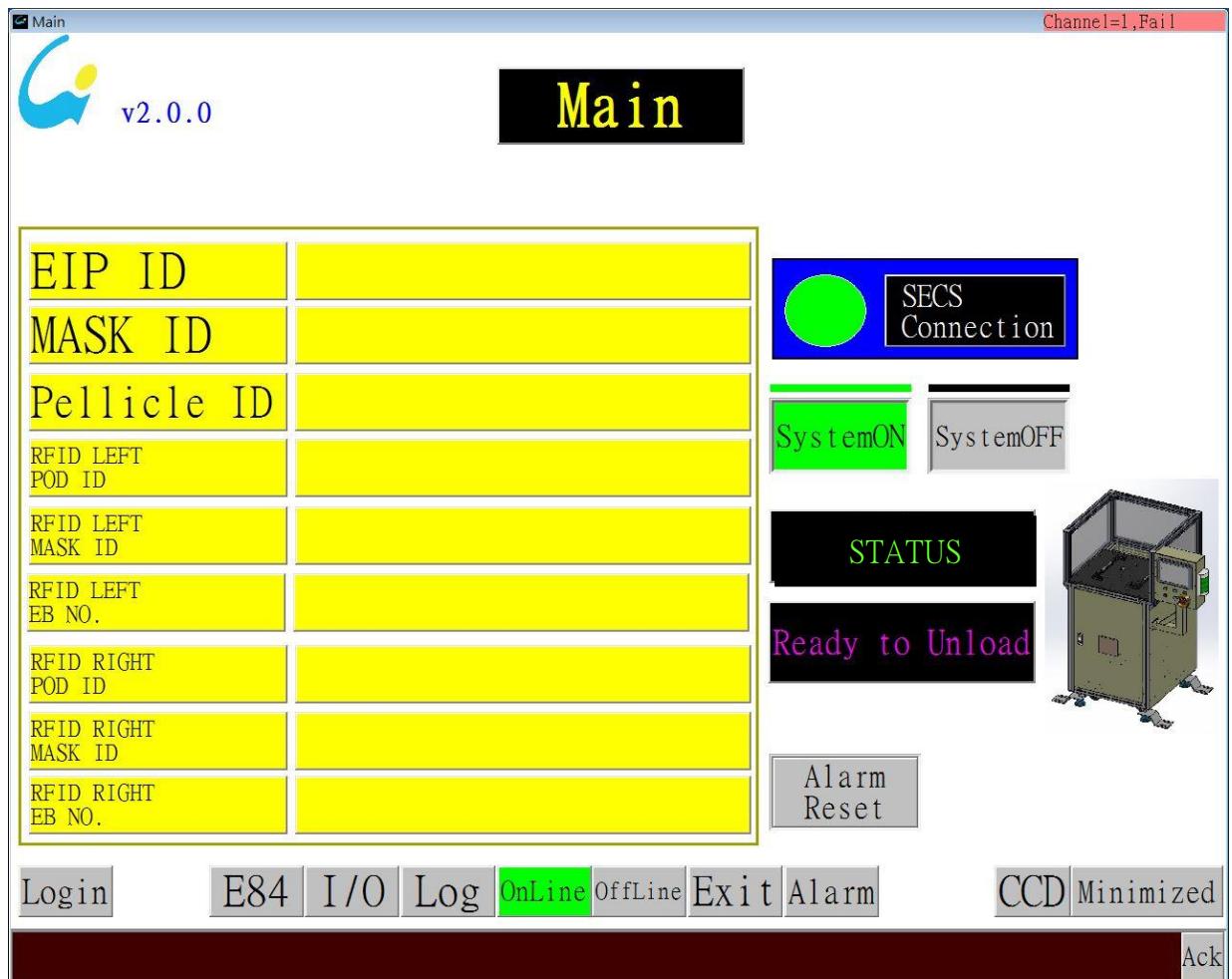
Pic【1-1】: EUV POD Barcode Reader Home page

Function description of Home page:

(1).**System ON:** Push Button of executing auto run.

(2). **System OFF:** Push Button of Stopping the process.(Press more than 3 secs)。

(3).**SECS Connection:** Communication status of SECS。

(4).**Status**：Status of this tool.(Initialization、Idle、RFID Reading、POD ID Reading、MASK ID Reading、Completed、END)

(5).**Ready to Unload/Ready to load**： Ready to Load or Ready to Unload Status.

(6).**Alarm Reset**：Push button of Alarm resetting.

(7).**POD ID**：POD ID data.

(8).**MASK ID**：Mask ID data.

(9).**RFID LEFT**：RFID reading data (left).

(10).**RFID RIGHT**：RFID reading data (right).

| Login | Manual | E84 | I/O | Log | OnLine | OffLine | Exit | Alarm | RFID Write | CCD | Minimized |

Pic【1-2】Menu button of Home page

<u>**Menu button :**</u>
1. Login：User Login.
2. Manual：Switch to manual mode.
3. E84：Switch to E84 setting page.
4. I/O：Switch to I/O monitor page.
5. Log：History log and SECS Log.
6. On Line：SECS On-line.
7. Off Line：SECS Off-Line.
8. Exit：Exit Gudengview.
9. ALARM: Alarm List.
10. RFID Write: RFID Writing manual page.
11. CCD: Pellicle camera screen.
12. Minimized：Minimize the Gudengview window to reveal the desktop.

EB NO. Writing

※ In the automatic starting, the EBNO input blank will appear only when the comparison process fails, and the EBNO can be written. (MASK ID is different from the content of RFID)
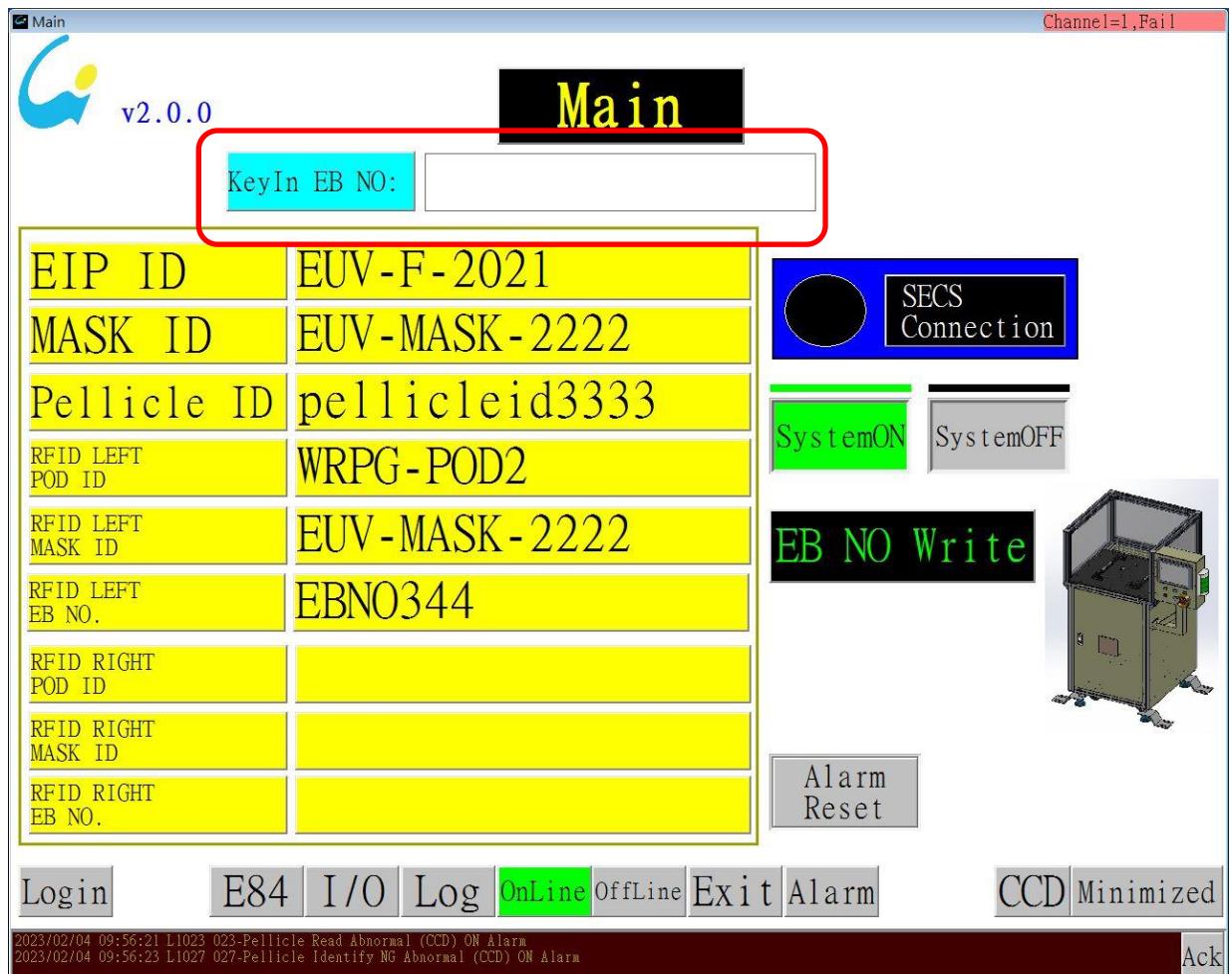
Pic【1-3】EUV POD Barcode Reader Home page with EB NO.

（二）Manual Operation:

Press【Manual】 button，the screen will switch to the manual operation page.

Composition of manual operation page:

※ To operate the tool manually,users have to perform stop function on Home Page first. Then the status field will display "stop". Next, please press the 【Manual】 button to switch to the manual operation page.
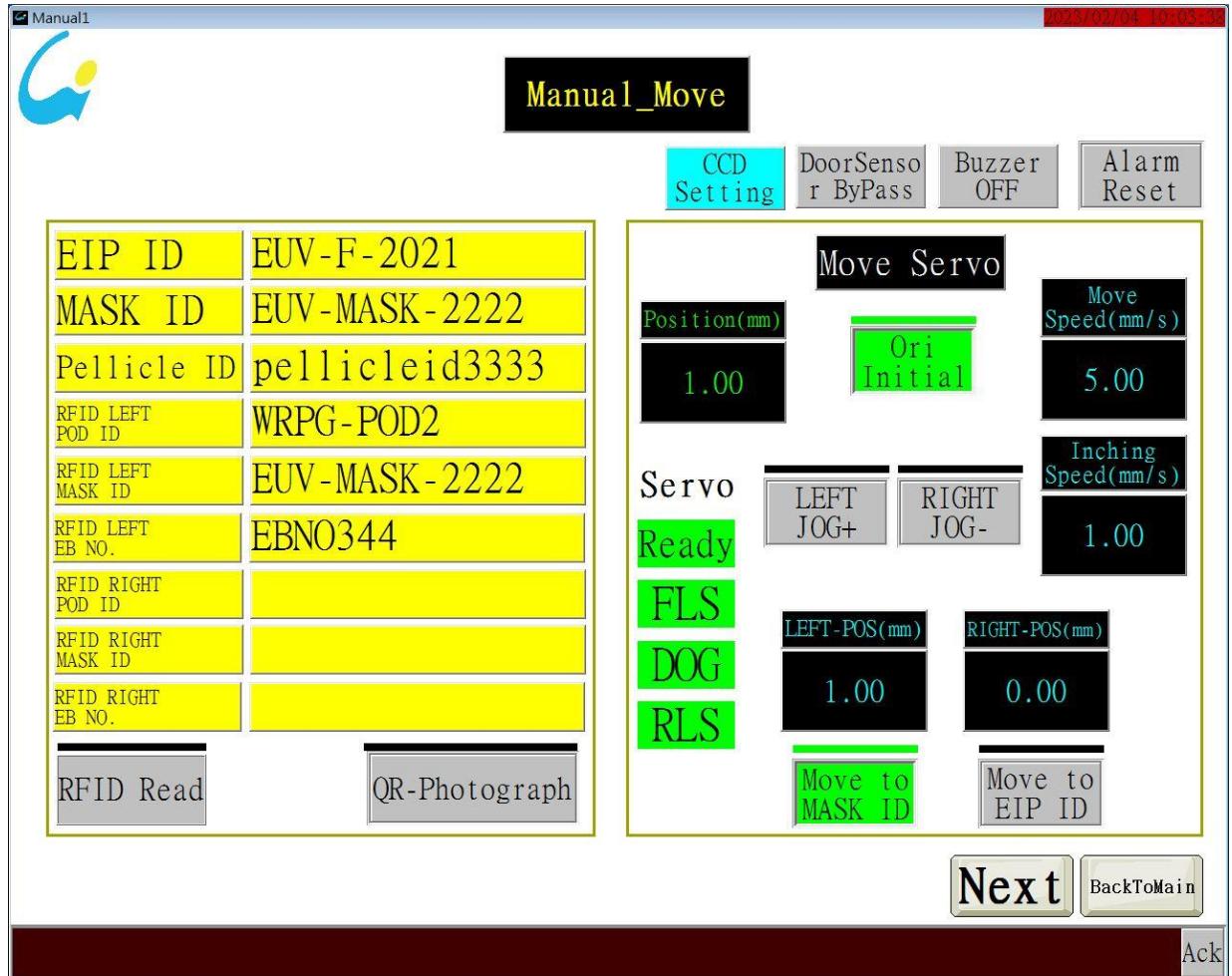
Pic【2-1】Moving motor manual operation status

Green : Indicates moving.

Gray : Indicates not moving.

1. Ori Initial：Press this PB to return to the original point of QR-code CCD Axis.

2. LEFT JOG+： Jog forward (left side from operator).

3. RIGHT JOG-： Jog backward (right side from operator).

4. Move to MASK ID：Move to the setting position of MASK ID reading.

5. Move to EIP ID：Move to the setting position of EIP ID reading.

6. QR-Photograph: Trigger the QR-code read at MASK ID reading or EIP ID reading position.

7. [yellow box] :Display the data read from the CCD.

8. POD ID：Display the POD ID of the product.

9. MASK ID：Display the MASK ID of the produc.

10. RFID LEFT：Display the data read from the left RFID.

11. RFID RIGHT：Display the data read from the right RFID.

12. Move speed: Set the moving speed of QR-code CCD axis.

13. Inching speed: Set the jog speed of QR-code CCD axis.

14. Left Position: Set the position of mask ID reading.

15. Right Position: Set the position of EIP ID reading.

16. Position：Display the current position of the QR-code CCD axis.

17. Buzzer On/Off：Mute or turn on the buzzer.

CCD adjustment：

Enter the CCD setting page, users can watch the CCD screen and adjust the position of CCD axis at the same time.

※CCD adjustment must be operated by Gudeng engineers or trained personnel.
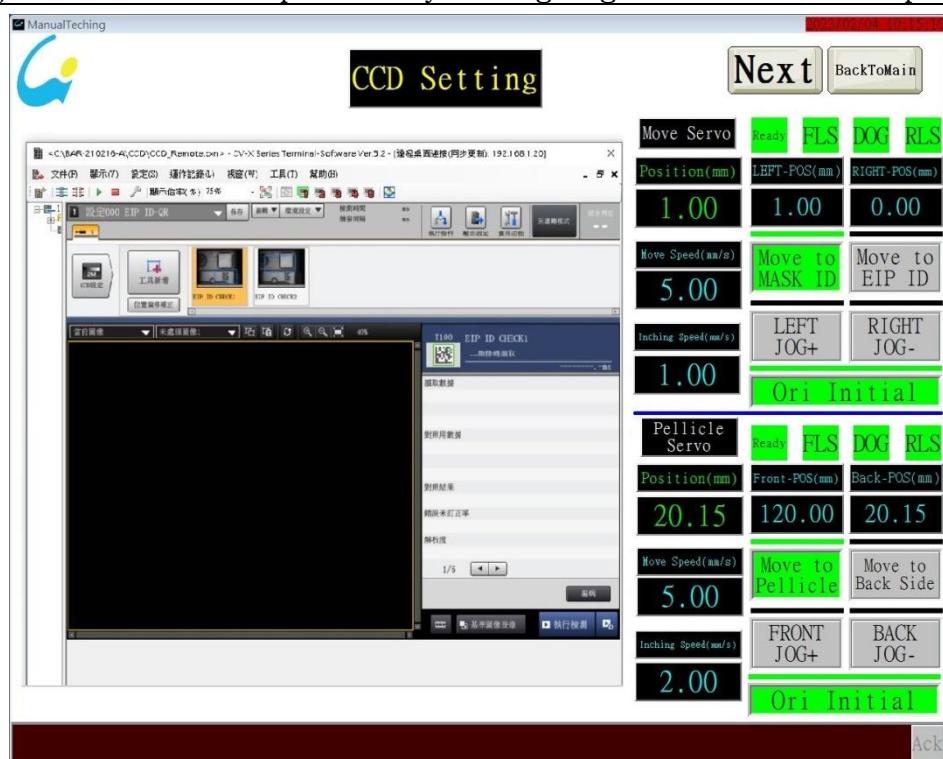
Pic【2-2】CCD setting page

（三）I/O List:

I/O is Input and Output. X represents input contacts, Y represents output contacts.

Pic【3-1】 I/O(Input) monitor

Pic【3-2】 I/O(output) monitor

（四）System On operation screen
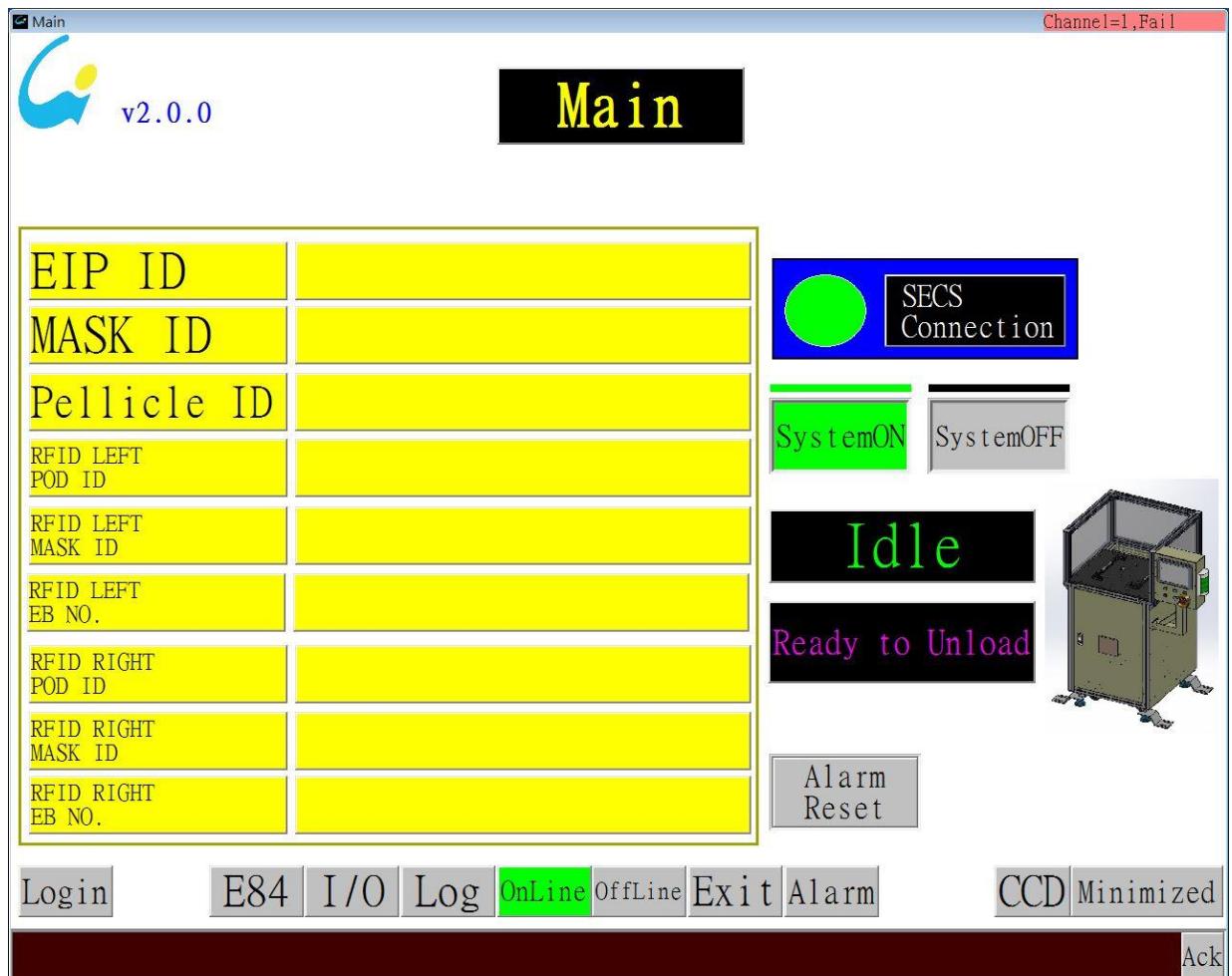
Pic【4-1】Home Page for auto run operation

1. Step 1: Preparation
   1. Press the 【SystemOn】 button to start automatic operation, and the status display will change to a green background display.
   2. To cancel the automatic operation, press 【SystemOFF】 button for 3 seconds, and the automatic operation will stop.

2. Step 2: The action of auto run
   1. Initialization => Idle(Ready to Load) => RFIDRead => Pellicle detect => Move to EIP ID reading position => Move to Mask ID reading position => Completed(Ready toUnload) => END.
   2. To cancel the automatic operation, press 【SystemOFF】 button for 3 seconds, and the automatic operation will stop.

（五）User Log in

When you click 【Login】on the Home Page, the following screen will pop up.

| GudengView V4.126 W50000-FFFF-FFFF-120, Machine ID = D9D7-5159-0ED2-3263 |

Pic【5-1】Log in Screen

1. Choose the user name.
2. Key in the password, then press 【Login】.
3. When the system is turned on, it will automatically log in to the OP operator.

| Login | Manual | E84 | I/O | Log | OnLine | OffLine | Exit | 最小化 |

4. The operator cannot operate the following buttons "Manual, OnLine, OffLine, Exit, Minimized", and other personnel need to log in to enter the screen.
5. The default password of Manager is 1234.

（六）E84 Communication status and alarm display:

E84 Cmd & Status

Manual

Cmd　　DO

Init

OnLine

OffLine

Ready To Load

Ready To Unload

○ Initial
○ Ready To Load
○ Reday To Unload
○ Load Complete
○ Unload Complete
○ Online(1)/Offline(0)
○ Alarm (On:Disable, Off:Enable)

● PRESENT　● PLACEMENT　● Clamp

○ VALID　　○ LReq　　○ GO
○ CSO　　　○ UReq　　● PRESENT
○ CS1　　　○ VA　　　● Placement
○ AM_AVBL　○ Ready　　● CLAMP
○ TR_REQ　　○ VSO
○ TR_BUSY　○ VS1
○ COMPT　　○ HOAVBL
○ CONT　　　● ES

TP1 TIMESET	2	TP4 TIMESET	60
TP2 TIMESET	2	TP5 TIMESET	2
TP3 TIMESET	60	TP6 TIMESET	2

Alarm　BackToMain

Ack

Pic【6-1】E84 Status

Auto：The system will automatically switch the E84 mode to auto.

Manual：The system will automatically switch the E84 mode to manual.

E84 POD1 Alarms

DI Alarm

CS_0_OFF   COMP_ON

VALID_OFF   TP1_TIMEOUT

TR_REQ_OFF   TP2_TIMEOUT

BUSY_OFF   TP3_TIMEOUT

COMPT_OFF   TP4_TIMEOUT

TR_REQ_ON   TP5_TIMEOUT

BUSY_ON   FOUP_TILT

EMS_ALARM   HO_AVBL

GO_OFF   SENSOR_DETECT

CLAMP_ALARM   ANY_ALARM

CS_0_OFF：E84 Signal：CS 0 Off Alarm
VALID_OFF：E84 Signal：Valid Off Alarm
TR_REQ_OFF：E84 Signal：TR Request Off Alarm
BUSY_OFF：E84 Signal：Busy Off Alarm
COMPT_OFF：E84 Signal：Complete Off Alarm
TR_REQ_ON：E84 Signal：TR Request On Alarm
BUSY_ON：E84 Signal：Busy On Alarm
COMP_ON：E84 Signal：Complete Off Alarm
TP1_TIMEOUT：(At L_REQ/U_REQ,E84 Response)
TP2_TIMEOUT：(At READY,E84 TimeOut)
TP3_TIMEOUT：(At Put/Get POD,TimeOut)
TP4_TIMEOUT：(E84 Active Clamp BackOff TimeOut)
TP5_TIMEOUT：(At LDCM/UDCM,E84 Active Ack TimeOut)
FOUP_TILT：LoadPort POD Detect Error
EMS_ALARM：EMO Trigger
GO_OFF：At Load/Unload, OHT E84 Disconnected.
CLAMP_ALARM：At Load/Unload, Clamp Abnormal
HO_AVBL：E84 Auto Mode Shut Down to Manual.
SENSOR_DETECT：At Load/Unload, PS or PL Abnormal.
ANY_ ALARM：E84 Have Any Alarm.

FAULT RESET

E84 POD   BackToMain

Ack

Pic【6-2】E84 Alarm List

（七）SECS Control State:
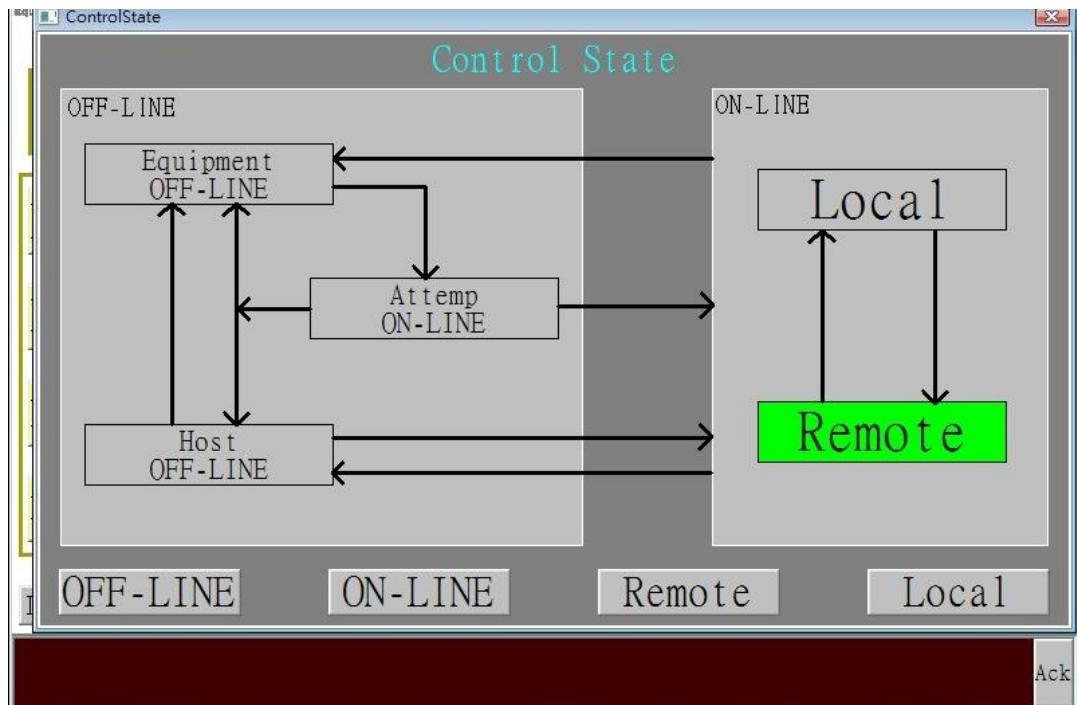
Pic【7-1】SECS Control State

When the system is turned on, the default mode is Online-Remote, wait for the Host to connect, and the general state is Online-Remote after connection;

1. OFF-LINE: switch to OFFLINE.
2. ON-LINE: Switch to online mode when Host is connected.
3. Local: Switch the mode to Online-Local.
4. Remote: Switch the mode to Online-Remote.

（八）Log:
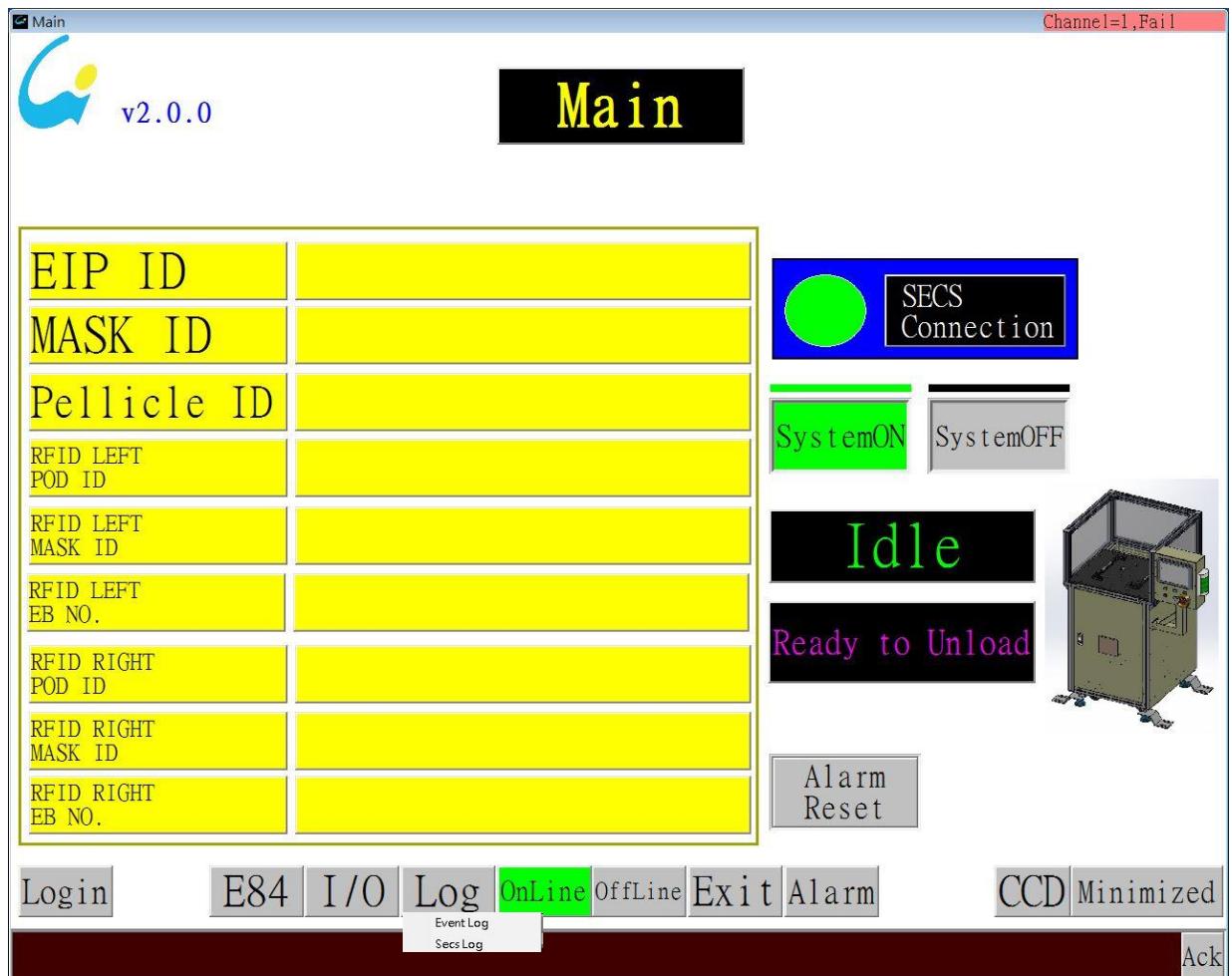
Pic【8-1】Select Event Log or Secs Log

1. Event Log：Display the event history

Pic【8-2】Event Log

2. SECS Log：Display the SECS Log
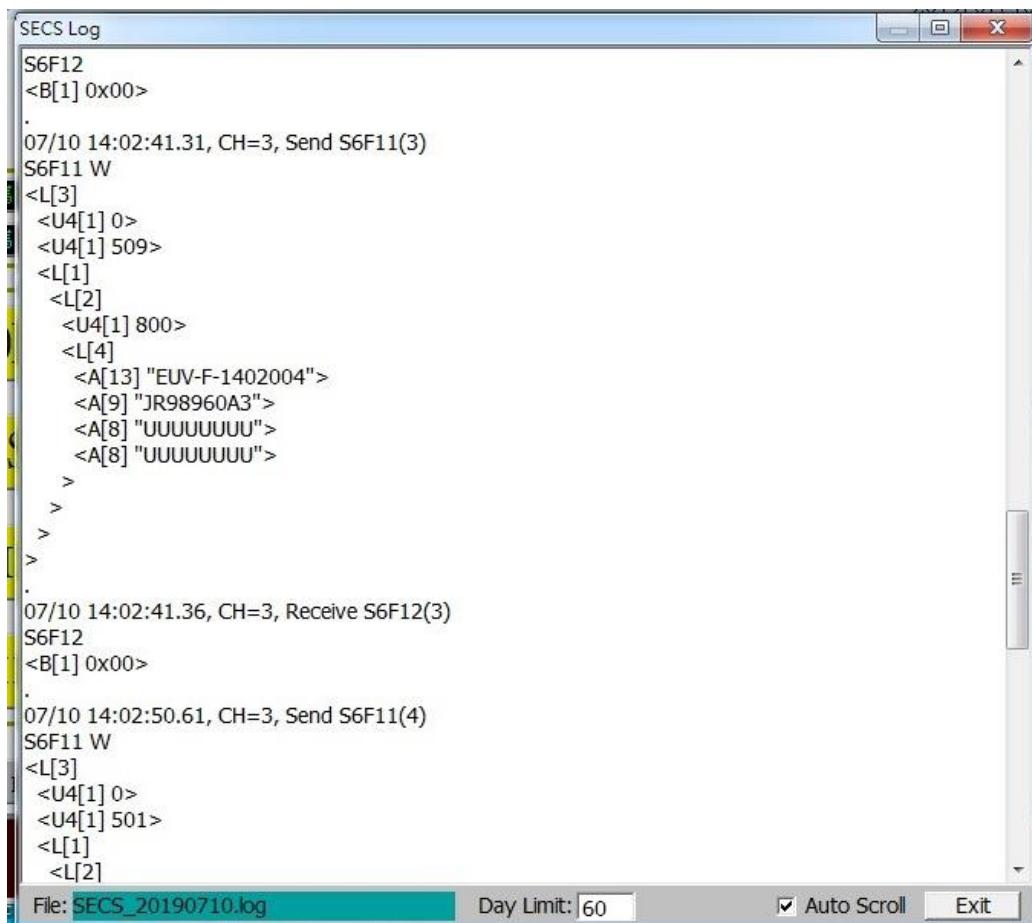

```
SECS Log                                          ─ ▢ ✕
S6F12
<B[1] 0x00>
.
07/10 14:02:41.31, CH=3, Send S6F11(3)
S6F11 W
<L[3]
 <U4[1] 0>
 <U4[1] 509>
 <L[1]
  <L[2]
   <U4[1] 800>
   <L[4]
    <A[13] "EUV-F-1402004">
    <A[9] "JR98960A3">
    <A[8] "UUUUUUUU">
    <A[8] "UUUUUUUU">
   >
  >
 >
>
.
07/10 14:02:41.36, CH=3, Receive S6F12(3)
S6F12
<B[1] 0x00>
.
07/10 14:02:50.61, CH=3, Send S6F11(4)
S6F11 W
<L[3]
 <U4[1] 0>
 <U4[1] 501>
 <L[1]
  <L[2]

File: SECS_20190710.log      Day Limit: 60    ☑ Auto Scroll    Exit
```

Pic【8-3】SECS Log

（九）RFID Write(Manual Mode):
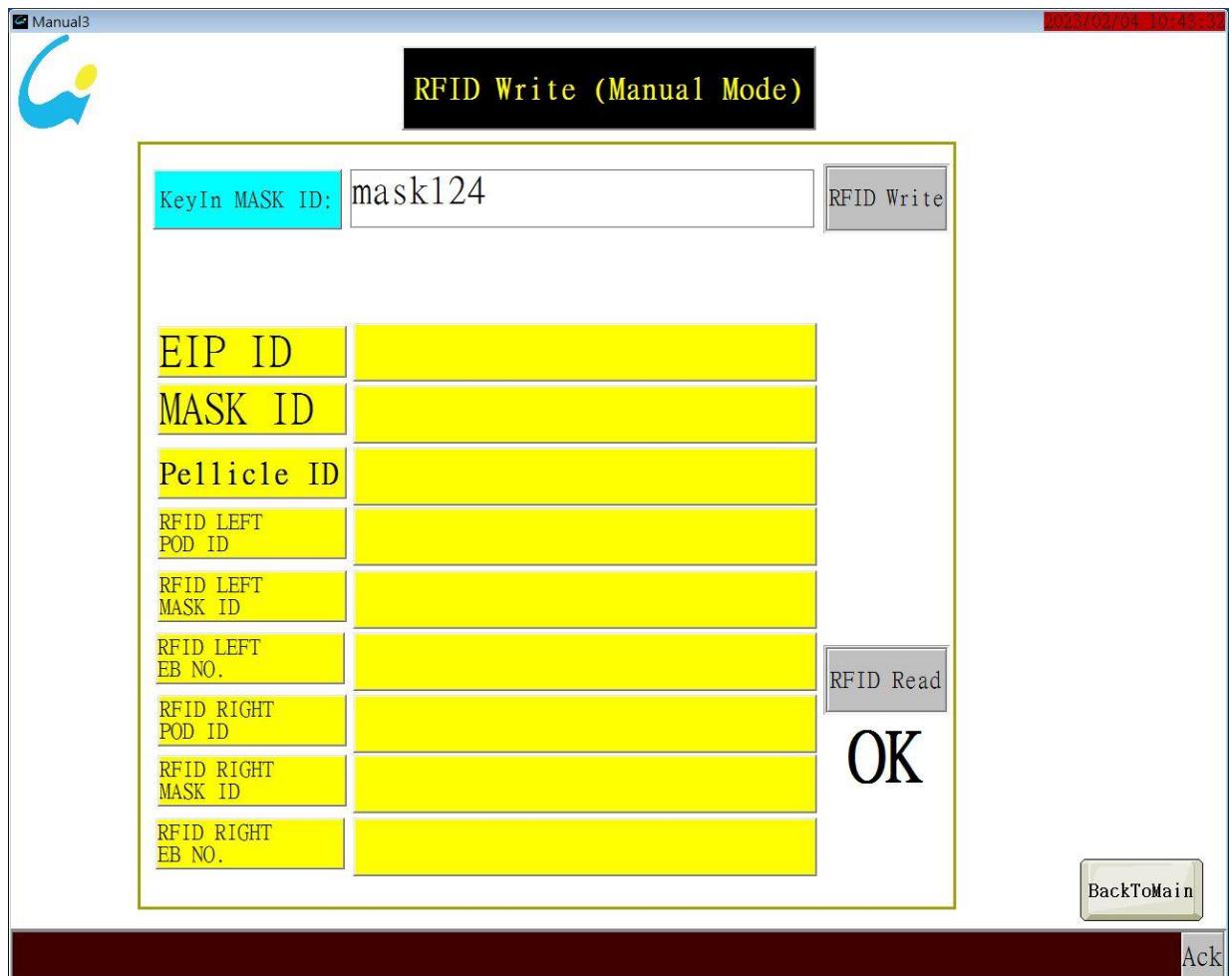

Pic【9-1】RFID Write screen

1. Enter the string that will be written into the MASK ID of RFID, press the 【RFID write】on the right to execute the write function, and feedback the result of this RFID writing OK or NG.
2. Press "RFID Read" on the right to read the current RFID content, and feedback the RFID reading result OK or NG.

（十）CCD:
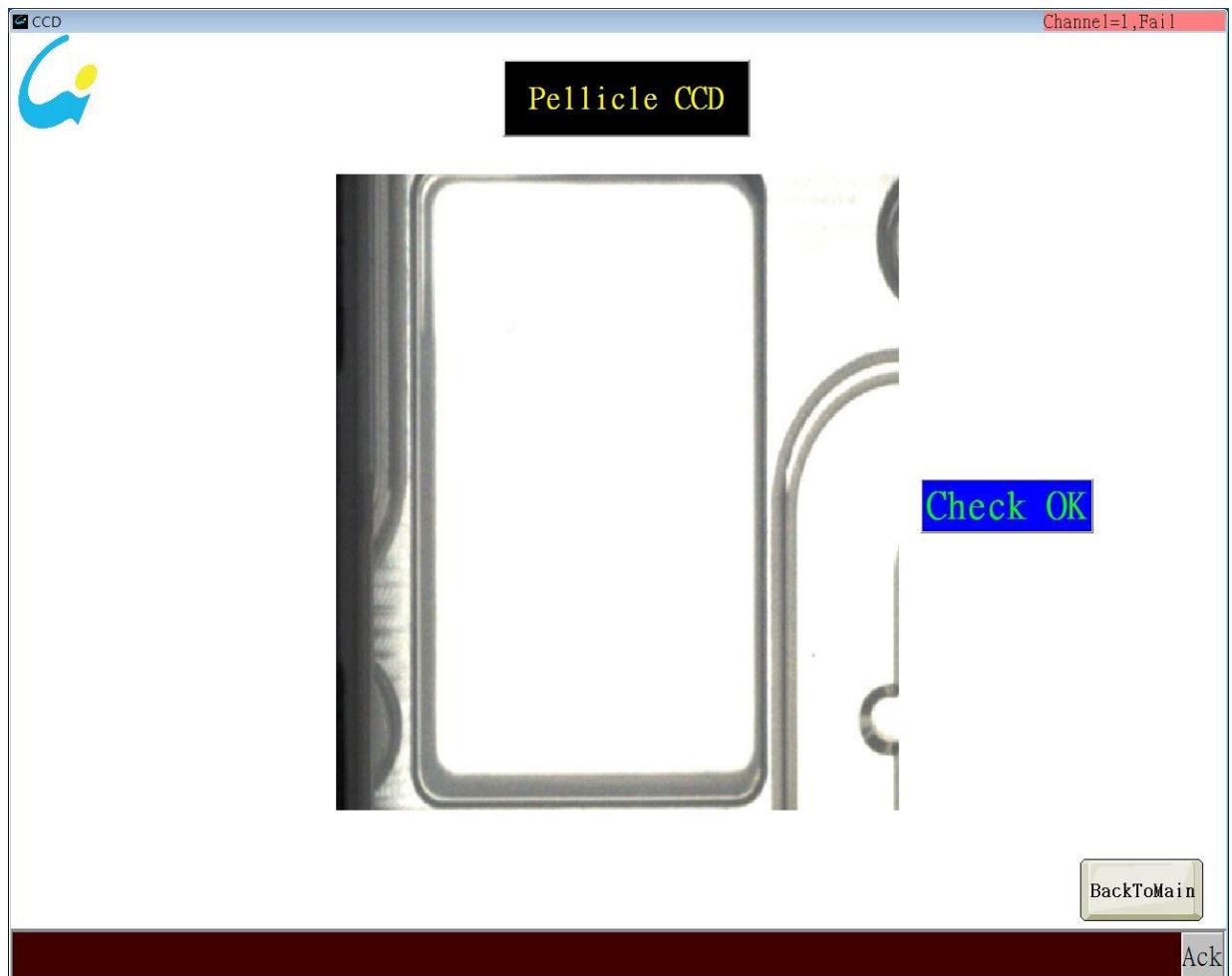
Pic【10-1】CCD Pellicle screen

1. On this screen, you can see the latest picture of scanned Pellicle and the test result.