

SHANGHAI TOP VIEW INDUSTRIAL CO.,LTD

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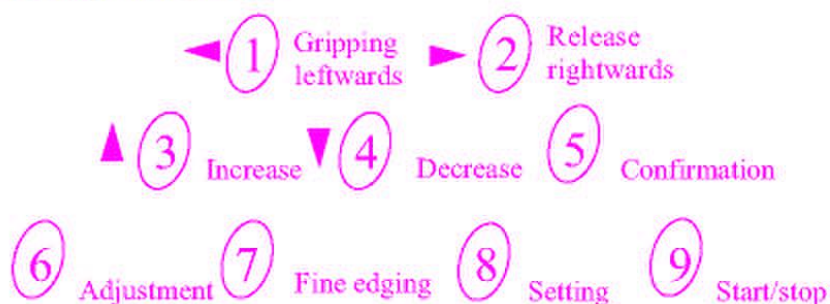
SJG-5218

LENS EDGING MACHINE
OPERATION MANUAL

SJG 5218
Lens Edging Machine Operation Manual

I. Keys on the key-pad

1. Arrangement of keys:



2. Functions of keys:

- (1) “Gripping an leftwards” key. Pressing the key moves the lens-gripping motor leftwards to grip the lens. It also moves the wheelhead leftwards in “rough edging”, “fine edging” and “setting” processes. It can also be used as the key for clearing memory in adjustment mode.
- (2) “Release and rightwards” key. Pressing the key moves the lens-gripping motor rightwards to release the lens. It also moves the wheelhead rightwards in “rough edging”, “fine edging” and “setting” processes. It can also be used as the key for system adjustment in adjustment mode.
- (3) “Increase” key. To select the material and type of lens positively, and to increase the size of lens and the force for lens gripping. It can also be used for displaying the adjustment value in adjustment mode. It can also be used as the key for “lens trial turning” in forced edging mode.
- (4) “Decrease” key. To select the material and type of lens negatively, and to decrease the size of lens and the force for lens gripping. It can also be used as the key for “trial edging” in forced edging mode.
- (5) “Confirmation” key. To confirm the selected material and type of lens, the size of lens, and the force for lens gripping. It also moves the wheelhead downwards in “setting” process. (The wheelhead moves to the next position after test of abrasive wheel.) It can also be used to enter/exit forced edging in adjustment mode.

- ⑥ “Adjustment” key. Used to enter/exit adjustment mode. When in adjustment mode, you can clear the memory, adjust size error in the system, display size adjustment data, the number of lenses to edge, for operations of entering/exiting forced edging and On Model 5218 for operations of entering/exiting PC edging etc.
- ⑦ “Fine edging” key. The first pressing of this key starts fine edging. The second pressing of this key forces fine edging to stop. It also moves the wheelhead downwards in “setting” process to accurately position of the bevel wheel (The wheelhead does not move to the next position after test of abrasive wheel). It can also be used as the “Start” key for angle edging after rough edging.
- ⑧ “Setting” key. The first pressing of this key starts setting. The second pressing of this key forces setting to stop.
- ⑨ “Start/stop” key. The first pressing of this key starts rough edging. The second pressing of this key forces edging to stop.

II. Operation instructions

The operation on the edging machine is all done on the keypad following the prompting displays on the LCD (Liquid Crystal Display). So the instructions for operation on the machine are those for keypad operation.

1. Switch on power

The display on the LCD is shown below.

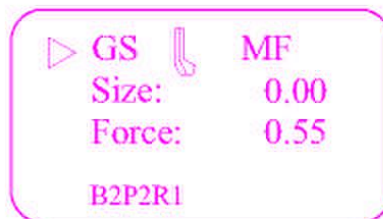


The computer on the equipment is initializing the system, that is determining the original positions of components. Upon completion of initialization, the type of the edging machine is displayed on the LCD as shown below, the edging machine is ready for operation.



2. Start operation

Press a key to enter operation mode in this display. The initial picture is displayed on the LCD, which means: glass lens, framed, metal frame sized 0.00 without increase of decrease, and gripping force 0.55 MP. If a customer needs to have a lens made to these data, it can be operated directly. Load the lens, press “Gripping” key to grip the lens, and then press “Start” to start the operation.



3. Data selection

1) Rough edging program selection

The flashing ▷ indicates that the data in the whole line can be selected. Use “Increase” key or “Decrease” key to select data. One line of data can be selected by pressing the key once. For example, “GS MF” will change in the following sequence. When the desired data is selected, press “Confirmation” key. Will move to the next row, i.e. “size”.

“Increase” key “Decrease” key
change direction change direction

GS MF	(Glass Metal frame)	
CR MF	(Resin without frame)	
CR MF	(Resin Metal frame)	
GS NNF	(Glass Non-Metal frame)	
CR NMF	(Resin Non-Metal Frame)	
GS	(Glass without frame)	

2) Lens size selection

Press “Confirmation” key to direct \triangleright to “Size”, and press “Increase” key or “Decrease” key to select the desired size data. Then press “Confirmation” key to move \triangleright to the next row, i.e. “gripping force” .

3) Gripping force selection

Press “Confirmation” key to direct \triangleright to “Gripping force”, and press “Increase” key or “Decrease” key to select the desired gripping force data. Then press “Confirmation” key to move \triangleright to the next row, i.e. “rough edging program selection”

4. Start rough edging

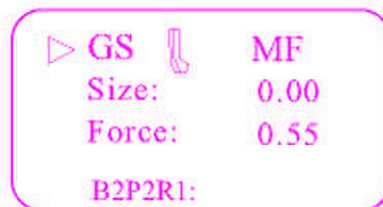
When all the displayed data are confirmed, grip the lens in place before performing different operations on the edging machine – rough edging, fine edging, and setting; otherwise, the machine will refuse to run and buzz for alarming. At this time, press “Start” key for rough edging. The display on the LCD is shown below:



With the progress of rough edging, the lens position display on the LCD screen will change with the edging process as shown in the figure below.



At the end of automatic rough edging, the wheelhead returns to the initial status. The display on the LCD returns to the previously selected picture (initial picture). See the figure below.



5. Start fine edging

The whole process is exactly the same as 4. "Start rough edging" except pressing "Fine edging" key.

6. Start setting

"Setting" key can be pressed to enter setting when standard former is installed and standard form is gripped. Because the process of setting will change some of the originally set data on the edging system, **be careful in using the setting function.** Therefore, before pressing "setting" key to enter setting status, a warning will be displayed on the LCD as shown below.

Entering the
next step will
change the data
Press:
SET key to exit
CONF key to enter

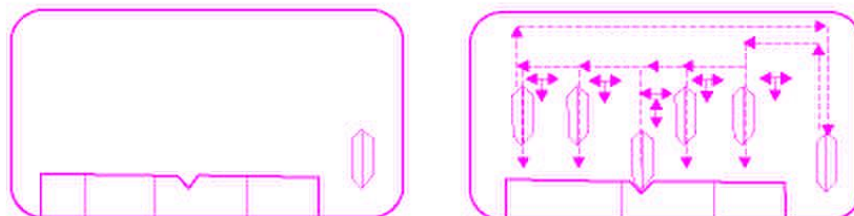
Pressing "Setting" key again will exit the setting status and return to the initial display. If "Confirmation" key is pressed, the picture below will display:

▶ Initialsetting

With ▶ flashing, you can select initialization setting / size setting / force setting/revs, setting/allowance setting with "Increase" key or "Decrease" key. When the desired item is selected, press "Confirmation" key to enter setting status.

- Initialization setting

Entering initialization setting changes the display to the picture below on the left-hand. With the progress of setting, the lens will be in the positions as shown in the picture below on the right-hand.



When the lens arrives at a position, you can use “Gripping and leftwards” key (also used as “Wheelhead leftwards” key here) or “Right gripping” key (also used as “Wheelhead leftwards” key here) to move the lens to the desired position, then press “Confirmation” key to move the wheelhead downwards to measure the abrasive wheel. After that, the lens moves to the next position of abrasive wheel measurement is done. Initialization setting ends automatically. The initial display is shown on the LCD. The size of abrasive wheel will be saved permanently (except that another initialization is done).

“Fine edging” key (also used as “Wheelhead downwards” key here) can also be used to move the wheelhead downwards. But this is only to move the wheelhead down, the abrasive wheel will not be measured; and the lens will not be moved to the next position of abrasive wheel automatically. This is only for exact positioning of the bevelling abrasive wheel. Is specially used for precise positioning.

- Size setting

When entering size setting, the display changes to the picture as shown below on the left-hand.



You can use “Increase” key or “Decrease” key to select data where a \triangleright indicates. One pressing selects one data. Confirm with the “Confirmation” key. The flashing \triangleright will dump to next line as shown in the picture up on the right-hand. You can use “Increase” key or “Decrease” key to select the sizes of six kinds of lenses can be set. Press “Setting” key again when setting is done to exit setting status and return to the initial display. The sizes set will be stored permanently (except that another size setting is done).

- Force (Gripping force) setting

When entering Gripping force setting, the display changes to the picture as shown below on the left-hand.



You can use “Increase” key or “Decrease” key to select data where a ▷ indicates. One pressing selects one data. Confirm with the “Confirmation” key. The flashing ▷ will dump to third line as shown in the picture up on the right-hand. You can use “Increase” key or “Decrease” key to select the force of six kinds of lenses can be set. Press “Setting” key again when setting is done to exit setting status and return to the initial display. The force set will be stored permanently (except that another force setting is done).

- Revs. (Revolution) setting

When entering revolution setting, the display changes to the picture as shown below.

▷ Bevel	2
Polish	3
Rough	1

You can use “Increase” key or “Decrease” key to select data where a ▷ indicates. The range for selection is 1 to 4. Confirm with the “Confirmation” key. The flashing ▷ will dump to next line. Press “Setting” key again to exit setting status and return to the initial display. The revolutions set will be stored permanently (except that another revolution setting is done).

- Margin (Allowance) setting

When entering allowance setting, the display changes to the picture as shown below.

▷ GSNF	1.9
GSF	0.5
CRF	0.5
CRNF	0.4P 0.8C

Data can be selected with “Increase” key or “Decrease” key at flashing ▷. Confirm the selection with “Confirmation” key. Five kinds of edging allowance can be set. Upon completion of allowance setting, press “Setting” key to exit setting mode and return to the initialization screen. The allowance you set will be stored permanently (unless allowance setting is done once again).

GSNF 1.9 means glass lens without frame; allowance for flat grinding is 1.9mm;
 GSF 0.5 means glass lens with rim; allowance for beveling is 0.5mm
 CRF 0.5 means resin lens with rim; allowance for beveling is 0.5mm
 CRNF 0.4P means resin lens without frame; allowance for polishing is 0.4mm;
 0.8C means resin lens without rim; allowance for fine edging is 0.8mm.

7. Adjustment

Pressing of "Adjustment" key enters adjusting system. The display is shown as below.

1 CLEAR MEMORY	
2 ADJ. SYSTEM	(Adjust system)
3 NO. LENSES	(Number of lenses)
4 NO. ADJ.	(Number of adjustment)
5 ENTER FE	(Enter force edging)
7 ENTER PC	(Enter PC)

Press #1 key to clear memory, all the adjustment data will be cleared. After doing so, initialization setting and size setting must be done once again.

Press #2 key will add the value of size setting to the system automatically and turn the display to 0.00. If the original glass lens is metal framed, the size is +0.30. After pressing #2 Key, the size display changes to 0.00, but the lens edged now is of the same size as that edged when the size display was +0.30.

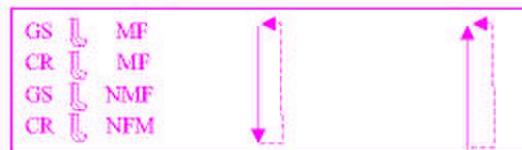
Press #3 key to display the total number of lens edged.

Press #4 key to display all the size values added to the system.

- 1 indicates the adjusted number of glass lens with metal frame.
- 2 indicates the adjusted number of resin lens without frame.
- 3 indicates the adjusted number of resin lens with metal frame.
- 4 indicates the adjusted number of glass lens with non-metal frame.
- 5 indicates the adjusted number of resin lens with non-metal frame.
- 6 indicates the adjusted number of glass lens without frame.

Press #5 key to switch the edging machine from non-forced edging to forced edging, or vice versa.

In the force edging mode the four data only is selected



Press #7 key to switch the edging machine from non-PC edging to PC edging, or vice versa. This feature is special for 5218.

8. Forced edging operation

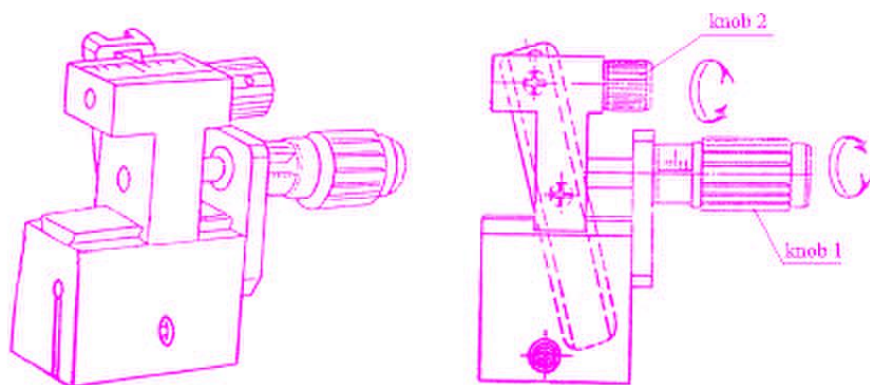
- Enter forced edging mode

Press "Adjustment" key to enter adjustment system. Then press key "5" to enter forced edging mode. A ▲ will appear at the lower right corner of the screen as shown below on the left-hand. Then press "Adjustment" key to exit adjustment system, and the screen returns to the previous display with the sign ▲ (as shown in the picture below on the right-hand). This indicates that the machine is in forced edging mode.



- operating the forced edging (FE)

1. Starting the FE---- Load a lens. Press "Start/stop" key to edge the lens in forced edging mode.
2. Mounting the device for force edging ----At the end of rough edging in forced edging mode, the machine will stop automatically. Mount the device for forced edging, as shown in the figure below on the left-hand. Put the roller, which is in front of the wheelhead on the right side, into the groove on the forced edging device for adjustment.



3. Adjusting----Depress "Increase" key and hold to turn lens slowly and observe the position of edging angle. Release "Increase" key. The lens stops turning. Then adjust knob 1 and knob 2 as shown up on the right-hand. Knob 1: it is used for adjusting right and left locations of the grinding angle. Knob 2: It is used for adjusting inclination of the

chute to make it coincident with external form of the lens. Please adjust these two knobs until meeting the requirements.

4. Try edging--- Press "Decrease" key to start trial angle edging in forced edging mode. At this time, a || sign, which indicates trail edging, appears on top of the ▲ in the display. After one circle of edging is complete, trial edging stops, and || disappears.
 5. To edge angle in forced edging mode---Press "Fine Edging" key just When edging finishes, the wheelhead stops at the top position. Push it to the rightmost position.
- To exit forced edging---If you want to exit forced edging, press "Adjustment" key to enter adjustment system. Then press key "5" to exit forced edging mode. The ▲ disappears. Press "Adjustment" key again to exit adjustment system, and the display returns to the initialization screen.

9. PC operation

- Enter PC edging mode

Press "Adjustment" key to enter adjustment system. Then press key "7" to enter PC edging mode. A ■ will appear at the lower right corner of the screen as shown below on the left-hand. Then press "Adjustment" key to exit adjustment system, and the screen returns to the previous display with the sign ■ (as shown in the picture below on the right-hand). This indicates that the machine is in PC edging mode.



- operating the PC edging

1. Starting the PC edging---The PC edging operation is completely compatible the force edging operation.
2. But the PC edging is different in structural and control program from the normal edging:
 - 1) The wheel of the PC edging is different from the wheel of the force edging
 - 2) When the Rough edging the pump is not working.
 - 3) When the Bevel and Polish edging the wheel always is turn in Positive direction.
 - 4) In the PC edging mode also can simultaneously enter the force edging.
- 5) In the PC edging mode the three data only is selected.



- **The force edging in the PC edging mode**

If want to enter force edging for bevel edging in the PC edging mode can press “Adjustment” key to enter adjustment system. Then press key “5” to enter forced edging mode. Then press “Adjustment” key to exit adjustment system, and the screen returns to the previous display with the sign ▲■ (as shown in the picture below). This indicates that the machine is in forced edging mode and in PC edging mode.



In this case when operating the “CR MF” and “CR NMF” edging At the end of rough edging the machine will stop automatically. Mount the device for forced edging.

- **To exit forced edging**

Press “Adjustment” key to enter adjustment system. Then press key “7” to exit PC edging mode. The ■ disappears. Press “Adjustment” key again to exit adjustment system, and the display returns to the initialization screen.

10. Forced stop

After pressing “start/stop”, “Fine edging” and “Setting” keys and entering these functions, you can press “start/stop”, “Fine edging” and “Setting” key again to force the machine to stop. Upon receiving the order of forced stop, the edging machine stops the current process immediately to enter into emergency stop. There is a forced stop procedure. The display on the LCD is shown at right. When the wheelhead returns to the initial position, initial picture displays again on the LCD.

FORCED STOP!
PLEASE WAIT!

11. Miscellaneous

The edging machine is equipped with a buzzer. If it buzzes when you press a key, the key is currently inactive.