

GOODVIEW

Parison Controller

Operation Manual

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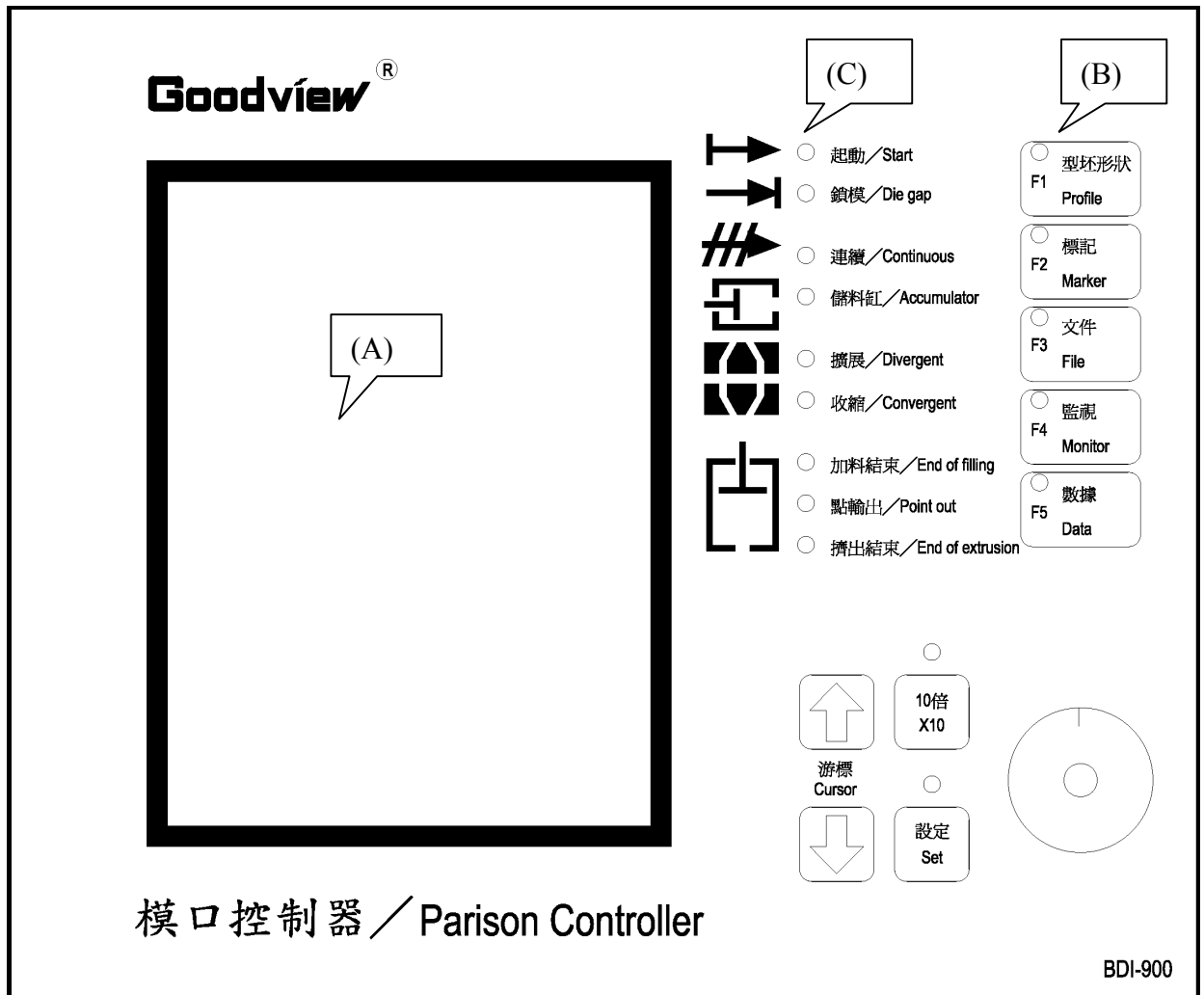
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I. OPERATION PANEL



1. OPERATION PANEL DESCRIPTION :

(A). LCD Display Screen (LCD)

LCD Screen display for machine action status, and data setup.

(B). Operation Key Description :

- “F1~F5” Function Key :

F1(Profile)	: The parison wall profile and other related functions.
F2(Marker)	: Enables the setting of output pulse.
F3(File)	: Save/Load the container wall thickness setting.
F4(Monitor)	: I/O status and servo valve output current and core position display.
F5(Data)	: Displays the profile point and related function setting.
F1 + (Set)	: Set Up Mode – Provides core and accumulator setting and other machine related set up functions.
F2 + (Set)	: Timer Mode – Real time clock setting.

- “Cursor” Key :

Used to scroll the items on the LCD in the direction indicated by the triangular shape.

- “X10” Key :

Increases the sensitivity of the “Entry Knob” by a factor of 10.

- “Set” Key :

Push to confirm the newly changed value.

- **Entry Knob** :

Rotate to enter the value of various functions and cursor movement. Rotation in a clockwise direction will increase the function value and vice versa.

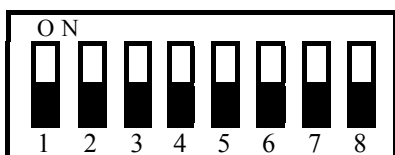
(C). LED’s status :

- **F1~F5** : Indication of the current working page.
- **Start** : Lit up when Cycle Start signal is received.
- **Die gap** : Lit up when Die Gap signal is received.
- **Continuous** : Lit up when the “Continuous Extrusion” machine type is selected
- **Accumulator** : Lit up when the “Accumulator” machine type is selected
- **Divergent** : Lit up when “Divergent” core is selected.

- **Convergent** : Lit up when “Convergent” core is selected.
- **End of filling** : Lit up when the accumulator completes its charging stroke.
- **Point out** : Lit up when each Marker point is reached.
- **End of extrusion** : Lit up at the end of the accumulator extrusion stroke.(Cushion)

II. OPERATE METHOD INTRODUCTION

1. DIP SWITCH SETTING :



No	Functions	ON	OFF
1	Language	English	Chinese(Default)
2	Set Up Lock	Lock	Unlock(Default)
3	Reserved		
4	Output Test Mode	Enable	Disable(Default)
5	Screen Test Mode	Enable	Disable(Default)
6	Machine Type	Continuous	Accumulator(Default)
7	Factory Test Mode	Enable	Disable(Default)
8	EOX, EOF Output Mode	PULSE 40msec	None(Default)

Note :

1. Language : Select the language used on LCD.
2. Set Up Lock : Controls the access to the F1+Set (Set up), F2+Set (Timer) pages.
3. Reserved
4. Output Test Mode : Open COM, When enabled allows the servo valve voltage output to be checked.
5. Screen Test Mode : Only for Factory test.
6. Machine Type : Select between Accumulator and Continuous Machine Type.
7. Factory Test Mode : Only for Factory test.
8. EOX, EOF Output Mode : EOX(END OF EXTRUSION)
EOF(END OF FILLING)

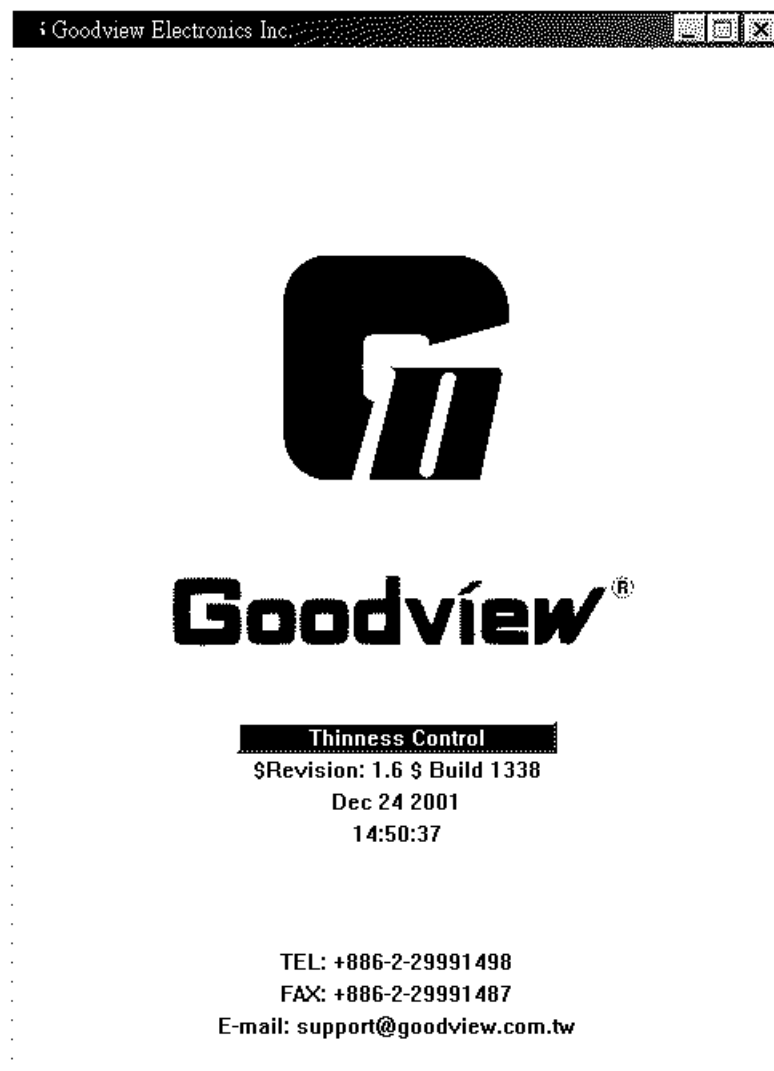
Only for Accumulator Machine Type.

During On setting, when EOX or EOF positions reached. The output is a 40msec Pulse. During OFF setting when EOX or EOF positions reached. The output is a continuous ON until the EOX or EOF position is over. You can see from the panel LED for EOX and EOF Output State,.

☆ **Warning** : All DIP SWITCH Change Must be done during Power OFF.

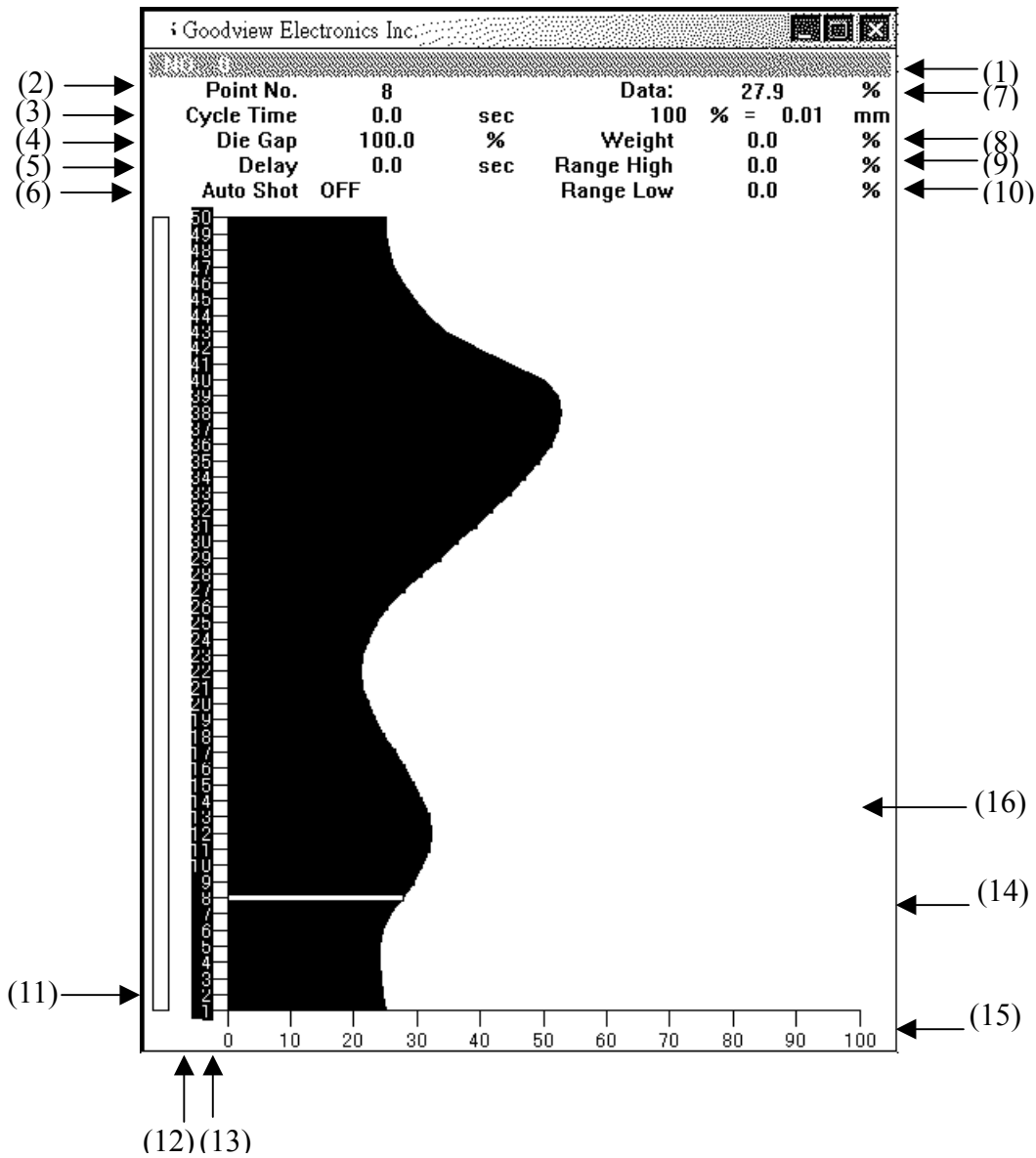
2. POWER ON :

Power ON. Controller sounds “Beep-Beep”, two short beeps, It signals a normal start and will display the screen as below. You can start to operate the controller now.



3. FUNCTION SCREEN :

(A). F1 : Profile



Pressing F1 Key to enter this page:

- (1). NO. : Profile number & Name.
- (2). Point No. : Current cursor position & point data.

(3). Shot Size & Cycle Time :

- a. Accumulator : Display "Shot Size", Unit -"% " or "mm",
Setting Range (%) = 5.0% ~ 100% step=0.1%
Setting Range (mm)=0 ~ initial position, step = 0.1mm,
The amount of plastic extruded by the accumulator stroke.
- b. Continuous : Display "Cycle Time", Unit - "sec",
Setting Range =0.1~100.0sec, step =0.1sec, The amount of plastic extruded by Cycle time.

(4). Die Gap : Unit "% " or "mm"

- a. Accumulator : The core opening position, when Die Gap signal is given.
- b. Continuous : No Action

(5). Delay : Unit -"% ", Range - 0.0%~100.0%. It starts count by move to first point.

$$\text{Delay Time} = \text{Shot Size} * \text{Delay \%}.$$

Stay on first point total time =
Shot Size * Delay % + first point total time

(6). Cushion :

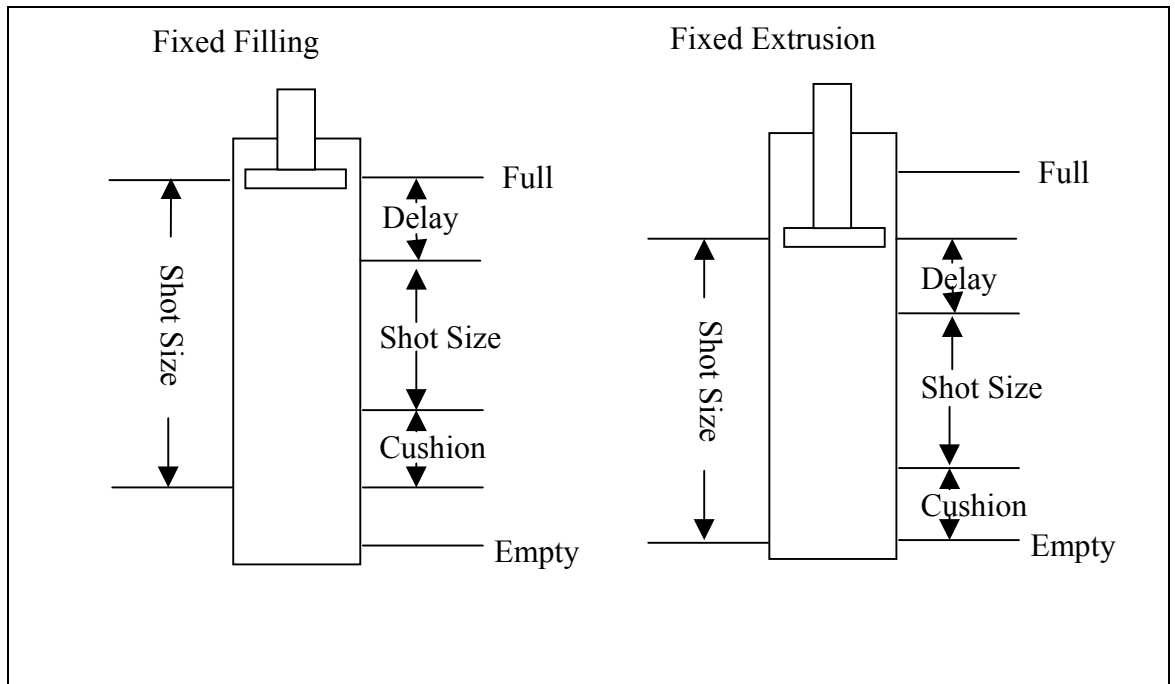
- a. In Accumulator Mode" this row is displayed as "Cushion"

NO. 1	TEST1		
Point No.	28	Data	%
Shot size	0.0 %	100%=	10.00mm
Die Gap	0.0 %	Weight	0.0%
Delay	0.0 Sec	Range High	0.0%
Cushion	5.0 %	Range Low	0.0%

Cushion, Unit - "% ", Range - 0.0%~100.0%

$$\text{Cushion Length} = \text{Shot Size} * \text{Cushion \%}$$

About relation among "Shot Size, Delay, Cushion".



b. In Continuous Mode, this row is displayed as "Auto Shot"

NO. 1	TEST1		
Point No.	28	Data	%
Cycle Time	5.0 sec	100%=	10.00mm
Die Gap	0.0 %	Weight	0.0%
Delay	0.0 sec	Range High	0.0%
Auto Shot	OFF	Range Low	0.0%

"Auto Shot" OFF : Injection time controlled by Shot Size.

"Auto Shot" ON : Injection time controlled by automated calculated Cycle time.

When calculated cycle time is more or less than 20% of Shot Size, Shot Size setting will be used instead. Example :

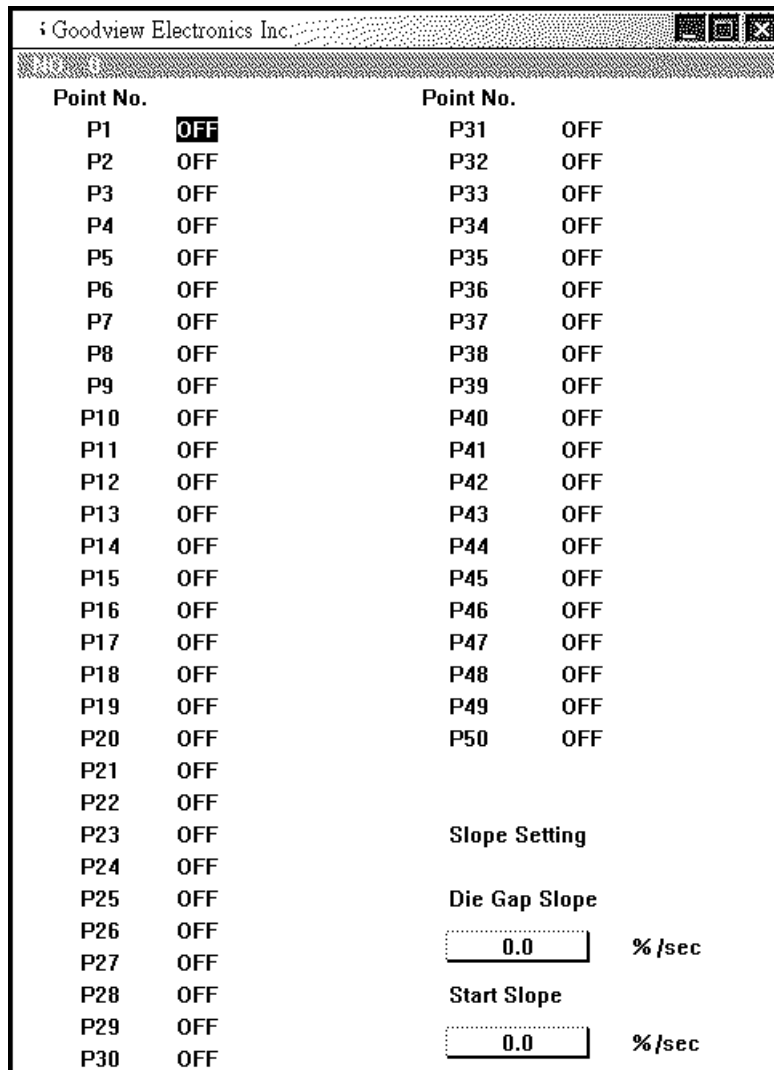
Shot Size=10 SEC $10-2=8\text{sec}$ $10+2=12\text{sec}$

$8 \leq \text{Shot Size} \leq 12\text{sec}$

(7). Data : Show cursor position & setting data..

- (8). Weight : Unit “%”, Range ”-99% ~ 99%”
All points (1~50)+Max. Data * Weight %, The Curve will move LEFT or Right, Change weight. The Weight data is set, each point data fixed. If you use the “Entry Knob” again, the weight data start from 0
- (9). Range High : Unit “%”, Range ”-99% ~ 99%”
Range High changes the value of all profile points by a percentage of the difference between the thickest and thinness points. The value of the thinnest profile point remains constant during a Range high change. If you use the “Entry Knob” again, the Range High data start from 0
- (10). Range Low : Unit “%”, Range ”-99% ~ 99%”
Range Low changes the value of all profile points by a percentage of the difference between the thickest and thinness points. The value of the thinnest profile point remains constant during a Range Low change. If you use the “Entry Knob” again, the Range Low data start from 0
- (11). Execute Point : Show Cushion position in which point. If Accumulator Mode, it will show screw position.
- (12). Point Marker : ”—“ symbol, has 40msec Pulse output for test. (F2 page setting)
- (13). Point setting : Profile point value set by rotating the “Entry Knob” to the obtain the desired value, then confirm the value by pressing the SET key. No inverse point move by inverse point and auto connect neighbor point. If pressing SET. The point show on inverse. To cancel entered profile points, turn the “Entry Knob” counterclockwise until show ”DATA : ---.-%”. Press SET key to cancel.
- (14). Cursor : Change profile point and function item.
- (15). SCALE : 100%
- (16). Product curve : Profile process curve record. Compare with the setting data.

(B). F2 : Marker



Pressing F2 Key to enter this page.

(1). Pulse Marker :

If marker status is on, When the point is reached, a 40msec Pulse output will be generated. Using the cursor key and revise the ON/OFF condition with the "Entry Knob" and set the revised condition with the Set Key.

(2). Slope Setting :

Die Gap Slope, Unit - "%", Range - "0% ~ 200%".

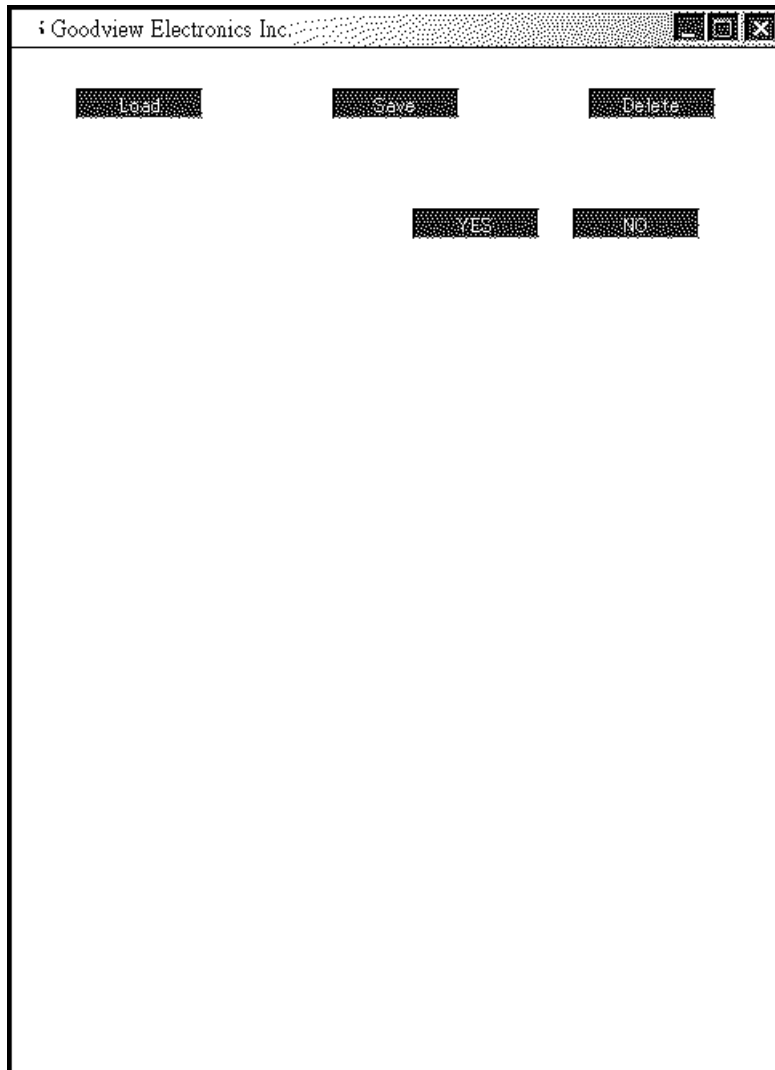
The slope or velocity of the motion to the "Die Gap" opening when the Die Gap signal is given.

(3). Start Slope :

Start Slope Setting, Unit - "%", Range - "0% ~ 200%".

The slope or velocity of the motion of Start Slope, when the start slope signal is given.

(C). F3 : File



Pressing F3 Key to enter this page. When system is running, you can enter to this page.

F3(File) :

1. Save
2. Load
3. Delete

(1). Save :

● Save without File No.

1. Pressing the F3 Key(File)
2. Use the “Entry Knob” to select “Save”, and press the “Set” Key.
3. Use the “Entry Knob” to select “NO”, and press the “Set” Key.
Move cursor to ”Next Page”. Press the “Set” Key to check others data.
4. Move cursor to “ YES”. Press the “Set” Key to finish and screen change to F1. If select “NO” then go to page F3.

● Save with File No.

1. Pressing the F3 Key(File)
2. Use the “Entry Knob” to select “Save”, and press the “Set” Key.
3. Use the “Entry Knob” to select “YES”, and press the “Set” Key
4. Move “cursor” or “Entry Knob” to select ”File No.”(1~200), and press the “Set” Key.
5. Use the “cursor” and “Entry Knob” to input file name.
6. Move “cursor” to ”OK”, and press the “Set” Key.
Move cursor to ”Next Page”. Press the “Set” Key to check others data.
7. Move cursor to “ YES”. Press the “Set” Key to finish and screen change to F1. If select “NO” then go to page F3.

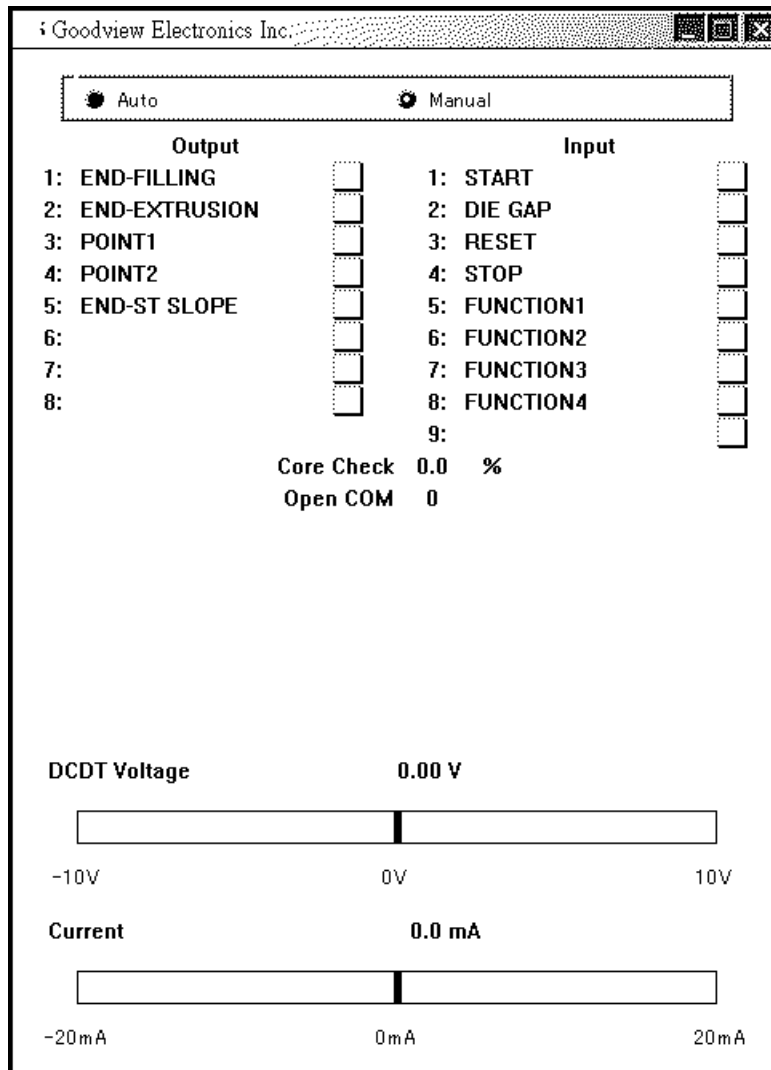
(2). Load :

1. Pressing the F3 Key(File)
2. Use the “Entry Knob” to select “Load”, and press the “Set” Key.
3. Move “cursor” or “Entry Knob” to select ”File No.”, and press the “Set” Key.
4. Use “Entry Knob” to “ YES”. Press the “Set” Key to finish and screen change to F1. If select “NO” then go to page F3.

(3). Delete :

1. Pressing the F3 Key(File)
2. Use the “Entry Knob” to select “Delete”, and press the “Set” Key.
3. Move “cursor” or “Entry Knob” to select ”File No.”, and press the “Set” Key.
4. Use “Entry Knob” to “ YES”. Press the “Set” Key to finish and screen change to F1. If select “NO” then go to page F3.

(D). F4 : Monitor



Pressing F4 Key to enter this page. When system is running, you can enter to this page. This page only for display, you can not change any data.

This screen shows the Input & output States. The banner shows the servo valve output voltage.

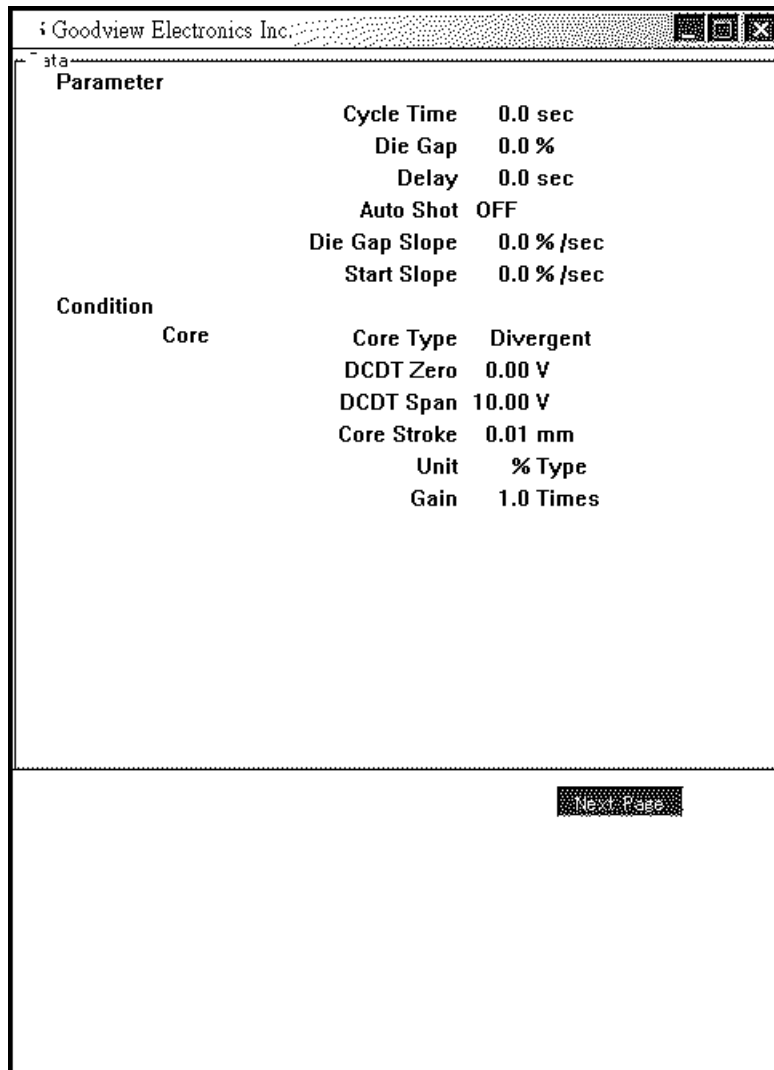
(1). Core Check :

When the display Cursor points to “ Core Check”, it’s possible to control the tooling position in closed loop. Using the “Entry Knob between 0 to over 100%.

(2). Open COM :

When the display Cursor points to “ Open COM”, it’s possible to control the Value of the servo valve input current with the “Entry Knob”

(E). F5 : Data

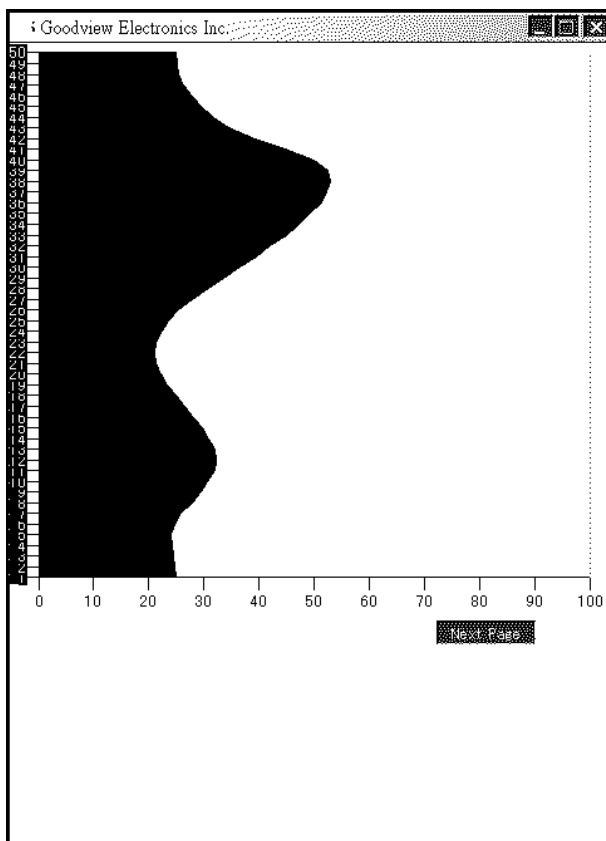


Pressing F5 Key to enter this page. When system is running, you can enter to this page. This page only display, you can not change any data.

As below diagrams, show all data. Press “ Set “ Key to check other pages.(3 pages)

Goodview Electronics Inc.					
Data					
NO.	Data	NO.	Data	NO.	Data
P1	25.0 %	P21	-- %	P41	-- %
P2	-- %	P22	-- %	P42	-- %
P3	-- %	P23	-- %	P43	-- %
P4	-- %	P24	-- %	P44	-- %
P5	-- %	P25	-- %	P45	-- %
P6	-- %	P26	-- %	P46	-- %
P7	-- %	P27	-- %	P47	-- %
P8	-- %	P28	-- %	P48	-- %
P9	-- %	P29	-- %	P49	-- %
P10	-- %	P30	-- %	P50	25.0 %
P11	-- %	P31	-- %		
P12	-- %	P32	-- %		
P13	-- %	P33	-- %		
P14	-- %	P34	-- %		
P15	-- %	P35	-- %		
P16	-- %	P36	-- %		
P17	-- %	P37	-- %		
P18	-- %	P38	-- %		
P19	-- %	P39	-- %		
P20	-- %	P40	-- %		

Next Page



(F). F1+Set : Set Up Mode

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SET UP

Gate Divergent Type
0.01 mm
% Type

Continuous

Gain 1.0 Times

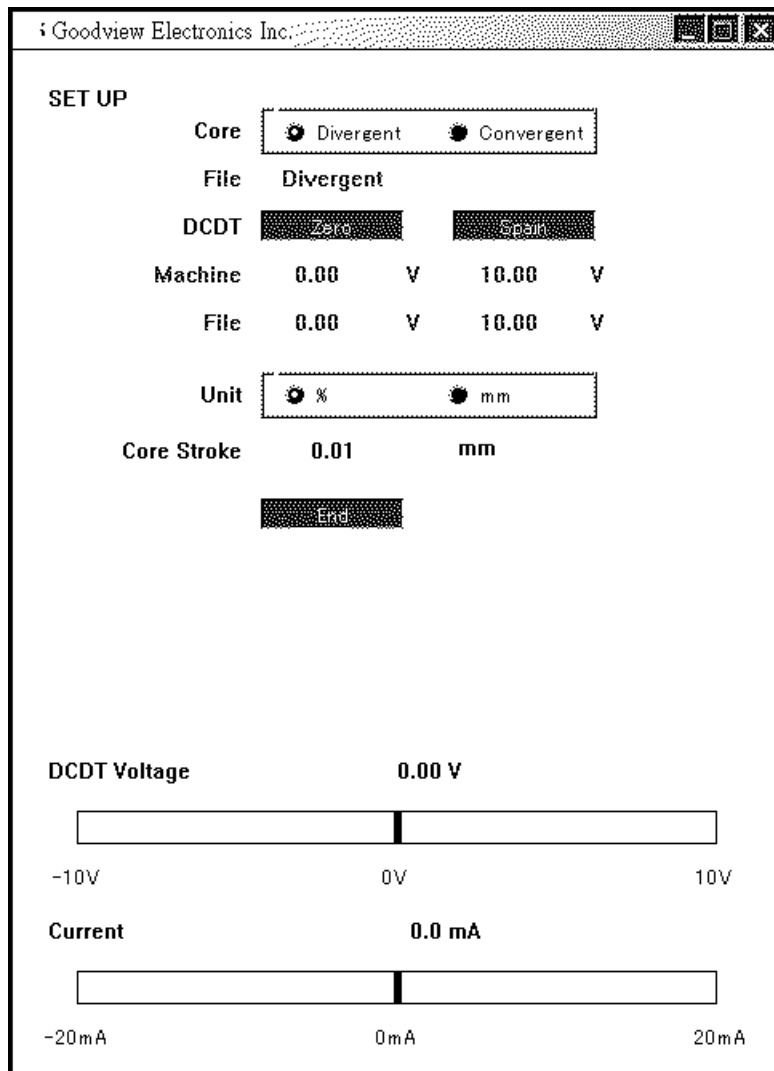
DCDT Voltage 0.00 V

-10V 0V 10V

Current 0.0 mA

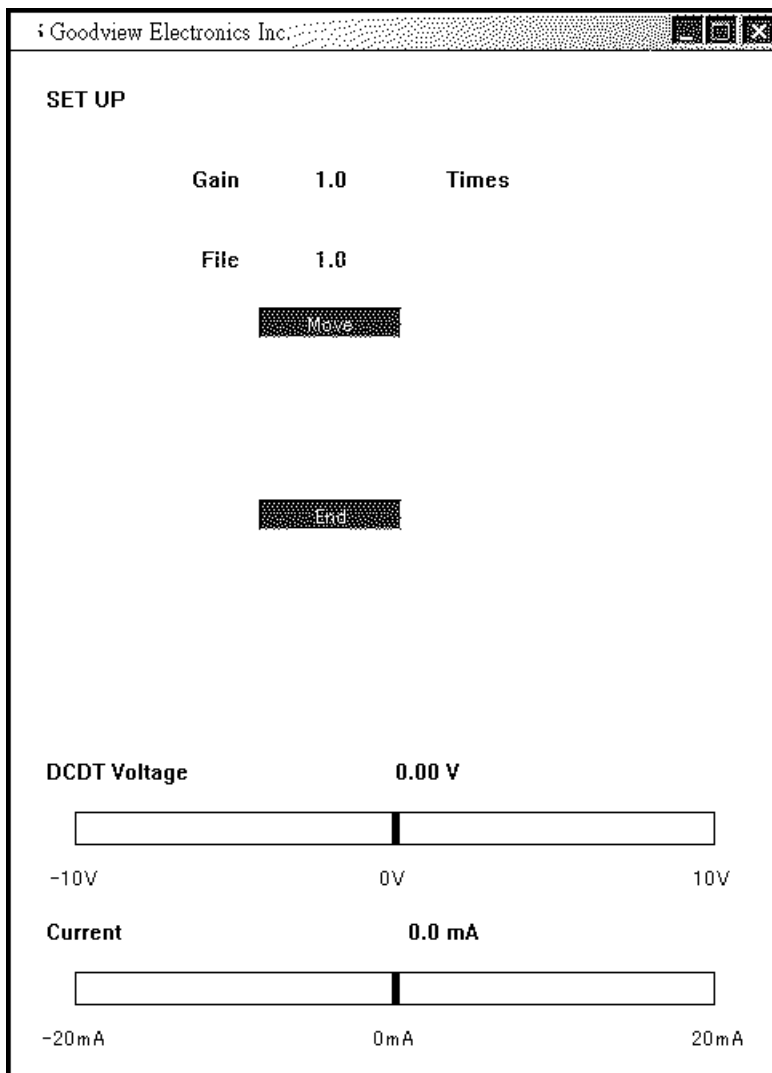
-20mA 0mA 20mA

Pressing “F1+(Set)” Key to enter this page. When system is in Auto Mode, you can not enter to this page.



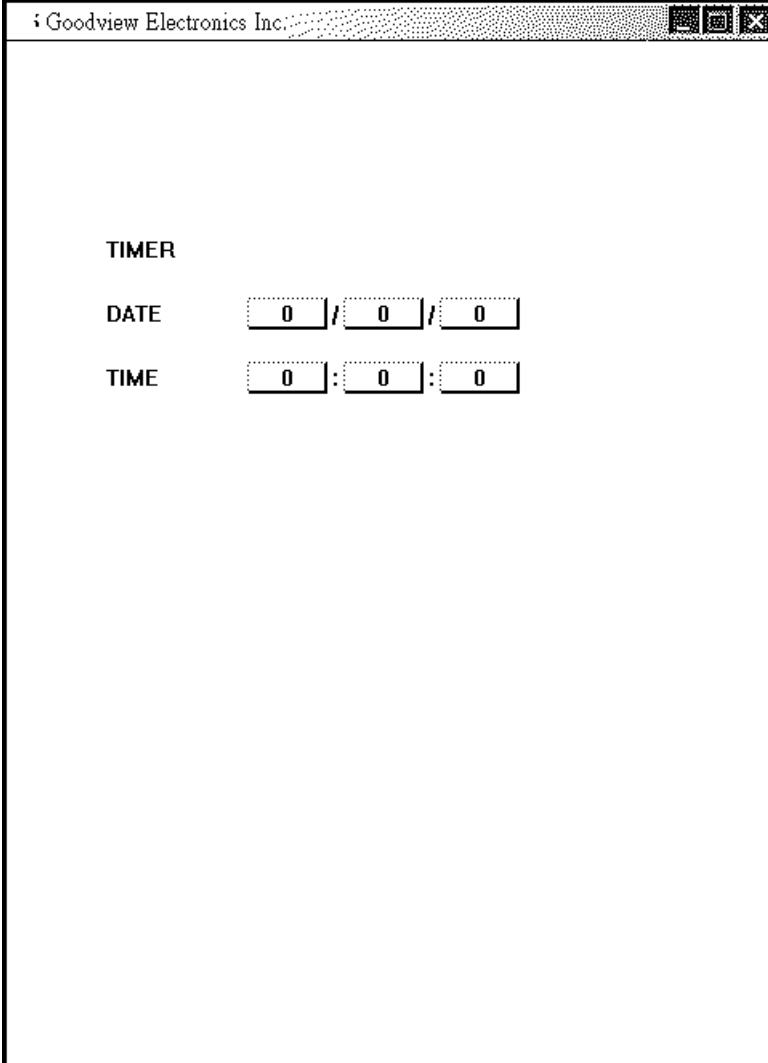
Set Up step :

- Core : Divergent Mode and Convergent Mode. Use "Entry Knob" to select, and press "Set" Key to set up.
- DCDT "Zero", "Span" : Use "Entry Knob" to change.
 1. Zero: Rotate the "Entry Knob" in the reverse (Die gap closed) direction while watching the Current indicator until the current reaches Zero or Die gap indicator moves slightly. Now turn the "Entry Knob" in the original direction until the motion just stops and the current indicator shows slightly increasing current. The Die gap has just reached its closed position. Push "Set" Key. Install a dial indicator to indicate Die Gap Position. Set the dial indicator to Zero.
 2. Span: Span is the Max. Die Gap opening and is set, using the dial indicator, to the die gap tooling designers specified opening. Open the Die Gap by rotating the "Entry Knob" continue until the required die gap has been reached. Press "Set" Key.
- Units : "%", "mm". Use "Entry Knob" to change, and press "Set" Key.



- Gain : Gain controls the quickness and stability of the Die Gap tooling actuator. At this time the hydraulic pressure should be increased to its proper value.

(G). F2+Set : Timer Mode



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TIMER

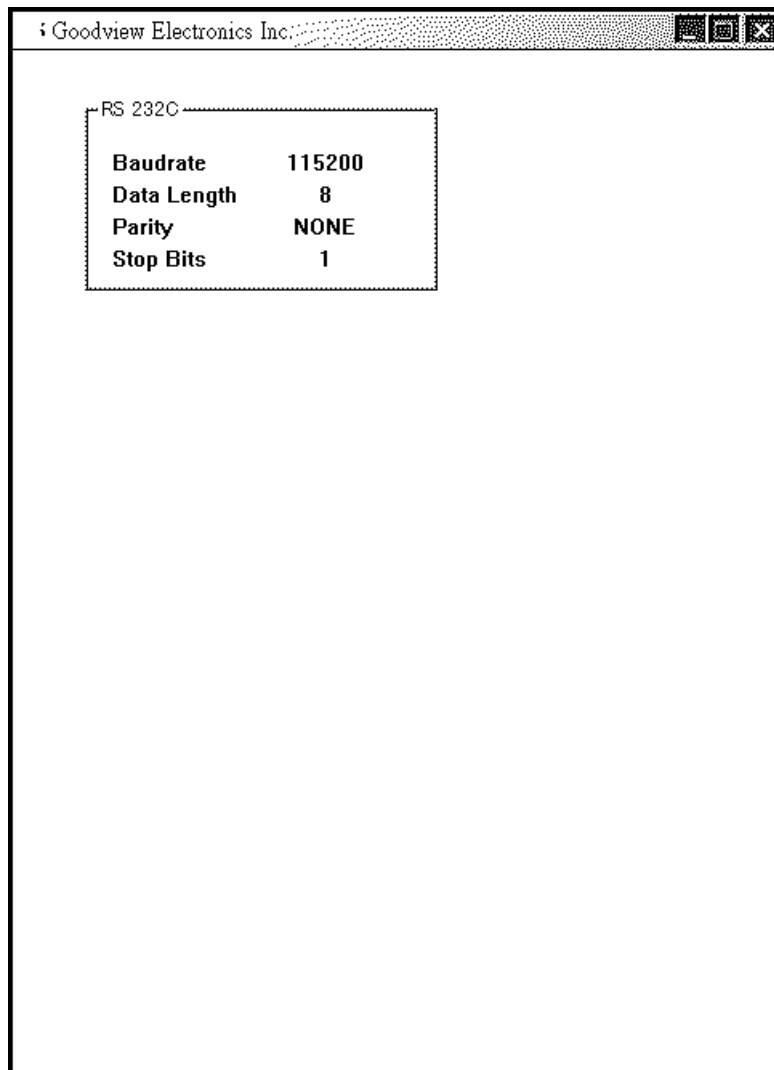
DATE 0 / 0 / 0

TIME 0 : 0 : 0

Pressing “F2+(Set)” Key to enter this page. When system is running, you can not enter to this page. If DIP SW 2 OFF, you can enter to this page that system is running.

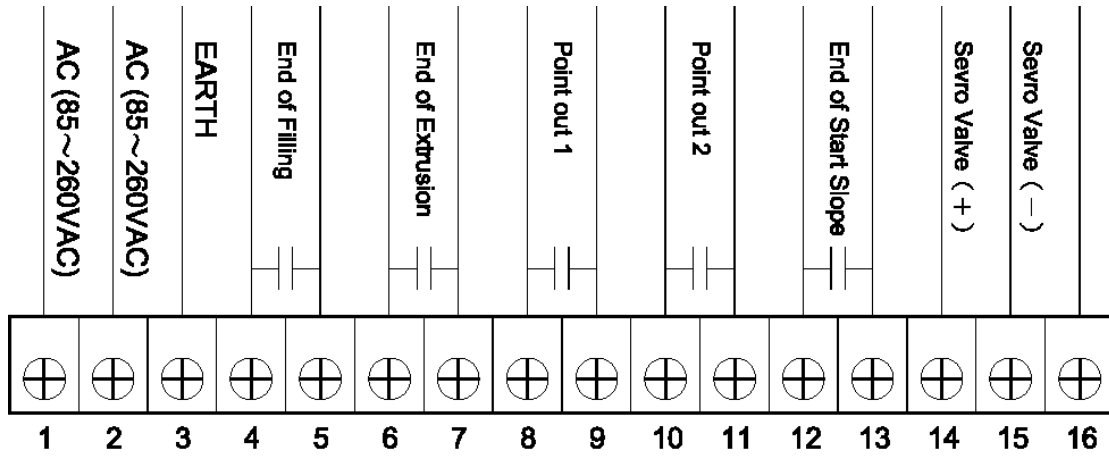
- (1). Press ”Set” Key, cursor move to ”Year”(YY/MM/DD), Use ”Entry Knob” change data, and Press ”Set” Key to confirm.
- (2). Repeat Step (1), Set up MM > DD > H > M > S.

(H). F5+Set : Communication Mode



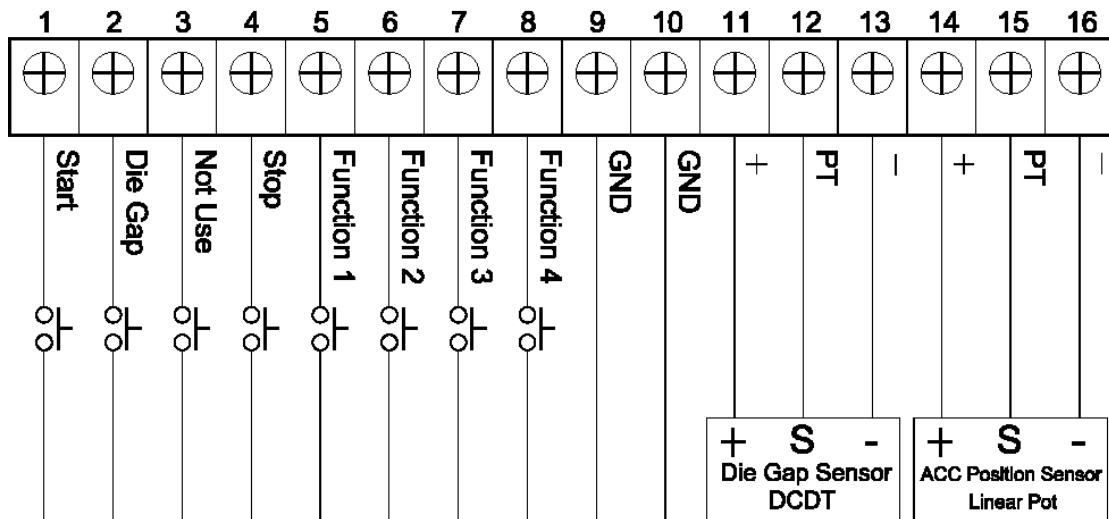
Pressing "F5+(Set)" Key to enter this page. When system is running, you can not enter to this page. You can not set up any data.

III. WIRING INSTALLATION



Terminal Block (OUTPUT)

Terminal Block (INPUT)



IV. DIMENSION

