# Model 9200 Programmable Dual-loop Controller

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SSI Manual SERIES 9200 2 Programmable Dual-loop
# Model 9200 Programmable Dual-loop Controller

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Model 9200 Programmable Dual-loop Controller

Safety

- **WARNING** - Please read the instructions carefully and make sure to follow all safety guidelines.

![Warning Symbol](Image)

- RFI filters are recommended for noise reduction.

- Ensure proper grounding and bonding to prevent electrical hazards.

- Power supply to the controller should conform to IEE wiring regulations, (BS7671) and NEC Class 1.

- AC power supply should be protected by a fuse or circuit breaker. (GFD) is recommended.

- RFI Filtering is required to prevent interference on 0.5mA signals. DC power supply should be isolated.

- PCB should be protected from AC power surges. The AC power supply to the controller should be protected by a fuse or circuit breaker (RCD).

- Ensure that the AC power supply is protected by a fuse or circuit breaker. (GFD) is recommended.

- AC power supply should be protected by a fuse or circuit breaker. (GFD) is recommended.

- DC power supply should be isolated.

- 264VAC power supply should be protected by a fuse or circuit breaker. (GFD) is recommended.

- 264VAC power supply should be protected by a fuse or circuit breaker. (GFD) is recommended.
Model 9200 Programmable Dual-loop Controller

- 2.5kV ± 2% ± 2.5kV ± 2% ± 2.5kV ± 2% ± 2.5kV ± 2%

- EMC ± 2.5kV ± 2% ± 2.5kV ± 2% ± 2.5kV ± 2%

- Schaffner FN321 or FN612 ± 2.5kV ± 2% ± 2.5kV ± 2% ± 2.5kV ± 2%

- DC ± 2.5kV ± 2% ± 2.5kV ± 2% ± 2.5kV ± 2%
Model 9200 Programmable Dual-loop Controller

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>2.75&quot; x 4&quot; x 4.5&quot;</td>
</tr>
<tr>
<td>Power Supply</td>
<td>24VDC, 4 Watts</td>
</tr>
<tr>
<td>Voltage Range</td>
<td>300VAC / 1 AMP</td>
</tr>
<tr>
<td>Resistance Total</td>
<td>1000 Ohms (Total)</td>
</tr>
<tr>
<td>Protection Level</td>
<td>IP10 - hand protected</td>
</tr>
<tr>
<td>Rs232</td>
<td>One (1)</td>
</tr>
<tr>
<td>Rs485</td>
<td>Two (2)</td>
</tr>
<tr>
<td>Rs232</td>
<td>One (1)</td>
</tr>
<tr>
<td>Rs485</td>
<td>Two (2)</td>
</tr>
</tbody>
</table>

SSI Model 9200 is a programmable dual-loop controller, offering PID control and RS232 interface. It is suitable for applications requiring precise temperature control. The controller is compact, measuring 2.75" x 4" x 4.5" and is powered by 24VDC, consuming 4 Watts. It features a robust voltage range of 300VAC / 1 AMP and a total resistance of 1000 Ohms. The controller is protected to IP10, ensuring it is suitable for hand protection. It includes one Rs232 and one Rs485 port, offering two ports each for communication and control. This configuration makes it versatile and suitable for various industrial applications.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24VDC (COM)</td>
<td>RELAY OUT 5</td>
<td>Slave 2 Rs485 (+)</td>
</tr>
<tr>
<td>24VDC (+)</td>
<td>RELAY OUT 6</td>
<td>Slave 2 Rs485 (-)</td>
</tr>
<tr>
<td>Rs485 RT (-)</td>
<td>RELAY OUT 7</td>
<td>4-20mA OUT 1 (-)</td>
</tr>
<tr>
<td>Rs485 RT (+)</td>
<td>RELAY OUT 8 NC</td>
<td>4-20mA OUT COM (+)</td>
</tr>
<tr>
<td>Slave 1 Rs485 (-)</td>
<td>RELAY OUT 8 NO</td>
<td>4-20mA OUT 2 (-)</td>
</tr>
<tr>
<td>Slave 1 Rs485 (+)</td>
<td>DIGITAL IN 1</td>
<td>ANALOG IN 3 (-)</td>
</tr>
<tr>
<td>RELAY COMMON</td>
<td>DIGITAL IN 2</td>
<td>ANALOG IN 3 (+)</td>
</tr>
<tr>
<td>RELAY OUT 1</td>
<td>DIGITAL IN 3</td>
<td>ANALOG IN 2 (-)</td>
</tr>
<tr>
<td>RELAY OUT 2</td>
<td>DIGITAL IN 4</td>
<td>ANALOG IN 2 (+)</td>
</tr>
<tr>
<td>RELAY OUT 3</td>
<td>DIGITAL IN COM</td>
<td>ANALOG IN 1 (-)</td>
</tr>
<tr>
<td>RELAY OUT 4</td>
<td></td>
<td>ANALOG IN 1 (+)</td>
</tr>
</tbody>
</table>
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SSi Manual SERIES 9200

Model 9200 Programmable Dual-loop Controller

SSi MOVE'S

MOV'S Hot NEUTRAL
MOV'S Neutral Hot

Ensure On.
Ensure temperature is 32°C or above before turning the controller ON.

Ensure OFF.

WARNING: "ON" blondes or blanks 32°C or above before turning the controller ON.

Ensure OFF.

Ensure temperature is 32°C or above before turning the controller OFF.

Ensure OFF.

Ensure temperature is 32°C or above before turning the controller OFF.

Ensure OFF.

Ensure temperature is 32°C or above before turning the controller OFF.

Ensure OFF.
Chapter 1 - Model 9200 Programmable Dual-loop Controller

The Model 9200 Programmable Dual-loop Controller provides a compact and versatile solution for process control applications. With its 8 input channels and 2 programmable output loops, it offers a flexible platform for various control scenarios. The controller is designed to fit into a standard DIN rail for easy installation. SSI manual series 10 features a compact size, with dimensions of 7.40" W x 5.56" H.

- **UP** and **DOWN** keys for navigation and adjustment.
- Access to various control parameters.
- Integrated PID tuning capabilities.
- Support for both analog and digital inputs.

DIN rail dimensions: 7.40" W x 5.56" H
Loops Display

0.39 1705

0.40 % C 1700 F

12% - A  A/M  43% - A

A/M

Probe: 1600 mV 1702 F

COF: 162

Batch 1
Model 9200 Programmable Dual-loop Controller

- Program Edit
- CO Factor Entry
- Burnoff
- Auxiliary Instruments
- Auxiliary Analog Input
- Shutdown
- Adjust Date and Time
- Slave Communications Status
- Backup Compressed Data
- Manual Event Control
- Probe Burnoff Setup
- PID Loop Setup
- Event Run Program Setup
- Zone / Load TC Setup
- Port Setup

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Model 9200 Programmable Dual-loop Controller

- PID
- AI

This Model 9200 manual covers Series 9200 Dual-loop Controllers.

- 1st Loop: 1, 2, 1, 2
- 2nd Loop: 2, 2

The controller supports UP/DOWN navigation, Login, Esc, etc.

- Login
- Esc
Model 9200 Programmable Dual-loop Controller

Model 9200 Programmable Dual-loop Controller:

Tests:

- Burnoff
- Impedance Test
- Next burnoff in
- Test status
- Timer (sec)
- mV
- TC
- Start mV
- Start TC
- Last Burnoff
- Last Imp. Test
- Last Recovery
- 9200

Auxiliary Instrument:

- PV
- Instrument
- 1
- 2
Model 9200 Programmable Dual-loop Controller

¿À½°ú ¼öµ¿ÀÔ·Â. Waukee-Tronic ¼öµ¿ÀÔ·Â. Waukee-Tronic.

9200 ½ºÅ©¸°¿¡¼­ ÀÎÅÍÆäÀ̽º¸¦. ADVANTECH ¼³Á¤ ÆÐ½º¿öµå·Î ¼öÆÛ¹ÙÀÌÀú ¼öÆÛ¹ÙÀÌ À̰ÍÀº. Chapter 2 – Configuration.
### Model 9200 Programmable Dual-loop Controller

#### Display and Keypad

<table>
<thead>
<tr>
<th>OK</th>
<th>Batch 1</th>
<th>Soak Adjust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Program 1</td>
<td>Status: Stopped</td>
</tr>
<tr>
<td></td>
<td>Remaining Time</td>
<td>Step: 0:00</td>
</tr>
<tr>
<td>1</td>
<td>SETPT 1750</td>
<td>wait</td>
</tr>
<tr>
<td>2</td>
<td>SETPT 1700</td>
<td>1.00 wait</td>
</tr>
<tr>
<td>3</td>
<td>SOAK 1:00</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>EVT-OUT 3-OFF</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SETPT 1600</td>
<td>wait</td>
</tr>
<tr>
<td>6</td>
<td>DELAY 10</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>EVT-OUT 3-OFF</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SETPT 1600 0.80 wait</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>SOAK 0:30</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>EVT-OUT 1-OFF</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>ALARM 1</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>EVT-OUT 1-OFF</td>
<td></td>
</tr>
</tbody>
</table>

- **Esc.**
- **OK**
- **Batch 1**
- **Soak Adjust**
- **Load**
- **Stop**
- **Hold**
- **Cont**
- **Alarm**
- **Ack**

#### Operating Instructions

- Press **OK** to select a program.
- Press **Batch 1** to view the current batch.
- Use the **Soak Adjust** function to adjust the soak time.
- Press **Load** to load a program.
- Press **Stop** to stop the program.
- Press **Hold** to hold the program.
- Press **Cont** to continue the program.
- Press **Alarm** to acknowledge an alarm.
- Press **Ack** to acknowledge an alarm.

#### OPT CODE

- Press **Esc** to exit the program.
Model 9200 Programmable Dual-loop Controller

- **Stop**: Stop the process! Ensure that the load is removed from the system before proceeding.
- **Load**: Load the process into the controller. Ensure that the system is ready for operation.
- **Cont**: Continue the process. Ensure that the system is in a safe operating condition.
- **Alm Ack**: Acknowledge the alarm. Ensure that the system is adjusted to a safe state.
- **Esc**: Exit the current mode. Ensure that the system is reset to the initial state.

![Diagram](image.png)
Model 9200 Programmable Dual-loop Controller

Prev | Next | 8/3/94 6:58 AM | Note | Realtime

- 4 hours - View Esc

LP1 LP2 SP

Note

Realtime

View

OK
Model 9200 Programmable Dual-loop Controller

---

Advantech TPC-642S/642-SE

1. ADVANTECH ³Ê°í, ºî°¡Áö ¾ÒÈ÷ ¾ÐÃàµÇÁö ¾Ê´Â´Ù¸é 3% ³×·¯°í ²ø¶§±îÁö ½Ã½ºÅÛÀº ½Ã½Ã°¢°¢ Á¶°ÇÀÌ ¾Ê´Â Ë«àí Á¦°ÅµÇ¾ú´Ù¸é, 5% ¿äû»çÇ×À» Ç¥ÇöÇÒ ²øÇÑ´Ù.

2. ºî°¡Áö ¾ÐÃàµÈ ¾Æ¸¶µµ ÈÞ´ë¿ë „Overwriting data log data!” ³·Àº ³ª¼­ ³ª¼­, 2% 3% “Overwriting data log data!” ³·Àº ³ª¼­ ³ª¼­, 2% 3% „Overwriting data log data!” ³·Àº ³ª¼­ ³ª¼­.

3. µ¥ÀÌÅÍ ·Î±× µ¥ÀÌÅÍ ¾Ë¶÷Àº ³·Àº ¼øÀ§ÀÌ´Ù. ¾Ë¶÷ÀÇ ¾²Áö ³øÇÑ´Ù.

---

NOTE: ³Ê°í, ºî°¡Áö ¾ÒÈ÷ ¾ÐÃàµÇÁö ¾Ê´Â´Ù¸é 3%.
Program Edit

Program Edit menu options:
- CO Factor Entry
- Runoff
- Auxiliary Instruments
- Auxiliary Analog Input
- Shutdown
- Adjust Date and Time
- Slave Communications Status
- Backup Compressed Data
- Manual Event Control
- Probe Runoff Setup
- PID Loop Setup
- Event Run Program Setup
- Zone / Load TC Setup
- Port Setup

Login

Login menu options:
- Enter
- Exit
- Login

Program Edit:

Program Edit menu options:
- 6-Enter-Login

OPCODES

Opcode and soak: [Enter] [Enter] [SOAK] [Enter].

Opcode and time: [Enter] [Enter] [3:45] [Enter].

Opcode and soak: [Enter] [Enter] [SOAK] [Enter].

Opcode and time: [Enter] [Enter] [3:45] [Enter].

Opcode and soak: [Enter] [Enter] [SOAK] [Enter].

Opcode and time: [Enter] [Enter] [3:45] [Enter].
Model 9200 Programmable Dual-loop Controller

Login

CO

Save

NO

ESC

Model 9200 Programmable Dual-loop Controller

Cooking processes vary based on the material or substance being cooked. Enter 1 for CO to start the cooking process. Enter 2 for COF to start the cooling process. Set the temperature and time for CO. Enter the desired temperature and time for COF. Save the settings and exit. Cancel the settings and exit. Enter the desired temperature and time for COF.

CO

Login

CO

Enter

Enter

Series 9200

Enter

CO

Enter

CO

CO

CO

Enter

Enter

Enter

NO

NO

ESC

ESC

COF

shim stock

controller

CO

COF

%
Model 9200 Programmable Dual-loop Controller

Login

Enter the required data and press Enter. For more information, see "2".

...
Model 9200 Programmable Dual-loop Controller

Input (DI) Setting:

Set 92000 PROGRAMMABLE DUAL-LOOP CONTROLLER.

Input (DI) Setting (II Analog Input):

Set 92000 PROGRAMMABLE DUAL-LOOP CONTROLLER. Set analog input function.

Input (II Analog Input):

Set 92000 PROGRAMMABLE DUAL-LOOP CONTROLLER. Set analog input function.

Enter:

Set 92000 PROGRAMMABLE DUAL-LOOP CONTROLLER. Enter function.

Set:

Set 92000 PROGRAMMABLE DUAL-LOOP CONTROLLER. Set function.

Cancel:

Cancel 92000 PROGRAMMABLE DUAL-LOOP CONTROLLER.

Cancel:

Cancel.
Model 9200 Programmable Dual-loop Controller

Enter 4 Åק®±âÀ² ¹¬¾ë±ü ÀÇÇØ. ¾øÀ½ ¾Ê´Ù °­Á¶µÈ Ưº°ÇÑ ½ºÅ©¸°¿¡¼­ Enter µð½ºÇ÷¹ÀÌ µÇ¾îÁø´Ù.

- N/A – ¹¬¾ë±ü ¹¬¾ë±ü
- Bad – ¹¬¾ë±ü ¹¬¾ë±ü
- ??? – ¹¬¾ë±ü ¹¬¾ë±ü
- ?OK – ¹¬¾ë±ü ¹¬¾ë±ü
- OK – ¹¬¾ë±ü ¹¬¾ë±ü

Enter 4 Åκ®±âÀ² ¹¬¾ë±ü ÀÇÇØ. ¾øÀ½ ¾Ê´Ù °­Á¶µÈ Ưº°ÇÑ ½ºÅ©¸°¿¡¼­ Enter µð½ºÇ÷¹ÀÌ µÇ¾îÁø´Ù.

°­Á¶µÈ Ưº°ÇÑ ½ºÅ©¸°¿¡¼­ Enter µð½ºÇ÷¹ÀÌ µÇ¾îÁø´Ù.

Enter 4 Åκ®±âÀ² ¹¬¾ë±ü ÀÇÇØ. ¾øÀ½ ¾Ê´Ù °­Á¶µÈ Ưº°ÇÑ ½ºÅ©¸°¿¡¼­ Enter µð½ºÇ÷¹ÀÌ µÇ¾îÁø´Ù.

Esc 4 Åκ®±âÀ² ¹¬¾ë±ü ÀÇÇØ.
Model 9200 Programmable Dual-loop Controller

- OFF
- Enter

- PB
- Enter

- PB
- Enter
- PB
- Enter

- PB
- Enter

- PB
- Enter

- PB
- Enter
% cancelled 80% . PID cancelled 0.0% 0.0%.

PB cancelled 0.0% 0.0%. (E.g. PB 40% 50%, PB 40% 50%)

% cancelled 1% 2% PID cancelled

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>PID 1</th>
<th>PID 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>20</td>
<td>4.0</td>
</tr>
<tr>
<td>P</td>
<td>P</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>D</td>
<td>16</td>
<td>60</td>
</tr>
</tbody>
</table>

Cancel

Event Run Program (0 to use buffered)  Enter

Event Run Program (0 to use buffered)  Enter

Event Run Program (0 to use buffered)  Enter

Event Run Program (0 to use buffered)  Enter

Event Run Program (0 to use buffered)  Enter

Event Run Program (0 to use buffered)  Enter

Event Run Program (0 to use buffered)  Enter
Model 9200 Programmable Dual-loop Controller

Terminals 21 (Digital In Com) 17 (Digital In 1) 9200

Enter [ ] 9200

Terminals 21 (Digital In Com) 17 (Digital In 1) 9200

Enter [ ] 9200

Terminals 21 (Digital In Com) 17 (Digital In 1)

Enter [ ] 9200

Off, On, On + ¾Æ·¡ Enter [ ]

¼±ÅõǾîÁø ¿­Àü´ë`Â ¿­Àü´ë¿¡ Enter [ ]

½ÃÀ۵ɰÍÀÌ´Ù .(s).
Model 9200 Programmable Dual-loop Controller

<p>| | |</p>
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<th></th>
<th></th>
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</thead>
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<td>TPC-6425</td>
</tr>
<tr>
<td>Host 232 Mode</td>
<td>Modbus</td>
</tr>
<tr>
<td>Host 485 (3,4) Baud</td>
<td>19200</td>
</tr>
<tr>
<td>Host 485 (3,4) Mode</td>
<td>Modbus</td>
</tr>
<tr>
<td>Host 485 (3,4) Address</td>
<td>1</td>
</tr>
<tr>
<td>Slave 1 (5,6) Baud</td>
<td>19200</td>
</tr>
<tr>
<td>Slave 1 (5,6) Mode</td>
<td>Modbus</td>
</tr>
<tr>
<td>Slave 2 (22,23) Baud</td>
<td>9600</td>
</tr>
<tr>
<td>Slave 2 (22,23) Mode</td>
<td>ADAM</td>
</tr>
</tbody>
</table>

- SSI AC20
- Yokogawa 750
- Honeywell UDC3300
- Dualpro 1 Modbus
- Dualpro 2 Modbus
- Dualpro 1 MMI
- Dualpro 2 MMI
- Eurotherm 2404
- Eurotherm 2500
- Carbpro v3.5
- Carbpro v3.0
- CarbPC
- 9200 Loop 1
- IR Base

- SSI 7EK
- Yokogawa 750
- Honeywell UDC3300
Model 9200 Programmable Dual-loop Controller

- Dualpro 1 Modbus
- Dualpro 2 Modbus
- Dualpro 1 MMI
- Dualpro 2 MMI
- Eurotherm 2404
- Eurotherm 2500
- Unipro v3.5
- Unipro v3.0
- Carbpro v3.5
- Carbpro v3.0
- 10Pro
- DualPro IN C
- 9200 LP1
- 9200 LP2
- 9200 LP3
- 9100 LP1
- Eurotherm 2704 lp1
- Eurotherm 2704 lp2
- Eurotherm 2704 lp3
- VC BASE 1
- VC BASE 2
- VC BASE 3
- VC BASE 4
- AIPC

SSI AC E
Yokogawa 750E
Mod Mux
Dualpro E Modbus
Dualpro E MMI
Carbpro E v3.5
Carbpro 2 v3.0
Eurotherm 2500
SSI 8-8
9200E
Micrologox PLC
Model 9200 Programmable Dual-loop Controller

SSI AC20,  entrada y salida de sonda.

![Diagrama del controlador 9200 de doble bucle programable](image)

"Entrar" en la pantalla. Siga las instrucciones en pantalla para configurar los ajustes del controlador. "Esc" para salir.

SSI Manual SERIES 9200 30 Programmable Dual-loop
ZONE_OFF

<table>
<thead>
<tr>
<th>Step</th>
<th>Opcode</th>
<th>Temperature</th>
<th>Atmosphere</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ZONE_OFF</td>
<td>50</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ZONE_OFF</td>
<td>25</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SETPT</td>
<td>1750</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ZONE OFF (-25°C ~ 940°F, 0 ~ 954°F)
Model 9200 Programmable Dual-loop Controller

Enter: Enter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVT Type</td>
<td>% Carbon</td>
</tr>
<tr>
<td>Nitrider Mode</td>
<td>N/A</td>
</tr>
<tr>
<td>H2 Cell Type</td>
<td>N/A</td>
</tr>
<tr>
<td>H2 RS-232 Comms</td>
<td>N/A</td>
</tr>
<tr>
<td>Temp Display</td>
<td>N/A</td>
</tr>
<tr>
<td>LP3 Control</td>
<td>N/A</td>
</tr>
<tr>
<td>N2 Value</td>
<td>N/A</td>
</tr>
<tr>
<td>NH3 Value</td>
<td>N/A</td>
</tr>
<tr>
<td>D. A. Value</td>
<td>N/A</td>
</tr>
<tr>
<td>Aux. Value</td>
<td>N/A</td>
</tr>
<tr>
<td>Temperature Mode</td>
<td>F.</td>
</tr>
<tr>
<td>Programmer</td>
<td></td>
</tr>
</tbody>
</table>

PVT Type... Enter: Enter:

% Carbon
Dew Point
% O2 (Oxygen)
Millivolts
Multi-loop
Vacuum
IR + Probe
Nitrider
% Carbon with dual temp

Enter: Enter

ESC: ESC
**Model 9200 Programmable Dual-loop Controller**

Enter [Model][Enter] [Enter] [Enter] [Enter] [Enter].

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Wait Limit</td>
<td>15 °</td>
</tr>
<tr>
<td>Atmosphere Wait Limit</td>
<td>0.10 % Carbon</td>
</tr>
</tbody>
</table>

Enter [Model][Enter] [Enter] [Enter] [Enter] [Enter] [Enter].

ESC [Enter] [Enter] [Enter] [Enter].

Enter [Enter] [Enter] [Enter].

ESC [Enter].
Parameter | Value
--- | ---
Setpoint | 
Alarm Type | 
Hysteresis | 

Parameter | Value
--- | ---
Parameter | Value
Assignment | loop 2 fwd

Esc | Enter

Enter | Enter
Model 9200 Programmable Dual-loop Controller

- Loop 1 fwd
- Loop 1 rev
- Loop 2 fwd
- Loop 2 rev
- Loop 3 fwd
- Loop 3 rev
- Programmer alarm
- Alarm 1
- Alarm 2
- Alarm 3
- Event 0 through Event 15
- Burn off
- IN 1 Relay SP A
- IN 1 Relay SP B
- IN 1 Relay SP C
- IN 2 Relay SP A
- IN 2 Relay SP B
- IN 2 Relay SP C
- IN 3 Relay SP A
- IN 3 Relay SP B
- IN 3 Relay SP C

Esc 

Enter 

Relay On/Off Setpoints

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relay ON SP for IN1 A</td>
<td>0</td>
</tr>
<tr>
<td>Relay OFF SP for IN1 A</td>
<td>0</td>
</tr>
<tr>
<td>Relay ON SP for IN1 B</td>
<td>0</td>
</tr>
<tr>
<td>Relay OFF SP for IN1 B</td>
<td>0</td>
</tr>
<tr>
<td>Relay ON SP for IN1 C</td>
<td>0</td>
</tr>
<tr>
<td>Relay OFF SP for IN1 C</td>
<td>0</td>
</tr>
<tr>
<td>Relay ON SP for IN2 A</td>
<td>0</td>
</tr>
<tr>
<td>Relay OFF SP for IN2 A</td>
<td>0</td>
</tr>
<tr>
<td>Relay ON SP for IN2 B</td>
<td>0</td>
</tr>
<tr>
<td>Relay OFF SP for IN2 B</td>
<td>0</td>
</tr>
<tr>
<td>Relay ON SP for IN2 C</td>
<td>0</td>
</tr>
<tr>
<td>Relay OFF SP for IN2 C</td>
<td>0</td>
</tr>
<tr>
<td>Relay ON SP for IN3 A</td>
<td>0</td>
</tr>
</tbody>
</table>
IN?  SP?

Esc
### Model 9200 Programmable Dual-loop Controller

#### Parameter Value

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC Type</td>
<td>S</td>
</tr>
<tr>
<td>Filter Time</td>
<td>0</td>
</tr>
<tr>
<td>Initial Scale</td>
<td>0</td>
</tr>
<tr>
<td>Full Scale</td>
<td>3000</td>
</tr>
<tr>
<td>Decimal Point Location</td>
<td>0</td>
</tr>
<tr>
<td>Open TC</td>
<td>Up scale</td>
</tr>
<tr>
<td>Input offset</td>
<td>0</td>
</tr>
<tr>
<td>Use curve</td>
<td>0</td>
</tr>
</tbody>
</table>

1. **Enter** the desired **TC Type** and press **Enter**. Enter up to 3 TC types at a time. Press **Enter** to enter additional TC types. Press **Esc** to exit.

2. **Input Type Options**

<table>
<thead>
<tr>
<th>T/C’s</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78.125, 19.53125 Millivolts</td>
</tr>
<tr>
<td></td>
<td>4 - 20 mA (124 Ohm precision shunt required)</td>
</tr>
<tr>
<td></td>
<td>25 Volts (Requires internal jumper)</td>
</tr>
<tr>
<td></td>
<td>12.5 Volts (Requires internal jumper)</td>
</tr>
<tr>
<td></td>
<td>781.25 Millivolts (Requires internal jumper)</td>
</tr>
<tr>
<td></td>
<td>195.3125 Millivolts (Requires internal jumper)</td>
</tr>
</tbody>
</table>
Model 9200 Programmable Dual-loop Controller

Enter 1 to enter a level 1, 2 for level 2. Enter 1 to enter a web level 1, 2 for level 2.

PLC: PV1(%) 1-%C) 1-2 Enter 1 to enter a web level 1, 2 for level 2.

Enter the following table to setup the alarm parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td></td>
</tr>
<tr>
<td>Offset</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td></td>
</tr>
</tbody>
</table>

Esc: 0 to go back to the main menu.

Enter 1 to enter a level 1, 2 for level 2. Enter 1 to enter a web level 1, 2 for level 2.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 Code</td>
<td>1</td>
</tr>
<tr>
<td>Level 2 Code</td>
<td>2</td>
</tr>
<tr>
<td>Web Level 1 Code</td>
<td>111</td>
</tr>
<tr>
<td>Web Level 2 Code</td>
<td>222</td>
</tr>
<tr>
<td>No Alarm</td>
<td>Contact is Open (NO)</td>
</tr>
<tr>
<td>Web Change Enable</td>
<td>1</td>
</tr>
<tr>
<td>Alarm Text Setup</td>
<td></td>
</tr>
<tr>
<td>Alarm 0</td>
<td>User Alarm 0</td>
</tr>
<tr>
<td>Alarm 99</td>
<td>User Alarm 99</td>
</tr>
</tbody>
</table>

Enter 1 to enter a level 1, 2 for level 2. Enter 1 to enter a web level 1, 2 for level 2.

NO ALARM: Enter [1-99] to enter a web level 1, 2 for level 2.

Contact is Closed: Enter [0-760] to enter a web level 1, 2 for level 2.

Contact is Open: Enter [0-760] to enter a web level 1, 2 for level 2.

Enter 1 to enter a level 1, 2 for level 2. Enter 1 to enter a web level 1, 2 for level 2.

Esc: 0 to go back to the main menu.

0 99
SSi Manual SERIES 9200

Model 9200 Programmable Dual-loop Controller

Parameter | Value  
---|---
IP Address 1 | 192
IP Address 2 | 168
IP Address 3 | 1
IP Address 4 | 200
IP Address Mask 1 | 255
IP Address Mask 2 | 255
IP Address Mask 3 | 255
IP Address Mask 4 | 0
IP Address Gateway 1 | 192
IP Address Gateway 2 | 168
IP Address Gateway 3 | 1
IP Address Gateway 4 | 1

Enter  or  to save changes and return to the previous menu.  Esc  to cancel changes and return to the previous menu.

IP Address : 192.168.1.200
IP Address Gateway : 192.168.1.1

Enter  or  to select Hold Instrument Number, Hold Minimum PV, Hold Maximum PV, or Event for Program Run.
Model 9200 Programmable Dual-loop Controller

- Press Enter to select the Hold Minimum PV, Hold Maximum PV.

- Press Enter to select the Hold Minimum PV, Hold Maximum PV.

- Press Esc to cancel the selection.
Enter.

- Press Enter to confirm the parameter changes.

- Use the up and down arrows to navigate through the parameters.

- Press Esc to exit the menu.
Enter SD. 

Model 9200 Programmable Dual-loop Controller

Create Programmer Backup Image
Restore Programmer from Image
NOTE: Communications parameters are not modified
Backup Chart Comments to Network
Backup
Done
Model 9200 Programmable Dual-loop Controller

Calibrate Cold Junction
Enter temperature of terminal

Edit

Calibrate Cold Junction
Enter temperature of terminal

Edit

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit

Zero Input 1 Range 0

Calibrate

Edit
Edit Span input 1 range 0
Enter span voltage (sugg. 2000 mV) Calibrate
Edit

Done

Next → Back Skip Next → Done

Edit Zero input 2 range 2
Enter zero voltage (mV) Calibrate
Edit

Done

Next → Back Skip Next → Done
Next -> Back | Skip | Next --> | DONE

Span input 2 range 2
Enter span voltage (sugg. 65.00 mV) [Calibrate]

[Edit]

Enter span voltage (sugg. 65.00 mV) [Calibrate]

DONE
Next --> Back Skip Next --> DONE

Zero input 3 range 2
Enter zero voltage (mV)

Edit

Calibrate

Done

Edit

Span input 3 range 2
Enter span voltage (sugg. 65.00 mV)

Edit

Calibrate

Done

Edit
Zero Output 1

Enter span output current (mA)

Edit  Calibrate

Zero Output 1

Edit  Calibrate

Edit  Calibrate

Done
Span Output 1
Entered measured output current (mA)  
Edit  Calibrate

Zero Output 2
Enter zero output current (mA)  
Edit  Calibrate

Edit  Calibrate  Done
Edit  Calibrate  Done

Edit  Calibrate  Done
Edit  Calibrate  Done
Model 9200 Programmable Dual-loop Controller

Next ->

Edit

Span Output 2

Enter measured output current (mA)

Calibrate

Edit

<-- Back Skip Next --> DONE

Edit

Calibrate

Done

Next ->

Done

SSi
Model 9200 Programmable Dual-loop Controller

Enter settings for the programmable dual-loop controller.

Menu Item | Security Level
---|---
Program Edit | Supervisor
Design Factor Entry | Operator
Burnoff | Operator
Auxiliary Instruments | Operator
Auxiliary Analog Inputs | Operator
Shutdown | Operator
Adjust Date and Time | Supervisor
Slave Communications | Supervisor
Backup Compressed Data | Supervisor
Manual Event Control | Supervisor
Probe Burnoff Setup | Supervisor
PID Loop Setup | Supervisor
Event Run Program Setup | Supervisor
Model 9200 Programmable Dual-loop Controller

- PID
- AI

Page 53

SSi Manual SERIES 9200
Programmable Dual-loop
Select Loop 1 to set Loop 1:
Enter ๑ค looks like a double quote.

Esc ๑ค looks like a single quote.
**Model 9200 Programmable Dual-loop Controller**

### PID

Enter the parameters as shown.

![PID Parameters](image)

- **Proportional Band**
- **Reset**
- **Rate**
- **Integral Preset**
- **High Limit**
- **Low Limit**

Press **Enter** to save the PID parameters.

Press **Esc** to cancel.

### AI

Enter the AI parameters as shown.

- **AI Input**
- **AI Output**

Press **Esc** to cancel.

SSI**
Chapter 3 - Menu

Menu 1 2 3 4 5 6 7 8 9 10 11 12

<table>
<thead>
<tr>
<th>S</th>
<th>Opcode</th>
<th>Tmp</th>
<th>Atm</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SETPT</td>
<td>1700</td>
<td>wait</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>SETPT</td>
<td>1700</td>
<td></td>
<td>wait</td>
</tr>
<tr>
<td>3</td>
<td>SOAK</td>
<td>2:30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>EVT_OUT</td>
<td>3-ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SETPT</td>
<td>1600</td>
<td>wait</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>DELAY</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>EVT_OUT</td>
<td>3-OFF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SETPT</td>
<td>1600</td>
<td>wait</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>SOAK</td>
<td>1:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>EVT_OUT</td>
<td>1-ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>ALARM</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>EVT_OUT</td>
<td>1-OFF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Parameter Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opcode</td>
<td>SOAK</td>
</tr>
<tr>
<td>Time (hh:mm)</td>
<td>1:00</td>
</tr>
</tbody>
</table>

**Enter** to enter the parameter, **Set** to set the value, **Save** to save the changes, **Cancel** to cancel the changes.

- **Opcode**
  - SOAK

- **Time (hh:mm)**
  - 1:00
Chapter 4 - Model 9200 9200 Programmable Dual-loop Controller

NO-OP

ALARM

ATM_INQ

• SET_WAIT [0.10, 0.10, 0.10, 0.10]
• The LIMIT [0.10, 0.10, 0.10, 0.10]
• A BRANCH [0.10, 0.10, 0.10, 0.10]..
DEV_AL  

OFF :  
• OFF,  
• OFF,  
• OFF,  
• OFF,  
• OFF,  
• OFF,  
• OFF,  
• OFF,  

DOW_INQ  

ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  

EVT_IN  

ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  

EVT_OUT  

ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  

G_Ramp  

ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  
ON,  
OFF,  

G_SOAK  

soak,  
soak,  
soak,  
soak,  
soak,  
soak,  
soak,  
soak,  

G_SOAK High  

soak,  
soak,  
soak,  
soak,  
soak,  
soak,  
soak,  
soak,  

G_SOAK Low  

soak,  
soak,  
soak,  
soak,  
soak,  
soak,  
soak,  
soak,  

GOSUB  

GOSUBs  

HIGH_AL  

HIGH_PO  

HIGH_PO
ID_SET

ID_INC

ID_INQUIRY

LIMIT

LOW_AL

LOW_PO

MV_INQ

PID Select

PO_INQ

JUMP

A BRANCH
Model 9200 Programmable Dual-loop Controller

QUENCH

#6 OFF #6 ON

RAMP

#6 OFF #6 ON

RAMPR

#6 OFF #6 ON

RESET

#6 OFF #6 ON

SET_AUX

#6 OFF #6 ON

SET_FACT

#6 OFF #6 ON

SET_WAIT

#6 OFF #6 ON

SETPT

#6 OFF #6 ON

SOAK

#6 OFF #6 ON

TC_INQ

#6 OFF #6 ON

•
•
• SET_WAIT, LIMIT, BRANCH.
  SET_WAIT = 15.
  LIMIT = 15.
  BRANCH =.

TOD_INQ 24-hour format (i.e. 2:30pm is 14:30).

ZONE_OFF = 50.

ZONE_OFF =50
  926
  926
  926
  926

• [ ]
• [ ]
• [ ]
Chapter 5 - APPLICATIONS INFORMATION

9200 MMI

7\th\t16, 2004

9200 MMI  Dualpro  MMI  FDP VER. 3.  X  0, 1, 6, 7  8  900  0  0  7  31  0  31

9200 MMI  Dualpro

PF1  CO
PF2  H2
Ref Num  ID num

Loop 1
Loop 2

9200  MMI

ÆÄ¶ó¸Þź  Modbus  24  72  120  900  100  24  12  9200

PF1  CO
PF2  H2
Ref Num  ID num

Loop 1
Loop 2

SSi
**Values independent of PV type**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Default</th>
<th>Factory Setting</th>
<th>Customer Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS-232 Host baud</td>
<td>19200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-232 Host Mode</td>
<td>Modbus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-485 Host baud</td>
<td>19200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-485 Host Mode</td>
<td>Modbus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-485 Slave 1 baud</td>
<td>19200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-485 Slave 1 Mode</td>
<td>Modbus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-485 Slave 2 baud</td>
<td>19200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-485 Slave 2 Mode</td>
<td>Modbus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pass code 1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pass code 2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web code 1</td>
<td>111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web code 2</td>
<td>222</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web change enable</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV 1 Name</td>
<td>Temperature 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV 2 Name</td>
<td>Temperature 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV 3 Name</td>
<td>Temperature 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD 1 filter time</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD 2 filter time</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD 3 filter time</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD 4 filter time</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 1 initial scale</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 1 Full scale</td>
<td>1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 2 initial scale</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 2 Full scale</td>
<td>10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 3 initial scale</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 3 Full scale</td>
<td>10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 4 initial scale</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 4 Full scale</td>
<td>10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 1 Decimal place</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 2 Decimal place</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 3 Decimal place</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN 4 Decimal place</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burn off time</td>
<td>90 secs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Model 9200 Programmable Dual-loop Controller

### Values independent of PV type

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Default</th>
<th>Factory Setting</th>
<th>Customer Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn off recovery wait</td>
<td>120 secs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burn off Interval</td>
<td>720 mins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burn off min MV</td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burn off max temperature</td>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO factor</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H factor</td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event hold</td>
<td>none</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event hold polarity</td>
<td>all N.O.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold instrument</td>
<td>none</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold PV min</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold PV max</td>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event run</td>
<td>None (-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event reset</td>
<td>None (-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slave Instrument setups</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone Assignments</td>
<td>None</td>
<td></td>
<td></td>
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<tr>
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### Model 9200 Programmable Dual-loop Controller

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| Loop 2 cycle time | 60 |
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Values independent of PV type

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Model 9200 Programmable Dual-loop Controller

Event 0
Event 1
Event 2
Event 3
Event 6
Event 7

0.6 7 9200

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SSI Manual SERIES 9200 68 Programmable Dual-loop
## Revision History

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