INFORMATION

N° **INF08/032 Issue 1** Product **C1900 Circular Chart Recorder** Manual **IM/C1900–PGR Issue 9 onwards**

C1900 Recorder Custom Configuration

1 Introduction

ABB can supply custom configurations for the C1900 Circular Chart Recorder on request.

Enter the required setting or place a check mark (✔) against the relevant parameters in the following tables and return this document to the Global Sales office at Stonehouse.

2 Input Configuration

Referring to Section 3.1 of the Programming Guide (IM/C1900–PGR), enter the settings required for each of the process variables.

2.1 Process Variable 1

Input Type (✔ the input type required)

None	
Millivolt	
Milliamp	
High Resistance	
Low Resistance	
Volts	
Thermocouple	
Resistance Thermometer	

Linearizer Type (✔ the linearizer type required)

None	
THC Type B	
THC Type E	
THC Type J	
THC Type K	
THC Type N	
THC Type R	
THC Type S	
THC Type T	
RTD (PT100)	
Square root	
3/2	
5/2	

Electrical Input Range (enter the values required)

High	
Low	

Temperature Units (✔ the temperature units required)

Degrees F	
Degrees C	
None	

Engineering Range (enter the values required)

High	
Low	

Decimal Point (✔ the number of decimal places required)

0	
1	
2	
3	
4	

Broken Sensor Protection Drive
(✔ the drive direction required)

None	
Upscale	
Downscale	

Fault Detection Level % (enter the tolerance required)

Programmable Filter (enter the filter time required)

2.2 Process Variable 2

Input Type (✔ the input type required)

None	
Millivolt	
Milliamp	
High Resistance	
Low Resistance	
Volts	
Thermocouple	
Resistance Thermometer	

Linearizer Type (✔ the linearizer type required)

None	
THC Type B	
THC Type E	
THC Type J	
THC Type K	
THC Type N	
THC Type R	
THC Type S	
THC Type T	
RTD (PT100)	
Square root	
3/2	
5/2	

Electrical Input Range (enter the values required)

High	
Low	

Temperature Units (✔ the temperature units required)

Degrees F	
Degrees C	
None	

Engineering Range (enter the values required)

High	
Low	

Decimal Point (✔ the number of decimal places required)

0	
1	
2	
3	
4	

Broken Sensor Protection Drive
(✔ the drive direction required)

None	
Upscale	
Downscale	

Fault Detection Level % (enter the tolerance required)

Programmable Filter (enter the filter time required)

2.3 Process Variable 3

Input Type (✔ the input type required)

None	
Millivolt	
Milliamp	
High Resistance	
Low Resistance	
Volts	
Thermocouple	
Resistance Thermometer	

Linearizer Type (✔ the linearizer type required)

None	
THC Type B	
THC Type E	
THC Type J	
THC Type K	
THC Type N	
THC Type R	
THC Type S	
THC Type T	
RTD (PT100)	
Square root	
3/2	
5/2	

Electrical Input Range (enter the values required)

High	
Low	

Temperature Units (✔ the temperature units required)

Degrees F	
Degrees C	
None	

Engineering Range (enter the values required)

High	
Low	

Decimal Point (✔ the number of decimal places required)

0	
1	
2	
3	
4	

Broken Sensor Protection Drive
(✔ the drive direction required)

None	
Upscale	
Downscale	

Fault Detection Level % (enter the tolerance required)

Programmable Filter (enter the filter time required)

2.4 Process Variable 4

Input Type (✔ the input type required)

None	
Millivolt	
Milliamp	
High Resistance	
Low Resistance	
Volts	
Thermocouple	
Resistance Thermometer	

Linearizer Type (✔ the linearizer type required)

None	
THC Type B	
THC Type E	
THC Type J	
THC Type K	
THC Type N	
THC Type R	
THC Type S	
THC Type T	
RTD (PT100)	
Square root	
3/2	
5/2	

Electrical Input Range (enter the values required)

High	
Low	

Temperature Units (✔ the temperature units required)

Degrees F	
Degrees C	
None	

Engineering Range (enter the values required)

High	
Low	

Decimal Point (✔ the number of decimal places required)

0	
1	
2	
3	
4	

Broken Sensor Protection Drive
(✔ the drive direction required)

None	
Upscale	
Downscale	

Fault Detection Level % (enter the tolerance required)

Programmable Filter (enter the filter time required)

3 Set Up Pen Range

Referring to Section 3.2 of the Programming Guide (IM/C1900–PGR), enter the settings required for each of the pens.

Pen 1 (enter the values required)

High	
Low	

Pen 2 (enter the values required)

High	
Low	

Pen 3 (enter the values required)

High	
Low	

Pen 4 (enter the values required)

High	
Low	

Event Pen (if fitted) (enter the values required)

In Source	
Out Source	

4 Set Up Chart

Referring to Section 3.3 of the Programming Guide (IM/C1900–PGR), enter the settings required for each of the pens.

Chart Duration (enter the value required)

Stop Chart Source
(enter the source required to stop the chart)

Auto Pen Drop (✔ the setting required)

Yes	
No	

Pen Lift Key Enable (✔ the setting required)

Yes	
No	

5 Set Up Alarms

Referring to Section 3.4 of the Programming Guide (IM/C1900–PGR), enter the settings required for each of the alarms.

Alarm Acknowledge Type
(✔ the acknowledge type required)

Latch	
Normal	
None	

Global Alarm Acknowledge Source
(enter a source to acknowledge all alarms)

5.1 Alarm A1

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.2 Alarm B1

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.3 Alarm C1

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.4 Alarm D1

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.5 Alarm A2

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.6 Alarm B2

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.7 Alarm C2

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.8 Alarm D2

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.9 Alarm A3

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.10 Alarm B3

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.11 Alarm C3

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.12 Alarm D3

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.13 Alarm A4

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.14 Alarm B4

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.15 Alarm C4

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

5.16 Alarm D4

Type (✔ the alarm type required)

Off	
High Process	
Low Process	
Fast Rate	
Slow Rate	
Delayed High Process	
Delayed Low Process	

Trip Level (enter the trip point value required)

Hysteresis (enter the hysteresis value required)

Time Hysteresis
(enter the time hysteresis value required – 0 to 9999 seconds)

Alarm Delay – *if applicable*
(enter the delay value required – 0 to 250 minutes)

Enable Source
(enter a source to enable/disable the alarm)

6 Set Up Relay Output

Referring to Section 3.5 of the Programming Guide (IM/C1900–PGR), enter the settings required for each of the relays.

Relay 1.1 (Input 1) Source (enter the source required)

Relay 1.1 (Input 1) Polarity (✔ the polarity required)

Positive	
Negative	

Relay 2.1 (Input 2) Source (enter the source required)

Relay 2.1 (Input 2) Polarity (✔ the polarity required)

Positive	
Negative	

Relay 3.1 (Input 3) Source (enter the source required)

Relay 3.1 (Input 3) Polarity (✔ the polarity required)

Positive	
Negative	

Relay 4.1 (Input 4) Source (enter the source required)

Relay 4.1 (Input 4) Polarity (✔ the polarity required)

Positive	
Negative	

Relay Module Type 3 in Position 4 (if fitted)
(for each relay, enter the source and ✔ the polarity required)

Relay 4.1

Source				
Polarity	Positive		Negative	

Relay 4.2

Source				
Polarity	Positive		Negative	

Relay 4.3

Source				
Polarity	Positive		Negative	

Relay 4.4

Source				
Polarity	Positive		Negative	

Relay Module Type 3 in Position 5 (if fitted)
(for each relay, enter the source and ✔ the polarity required)

Relay 5.1

Source				
Polarity	Positive		Negative	

Relay 5.2

Source				
Polarity	Positive		Negative	

Relay 5.3

Source				
Polarity	Positive		Negative	

Relay 5.4

Source				
Polarity	Positive		Negative	

7 Set Up Analog Output

Referring to Section 3.7 of the Programming Guide (IM/C1900–PGR), enter the settings required for each of the analog outputs.

7.1 Position 1

Output Source (enter the source required)

Retransmission Range
(enter the values required in engineering units)

High	
Low	

Output Range (2 to 20 mA) (enter the values required)

High	
Low	

7.2 Position 2

Output Source (enter the source required)

Retransmission Range
(enter the values required in engineering units)

High	
Low	

Output Range (2 to 20 mA) (enter the values required)

High	
Low	

7.3 Position 3

Output Source (enter the source required)

Retransmission Range
(enter the values required in engineering units)

High	
Low	

Output Range (2 to 20 mA) (enter the values required)

High	
Low	

7.4 Position 4

Output Source (enter the source required)

Retransmission Range
(enter the values required in engineering units)

High	
Low	

Output Range (2 to 20 mA) (enter the values required)

High	
Low	

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