

## CC - 2000

### Features:

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- 32 Bit RISC Processor
- 1-RS232 Port
- 1-RS232/RS485 Port
- Optional 10/100Base T Port
- Modbus RTU Master/Slave Communications
- Expandable I/O
- Preprogrammed Applications Such As:
  - A. Pump Control
  - B. VFD Pump Control
  - C. Tank RTU
  - D. Valve Control
  - E. Water Plant Filter Control
  - F. RTU Functionality for all applications
- Applications Configurable via User-Friendly Interface
- Integrated Hardware Watchdog Timer



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The CC - 2000 is a dedicated application controller with all the power of a custom programmed PLC, in a user-friendly configurable platform. Chase Controls dedicated controllers, are designed and preprogrammed with multiple water and wastewater applications, ranging from simple pump / wet well control to complex water plant filter control, all in a single compact footprint.

This 32-bit controller offers the power and performance required for real-time communications, with short program scan times, as well as a wide range of digital and analog interface options. The controllers industry standard Modbus RTU communications, can be configured as a Modbus RTU Master or Slave, which simplifies integration with any SCADA software, HMI touch screen, and other intelligent instrumentation.

The CC - 2000 provides flexible communication with 2 serial RS232/RS485 ports and for applications using an Ethernet LAN or WAN, a optional 10/100BaseT Ethernet port is available. For those challenging remote applications, the CC - 2000 supports connection over serial radio, Ethernet radio, cellular radio, and phone lines.

## Specifications

**Controller**

<b>Processor</b>	CPU 32 Bit microcontroller, integrated watchdog timer
<b>Memory</b>	8 MB SRAM, 16 MB Flash ROM
<b>Non Volatile RAM</b>	CMOS RAM w/ lithium battery retains contents for 2 years with no power

**I/O**

<b>Digital IN</b>	CC - 2000	20-52	90-120VAC, 47-63 Hz
	CC - 2000-D	20-52	12-24VDC, Sink or Source
<b>Digital OUT</b>	CC - 2000	16-48	6-240VAC / 6-27VDC, 2Amp
	CC - 2000-D	16-48	6-240VAC / 6-27VDC, 2Amp
<b>Analog IN</b>	CC - 2000 / -D	4-32	0-20ma, 4-20ma, 0-5V, 0-10V
<b>Analog OUT</b>	CC - 2000 / -D	4-32	0-20ma, 4-20ma, 0-10V

**Communications**

<b>Integrated Ports</b>	1—RS232 Serial, 6 Pin RJ-12, 1—RS232/RS485 15 Pin DB15HD
<b>Baud Rate</b>	Selectable 300-38,400 baud
<b>Serial Protocols</b>	Modbus RTU (Master / Slave)
<b>Optional</b>	10/100BaseT Ethernet, RJ-45
<b>Ethernet Protocols</b>	Modbus TCP/IP

**General**

<b>Terminals</b>	Removable Terminal Blocks, 16-22AWG, 15Amp Contacts
<b>Dimensions</b>	9.09 in wide X 5.0 in high X 2.56 in deep
<b>Temperature</b>	-4 Deg F to + 158 Deg F
<b>Humidity</b>	5% RH to 95% RH, non-condensing
<b>Vibration</b>	MIL STD 810C, Method 514.2
<b>Shock</b>	MIL STD 810C, Method 516.2
<b>Power</b>	CC - 2000 95-240VAC CC - 2000-D 12-24VDC

Chase Controller CC-2000

**Pump Control (1-6 Pumps) Discrete Or Analog Level Control**

**Wetwell (Pump Down) or Tank (Pump Up)**

<u>Cntrl Address (Inp)</u>	<u>Inputs</u>	<u>Description</u>	<u>Outputs</u>	<u>Description</u>	<u>Configurable Discrete Input Choices:</u>	
					<u>Cntrl Address (Inp)</u>	
X0	X0	Power Fail (On=Armed, Off=OK)	Y0	P1 Call	1	Remote Data Read Only
B3717.0	X1	P1 Auto	Y1	P2 Call	2	B3722.8 P1 Seal Fail (Pump Down) / <b>Low Suction (Pump Up)</b>
B3720.8	X2	P1 Aux	Y2	P3 Call	3	B3722.9 P2 Seal Fail (Pump Down) / High <b>Discharge (Pump Up)</b>
B3717.1	X3	P2 Auto	Y3	P4 Call	4	B3722.10 P3 Seal Fail
B3720.9	X4	P2 Aux	<b>Y4</b>	P5 Call	5	Common Seal Fail
C10	X5	P3 Auto	<b>Y5</b>	P6 Call	6	B3722.0 P1 High Temp
C13	X6	P3 Aux	Y6		7	B3722.1 P2 High Temp
C11 / C14	X7	Horn Silence / Fail Reset	Y7		8	B3722.2 P3 High Temp
	X10	Configurable	Y10	P1 Fail	9	C34 P1 LEAD / No Alternation
	X11	Configurable	Y11	P2 Fail	10	C35 P2 LEAD / No Alternation
	X12	Configurable	Y12	P3 Fail	11	C36 P3 LEAD / No Alternation
	X13	Configurable	Y13	P4 Fail	12	P4 Auto
	X14	Configurable	Y14	P5 Fail	13	P5 Auto
	X15	Configurable	Y15	P6 Fail	14	P6 Auto
	X16	Configurable	Y16	<b>Alarm Light</b>	15	P4 Aux
	X17	Configurable	Y17	<b>Alarm Horn</b>	16	P5 Aux
	X20	Lead Float			17	P6 Aux
	X21	Lag Float				
	X22	Off Float				
C33	X23	High Level				
	<b><u>Expansion</u></b>	<b><u>4 Analog In</u></b>				
	AI 1	Tank / Wetwell Xducer				
	AI 2	Suction PSI Xducer (Pump Up Only)				
	AI 3	Discharge PSI Xducer (Pump Up Only)				
	AI 4	Flow				

**Tank RTU Control**

<u>Inputs</u>	<u>Description</u>	<u>Outputs</u>
X0	Power Interupt	Y0
X1		Y1
X2		Y2
X3		Y3
X4		Y4
X5		Y5
X6		
X7		
X10		
X11		
X12		
X13		
X14		
X15		
X16		
X17		
X20		
X21		
X22		
X23		
<u>Expansion</u>	<u>4 Analog In</u>	
AI 1	Tank Level	
AI 2		
AI 3		
AI 4		