

Supplied by Customer

Fused External +24VDC
Isolated Power Supply
Typical 2 Amp

Connections made to male 4-pin
Weidmuller connector located on
top edge of ACR1200 board.

Power consumption of
one ACR1200 board
without analog output,
encoder output power,
or Digital I/O usage.

+5VDC @ 1.5 Amp
+12VDC @ 0.15 Amp
-12VDC @ 0.15 Amp

Suggested Standalone
power supply ratings
for use with one
ACR1200 card

Connections made to male 4-pin
Weidmuller connector located
at lower right, above PC
Connector on ACR1200 board.

Fusing supplied on the ACR1200
standalone power inputs.

+5VDC fused at 4 Amps
+12VDC fused at 0.250 Amps
-12VDC fused at 0.125 Amps

ENCODER INPUT

Encoder Inputs to the ACR1200 are capable
of handling various types of
open-collector and line driver encoders
DO NOT USE WITH CMOS DRIVERS

TYPICAL ENCODER

CHA+ BROWN
CHA- BRN/WHIT
CHB+ GREEN
CHB- GRN/WHIT
ZR+ ORANGE
ZR- ORN/WHIT
+5V RED
GND BLACK

CAUTION: Before hook-up consult manual for
jumper settings required on ACR1200
Improper settings may cause PERMANENT
DAMAGE to encoder

See sheet 2 for Digital I/O
wiring examples

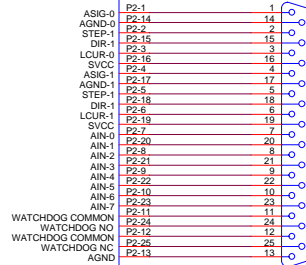
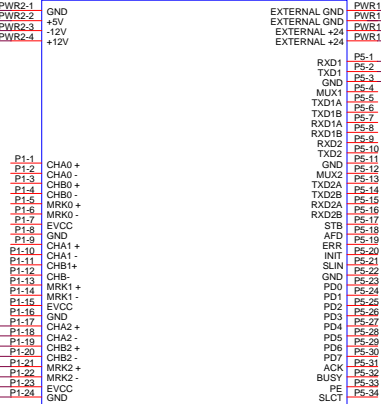
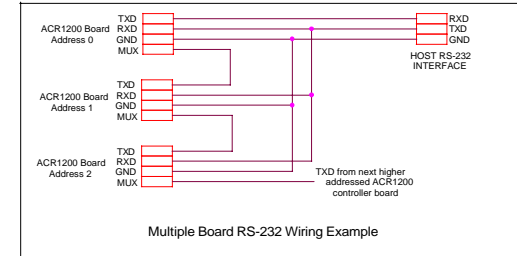
SERIAL COMMUNICATION

RS-232 Serial Connection
for COM1 and COM2

Autobaud detects the following formats

Parity	Data	Stop Bit
Even	8	1
Odd	7	1
No	8	1

Baud Rates from 300 to 38400
XON/XOFF Control must be used



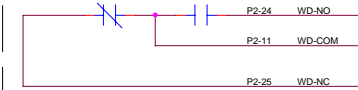
See sheet 2 for analog/stepper
interface information.

See sheet 4 and 5 for P2 Analog Input
connector wiring examples.

See sheet 3 for P2 DAC/Stepper
connector wiring examples.

WATCHDOG CIRCUIT

Relay contacts shown is state when
ACR1200 is without power, or in
a processor fault condition.



Watchdog Relay contact rating
1.0 Amp @ 30 VDC

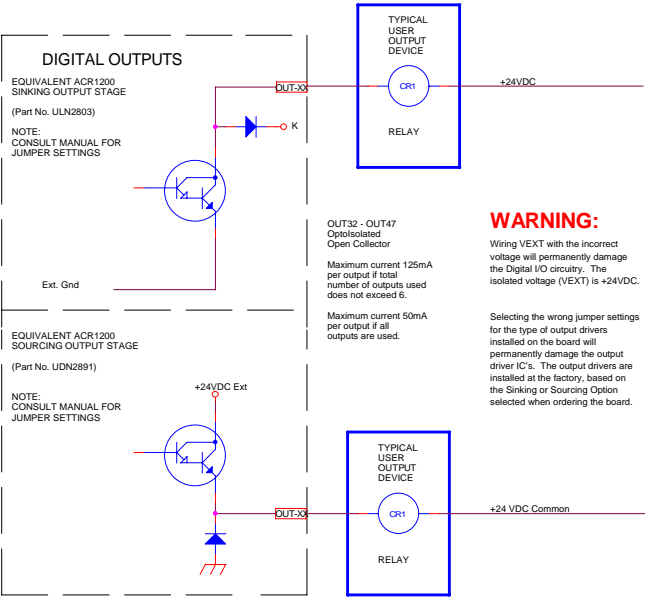
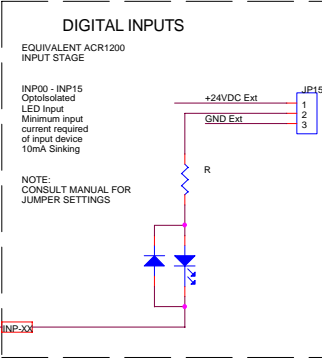
ACROLOOP MOTION CONTROL SYSTEMS, INC.
3650 Chestnut Street, North
Chaska, MN
USA, 55318

Title	ACR1200 WIRING EXAMPLE		Rev	A
Size	Document Number	ACR12KID1.SCH		
C				
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Digital I/O Wiring

WARNING:

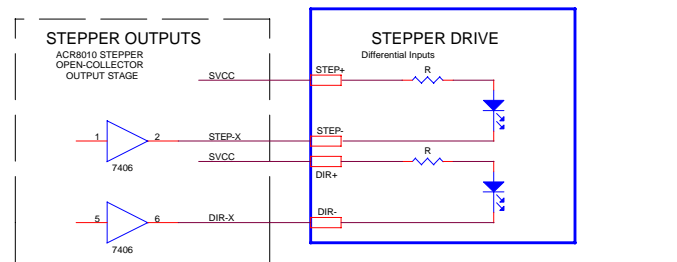
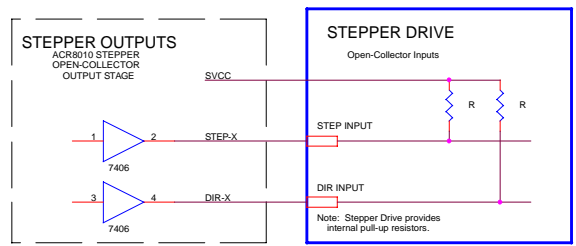
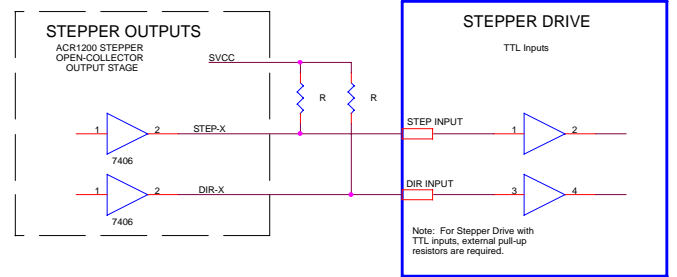
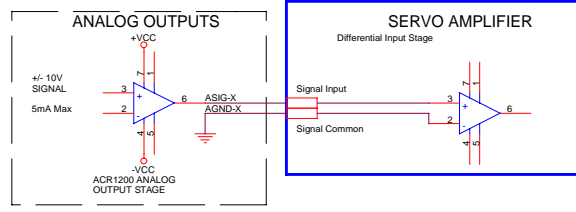
Wiring external voltage with the incorrect voltage will permanently damage the Digital I/O circuitry. The isolated voltage is +24VDC.



WARNING:
Wiring VEXT with the incorrect voltage will permanently damage the Digital I/O circuitry. The isolated voltage (VEXT) is +24VDC.

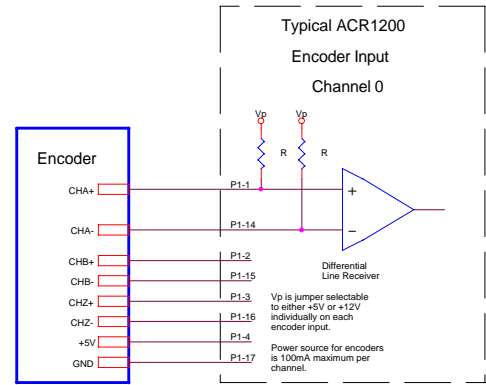
Selecting the wrong jumper settings for the type of output drivers installed on the board will permanently damage the output driver IC's. The output drivers are installed at the factory, based on the Sinking or Sourcing Option selected when ordering the board.

Analog/Stepper Wiring

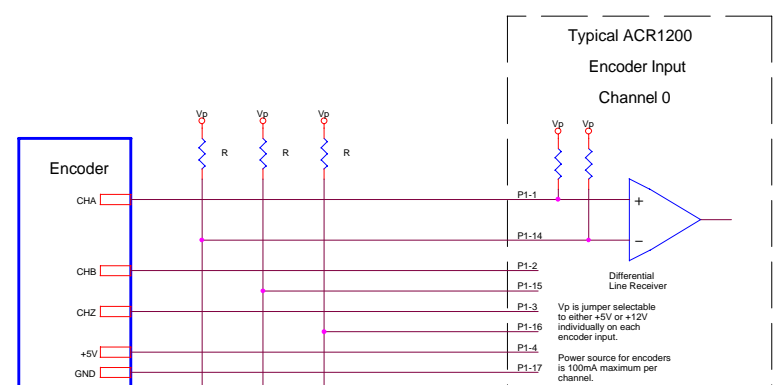


Encoder Wiring

Differential Input

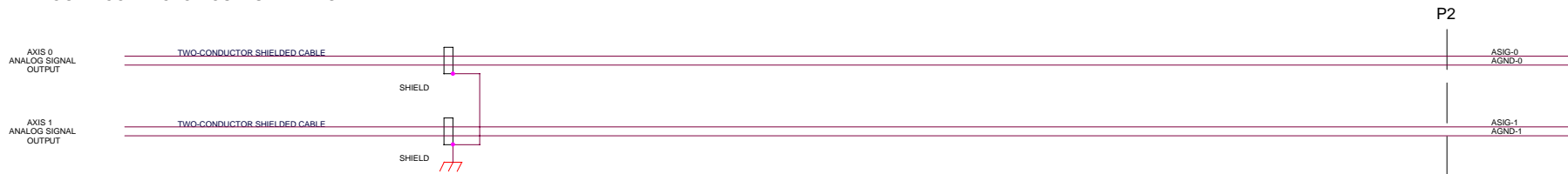


Single-Ended Input

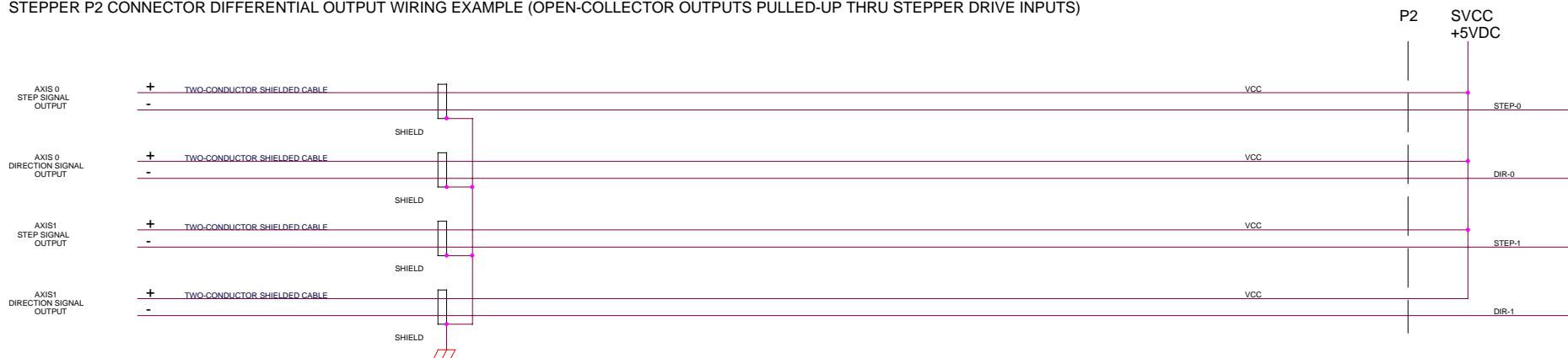


NOTE: External resistor (R) value is:
Vp @ 5V, R = 1K ohm
Vp @ 12V, R = 2K ohm

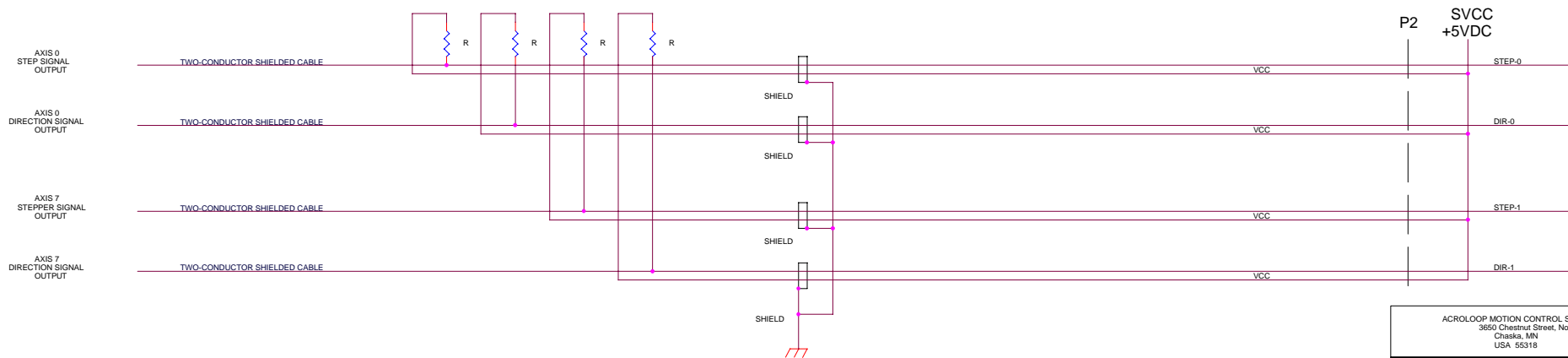
ANALOG P2 CONNECTOR OUTPUT WIRING EXAMPLE



STEPPER P2 CONNECTOR DIFFERENTIAL OUTPUT WIRING EXAMPLE (OPEN-COLLECTOR OUTPUTS PULLED-UP THRU STEPPER DRIVE INPUTS)



STEPPER P2 CONNECTOR SINGLE-ENDED OUTPUT WIRING EXAMPLE (OPEN-COLLECTOR OUTPUTS PULLED-UP TO +5V THRU EXTERNAL RESISTORS)



NOTE: EXTERNAL RESISTORS, R, ARE PROVIDED BY THE USER.
 THE VALUE OF R IS DETERMINED BY THE CURRENT SPECIFIED
 FOR THE STEPPER DRIVE INPUTS. RESISTOR R SHOULD BE
 SELECTED SO THAT THE MAXIMUM OUTPUT CURRENT OF THE
 ACR1200 STEPPER BOARD DOES NOT EXCEED 30mA PER OUTPUT.

ACROLOOP MOTION CONTROL SYSTEMS INC. 3650 Chestnut Street, North Chaska, MN USA: 55318		
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ANALOG P2 CONNECTOR INPUT WIRING

DIFFERENTIAL WIRING EXAMPLE

ANALOG TO DIGITAL INPUTS (ADC)

ANALOG TO DIGITAL INPUTS (AIN0 - AIN7) CAN BE USED AS DIFFERENTIAL OR SINGLE-ENDED INPUTS. ANY COMBINATION MAY BE USED.

IF USED AS DIFFERENTIAL INPUTS, TWO INPUTS ARE USED AS SHOWN USING AIN0-AIN1 & AIN2-AIN3. FOUR DIFFERENTIAL INPUT SIGNALS MAY BE USED WITH AN ACR1200.

IF USED AS SINGLE-ENDED INPUTS, ONE INPUT IS USED IN CONJUNCTION WITH AIN-COM. EIGHT SINGLE-ENDED INPUT SIGNALS MAY BE USED WITH AN ACR1200. SEE SHEET 4 FOR SINGLE ENDED WIRING EXAMPLE.

DIFFERENTIAL INPUT PAIRS

	+	-
AIN0	-	AIN1
AIN2	-	AIN3
AIN4	-	AIN5
AIN6	-	AIN7



WATCHDOG CIRCUIT

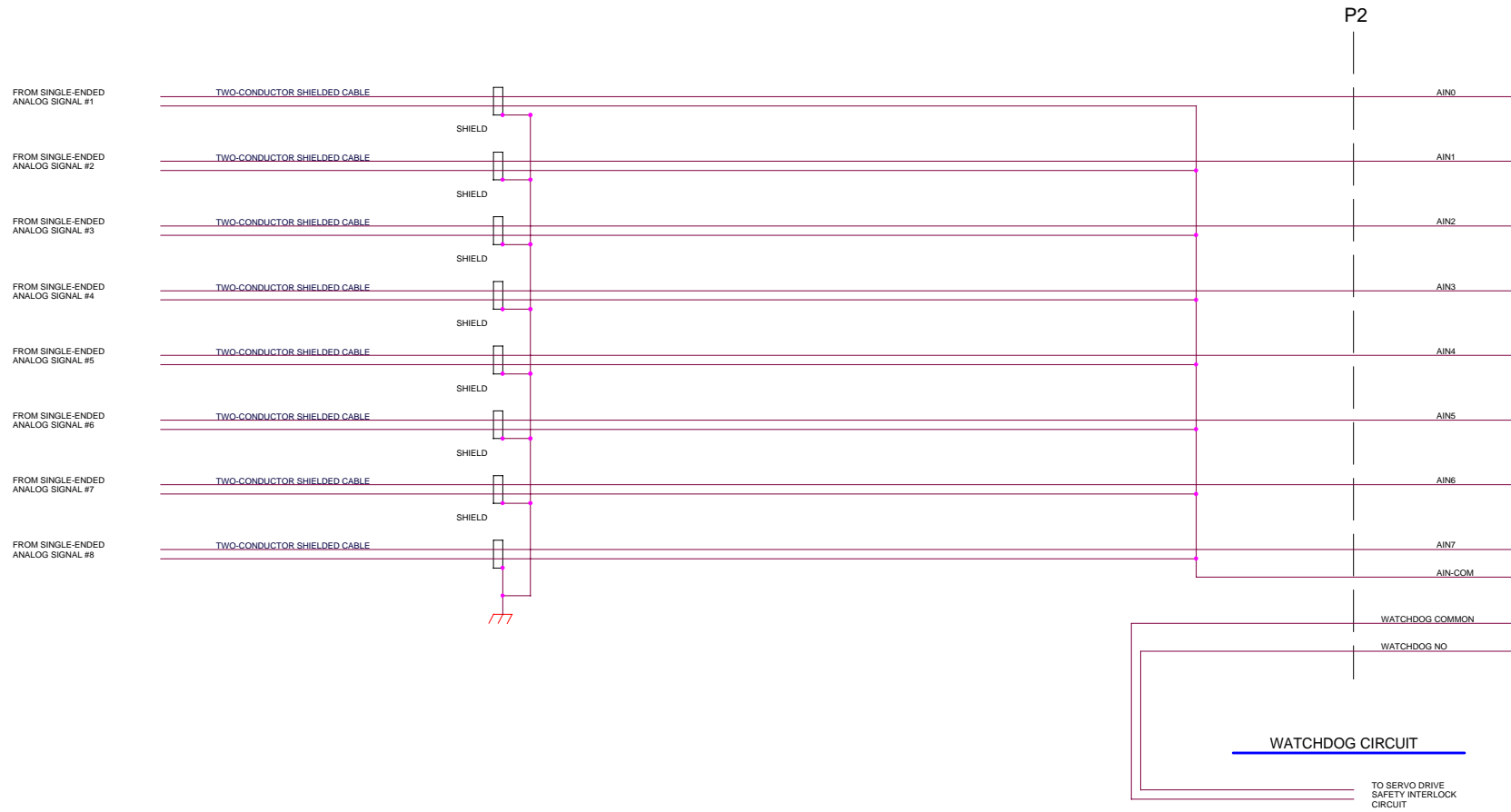
TO SERVO DRIVE SAFETY INTERLOCK CIRCUIT

WATCHDOG CONTACTS USED TO DISABLE SERVO DRIVE UNTIL ACR1200 CONTROLLER HAS FULL CONTROL OF ALL DIGITAL AND ANALOG SIGNALS TO PREVENT POSSIBLE MOTOR SURGE ON INITIAL START-UP

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ANALOG P2 CONNECTOR INPUT WIRING

SINGLE-ENDED WIRING EXAMPLE



WATCHDOG CONTACTS USED TO DISABLE SERVO DRIVE UNTIL ACR1200 CONTROLLER HAS FULL CONTROL OF ALL DIGITAL AND ANALOG SIGNALS TO PREVENT POSSIBLE MOTOR SURGE ON INITIAL START-UP

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