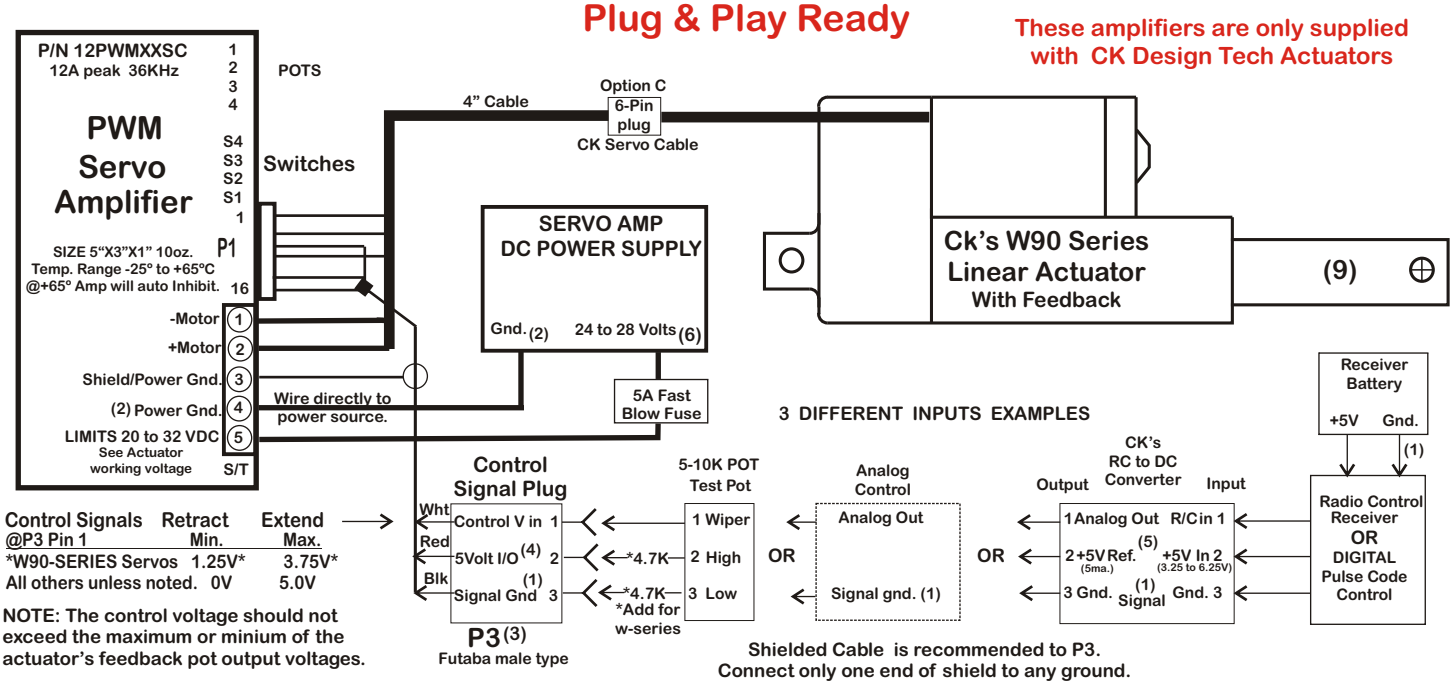
Craig Kackert
Design Tech., Inc.
805-522-3750 USA

12PWM SERVO AMPLIFIER MOTOR CONTROLLER SET UP AND WIRE DIAGRAM

"All Servo Amps are factory set. Just connect power and signal as shown."

Plug & Play Ready

These amplifiers are only supplied with CK Design Tech Actuators



Control Signals	Retract Min.	Extend Max.
@P3 Pin 1		
*W90-SERIES Servos	1.25V*	3.75V*
All others unless noted.	0V	5.0V

NOTE: The control voltage should not exceed the maximum or minium of the actuator's feedback pot output voltages.

Shielded Cable is recommended to P3.
Connect only one end of shield to any ground.

P-1 SIGNAL CONNECTOR

1) +5V 5mA OUT = High Side Actuator F/B pot. [red/wht]
2) SIGNAL GND = Low Side Actuator F/B pot. [blk/wht]
3) -5V 5mA OUT = NC
4) +REF IN = Control input or test pot wiper (P3-1 Wht.)
5) -REF IN = Wiper Actuator F/B pot. [Wht]
6) -TACH IN = NC
7) +TACH/GND = Actuator Cable Shield Ground
8) Curr Mntr Out = NC
9) Curr Ref. Out = NC
10) Cnt Curr Limit = NC
11) INHIBIT IN = Gnd to inhibit H-Bridge output. (Recommended)
12) + INHIBIT IN = NC Gnd. to disable servo extend direction.
13) - INHIBIT IN = NC Gnd. to disable servo retract direction.
14) FAULT OUT = NC Fault Out, TTL high logic, LED=RED
15) +5V Ref. = High side test pot (P3-2 Red)
16) SIGNAL GND = Low side test pot, Sig Gnd. (P3-3 Blk)

P-2 SCREW TERMINAL S/T

1) - MOTOR = - Motor(Fuse option) wht/blk
2) + MOTOR = + Motor wht/red
3) POWER GND. = Shield gnd for signal cable (user option)
4) POWER GND. = GND. 16awg Black
5) HIGH VOLTAGE = 24 - 28VDC 16awg Red

SWITCH SETTINGS {Factory Preset}

1) VOLTAGE FEEDBACK = ON
2) CURR INTEGRATOR = OFF
3) VEL INTEGRATOR = OFF
4) TEST/OFFSET = ON

POTENTIOMETER SETTINGS {Factory Preset}

1) LOOP GAIN = 1turn ccw from motor buzz
2) CURR LIMIT: W70=8Tcw,W90=5Tccw, W150= Full cw
E150=4Tccw
3) REF IN GAIN = Sensitivity adj. See note 7
4) TEST/OFFSET = see note 7

IMPORTANT

[Follow power up/dwn procedures or SERVO DAMAGE may occur]
You may also use, P1 pin 11, to inhibit servo amp as a fail safe.

Power Up Procedure:
1st Control signal inputs. 2nd Servo Amps.

Power Down Procedure:
1st Servo Amps. 2nd Control signal inputs.

(NOTES):
(1) Signal Ground Only. Gnd. 1 must be isolated from Gnd. 2
(2) This ground is for servo amp to DC Power Supply only.
(3) P-3, Disconnecting this plug (open), servos will auto center at a slow speed to mid-stroke.
(4) P3 pin 2, is +5V ref. for high side of a test pot.
(5) P3 MUST have proper signal input before Servo Power is on.
(6) The power supply needs to supply at least 8 amps peak for 5 msec. and 4 amps continuous for each servo amp. Do Not daisy chain power lines.
(7) Sensitivity Adjustment, Pot 3, "REF IN GAIN" Increasing(cw) or decreasing(ccw) sensitivity will change servo offset position. Use Offset adj., Pot 4, to correct this change.
(8) At +65°C servo amp will "overtemp" and auto inhibit, motor outputs to hi-Z.
(9) Note that a linear actuator should never be fully retracted or extended to a stall condition.
(10) In a stall or overload condition, the over current limit will only allow the actuator to travel in the reverse direction.

4525 Industrial St. Unit 4s Simi Valley, CA 93063 805-522-3750 Fax 805-522-9379