FREERUNNER

5400 ESS

FreeRunner™ 5400 ESS Owner's Manual

StairMaster®

Figure 19: Final Assembly - Left Side

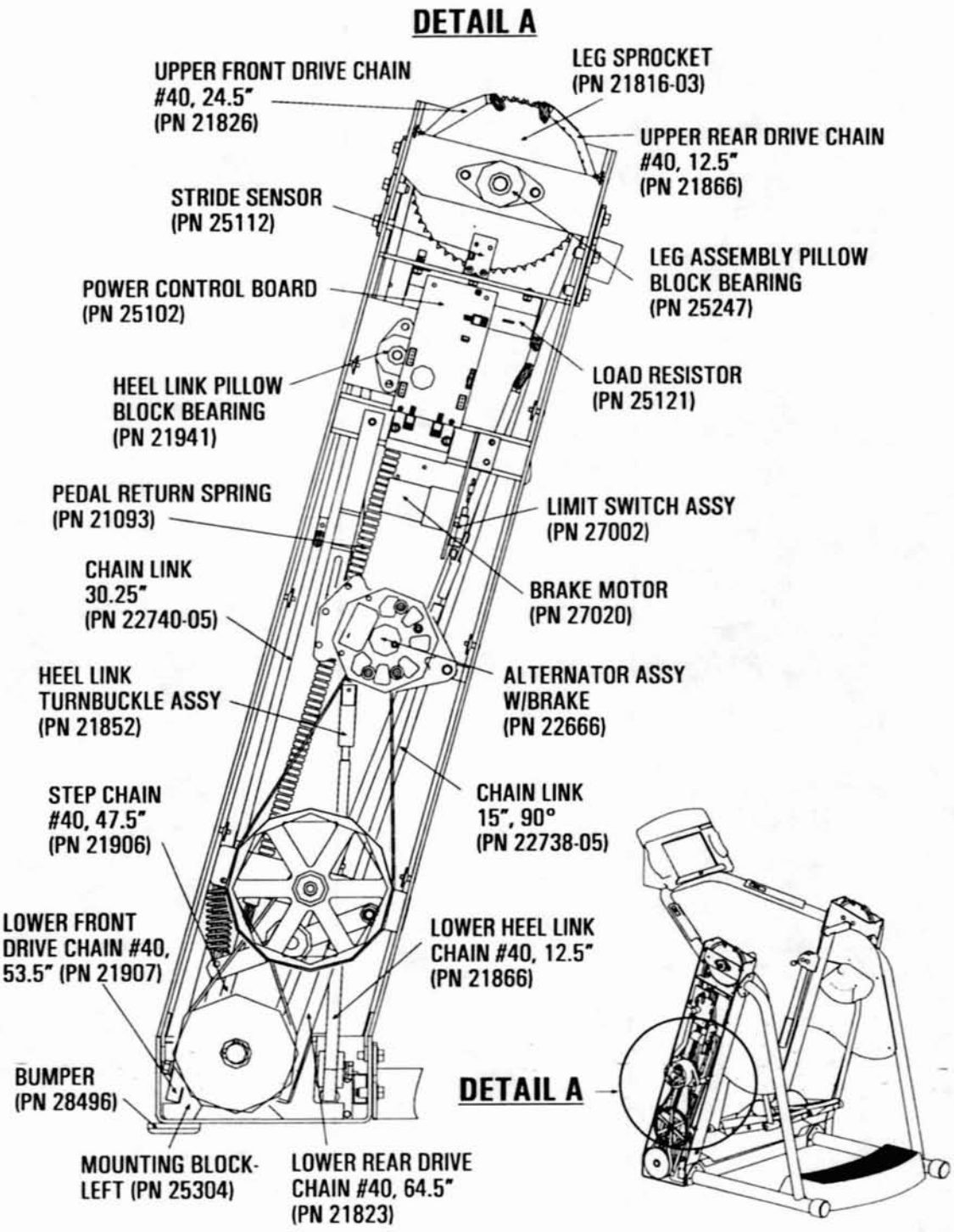


Figure 20: Final Assembly - Right Side

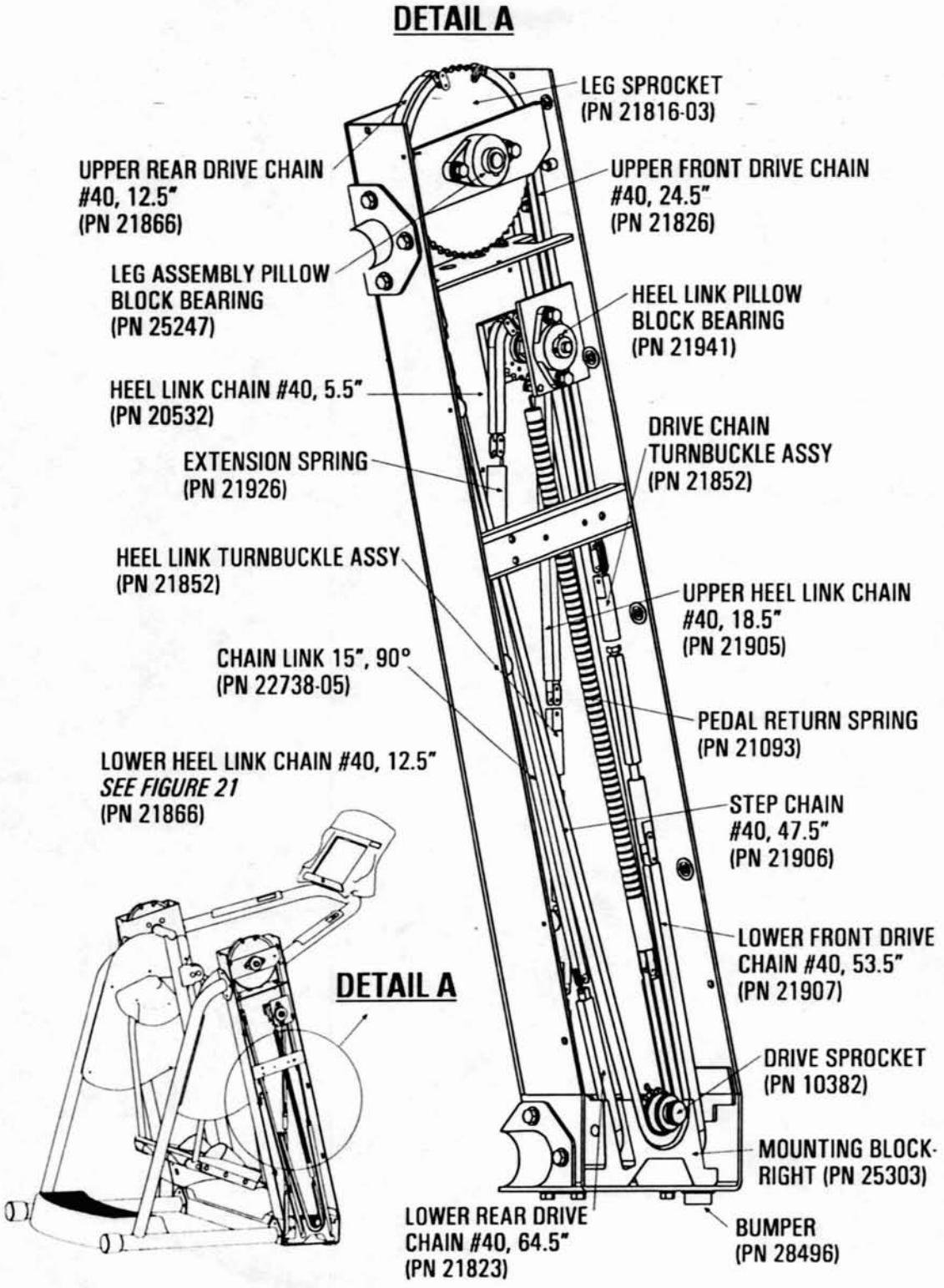


Figure 21: Chain Assemblies

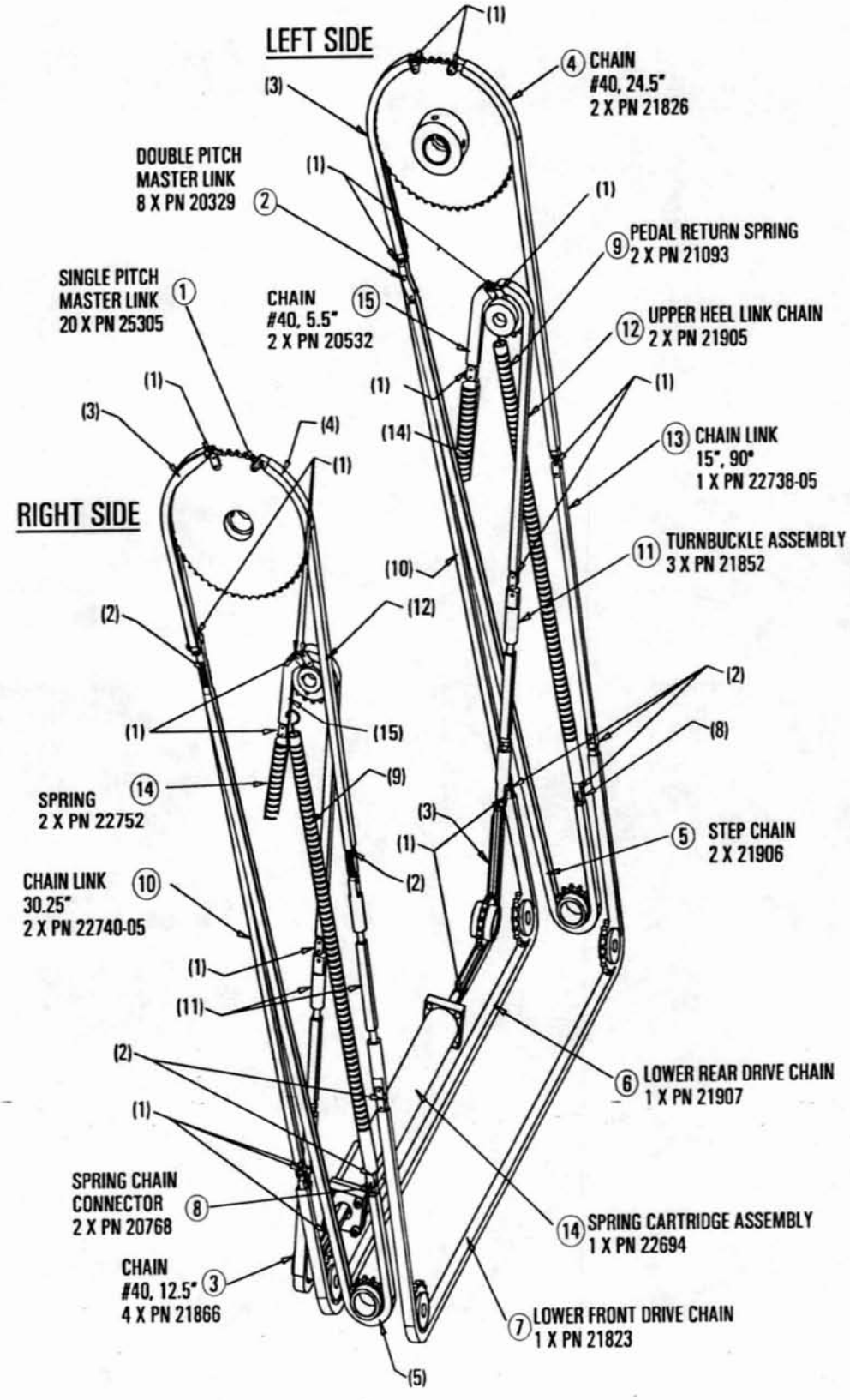
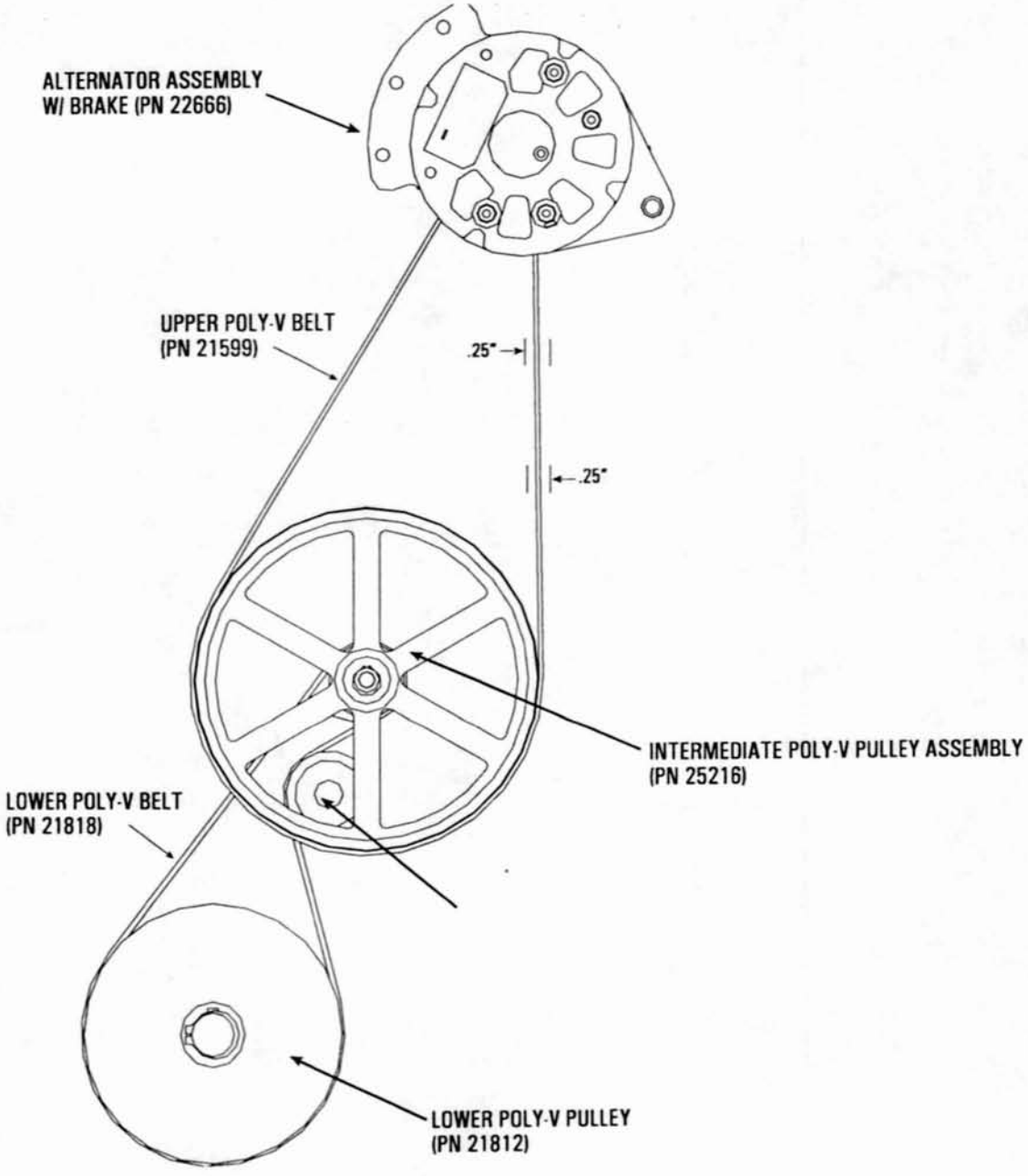


Figure 22: Belt Tension



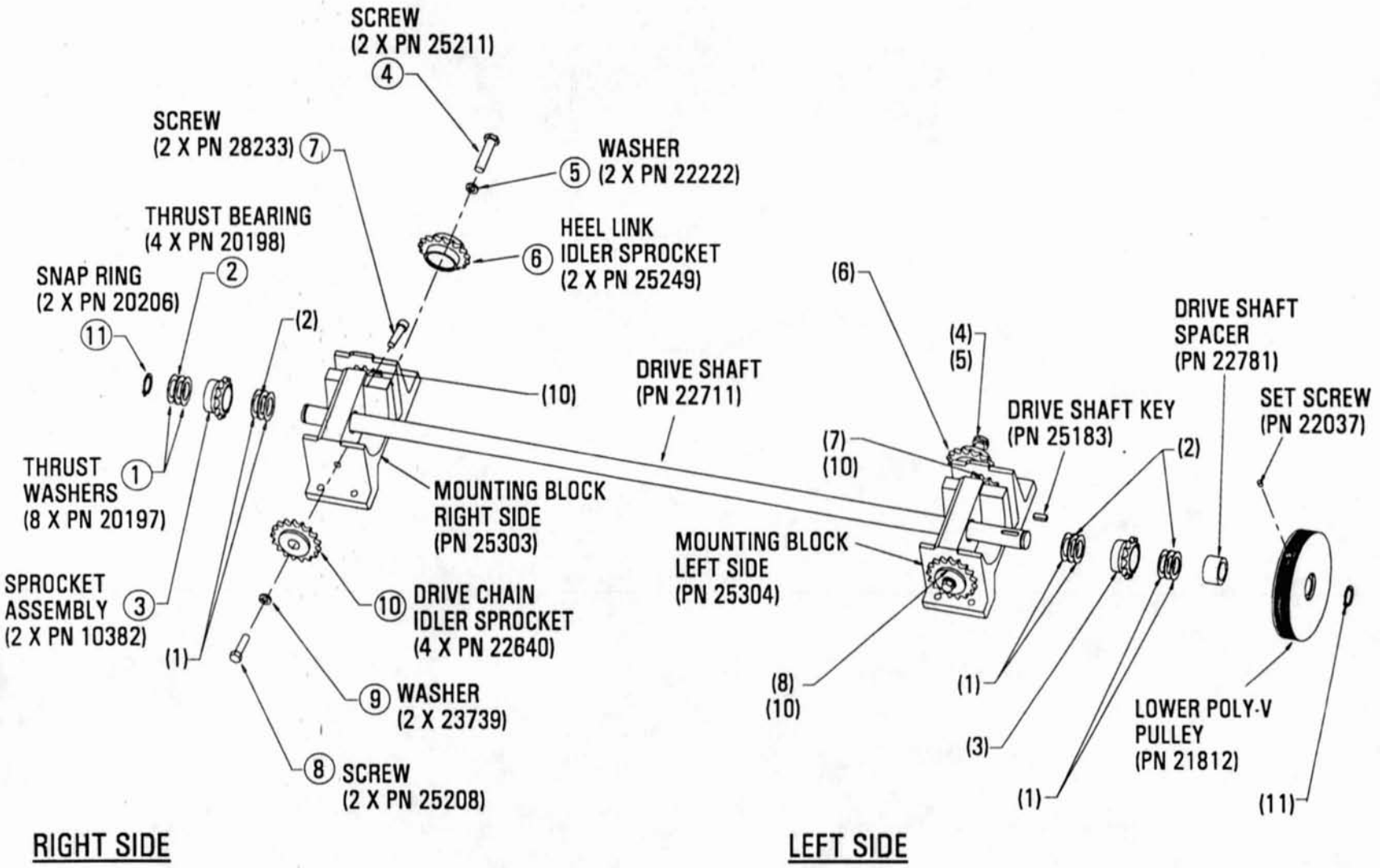


Figure 23: Drive Shaft Assembly

Figure 24: Leg Assembly

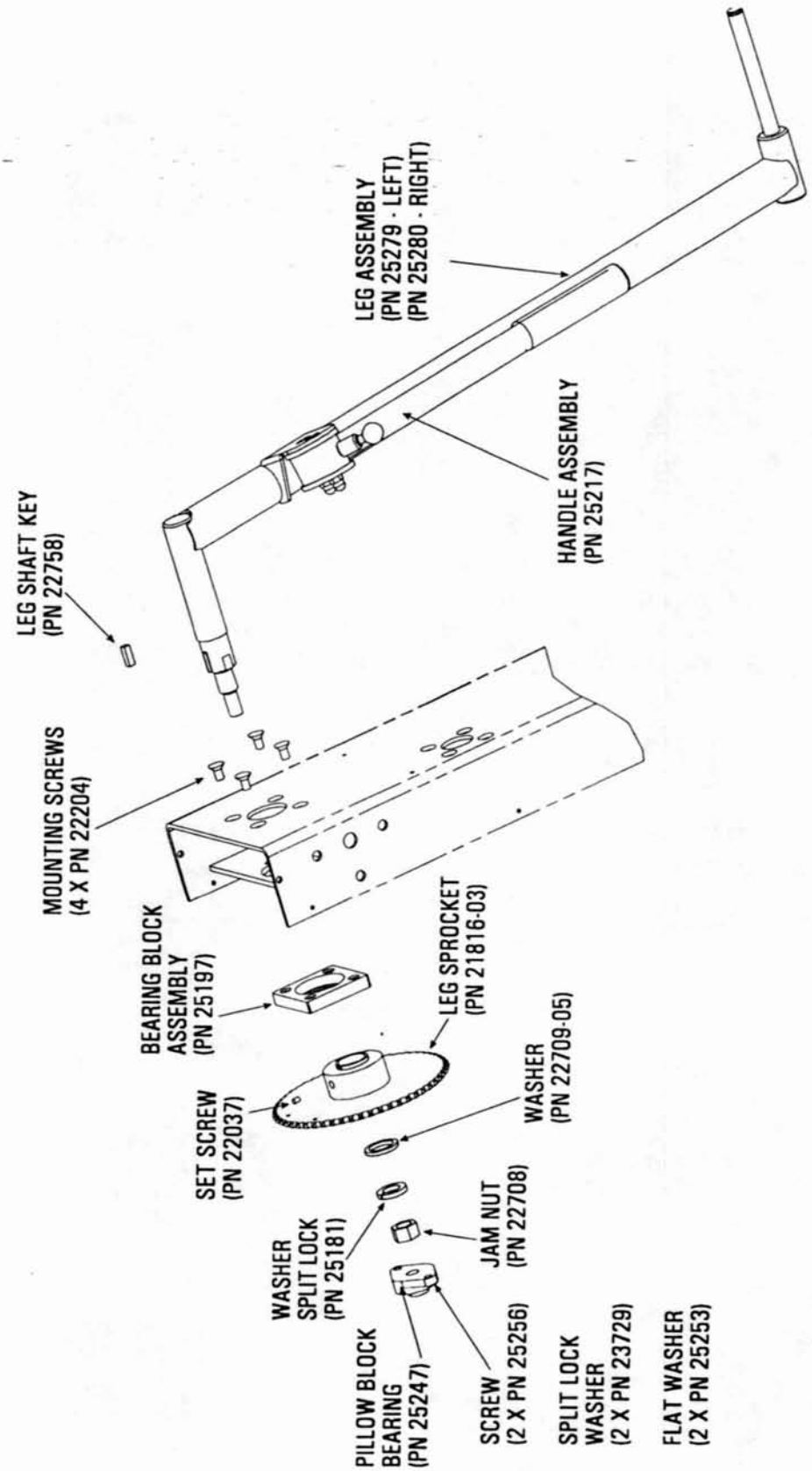


Figure 25: Heel Link Assembly

Figure 26: Pedal Mounting

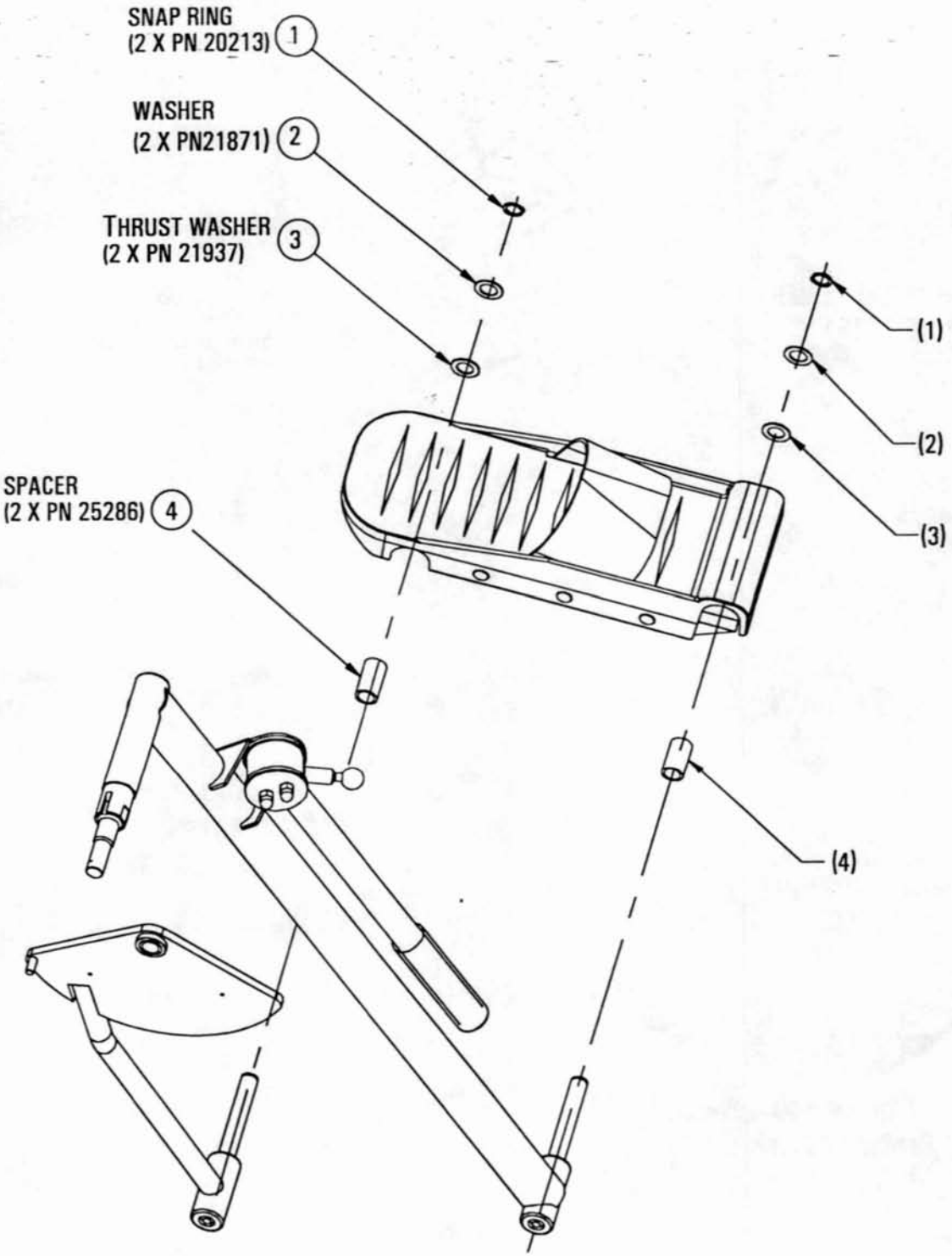


Figure 27: Pedal Assembly

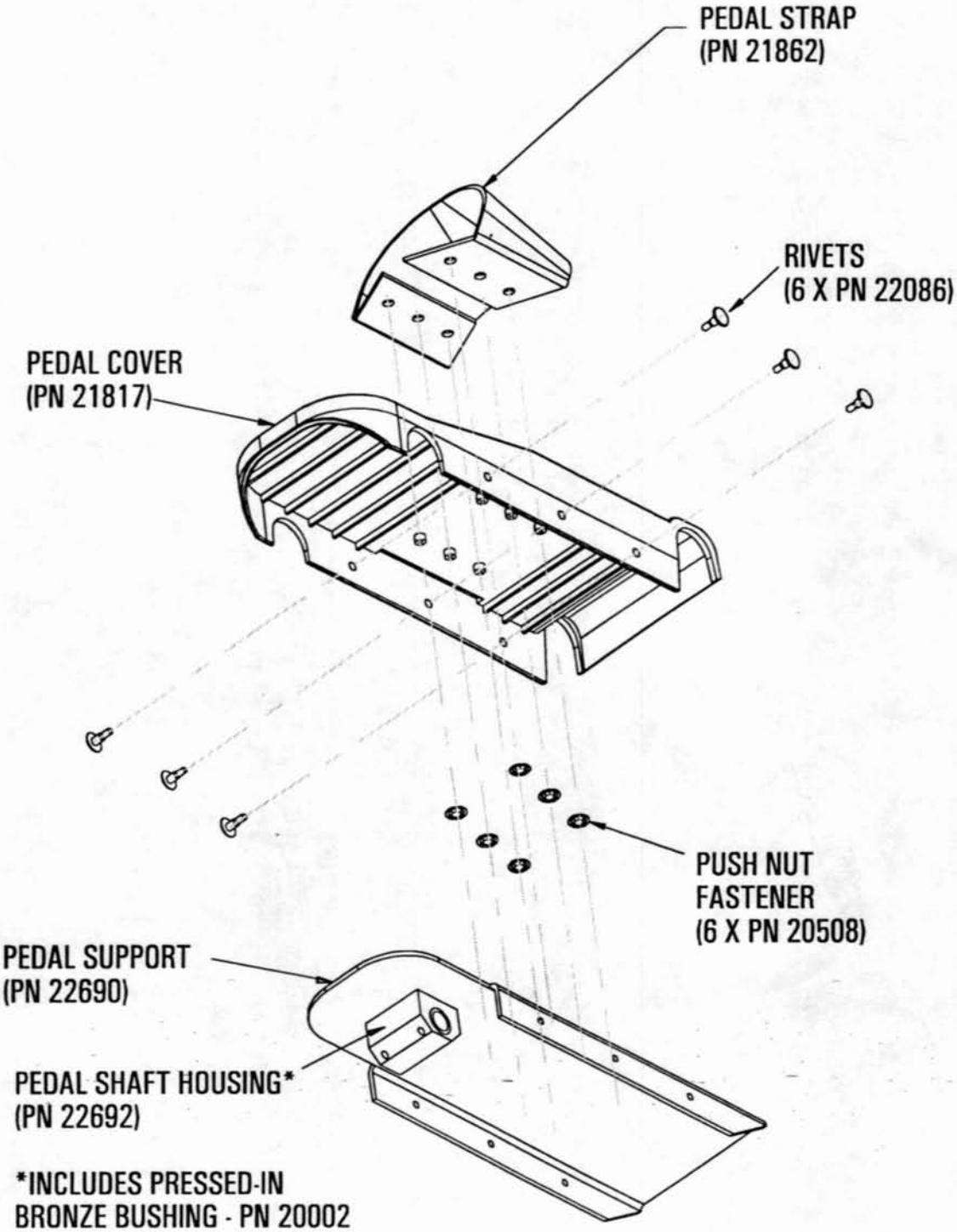
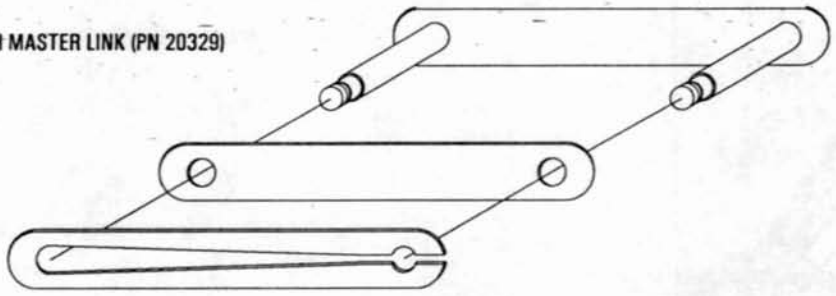


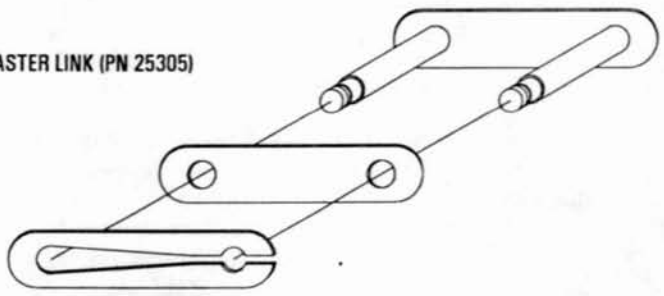
Figure 28: Master Links

DOUBLE PITCH MASTER LINK (PN 20329)



DIRECTION OF CHAIN TRAVEL

SINGLE PITCH MASTER LINK (PN 25305)



DIRECTION OF CHAIN TRAVEL

Figure 29: Heel Link Pivot Adjustment

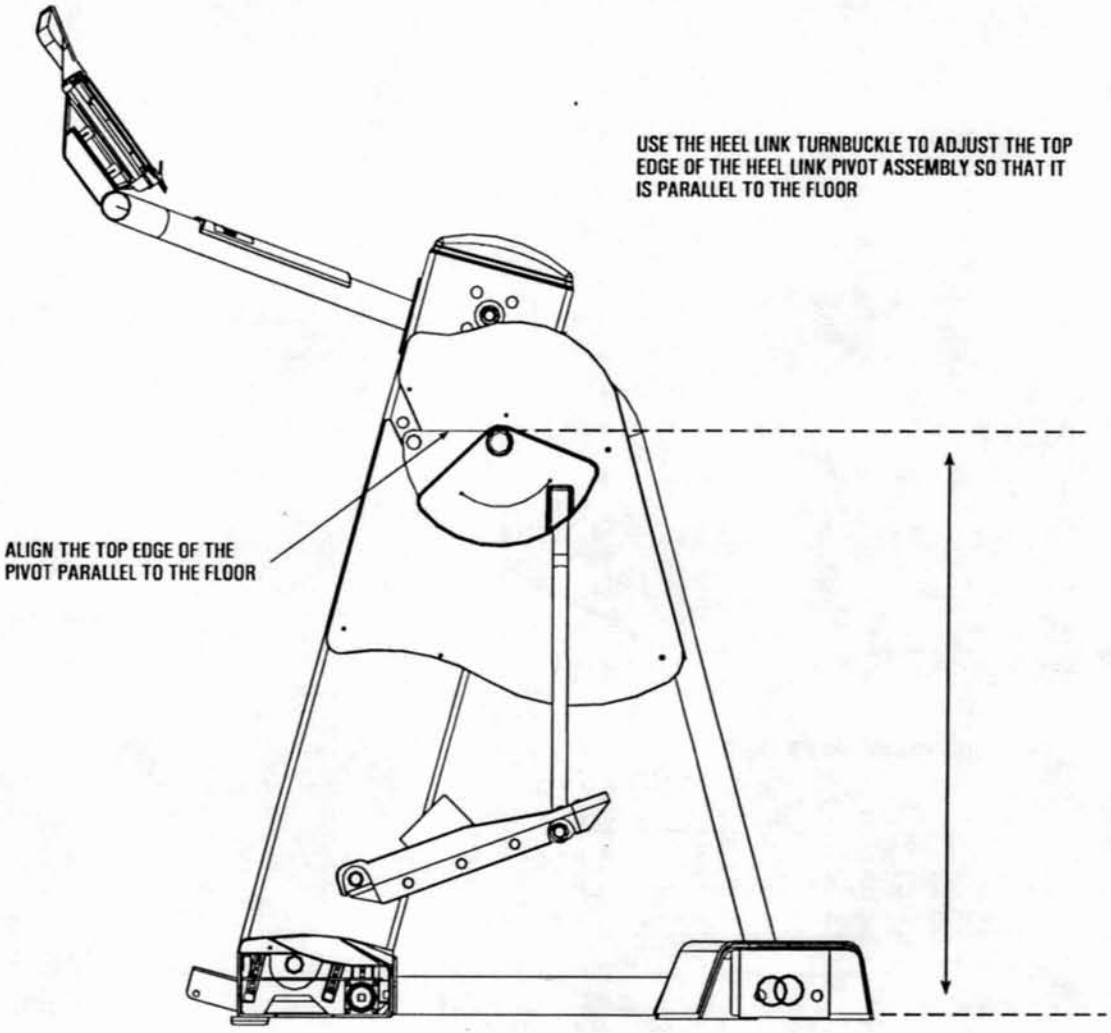


Figure 30: Handle Assembly

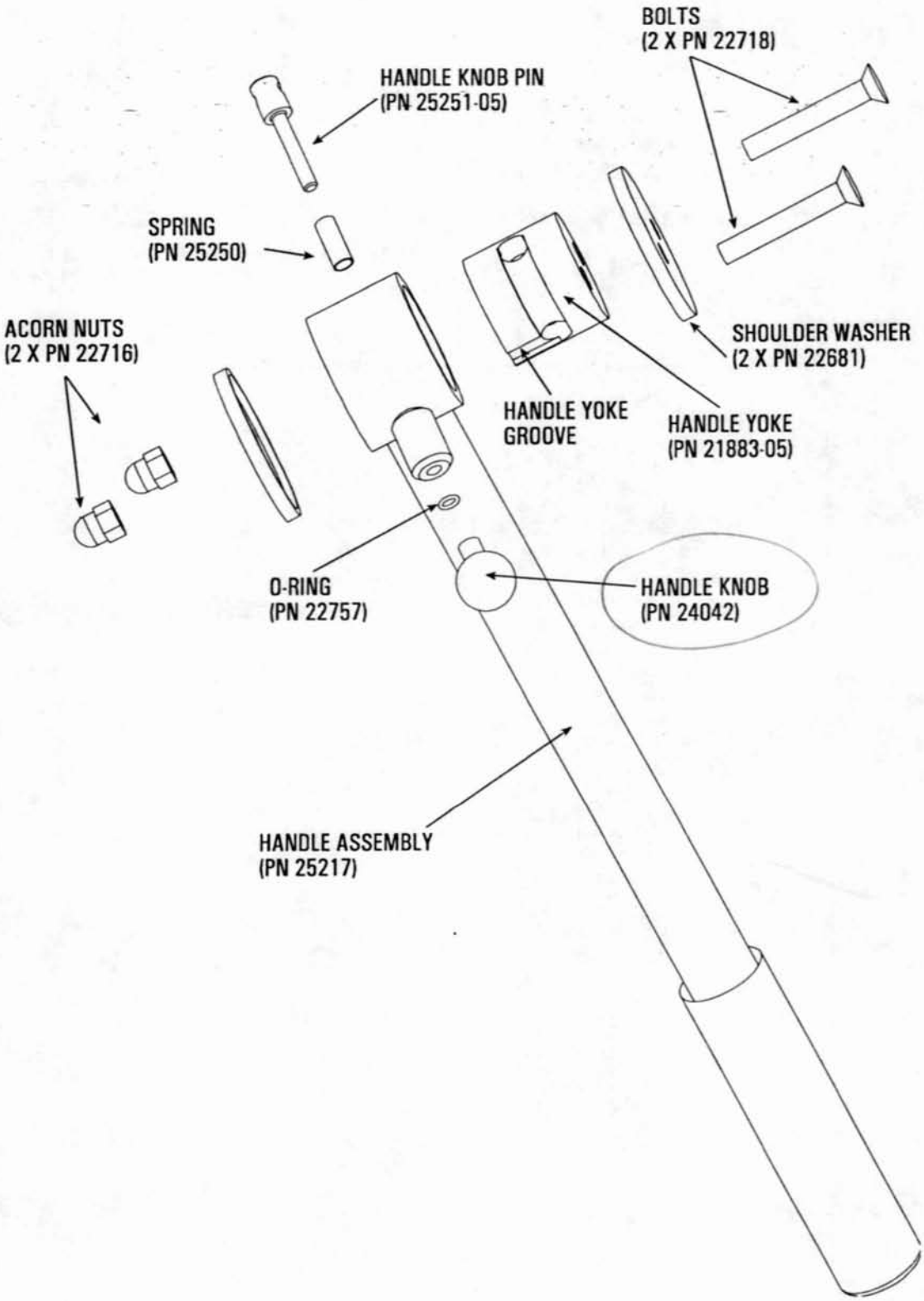


Figure 31: Limit Switch Assembly

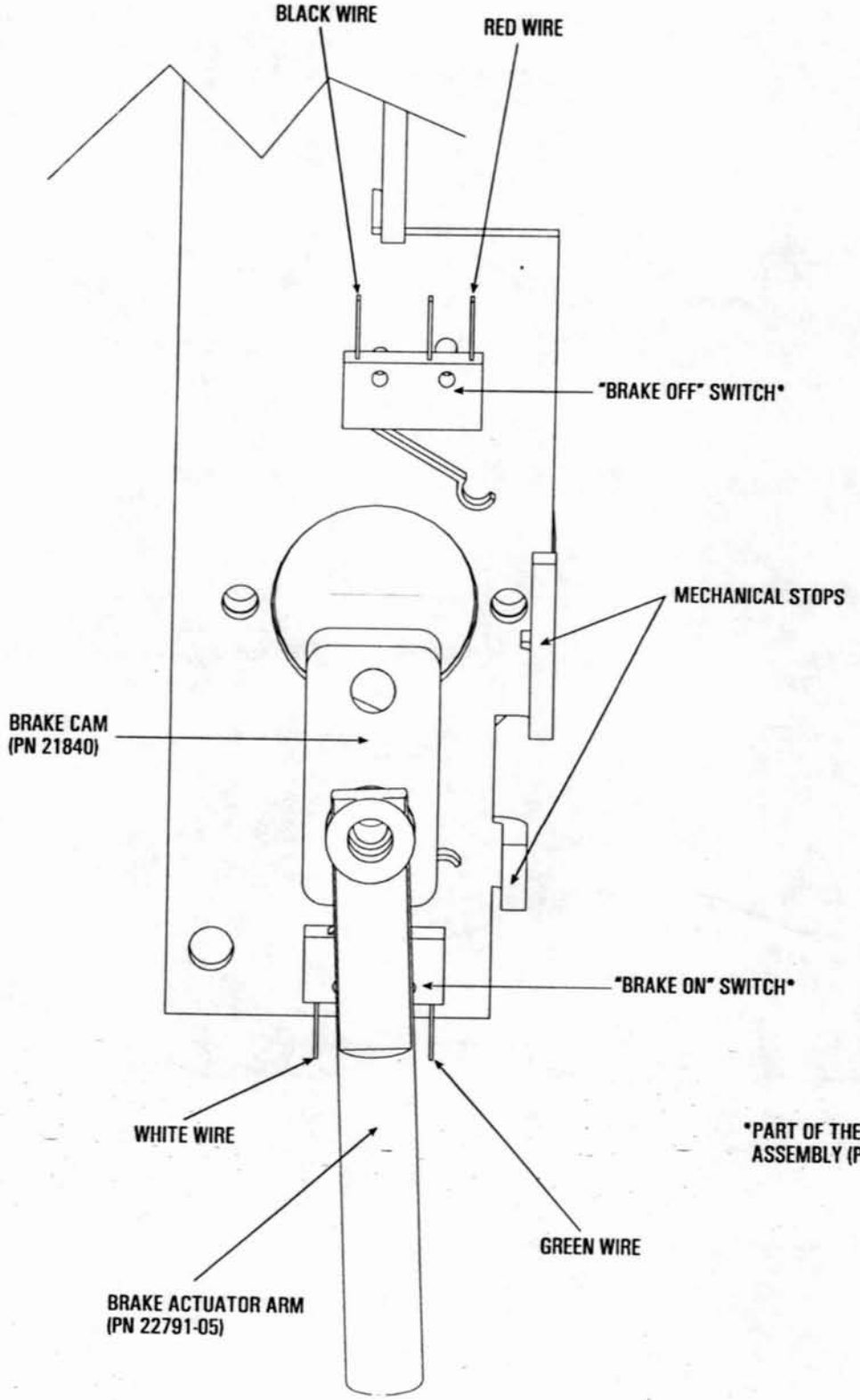


Figure 32: Power Control Board "A"

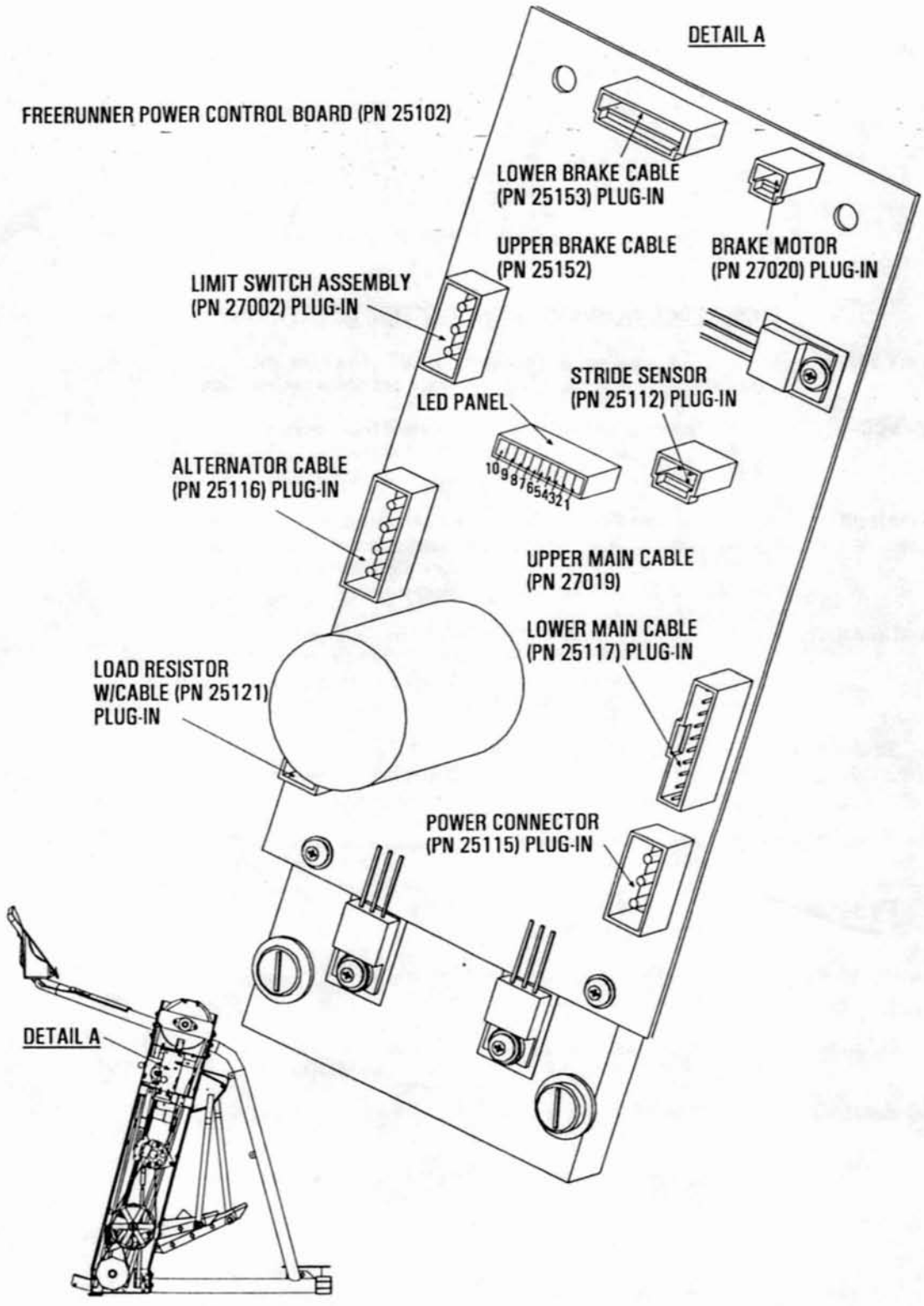
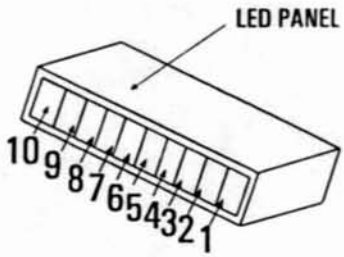


Figure 33: LED Panel



POWER CONTROL BOARD - LIGHT EMITTING DIODES (LEDs)

#1 - **V Supply** - "ON" if the power supply is operating. If "OFF", check the following: wall outlet, power supply, power connector, and power control board.

#2 - **VCC** - "ON" if power is getting to the console, and if the console is providing +5V back down to the power control board. If "OFF", check the following: upper and lower main cable, console, and power control board.

#3 - **Alt Off** - "ON" if the console is disabling the alternator (as in the ATTRACT mode), "OFF" when the alternator is turned ON (as in an exercise program). Inspect the console, alternator cable, alternator and power control board if the LED is not functioning properly.

#4 - **Load Resistor** - "ON" when the main load resistor is OFF. Have an assistant exercise on the machine while you watch the LED. Start at intensity level 1 on the console and continue through level 20. The LED will fade out as you increase intensity. If the LED does not function properly, check the main cable and power control board.

#5 - **Stride Sensor** - "ON" when the pedals are aligned. If "OFF", ensure that the pedals are aligned and check the stride sensor magnet position (see page 63). Also check the stride sensor board, stride sensor cable, and power control board.

#6 - **Motor Dir** - "ON" indicates that the brake will be engaged when cycled, "OFF" indicates that the brake will be disengaged when cycled (see "Brake Test", page 35).

#7 - **Motor On** - "ON" when the brake motor is OFF. "OFF" when the brake motor is driving the brake to ON or OFF (see "Brake Test", page 35).

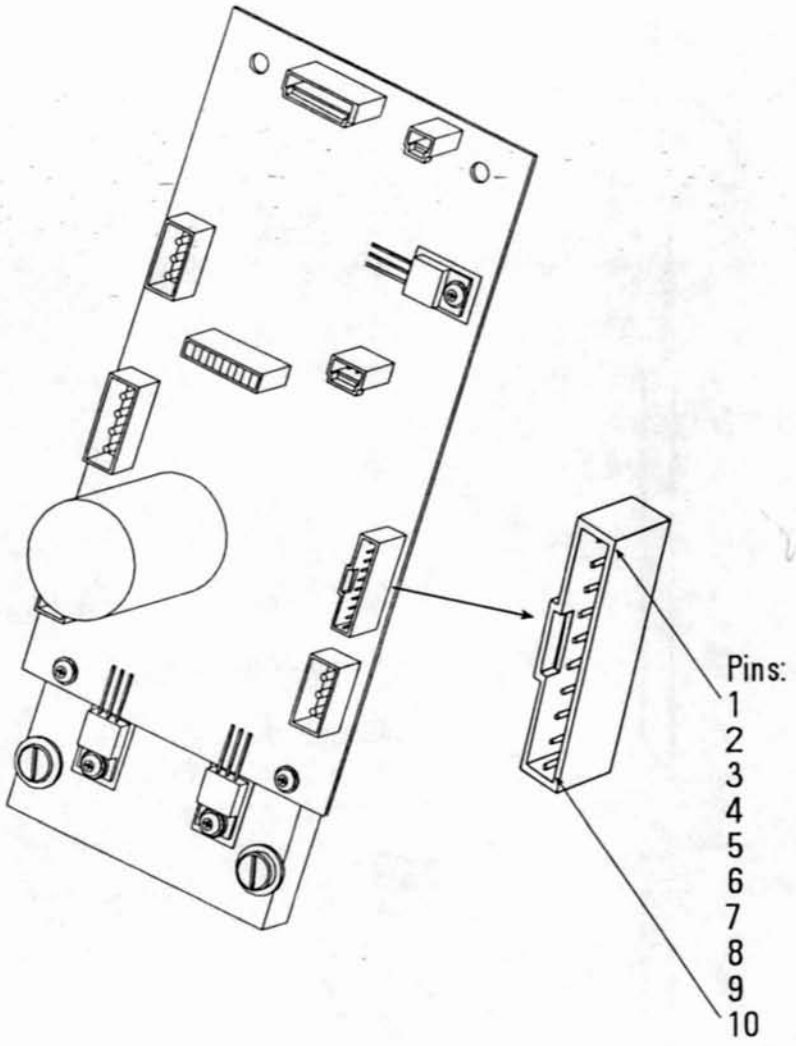
#8 - **UL "Brake On"** - "OFF" when the brake motor is driving the brake to ON, until the limit switch is contacted (see "Brake Test", page 35).

#9 - **LL "Brake Off"** - "OFF" when the brake motor is driving the brake to OFF, until the limit switch is contacted (see "Brake Test", page 35).

#10 - **Not Used** - This LED should never be on. Inspect the power control board if it is on.

******AT REST, WITHOUT ANYONE ON THE MACHINE, NINE LEDS SHOULD BE ON******

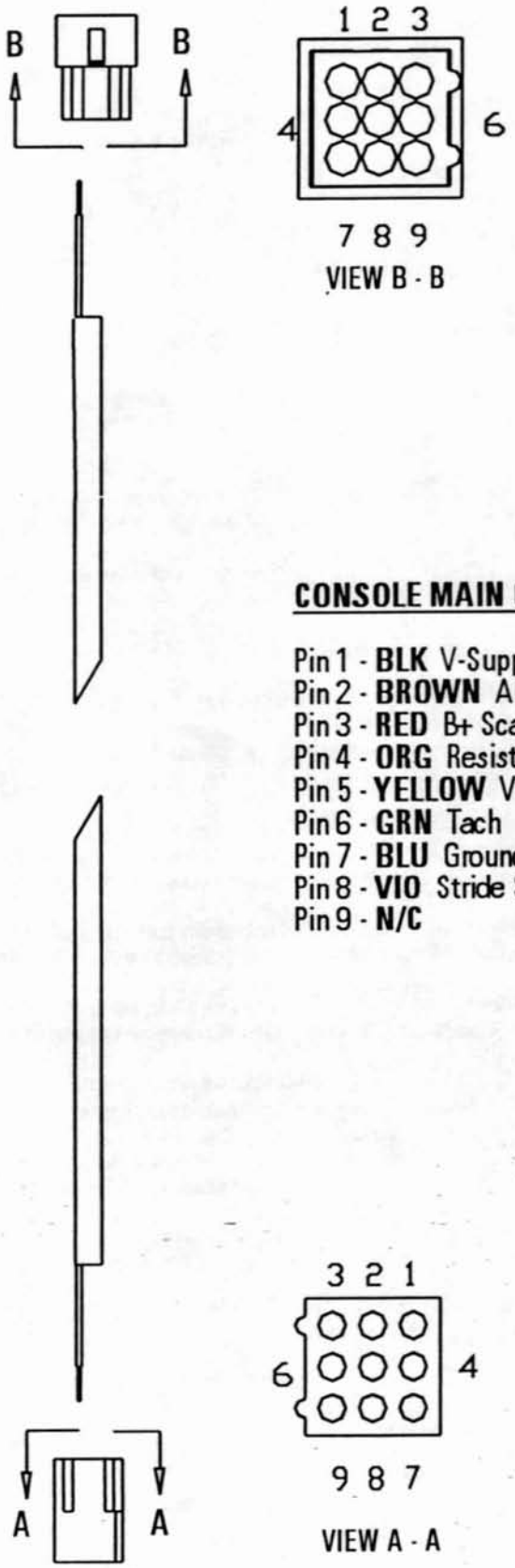
Figure 34: Power Control Board "B"



CONSOLE PLUG-IN
(On the PCB Board)

Pin 1 - Alt Off
Pin 2 - V Supply
Pin 3 - B+ Scaled
Pin 4 - Resistor Control
Pin 5 - VCC
Pin 6 - N/C
Pin 7 - Tach
Pin 8 - N/C
Pin 9 - Stride Sensor
Pin 10 - Ground

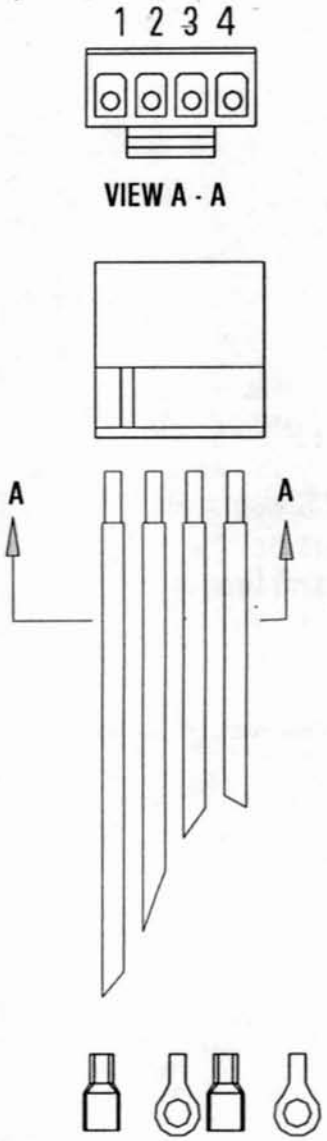
Figure 35: Console Main Cable



CONSOLE MAIN CABLE

Pin 1 - **BLK** V-Supply
Pin 2 - **BROWN** Alt Off
Pin 3 - **RED** B+ Scaled
Pin 4 - **ORG** Resistor Control
Pin 5 - **YELLOW** VCC
Pin 6 - **GRN** Tach
Pin 7 - **BLU** Ground
Pin 8 - **VIO** Stride Sensor
Pin 9 - **N/C**

Figure 36: Alternator Cable



ALTERNATOR CABLE

Pin 1 - B+ (White Wire)
Pin 2 - Ground (Black Wire)
Pin 3 - Field (Brown Wire)
Pin 4 - Tach (Blue Wire)

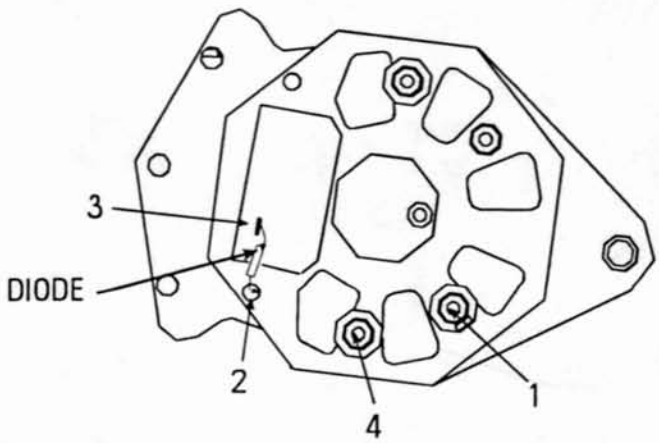
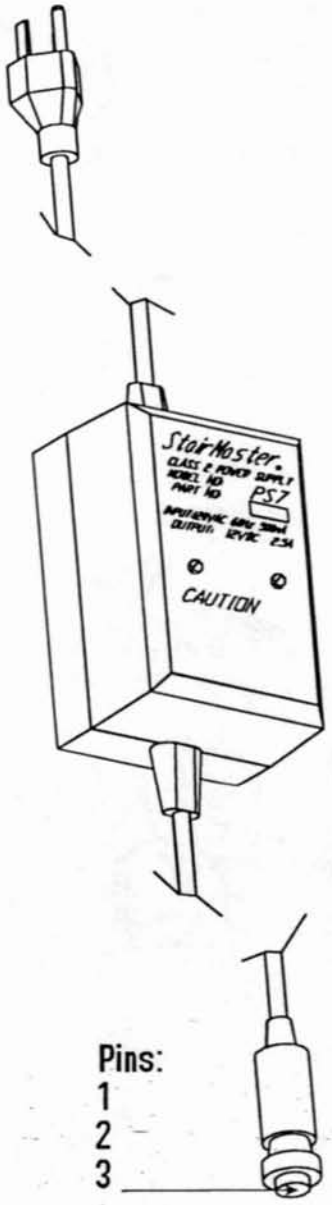


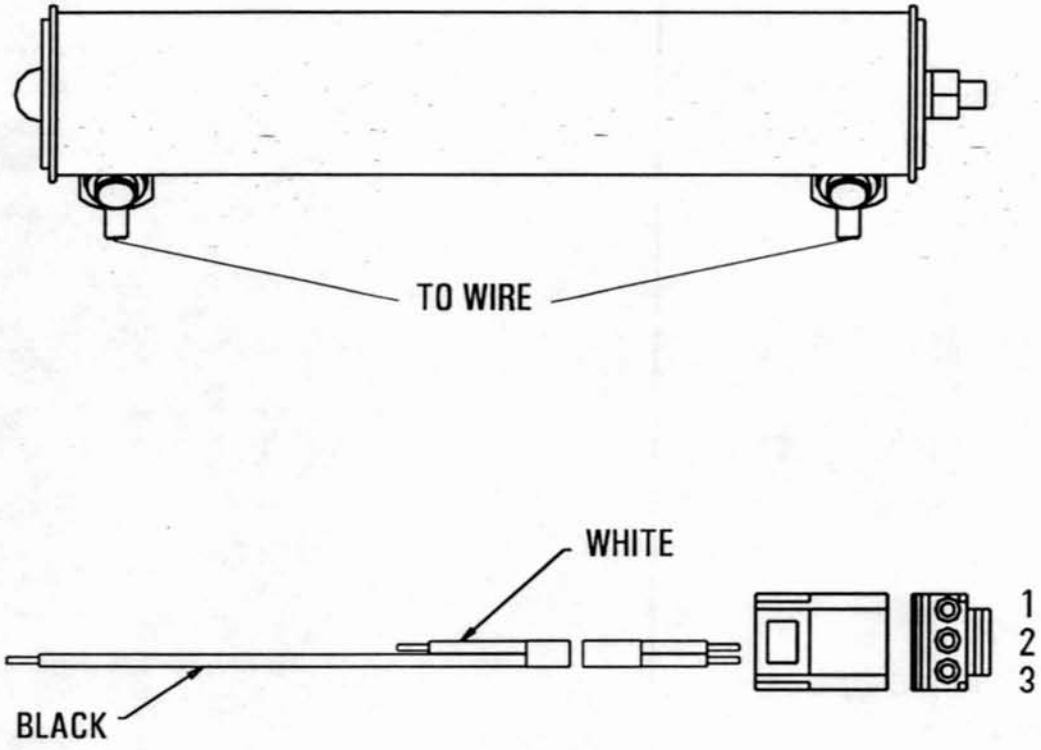
Figure 37: Power Supply



POWER SUPPLY

Pin 1 - V Supply
Pin 2 - Ground
Pin 3 - Earth Ground

Figure 38: Load Resistor



LOAD RESISTOR

1/2 Ohm 240 Watt
1/2 Ohm measured at Pins 1 and 3