

# TRAK<sup>®</sup> 3ntr 3D Printers

## Printer Electrical Connection Quick Start Guide

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### Covers Current Models:

- 3ntr A2
- 3ntr A4

**TRAK** MACHINE  
TOOLS



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# 1 Electrical Connections

In this section, you will make the electrical connection to the printer and MMS unit (if applicable)

**CAUTION** – Employ a licensed electrician to help with electrical connection and wiring where these instructions are unclear, or your site installation specifics are different.

A2 printers are all configured for 220V US Power. A4 printers are typically configured for 110V US power; however, may be optionally configured for 220 V US power. If you have an A4 printer - refer to your order paperwork and/or contact the dealer to determine the actual power configuration for your A4 printer before proceeding.

## 1.1 Verify Input Power Source Voltage/Phase

3ntr printers configured for 220V (All A2 and some A4 Printers) are powered with a single phase 230V and a ground connection. The neutral line is not used. Verify socket wiring with a multi-meter before connecting printer/MMS unit or wiring printer cable.



**Figure 8.1 Printer surface plate re-installed in printer**

## 1.2 MMS Unit 220V Electrical Power Connection

NOTE: This section only applies if an MMS unit is to be used with the printer.

The MMS units connects to a 220VAC Single phase connection. In this case, the printer should also be configured for 220VAC Single phase power. The printer connects to the outlet on the top of the MMS unit. The power cable supplied with the MMS terminates in bare wires so that a plug compatible with your facility can be installed.

- 1) Obtain standard 220 VAC Single phase power cable OR wire supplied MMS cable following instructions in section below: "Wiring a Printer or MMS Power Cable for 220V Single Phase"



**Figure 8.2.1 Typical 3ntr A2 Printer or MMS Power Cable**

- 2) Plug power cable into MMS Unit



**Figure 8.2.2 MMS Unit Power Plug and Switch**

3) Plug cable into external power receptacle:



**Figure 8.2.3 220 VAC Single Phase Plug and Receptacle**

### 1.3 Standard 3ntr 220V Electrical Power Connections

- 1) Inspect power connection locations on printer/MMS units and supplied cables to ensure the connectors are matching and cables are for the correct voltage/phase as the printer.
- 2) Plug power cable into Printer



**Figure 8.3.1 Printer Power Connection**



**Figure 8.3.2 Printer Power Plug**

- 3) If there is no MMS unit, plug Printer cable into appropriate wall outlet (220VAC 15A Single Phase)
- 4) If there is an MMS unit, plug the Printer power cable into the power outlet on the MMS Unit



**Figure 8.3.3 Printer power outlet on MMS Unit**

## **1.4 Wiring a Printer or MMS Power Cable for 220V Single Phase**

NOTE – In most cases, re-wiring a power cable is not required. If your printer was designed for 220VAC power and was shipped with a standard 110 VAC cable, you will need to either A) contact your dealer and obtain the correct power cable (Preferred) or B) Have a qualified electrician wire one for your 220 VAC power source. The supplied cable is rated for the appropriate current in either case.

- 1) Wire Cable plug for 220VAC Single Phase as shown.

**CAUTION** – The neutral line is not used. Connecting it as if it were ground will damage other systems connected to the printer





**Figure 8.4 220 VAC Power Plug Wiring.**  
**Green = Ground. Black and White = 230 VAC single phase**

- 2) Verify cable wiring with a multi-meter before connecting to printer/power. Measure between the printer power cable ground and any 110VAC wall socket ground. This should be zero "0" volts. If there is a potential present, it is likely a neutral line has been used where a ground wire should have been.

**CAUTION** – Do not connect the printer or any peripherals until the ground/neutral line has been sorted out and there is no potential between printer ground and the 110V ground.

### **1.5 3ntr A4 printer with 120 VAC US Power Connection**

Plug in the printer cord to a normal 120 VAC 15A US outlet as with any appliance.



TRAK Machine Tools  
Southwestern Industries, Inc

# TRAK Warranty Policy

## Warranty

TRAK products are warranted to the original purchaser to be free from defects in workmanship and materials for the following periods:

Product	Warranty Period	
	Materials	Factory Labor
New TRAK/ProtoTRAK	1 Year	1 Year
Any EXCHANGE Unit	90 Days	90 Days

The warranty period starts on the date of the invoice to the original purchaser from Southwestern Industries, Inc. (SWI) or their authorized distributor.

If a product, subsystem or component proves to be defective in workmanship and fails within the warranty period, it will be repaired or exchanged at our option for a properly functioning unit in similar or better condition. Such repairs or exchanges will be made FOB Factory/Los Angeles or the location of our nearest factory representative or authorized distributor.

## Disclaimers of Warranties

- This warranty is expressly in lieu of any other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligations or liability on the part of SWI (or any producing entity, if different).
- Warranty repairs/exchanges do not cover incidental costs such as installation, labor, freight, etc.
- SWI is not responsible for consequential damages from use or misuse of any of its products.
- TRAK products are precision mechanical/electromechanical/electronic systems and must be given the reasonable care that these types of products require. Evidence that the product does not receive adequate Preventative Maintenance may invalidate the warranty. Excessive chips built up around ballscrews and way surfaces is an example of this evidence.
- Accidental damage, beyond the control of SWI, is not covered by the warranty. Thus, the warranty does not apply if a product has been abused, dropped, hit or disassembled.
- Improper installation by or at the direction of the customer in such a way that the product consequently fails, is considered to be beyond the control of the manufacturer and outside the scope of the warranty.
- Warranty does not cover wear items that are consumed under normal use of the product. These items include, but are not limited to: windows, bellows, wipers, filters, drawbars and belts.