Starek D4 Data Terminal - Quick StartGuide

What's in the Box:

- **STAREK D8 Terminal**
- **External 2.4 GHz Antenna**
- **Quick Start Guide**
- **Wiring Harness (optional)**
- **Mounting Brackets (optional)**

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Getting Started:

1. **Powering Up the Device**:
   - Connect the STAREK terminal to a power supply voltage of 12-24V DC. This supply can be sourced from a terminal on your CNC or an external power adapter. Refer to the schematics section for details.
   - Mount the supplied 2.4 Ghz antenna on the device.
   - **IMPORTANT:** Observe polarity while connecting the device.

2. **Connecting the Cycle Signals**
   - Connect the cycle signal from your CNC machine to the designated port on the terminal. Refer to the schematic for connection details.
   - **IMPORTANT:** Observe polarity while connecting the device.

3. **First Time Configuration**
   - Power on the device ***The power LED will blink once. Within 5 seconds, press the MFN button. The power LED will now stay solid***. This indicates you have entered the configuration mode. If the power LED does not stay solid and starts blinking, repeat this step until you are able to enter the configuration mode.
   - A new WiFi network with the ssid STAREKXXXXXXXX will be now available to connect to.
   - Using your mobile device or computer, go to your Wi-Fi settings and connect to the terminal's hotspot (SSID: "STAREKXXXXXXXX"/password: "1234567890").
   - Open a browser and navigate to 192.168.4.1. You should see a configuration page.
   - Supply the required configuration for the device. Every configuration is different so consult your administrator or technical support for specific settings.
   - Reboot the device.

Wiring Diagram:

The device offers the following terminal connections:
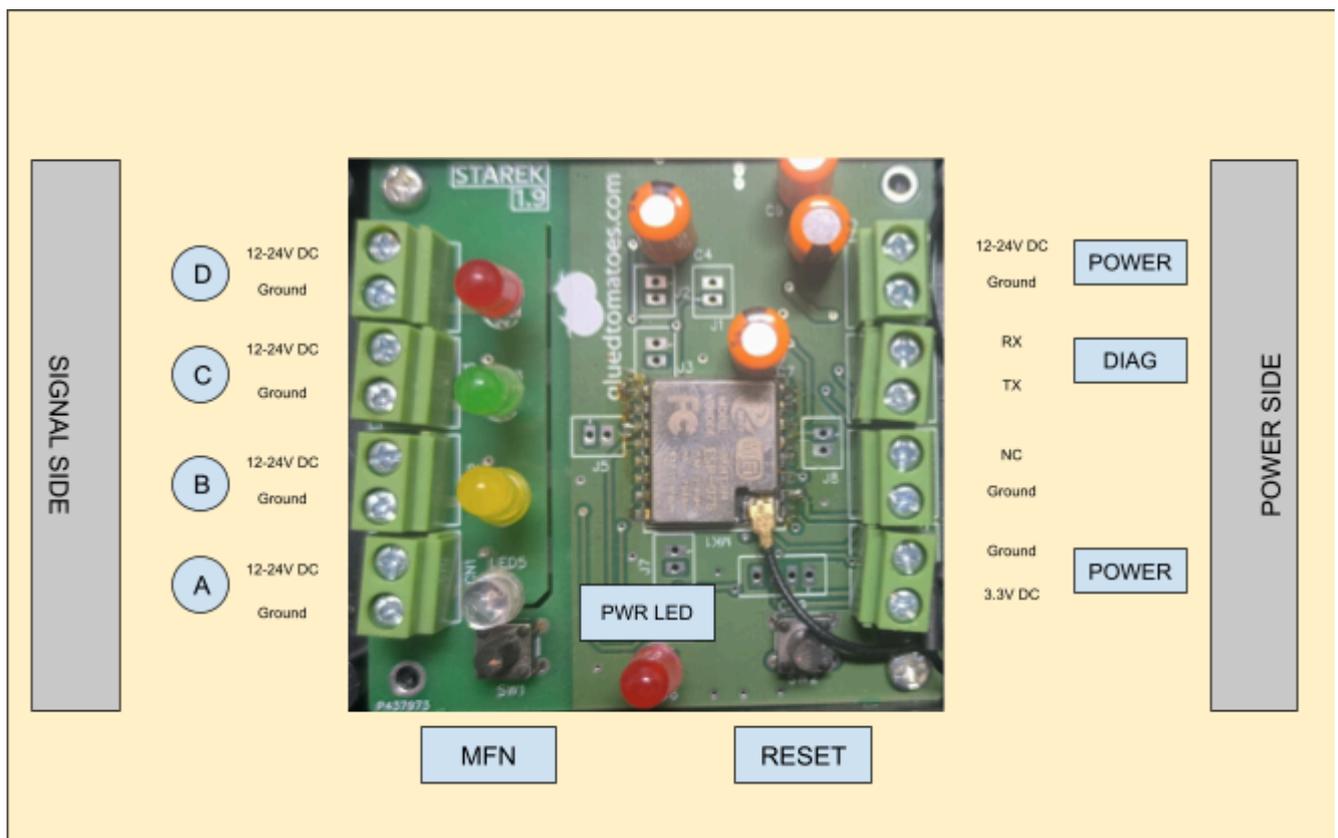
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LED Status:

Power LED Status

POWER LED - Quick Single Flash, followed by - 5 seconds OFF at bootup	This is a time window provided to the user for entering the configuration mode. - If the MFN button is pressed, the unit will enter configuration mode (required for first-time setup). - If the MFN is not pressed, the unit will continue to operate normally.
POWER LED - Quick Single Flash, followed by - 5 seconds OFF at bootup followed by - rapid flashing	The unit is configured and is attempting to connect to the configured Wi-Fi network.
POWER LED - Quick Single Flash, followed by - 5 seconds OFF at bootup - Stays Solid	The unit is in configuration mode and ready for configuration.
POWER LED - Flashes Rapidly	The unit is trying to latch on to the wifi network supplied. The unit will eventually switch to the operational state. - If the unit status seems stuck at this for over a minute, it is unable to connect to the WiFi. Please check your network settings.

Operational LED Status

LED On (A, B, C, D)	The unit is sensing the connected machine to be ON. A, B, C, D are independent and more than more LEDs may be on at the same time based on the state of that channel.
LED Off (A, B, C, D)	The unit is sensing the connected machine to be OFF. A, B, C, D are independent and more than more LEDs may be OFF at the same time based on the state of that channel.

Operational Flow:

1. **Power Up**:
   The device powers on and performs a system check. The power LED blinks quickly and then turns off. Use the MFN button to enter configuration mode.
2. **Wi-Fi Connection**:
   The power LED blinks rapidly while attempting a Wi-Fi connection. Once connected, the device enters operational state.
3. **System Operational**:
   a. The power LED remains off and blinks once every 5 seconds.
   b. The signal LED turns on when detecting a cycle on, and off when detecting a cycle off.

1. **Configuration Mode**
   Press the MFN button within 5 seconds of powering on to enter configuration mode. The power LED remains solid until configuration is complete.

1. **Programming Mode (Advanced)**

   To enter programming mode, hold down the MFN button and press the reset button during power-on. Use this mode for firmware updates or troubleshooting, and contact technical support before proceeding.

Troubleshooting:

- **No Power / No LEDs Lit**:
  - Verify the power is correctly plugged in.
  - Ensure the outlet has power.
- **Cannot Connect to Wi-Fi** (Power LED keeps blinking rapidly)
  - Check if the configuration is correct.
  - Verify port and host settings.
  - Make sure the router is functional and within range.

Technical Specifications

- 80 MHz 4MB Espressif Processor
- Inbuilt Wi-Fi capability with 3 dBi Antenna
- Optoisolated Digital Inputs
- Reverse Polarity Protection on Inputs
- 12-24V Compliant
- Onboard LED Indicators for Status Reporting
- Current Consumption < 200mA