

Initial Node Configuration Checklist

When you get a new Meshtastic node, running through a standard configuration checklist ensures it's properly set up for your network before deployment. This guide covers every setting that matters for a production deployment.

Step 1: Flash Latest Stable Firmware

Even brand-new hardware may ship with outdated firmware. Always flash the latest stable release before configuration:

1. Visit flasher.meshtastic.org in Chrome or Edge
2. Connect node via USB
3. Select your board model exactly (wrong board = failed flash)
4. Select "Latest Release" and click Flash
5. Wait for flash to complete (1-3 minutes)

Step 2: Region Setting (Critical)

The region setting controls which frequency band the node uses. Transmitting on the wrong frequency is illegal and will cause your node to interfere with other services. The region setting is the master legal cap on both frequency and transmit power: selecting a region other than your own (for example a foreign region preset) can put your node outside your country's authorized band and power limits.

```
# For US users:
meshtastic --set lora.region US

# For Canada:
meshtastic --set lora.region US # Canada uses the same 902-928 MHz (US915) band as the US
```

```
# Check current setting:
meshtastic --get lora.region
```

The node will not transmit until a region is set. This is intentional - it prevents out-of-box interference.

Step 3: Set Your Identity

```
# Set your long name (visible to all nearby nodes):
meshtastic --set-owner "Your Name or Node Name"

# Set your short name (4 chars, shown on map):
meshtastic --set-owner-short "AB01"
```

Step 4: Configure Your Channel

To join an existing community network, the easiest and safest method is to scan their QR code (or open their shared channel URL) with the [Meshtastic app](#), which imports the channel name and key automatically. If you configure the channel manually instead, you must use the community's *real* base64 PSK - the placeholder below is not valid base64 and typing it verbatim will error or set a garbage key:

```
# Set channel name and key (replace base64encodedkey== with your community's REAL base64 PSK):
meshtastic --ch-index 0 --ch-set name "CommunityName"
meshtastic --ch-index 0 --ch-set psk "base64encodedkey=="

# Alternatively, for a new/default key instead of a shared one:
# --ch-set psk none      (no encryption)
# --ch-set psk random   (generate a fresh random key)

# Verify channel settings:
meshtastic --info
```

Step 5: Set Device Role

```
# For a personal/portable node:
meshtastic --set device.role CLIENT

# For a fixed home station that also relays traffic, use CLIENT (smart relay) or ROUTER_LATE.
# ROUTER_CLIENT is deprecated and removed in current firmware - do not use it:
meshtastic --set device.role CLIENT

# For a dedicated infrastructure repeater:
meshtastic --set device.role ROUTER
```

Step 6: Configure GPS (if equipped)

```
# Enable GPS position broadcasting (current firmware uses the gps_mode enum;
# older firmware used the boolean position.gps_enabled):
meshtastic --set position.gps_mode ENABLED

# Set position broadcast interval (seconds):
# 900 = every 15 minutes (good for fixed nodes)
# 60 = every minute (for mobile use)
meshtastic --set position.position_broadcast_secs 900

# For fixed installations, set a fixed position instead of using GPS:
meshtastic --setlat 45.5051 --setlon -122.6750 --setalt 50
```

Step 7: Verify and Test

```
# Show full device info:
meshtastic --info

# Listen for incoming packets:
meshtastic --listen

# Send a test message:
```

```
meshtastic --sendtext "Test from [your name]"
```

Check that your node appears in the app's node list and that the channel matches your community's configuration. Send a test message and verify it's received by another node.

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