

# Using Commands in Blackout Comms



This is an **experimental** feature in Blackout Comms, which allows you to interact with other devices in your cluster. **Commands are only supported in cluster mode.** This forces asymmetric encryption, ECDSA, and chain of trust protection to ensure commands are only issued by trusted devices.

## Touch the *Command* Button



## Select a Device & Command

Devices will have varying options



## Security and Delivery

All commands are sent as on-cluster direct messages. This means commands have the following protections:

- Asymmetric Encryption
- ECSDA Digital Signatures
- Frequency Hopping
- Signed delivery confirmation
- Direct and mesh capable



## Growing Set of Supported Sensors / Actors




Expect to see more developments in this area. The options for commands will vary, based on the capabilities of any device you select.

Currently all devices support a base set of commands and configurations (unless disabled).

Additionally, links/nodes can be modified/built to support relay switching and proximity sensing.



## How Commands are Organized

 <b>Query</b>	Retrieve information from a remote device
 <b>Config</b>	Adjust a configuration of the remote device
 <b>Act</b>	Cause something to happen on the remote device

**Reminder: This is experimental and could be dangerous if misused or if bugs are present!**

- Use these features at your own risk
- Do not rely these features for personal safety (such as detecting intruders)
- Do not attempt to build supported devices if you are not familiar with safely building electronics
- You are responsible for your own safety (and the safety of others around)
- **Commands may arrive more than once under certain circumstances!**






# Blackout Comms Commands


Visit [chatters.io](https://chatters.io) or [offgridcomms.club](https://offgridcomms.club) for relay node assembly instructions

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## Basic


*Supported on all devices (unless user-disabled)*


 <b>Query</b>	
<b>Report Uptime</b>	Report time since last reboot
<b>Report Neighbors</b>	Send list of devices currently within LoRa range
<b>Report Battery</b>	Send battery charge level
<b>Show Path to Me</b>	Show optimal mesh path from the selected device to yours


 <b>Config</b>	
<b>Enable/Disable GNSS</b>	Whether to use and share location (GPS)
<b>Enable/Disable Time Cast</b>	Whether to cast time on center frequency
<b>Enable/Disable Mesh</b>	Whether to broadcast pings and participate in mesh
<b>Enable/Disable Display</b>	Whether to power the display (off can save battery)
<b>Update Time Zone</b>	Push your current Time Zone to the selected device
<b>Update DST</b>	Enable/Disable daylight savings on selected device
<b>Wipe Device!</b>	Factory resets selected device (only root can send)
<b>Enable/Disable Time Lock</b>	Ignore GPS and other external time sources



## Proximity Sensing

 <b>Query</b>	
<b>Last Motion</b>	Report last motion sensed


 <b>Config</b>	
<b>Notify of Motion</b>	Broadcast message if presence sensed
<b>Relay/Notify Off</b>	Turn off automatic notifications/relay triggering
<b>Reset: 5 Min</b>	After presence sensed, suppress notify for 5 min
<b>Reset: 10 Min</b>	After presence sensed, suppress notify for 10 min
<b>Reset: 30 Min</b>	After presence sensed, suppress notify for 30 min
<b>Motion != Relay</b>	Disable presence-triggered relay (if enabled)

 <b>Act</b>	
<b>Motion == Relay</b>	Close relay for 5 seconds when presence sensed



## Relay Switching



 <b>Act</b>	
<b>Switch 5 Sec</b>	Closes relay for 5 seconds
<b>Switch On</b>	Closes relay (turns on)
<b>Switch Off</b>	Opens relay (turns off)

