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Dejero products or portions thereof are protected by patents granted and pending.

Symbols and Conventions

This document uses the following symbols and conventions:



Note: Shares important related information, reminders, recommendations, and suggestions.



Tip: Shares helpful tips or alternative ways to accomplish a goal.



Caution: Means that the action you take could cause harm to your equipment or device, cause you to lose data, or void your warranty.



Warning: Describes an action that could cause you physical harm. Follow the guidelines in this document or the device itself when handling electrical equipment.

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Warranty and Liability

Reasonable care has been taken in preparing the information in this document. However, this document may contain omissions, technical inaccuracies, or typographical errors. Dejero Labs Inc. does not accept responsibility of any losses due to the use of this document. Product specifications are subject to change without notice.

Due to the nature of wireless communication, transmission and reception of data can never be guaranteed. While Dejero strives to provide high-quality video transmission without significant delays, environmental and cellular network conditions beyond Dejero's control may result in data delay, corruption, or loss.

Dejero accepts no responsibility for and is not liable for any loss or damage, including, but not limited to, revenue or personal injury, resulting from delays in, errors in, or failure to transmit or receive data using the Dejero platform.

Warranty on the Dejero EnGo 3x is voided if the device is opened or the endcaps are removed. For details, see Handling and Operating Conditions below.

Safety Warnings and Hazards

Read this section in its entirety before operating the Dejero EnGo 3x.

Federal Communications Commission statement

EnGo complies with Part 15 of the Federal Communications Commission (FCC) rules for a Class A device. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Changes or modifications made to the EnGo device not expressly approved by Dejero could void the user's authority to operate the equipment.

Industry Canada statement

EnGo complies with Industry Canada ICES-003 Class A specifications.

EnGo contains license-exempt transmitters or receivers that comply with Innovation, Science, and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

EnGo operation is restricted to the indoor use for the frequency band 5150 – 5250 MHz.

The PMN is EM12-G.

RF Exposure Notice

THIS DEVICE MEETS THE GOVERNMENT REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

EnGo is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government and Industry Canada.

Explosive Atmosphere

The EnGo should be powered off in an area with a potentially explosive atmosphere such as fuelling areas, fuel or chemical transfer or storage areas, below deck on boats, or in areas where the air contains chemicals or particles such as grain, dust or metal powders. It is rare, but there is potential for PC-like devices, such as the EnGo, to generate sparks, which could trigger an explosion. Do not store the EnGo in the compartment of a vehicle that contains flammable gas, liquid, or explosives.

Blasting or Construction Sites

The EnGo should be powered off in areas where blasting is in progress, where explosives may be present, or near any other equipment that is susceptible to radio interference.

Hospitals

The EnGo should be powered off near medical equipment or life support systems, or near any other equipment that is susceptible to radio interference. Hospitals or other medical facilities often ask visitors, patients, and staff to switch off all electronic devices in some areas. Please make sure that you follow any local rules and regulations.

Aircraft

The EnGo should be powered off and not operated in any aircraft, whether in flight or on the ground; systems onboard the aircraft could be affected by radio interference.

The EnGo 3x has an internal lithium-ion battery rated less than 100 watt-hours (Wh). The battery, if left inside the EnGo, is rated by the TSA and FAA as safe for travel on aircraft as checked luggage or as a carry-on. The internal battery should not be transported on an aircraft if it is removed from the EnGo.

Driving

The driver or operator of any vehicle should not operate the EnGo while in control of that vehicle. Doing so will detract from the driver's or operator's control and operation of that vehicle.

In-vehicle use

Dejero Labs Inc. (Dejero) is not liable for any liabilities, obligations, loss, damage, personal injury, special, incidental or consequential damages for personal injury or other damage of any nature arising, including but not limited to those arising under any contract, warranty, negligence or in theory of contract or tort law, directly or indirectly as a result of the improper installation or use of its products in a vehicle or any other application. In order to safely install and use Dejero products full consideration of vehicle occupants, vehicle systems (i.e., the location of fuel lines, brakes lines, electrical, drive train or other systems), airbags and other safety equipment is recommended. Dejero specifically disclaims any responsibility for the improper use or installation of its products not consistent with the original vehicle manufacturer's specifications.

Personal Health and Safety

For personal health and safety, the operator must maintain a minimum distance of 10 mm from the EnGo while it is powered on, except when using the touch screen.

Medical Implant Devices

It is possible that the radio modems in the EnGo may interfere with some types of medical devices (such as cardiac pacemakers or implant defibrillators), when operated close to the device. If you have one of these devices, you should seek advice from your doctor before operating the EnGo. For personal health and safety, persons concerned about exposure should maintain a minimum distance of 10 mm from the EnGo while it is powered on, except when using the touch screen.

Hearing Devices

People with hearing aids or cochlear implants may experience interfering noises when using or when nearby mobile devices. The level of interference depends on the type of aid or implant, the type of mobile device, and the distance between the two. Increasing the distance between the EnGo and the hearing device may reduce interference.

Electrical Safety

The socket-outlet shall be installed near the equipment and shall be easily accessible.

Li-ion (rechargeable) battery notice



Warning: The battery installed in this device may present a risk of damage, fire, or chemical burn if mistreated. Do not attempt to disassemble the device to access or replace the internal battery. Only authorised Dejero personnel can service the internal battery and the unit.

Handling and Operating Conditions

Read this section in its entirety before operating the EnGo.

Handle Device with Care

While the EnGo is durable, it is possible to damage the device if it is dropped or thrown. Please handle with care. Damage sustained as the result of mishandling the EnGo renders the warranty null and void.

Do Not Open the Case

The EnGo case should remain sealed at all times to protect the sensitive electronics inside and ensure the safety of the operator. Opening the case renders the warranty null and void.

Do Not Disassemble the Product

Only authorized Dejero personnel can open, modify, or repair the EnGo unit. Unless authorized by Dejero personnel, any attempt by the user to open, disassemble, or repair the device renders the warranty null and void.

Use Only Approved Power Adapters

Use only the power adapter that is included with the EnGo 3x. You cannot use the power adapter from an EnGo hardware version 1.3 or earlier to charge the EnGo 3x.

Keep Air Vents Clear

If the air vents are blocked, the EnGo may overheat and shut down. These vents are located on the top and bottom of the device in the black plastic antenna endcaps. Please keep these areas clear and unobstructed to ensure adequate airflow.

Keep Device as Cool as Possible

For optimal performance, keep the EnGo in well-ventilated areas, away from heat sources and direct exposure to sunlight. Avoid operating the EnGo in temperatures outside of the ambient range (0°C to +45°C / 32°F to 113°F).

Keep Device Dry

Keep the EnGo dry. Keep it covered during inclement conditions, while still ensuring adequate air flow to keep the EnGo cool. Do not expose it to liquid, moisture, or excessive humidity. The EnGo backpack is designed to be weather-resistant, but not weatherproof. Using the EnGo with backpacks other than those supplied by Dejero is not recommended and will void the warranty.

About the Dejero EnGo 3x

The Dejero EnGo 3x is reliable, simple to use, and built tough for field use. It is designed for mobile video professionals who demand high performance.

EnGo 3x efficiently encodes and securely transmits high-quality live video from the field while also empowering mobile teams to work more efficiently with resilient, high-bandwidth, wireless internet access.

Featuring Dejero's renowned *Smart Blending Technology*, the dependable EnGo 3x reliably performs in the most challenging network conditions.

Worn in a backpack or mounted in a vehicle for use with roof-top antennas, EnGo 3x is ideal for newsgathering, sports coverage, live event production, and transmitting real-time video from drones.

Unmatched reliability

World-class RF and antenna design, combined with unique *Smart Blending Technology*, enables ultra-reliable transmission in the most challenging environments.

Low latency over bonded cellular

True glass-to-glass latency as low as 0.5 seconds over bonded cellular networks. Optimized encoding and transmission techniques makes this possible.

Built tough for field use

Vibration-, shock-, and crash-tested, the rugged design features aircraft-grade aluminum construction and polycarbonate ABS bumpers.

Enhanced security

A Trusted Platform Module that authenticates your device, combined with AES256 encryption and a security-hardened Linux OS, ensures that your content is transmitted securely.

Additional features

- **Smart Blending Technology:** Aggregate 3G/4G/LTE-A, external 5G, Wi-Fi®, Ethernet, and portable satellite connections.
- **Hybrid encoding technology:** Hardware/software encoding dynamically adapts in real-time based on the complexity of the video scene being captured and the network throughput.
- **Resilient wireless technology:** Advanced RF and antenna design for ultra-reliable transmission and reception.
- **Easy to use:** 5" capacitive touch screen provides confidence monitoring, status information, and in-field control.
- **Ergonomic backpack:** Includes shoulder-mounted wired remote, sun shade, simplified cable management, and space for optional external battery.
- **Vehicle Antenna Dock:** Mount inside a vehicle and connect to external antennas with optional dock.
- **Internal and external battery options:** Over three hours of battery life from rechargeable internal battery, plus optional use of external ENG camera batteries for extended runtime.

- **IFB and Intercom:** One-way IFB and two-way, full-duplex Intercom voice communication.
- **Return video:** Connect an external display to the HDMI output to view a low-latency feed from the studio.
- **UAS interoperability:** Works seamlessly with unmanned aerial systems to capture real-time video from unique vantage points.



Note: EnGo 3x can transmit and receive encrypted live transmissions (including IFB).

What's included

The EnGo includes the following items:

- EnGo mobile transmitter
- Power adapter with country-specific cord
- EnGo backpack, which includes:
 - A power cable that connects directly to a D-Tap port on a battery or the included V-Mount or Gold Mount battery plates
 - A backpack cover for weather protection
 - An SDI cable
 - An HDMI cable
 - Audio extension cables (3.5 mm and XLR) for IFB
 - Audio extension cable (3.5 mm) for Intercom
 - A Wired Remote



Note: The touch screen on the EnGo is a capacitive screen. If you are wearing gloves, you must remove them before using the screen.

For important quick start information, visit dejero.com/engo3x-tips. You can also access this information by scanning the following QR code:



About Dejero Control





When you manage the EnGo with Dejero Control, you can:





- Assign live and recorded video, as well as file transfers, from the EnGo to a Dejero receiver.
- Geolocate the EnGo mobile transmitter.
- Preview and route feeds from the EnGo.
- Remotely control and configure the EnGo.
- Review analytics about the performance of the EnGo.
- Add metadata that is associated with uploaded clips.

Powering the EnGo

When the EnGo is on, it runs on its internal battery. The EnGo does not supply power to the camera.

The following icons appear on the **Preview** screen to indicate the battery's status. The percent that appears with each battery icon indicates the remaining charge.

	Running on auxiliary power (either a power source or an auxiliary battery). If the internal battery needs charging, the battery icon indicates that the battery is charging.
	Running on internal battery.
	Running on internal battery, but the remaining charge is 20% or less.
	Running on internal battery, but the remaining charge is 5% or less. If the power level falls below 2%, the EnGo turns off automatically.

	Battery error, but the EnGo is running on auxiliary power. For more information, select  > Warning .
	Battery error. For more information, select  > Warning .

Charge the EnGo

When the battery is low, you must charge the EnGo. Charge the battery in EnGo fully prior to using it for the first time.



Note: The battery might not charge if the temperature is below 10° C / 50° F or above +45° C / 113° F, or if it has encountered a problem that caused the battery to fail.

Charge the EnGo using a power outlet



Note: Use only the power adapter that is included with the EnGo 3x. You cannot use the power adapter from an EnGo hardware version 1.3 or earlier to charge the EnGo 3x.

1. Connect the one end of the power cord to its power adapter.
2. Connect the power cord that is connected to the power adapter to the DC IN port on the side of the EnGo.
3. Plug the other end of the power cord into a power outlet.

About the Power button settings

The Power button on the EnGo provides information about the charging or battery status of the EnGo.

Light setting	Description
No light	The EnGo is off. If it is connected to an external power source, the internal battery is fully charged.
Solid blue light	The EnGo is on and the battery is charged to greater than 20%. A solid blue light also appears if the EnGo is on and connected to an external power source. If the EnGo is off, the external power source is still charging the battery.

Blue light flashing once every 2 seconds for approximately 30 seconds	The EnGo is off and connected to an external power source but the battery is fully charged. After approximately 30 seconds, the blue light stops flashing.
Blue light flashing approximately twice a second	The EnGo is on and the internal battery is below 20%. The EnGo is not connected to an external power source so the battery is not charging.

Charge the EnGo using an auxiliary battery


Use the included power cord to connect to a D-Tap port on an auxiliary battery or the V-Mount or Gold Mount battery plates to charge the EnGo.

1. Connect the power cord to the DC IN port on the side of the EnGo.
2. Perform one of the following actions:
 - Connect the power cord directly to an auxiliary battery.
 - Connect the power cord to the battery plate. Slide an auxiliary battery onto the battery plate.



Note: When you connect an auxiliary battery to the EnGo, the battery both powers and charges the EnGo (if the internal battery needs charging). Because it performs both functions, the battery level in the auxiliary battery drains faster.

Starting the EnGo

1. On the front of the EnGo, press and hold  for approximately one second.

While the transmitter turns on and establishes a network connection, start-up messages appear on the **Preview** screen.

Using the EnGo

You can use the EnGo in one of the following operation modes:

- **Live:** Transmit live video over network blending of cellular, Wi-Fi, Ethernet, or satellite connections to the Dejero receivers.
- **Recording:** Record video for later transmission. Use this mode when a live feed is not required, or when bandwidth is limited or not available.

- **Live and Recording:** Transmit live while also recording high-quality video to use later. Use this mode when network bandwidth is limited but you still need to broadcast live.
- **Clip or File Transfer:** Quickly transfer photos, scripts, graphics, or edited video packages to the Dejero receivers using the blended network connectivity.
- **Record and Auto Transfer:** Record a clip and transfer it to the receiver simultaneously. Use this mode when you need to have the clip available on the receiver quickly.
- **Wi-Fi Hotspot:** Access the internet over a single network connection, preserving the remaining connections for video.
- **GateWay Mode:** Use all available connections for internet access or to provide increased capacity for data-intensive applications.



Note: Audio and video data transmitted by the EnGo 3x can be encrypted using AES 256 encryption. For more information, see "Enabling stream encryption" on page .

Connecting to the EnGo

You can use the connection ports on either side of the EnGo to connect video and audio, Ethernet, IFB, or Intercom. You can also use the USB ports on the EnGo.



Note: By default, Ethernet port 1 on the EnGo 3x is configured as a WAN port and Ethernet port 2 is configured as a LAN port. To configure both Ethernet ports as WAN ports, contact Dejero Support.

Connect video and audio

The EnGo supports SDI video input with embedded audio.

1. Plug the included SDI cable into the video camera's output port.
2. Plug the SDI cable into the video input port on the EnGo.
3. Make sure that all cables are firmly connected.

The EnGo selects the correct video input automatically. If you do not see video on the screen, make sure that the cables are connected properly and that you are using a supported video format.

If the video format is not detected automatically, you may need to configure the video settings. For more information, see "Configuring the EnGo" on page .



Note: You can use the HDMI output on the EnGo to connect directly to an external display.

Connect Ethernet

Using an optional Ethernet connection, you can choose to transmit using Ethernet only or broadcast over Ethernet and cellular networks simultaneously.

If multiple networks are available, you can plug in a second Ethernet cable for additional throughput.



Note: By default, Ethernet port 1 on the EnGo 3x is configured as a WAN port and Ethernet port 2 is configured as a LAN port. To configure both Ethernet ports as WAN ports, contact Dejero Support.

1. On the side of the EnGo, plug an Ethernet cable into one of the ports.
2. Verify that UDP port 6001 is open on the network for inbound and outbound traffic. (In most cases, the network rules do not require any changes.)

The Ethernet adapter is configured to obtain IP address details automatically using DHCP. For more information, see "Configuring the EnGo" on page .

Connect IFB

IFB acts as a one-way audio communication tool from Dejero receivers to the EnGo. It enables communication and cueing from the studio crew to the reporter in the field. The station sends a program feed to the reporter's earpiece, which is connected to the EnGo.



Note: Connecting IFB is optional.

You can use IFB at any time – regardless of whether the EnGo is transmitting a live stream. To use IFB when the EnGo is not live, both the EnGo and the receiver that you are using must be using software version 5.3 or later.

For more information on Dejero receivers, visit support.dejero.com to read the receiver user guides.



IFB audio output can be balanced or unbalanced. For more information on switching between them, see "Switch between balanced and unbalanced IFB audio output" on page .

1. Connect your audio device (such as an earpiece, headset, or IFB amplifier input) to one of the provided audio extension cables (either 3.5 mm or XLR).
2. Plug the adapter into the 3.5 mm connector on the side of the EnGo.

As soon as an audio source is connected to the receiver, an IFB indicator appears on the right side of the screen. It shows the following information:

- I = Idle
- R = Receiving
- .1-.9 = IFB is active and the delay is less than 1 second
- 1-9 = IFB is active and delay is less than 10 seconds
- X = IFB is active and the delay is 10 seconds or more

The indicator starts at I and, when IFB is active, it shows the volume and the delay interval.

As the EnGo receives voice packets from the receiver, the sound level varies.

Use the USB ports

The EnGo has two USB 3.0 ports. You can use these ports for connecting USB memory sticks (for file transfers) or for connecting support peripherals (such as a keyboard or mouse).



Note: Use low-power USB devices with the EnGo, such as memory sticks or supporting peripherals. To reduce power consumption and the potential for overheating, do not connect devices that require a lot of power.

Set up Intercom

You can use the Intercom feature to enable real-time two-way audio communication between the EnGo in the field and a supported Dejero WayPoint receiver at the studio.

In the studio, an external audio interface connects to the WayPoint receiver over USB. This device receives audio inputs from an external source that are mapped to the WayPoint outputs. In the field, you can connect a headset with a 3.5 mm connection to the EnGo 3x to receive and send Intercom audio communication.

If you are using a WayPoint 104 receiver, you can also use the MOTU-4PRE, the Behringer UMC404HD, or the Dante Virtual audio card.



Note: IFB works independently of the Intercom feature.

1. Ensure that the WayPoint receiver and the audio interface device are configured properly. For more information, visit support.dejero.com to read the appropriate Dejero WayPoint User Guide and the *Dejero Intercom Reference Guide*.
2. Connect a headset with a 3.5 mm connection to the EnGo.
3. Use Control to assign the EnGo to an output on the WayPoint receiver.
4. Ensure that Intercom is enabled on the EnGo. For more information, see "Enable Intercom" on page .

About the EnGo backpack

The EnGo backpack provides easy access to the EnGo.



Inserting the EnGo into the backpack

When the EnGo is inside the backpack, ensure that the cables are not bent and the connections are not under stress.

1. Use the four zippers at the top of the backpack to open the top compartment fully.
2. Connect the SDI cable to the correct input port on the side of the EnGo. For more information on using an HDMI cable with the EnGo instead, see "Insert an HDMI cable into the EnGo backpack" on page .
3. If necessary, use either the 3.5 mm or XLR audio extension cable to connect the IFB audio cable to the IFB output port.
4. If necessary, connect the 3.5 mm extension cable that is labeled "Intercom" to the Intercom headset port on the EnGo.
5. Set the EnGo inside the top compartment of the backpack with the screen facing out and the video and IFB ports facing down. Ensure that the EnGo sits down fully on the foam base with the cables inside the channel.
6. To secure the EnGo, wrap the zip cords around the antenna endcaps at either end of the EnGo, ensuring that the foam spacer is in between.
7. Route the Wired Remote USB cable from the shoulder strap of the backpack into the slot at the top of the backpack.
8. Connect the Wired Remote cable to a USB port on the top side of the EnGo.
9. If you want to power the EnGo using an auxiliary battery, perform the following actions:
 - a. In the battery compartment, ensure that the D-Tap connector is connected to the battery plate.
 - b. Ensure that the battery plate is held in place with the hook-and-loop fasteners.
 - c. Slide the auxiliary battery onto the battery plate.

- d. Connect the power cable to the DC IN port on the EnGo.



10. Close the top of the backpack. As you close the top, ensure that the Wired Remote and power cables lay inside the foam channels at the top of the backpack. The foam should rest on the EnGo 3x, not the cables.



Note: You must secure the EnGo in the backpack with the zip cords. If you do not, the EnGo can move around or fall out.

Use the EnGo inside the backpack

When the EnGo is inside the backpack, you do not need to remove it to view the screen or interact with it.



Tip: When using the EnGo outdoors, you can use the sun shade to make viewing the screen easier.

1. Open the cable storage compartment.
2. Remove the ends of the IFB and SDI cables from the compartment.
3. Connect these cables to the external cables that you use to connect to your external camera or IFB system feeds. The external camera and IFB cables are not provided with the backpack.
4. Ensure that the IFB and SDI connections lay inside the cable storage compartment and then close the compartment.

5. Close the top of the backpack.
6. To view the EnGo with the sun shade, perform the following actions:
 - a. Lift the front access panel from the bottom.
 - b. Unfold the triangle flaps from behind the panel.
 - c. Press the edges of the triangle flaps down on to the hook-and-loop fasteners on the sides of the front access panel.



7. To view the EnGo screen without the sun shade, perform the following actions:
 - a. Lift the front access panel from the bottom.
 - b. Open the triangle flaps from the inside of the sun shade to the outside and press them flat.
 - c. Roll the sun shade up toward the cable storage compartment.

- d. Secure the sun shade to the hook-and-loop fastener strip on top of the cable storage compartment. Ensure that the triangle flaps are captured underneath.



Note: To disassemble the sun shade, lift the hook-and-loop fasteners from the triangle flaps. Fold the flaps up and close the front access panel.

Insert an HDMI cable into the EnGo backpack

By default, the backpack comes with the SDI cable already inserted. You can remove this cable if you want to use an HDMI cable instead.



Note: If you only need to use an HDMI cable temporarily, feed the HDMI cable through the hook-and-loop fastener opening on the side of the backpack. Remove the zip cords from around the EnGo. Lift the EnGo and connect the HDMI cable to it. Replace the zip cords to secure the EnGo.

1. Use the four zippers at the top of the backpack to open the top compartment fully.
2. If the EnGo is in the backpack, remove it.
3. At the top of the backpack, use the zipper to open the cable storage compartment.

4. Use the hook-and-loop fasteners to open the slot in the bottom of the cable storage compartment.



5. Pull the SDI cable into the backpack through the slot in the cable storage compartment.
6. Gently separate the foam spacer from the back of the backpack and pull it forward.
7. Pull the SDI cable through the channel in the foam spacer and remove it from the backpack.
8. Route the HDMI cable behind the foam spacer, ensuring that the end of the cable that connects to the EnGo fits under the notch at the bottom of the foam spacer.
9. Ensure that the HDMI cable, as well as the IFB and power cables, fit inside the channel in the foam spacer.
10. Align the hook-and-loop fasteners on the foam spacer with the back of the backpack, ensuring that the bottom of the foam spacer is fully inserted into the bottom of the compartment.
11. Press the foam spacer against the back of the backpack.
12. Route the HDMI cable through the slot in the cable storage compartment, ensuring that it fits into the top compartment in the same way that the SDI cable did.
13. Use the hook-and-loop fasteners to close the slot in the cable storage compartment tightly.
14. Close the cable storage compartment.
15. Reinsert the EnGo into the backpack, ensuring that the zip cords fit around the endcaps to secure it in place.

About the Preview screen

When the EnGo is on, the **Preview** screen appears.



You can use the **Preview** screen in portrait or landscape mode. By default, the screen appears in landscape mode. For more information on changing the display orientation, "Setting the display orientation" on page .

The **Preview** screen is the hub of the EnGo transmitter. The top half of the screen shows the live camera feed, as well information about the power level, network connections, stream health, and any errors. From the menu, you can transfer files or show transmitter settings, error messages, and connection details. For a list of possible error messages, see "Warning and error messages" on page .

You can use the menus and buttons to access the features of the EnGo:

- **Go Live** button: Use this button to start a live transmission. The current live stream profile appears below the **Go Live** button. When you select the button, the **Preview** screen shows the live stream run time below the button, and the stream connection health and the latency above the button.
- **Record** button: Use this button to record clips. The current quality setting appears below the button. When you select the **Record** button, the **Preview** screen shows the clip run time below the button. Above the button, the screen shows the amount of remaining video time that you can record and store in the device storage.
- **Live Menu**: Use this menu to select the settings for your live transmission.
- **Record Menu**: Use this menu to set the quality of your recorded clips.



Note: If you are using the EnGo in GateWay Mode, **GateWay Mode** appears as the status below the Go Live and Record buttons.

Your Control administrator must assign the transmitter to a receiver output destination before you can use it to go live. If your administrator has not assigned the transmitter, an error appears. Your administrator can also change the Store and Forward Clip upload or File upload receiver destination using Control and the available quality settings for clips. If any settings are not available, a message appears with the quality setting in the **Record Menu**.

Change the settings for a live transmission

1. On the **Preview** screen, select the **Live Menu** button.
2. Select **Feed**, **Auto**, or **User**.

Live feed settings



Setting	Description
Feed	Use the Feed profile to send video to the station in poor network conditions. You can also use Feed when you have time to send the highest quality video or when recording live events without anchor desk and reporter interaction.
Auto	Use the Auto profile to adapt to network conditions. It increases latency as needed.
User	Use the User profile if you set the configuration options manually. For more information, see "Configuring the EnGo" on page .



Set the quality of recorded clips

1. On the **Preview** screen, select the **Record Menu** button.
2. Select **2.5 Mb/s**, **4.0 Mb/s**, **6.0 Mb/s**, **12.0 Mb/s**, **15.0 Mb/s**, or **30.0 Mb/s**.

About network connection icons

The following icons appear on the **Preview** screen to show the status of the EnGo connections. The icons also appear on the screen when using Control to manage the EnGo remotely.

Icon	Description
	Ethernet connection
	CellSat connection

	Wi-Fi connection
	Cellular connection



Note: If an icon appears in grey or if no bars appear, no connection is available. If a red X appears with the icon, there is an error with the connection. For Wi-Fi and cellular connections, the number of bars indicates the strength of the connection. For cellular connections, an R indicates that you are roaming.

Changing SIM modules

The EnGo has a user-changeable SIM module for regional cellular network access. You can access the SIM module to change the SIM cards to ones from a different region.

The SIM module uses Nano-sized SIM cards.

Swap the SIM module

1. Power off the EnGo.
2. Remove the SIM module from the EnGo by loosening the thumbscrews and pulling out the module.



3. Insert the replacement SIM module with the end marked TOP oriented toward the **Preview** screen.
4. Line up and tighten the thumbscrews. Ensure that the module is aligned correctly and tightly connected.

After changing the SIM module, select which SIMs to use. For more information, see "Define the SIM set" on page .



Warning: Do not force the module into the EnGo. If it does not insert easily, remove it and check that you inserted the replacement module in the correct way. Forcing the module can result in damage to the SIM module or the EnGo.

Change the SIM cards in the accessible SIM module



Note: The SIM cards only fully insert and remain locked if they are oriented correctly.

1. Power off the EnGo.
2. Remove the SIM module from the EnGo by loosening the thumbscrews and pulling out the module.
3. Remove the SIM cards by pushing the SIM card in gently. The SIM card will spring out.
4. If necessary, pull the SIM card the rest of the way out of the slot.
5. Place a SIM card into the slot in the SIM module correctly, with the notch on the SIM card inserted first.
6. Gently push the SIM card into the slot, until it locks into place. If the SIM card is inserted incorrectly, it does not insert all the way.
7. Repeat steps 3 through 6 for each slot.
8. Insert the SIM module with the end marked TOP oriented toward the **Preview** screen.
9. Line up and tighten the thumbscrews. Ensure that the module is aligned correctly and tightly connected.



Note: After changing the SIM cards, select which SIMs to use. For more information, see "Define the SIM set" on page .

Configuring the EnGo


Use the Settings screen to configure the transmitter settings.



Note: When you are streaming live content, you cannot configure the settings for the EnGo.

Adjust the display brightness

The preferred brightness can be manually or automatically set. If you use auto adjust, the EnGo's light sensor brightens the display in bright light and dims it in low light.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Brightness**.
4. Perform one of the following actions:
 - To adjust the brightness manually, use the slider.
 - To have the EnGo adjust the brightness automatically, select the **Auto-adjust** check box.



Note: For the EnGo to operate correctly, the brightness sensor on the front of the EnGo must not be covered.


Configure the video input

You can configure the video input setting to a specific video input type, or you can select the **AUTO** setting. By default, the transmitter automatically detects SDI connections, frame rate, and resolution with this setting. If you select SDI as the input type and EnGo does not detect the frame rate and resolution settings automatically, you can set them manually.

When you configure the video input to **AUTO**, it only detects SDI connections automatically. If you want to use the **IP** video input, you must select it manually. With this input type, the EnGo detects the frame rate and resolution automatically. In **IP** mode, only video is sent, not audio. You cannot record clips in this mode.



Note: Before configuring the video input to **IP**, connect an Ethernet cable from your video source to the EnGo. You can connect the cable to either port 1 or port 2.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Input**.
5. Select **Video Input**.
6. Set the video input to **SDI**, **IP**, or **AUTO**.
7. Select **Back**.
8. If you selected **SDI**, set the **Input Resolution** and **Input Frame Rate**.


Input Resolution	Input Frame Rates
480i	29.97
576i	25
720p	50, 59.94, 60
1080i	25, 29.97, 30
1080p	23.98, 24, 25, 29.97, 30
1080p	50, 59.94, 60 (3G-SDI Level-A)
UHD (3840x2160)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60

Change the IP video input settings

If you want to receive video over the Ethernet connection for the EnGo, you can change the IP video input settings.



Note: The EnGo supports MPEG-TS (UDP/RTP), RTSP, and RTMP IP inputs.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Input**.
5. Select **Video Input**.
6. Select **IP**.
7. Select **IP Input Settings**.
8. In the **Source URL** field, type the IP address and port for the source IP video stream.
9. Select the network interface of the EnGo that the source IP video is connected to.


Configure the audio input

By default, EnGo uses two audio channels. To add more audio channels and maintain video quality, you will require additional data. Any additional data that you use for additional audio channels is deducted from your data plan allotment.

EnGo supports 2-, 4- or 8--channel audio. To add more audio channels and maintain video quality, you will require additional data.




Note: 4- or 8-channel audio is only available with the SDI input.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Input**.
4. Select **Audio Input**.
5. Select the number of audio channels.


Switch between balanced and unbalanced IFB audio output

By default, EnGo uses a balanced audio output for IFB. You can switch to an unbalanced output.

1. On the **Preview** screen, select .
2. Select **Audio Comms**.
3. Select the IFB audio output state.

Configure the video loss setting

You can configure what appears on the screen if the video is lost during a transmission.


1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Input**.
5. Select **Video Loss**.
6. Set the video loss setting to **Black Screen** or **Last Frame**.

Configure the Live Resolution setting

Live resolution is the resolution of the video, as transmitted over-the-air when broadcasting. It is independent of the transmitter input and receiver output resolutions.



Note: To prevent using higher resolutions over a cellular connection, an administrator might set the maximum live resolution allowed for an EnGo in Control. When a restriction is added, the resolution is stepped down automatically to the maximum allowable resolution when the connection type is set to **Modems** or **All**. If the connection type is set to **Ethernet**, the maximum live resolution setting in Control is ignored. The administrator can also use Control to set the maximum connection bitrate.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Live**.
5. Select **Resolution**.
6. Set the live resolution to **Auto: SD**, **Auto: SD+**, **Auto: HD**, **Auto: HD+**, **Auto: HD+20**, **Auto: UHD**, or **Manual**.
7. If you set the live resolution to **Manual**, perform the following actions:
 - a. Select **Back**.
 - b. Select **Bit Rate**.
 - c. Set the maximum connection bitrate.

EnGo monitors the available bandwidth and adjusts the transport resolution automatically to give you the best possible video quality under the current network conditions. The receiver output resolution does not change, so the video routed to your internal systems remains constant.

Each Auto option has a different maximum bandwidth cap, appropriate for the base video resolution that you send.

Live Resolution	Maximum Connection Bitrate
Auto: SD	2.5 Mb/s
Auto: SD+	5.0 Mb/s
Auto: HD	5.0 Mb/s
Auto: HD+	10.0 Mb/s
Auto: HD+20	20.0 Mb/s

Auto: UHD	60.0 Mb/s
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Audio-only mode

In situations of limited bandwidth, when the available bandwidth falls below the threshold required for usable video quality, EnGo automatically sends only audio to the receiver and the last good frame of the video remains on the screen. When the bandwidth increases above the required threshold, EnGo resumes sending video.





Note: The thresholds change depending on the number of audio channels selected; more audio channels result in higher thresholds.

Configure the latency

Latency is the time that it takes for the video to arrive at the receiver. Glass-to-glass refers to the delay from the time the camera detects an image to the time that it appears on a video monitor connected to the Dejero receiver.



Tip: In an area of poor coverage, or very high cellular network traffic, you might achieve better video transmission results with a medium or long latency.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Live**.
5. Select **Latency**.
6. Select a latency value: **0.5 s**, **0.8 s**, **1.2 s**, **1.5 s**, **2.2 s**, **3.0 s**, **8.0 s** or **Custom**.
7. If you select **Custom** for the latency value, type a latency value between 0.5 seconds and 20.0 seconds.
8. Select .
9. Select **Back**.
10. Select **Latency Mode**.
11. Select a latency mode: **Fixed**, **Adaptive**, or **Up to**.




Note: If you engage a satellite connection as part of the CellSat service, the EnGo must use a latency of greater than 1.5 seconds. If the latency is set to less than 1.5 seconds, the EnGo changes the latency to a short latency (**1.5 s**).

Latency settings

Setting	Description
Fixed Latency mode	In Fixed Latency mode, the system attempts to give the glass-to-glass latency requested. If the current network conditions cannot support the configured latency, a warning appears on the screen. This setting is ideal when a known latency is preferred.
Adaptive Latency mode	In Adaptive Latency mode, the system measures the network conditions during the stream and gradually adjusts the requested latency upwards to a value that is supported by the current conditions. This setting is ideal when picture quality is the priority.
Up to Latency mode	In Up-to Latency mode, the system measures the network conditions during the beginning of the stream and provides the shortest possible latency available. If the conditions worsen during the stream, EnGo gradually increases the latency up to the maximum latency that you set. When EnGo reaches the maximum latency, the latency remains fixed at the specified value. This setting is ideal when the lowest possible latency is the priority.

Configure Auto Start

You can use Auto Start to initiate a live transmission automatically when you power on EnGo and it detects video input. You can also specify a delayed start for the live transmission.


1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Operation**.
5. Select **Auto Start**.
6. Select your delay setting: **No delay**, **1 minute**, **2 minutes**, **3 minutes**, **4 minutes**, or **5 minutes**.



Note: If you turn on Auto Start, the live stream starts when the transmitter detects video. If the live stream is stopped manually, Auto Start does not start again until you turn off and turn on EnGo again.

Configure the connection type

You can set the type of connection to use when transmitting data.


1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select **Connection Types**.
6. Select a connection type: **All**, **Ethernet**, or **Modems**.

Connection type settings

Setting	Description
All	The transmitter sends data through all available connections, including cellular, Ethernet, and Wi-Fi. The transmitter uses only the connections that are available. If multiple connections are available, the transmitter uses all connection types simultaneously.
Ethernet	The transmitter sends data over Ethernet, Wi-Fi, or both. If you select this option but do not have an Ethernet cable connected or a Wi-Fi connection configured, an error appears on the screen.
Modems	The transmitter sends data over the modem connections only. Use this mode when your Wi-Fi or Ethernet connection is poor, or with high usage by others resulting in low bandwidth.

Configure the connection settings

You can set the type of connection to use for transmitting data.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.

5. Select **Preferred Connection**.
6. Select a connection setting: **Automatic**, **Ethernet**, or **Cellular**.

Connection Preference settings


Setting	Description
Automatic	Use Automatic to provide an even weighting of connections across cellular and Ethernet connections. The EnGo adjusts the overall weighting according to network conditions to provide the requested bitrate.
Cellular	Use Cellular if your Ethernet connection is a satellite connection and you prefer to use cellular connections instead. EnGo puts a higher priority on the cellular connection and, if necessary, adjusts the weighting depending on the network conditions to provide the requested bitrate.
Ethernet	Use Ethernet to put a higher priority on the Ethernet connection over the cellular connection. Use this option if the Ethernet connection is a lower cost option as part of blended connectivity. EnGo adjusts the weighting according to the network conditions to provide the requested bitrate.

Define the SIM set

The EnGo can use different SIMs based on the region that you are in. If you are using regional SIMs, you must select a SIM set.



Note: Primary refers to the set of SIM cards that might be included inside the EnGo. Secondary refers to any auxiliary SIM cards that are in the user-accessible SIM module.


1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select **SIM Set**.
6. Depending on your geographic location, select **Primary** or **Secondary**.



Note: When you define a SIM set, the setting applies when using the EnGo as a hotspot or when using the EnGo in GateWay Mode.

Activate the hotspot

You can activate the hotspot so smartphones, laptops, and other devices can use the EnGo to connect to the internet. You can select whether you want to activate the hotspot for a single connection or all connections.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select **Hotspot**.
6. Perform one of the following actions:
 - To activate the hotspot for a single connection, select **Single Modem**.
 - To activate the hotspot for all available connections, select **GateWay Mode**.
7. Select **Activate**.





Note: When a hotspot is active, the selected connection is not used for live streams.

Rename the hotspot

By default, the hotspot name is the name that appears for laptops or mobile devices in the available Wi-Fi networks list. You can change this name to make it easier to identify.



Note: When you rename the hotspot, it changes whether you are using a single modem hotspot or you are using GateWay Mode.



1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select **Hotspot**.
6. Select **Actions**.
7. Select **SSID**.
8. Type the new hotspot name.
9. Select .

Change the hotspot password

The password prevents unauthorized users from accessing the EnGo hotspot.




Note: When you change the hotspot password, it changes whether you are using a single modem hotspot or you are using GateWay Mode.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select **Hotspot**.
6. Select **Actions**.
7. Select **Password**.
8. Delete the old password.
9. Type the new hotspot password.
10. Select .

View devices connected to the hotspot

You can view the devices connected to the hotspot for a single modem connection or when you are using GateWay Mode.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select **Hotspot**.
6. Select **Actions**.
7. Select **Info**.

Using GateWay Mode

You can use the EnGo 3x in GateWay Mode to allow access to the internet or to provide increased capacity for data-intensive applications. In this mode, the EnGo uses *Smart Blending Technology* to combine all the available network connections to increase the device's capability to transmit data. Instead of using the Wi-Fi hotspot (which only uses one connection), GateWay


Mode uses all available connections which provides enhanced reliability to transfer large files quickly or to access station systems from the field.

GateWay Mode is meant for fast file transfers, internet access, or for increased capacity when used as a mobile access point.



Note: GateWay Mode is a licensed feature and additional charges might apply. If you do not see the GateWay Mode option on your EnGo, contact your system administrator.

Turn on GateWay Mode

1. On the **Preview** screen, select .
2. Select **Connections**.
3. Select **Hotspot**.
4. Select **GateWay Mode**.
5. Select **Actions**.
6. Select **Activate**.



Note: After you turn on GateWay Mode, connect all devices (such as smartphones or laptops) to the EnGo using a Wi-Fi connection. You can also connect devices directly to the EnGo using an Ethernet cable. For more information, see "Connect Ethernet" on page . If you are using Ethernet, ensure that you plug the Ethernet cable into Ethernet port 2.

Configure and manage the EnGo 3x in GateWay Mode

When the EnGo 3x is in GateWay Mode, you can configure and manage the device in the same way that you manage a Dejero GateWay device. To view more information and review procedures on configuring and managing the EnGo 3x in GateWay Mode, visit support.dejero.com to read the *Dejero GateWay M6E6 / M6E6F User Guide*.

Although configuration and management is similar, some aspects of managing a GateWay device do not apply to managing an EnGo in GateWay Mode, including the following:

- You cannot configure an EnGo 3x as a Wi-Fi access point.
- You cannot configure port forwarding.
- You cannot run speed tests.
- The device does not support DNAT.

Turn off GateWay Mode

1. On the **Preview** screen, select .

2. Select **Connections**.
3. Select **Hotspot**.
4. Select **GateWay Mode**.
5. Select **Actions**.
6. Select **Deactivate**.



Managing Wi-Fi connections

You can connect the EnGo to a Wi-Fi network to blend other network connections with a WAN connection.



Note: If you enable GateWay Mode, you cannot connect the EnGo to a Wi-Fi network as described in this section. In GateWay Mode, devices must connect to the hotspot. For more information, see "Activate the hotspot" on page .


Configure a Wi-Fi connection

1. On the **Preview** screen, select .
2. Select **Connections**.
3. Select **Wi-Fi**.
4. From the list of available connections, select a Wi-Fi connection.
5. Select **Actions**.
6. Select **Connect**.
7. If prompted, use the keyboard on the screen to type the password.
8. Select .




Tip: Select **ABC** for uppercase letters and **abc** for lowercase letters. Select **123.?!** for special characters. Select it again for more special characters.

Disconnect a Wi-Fi connection


1. On the **Preview** screen, select .
2. Select **Connections**.
3. Select **Wi-Fi**. The current Wi-Fi network is highlighted in green.

4. Select **Actions**.
5. Select **Disconnect**.

Delete a saved Wi-Fi profile

1. On the **Preview** screen, select .
2. Select **Connections**.
3. Select **Wi-Fi**. The current Wi-Fi network is highlighted in green.
4. Select **Actions**.
5. Select **Forget**.


Check the details of a Wi-Fi connection

1. On the **Preview** screen, select .
2. Select **Connections**.
3. Select **Wi-Fi**. The current Wi-Fi network is highlighted in green.
4. Select **Actions**.
5. Select **Info**.

Managing return feeds


You can subscribe to return feeds sent from the studio using a Dejero CuePoint server. To use return feeds with the EnGo, connect an external display to the HDMI output on the EnGo.

Turn on return video feeds


1. On the **Preview** screen, select .
2. Select **Return Video**.
3. Select **Return Video**.
4. To add sound, select **Audio**.

Return Video appears on the **Preview** screen to indicate that the mode is active.

View the status of the Return Video connection

1. On the **Preview** screen, select .
2. Select the **Device Status** message.

Turn off return video feeds


1. On the **Preview** screen, select .
2. Select **Return Video**.
3. Select **Off**.

Managing SIM cards

When traveling, SIMs from local carriers can be used in the user-accessible SIM module. Additional setup tasks, such as customizing the Access Point Name and managing PINs for the SIM cards, might be required.

Change the Access Point Name

When you add new SIM cards, you might need to change the Access Point Name (APN). The APN is needed by the source transmitter to set up the connection to the wireless network. Usually, the APN is available from the SIM card, but, in some cases, you might need to change it manually.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Connections**.
4. Select a connection.
5. Select **Actions**.
6. Select **Edit APN**.
7. Select a field to access the keyboard.
8. Type the new APN, network name, and PDP type.
9. Select **Apply**.





Note: If you need to reset the SIM to the default values, select the **Delete** button. The Delete button is only available after you apply changes.

Unlock a SIM

When you add a new SIM card, you might need to unlock it prior to use. The PIN to unlock the SIM card is usually available with the packaging but you can also contact your carrier to request it.





Note: If a SIM card is locked, Cellular might appear instead of a carrier name. To determine if you selected the correct connection, scroll to the SIM card ICCID and compare it to the packaging for the SIM card.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Connections**.
4. Select the connection for the SIM card carrier. SIM cards in the secondary SIM set will have a list of available actions.
5. Select **Actions**.
6. Select **Unlock SIM**.
7. Select a field to access the keyboard.
8. Type the unlock PIN.
9. Select .
10. Repeat steps 3 through 8 for each locked SIM.



Change the PIN for a SIM

If necessary, you can change the PIN for a SIM card, such as if there are security reasons to change it, or you want to change it to something that's easier to remember.



1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Connections**.
4. Select the connection for the SIM card carrier. SIM cards in the secondary SIM set will have a list of available actions.
5. Select **Actions**.
6. Select **Change PIN**.
7. Type the current PIN.
8. Type the new PIN.
9. Select .

Disable the PIN for a SIM

If you do not want to type the PIN every time you make changes to the SIM card, you can disable the PIN. Disabling the PIN simplifies your future actions.


1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Connections**.
4. Select the connection for the SIM card carrier. SIM cards in the secondary SIM set will have a list of available actions.
5. Select **Actions**.
6. Select **Disable PIN**.
7. Type the current PIN.
8. Select .

Enable the PIN for a SIM

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Connections**.
4. Select the connection for the SIM card carrier. SIM cards in the secondary SIM set will have a list of available actions.
5. Select **Actions**.
6. Select **Enable PIN**.
7. Type the current PIN.
8. Select .

Unblock a SIM

If you type the PIN wrong the maximum number of times, the carrier blocks the SIM card. To unblock a SIM card, call the carrier or access your account online and request a Personal Unlocking Key (PUK) code.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Connections**.
4. Select the connection for the SIM card carrier. SIM cards in the secondary SIM set will have a list of available actions.
5. Select **Actions**.
6. Select **Unblock SIM**.
7. Type the PUK code.


8. Select .



Note: There is a limit on the number of PUK attempts. If you exceed this limit, the SIM is no longer usable.

Turn off roaming for a connection

In some regions, you might be able to manage roaming settings for each cellular connection that the EnGo has. By default, roaming is turned on, so connections roam on to any available cellular network. If this option is configured for your EnGo, you can turn roaming off for individual connections.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select a connection.
6. Select **Actions**.
7. Set the **Roaming** field to **No**.

When roaming is turned off, an X appears over the signal strength indicator for a connection that is roaming.

To turn on roaming again, set the **Roaming** field to **Yes**. If roaming is on for a connection, on the **Connections** screen, an R appears with the signal strength indicator for that connection.

Transmitting live

Connect to cellular networks automatically

When the transmitter is on and set to either All or Modems as the connection type, it automatically connects to all available cellular connections.

Start a transmission

After you connect your camera to the transmitter, you can start a transmission.

Prerequisite: Confirm that the latency settings as indicated on the **Go Live button** are appropriate for the transmission. For more information, see "Configure the latency" on page .

1. Select **Go Live**.

You can monitor the video feed as it transmits.

Switch to a CellSat connection

During a live transmission, you can switch to a CellSat connection, if one is available.

1. In the **Start CellSat** dialog box, perform one of the following actions:
 - To start using the CellSat connection, select **Yes**.
 - To check your connections first, select **No**.



Note: If you want to use the CellSat connection after checking your connections, on the **Preview** screen, select **Start CellSat**. Select **Yes**.

Stop a transmission

1. On the **Preview** screen, select **Stop**.
2. Select **Yes**.

The **Preview** screen continues to show the input from the camera. The device remains ready to resume broadcasting. To resume the transmission, select **Go Live**.

If you switched to a CellSat connection, the EnGo disconnects the CellSat connection when you stop the transmission.





Tip: After you finish transmitting, always charge your EnGo battery.

Enabling stream encryption




You can encrypt the audio and video streams (including IFB and Intercom) sent between an EnGo and supported Dejero receivers using AES 256 encryption. By default, stream encryption is off but you can enable it by setting a preferred stream encryption mode in Control.

1. In a browser, type control.dejero.com.
2. Log into Control.
3. Click **Manage > Sources**.
4. Perform one or more of the following actions:
 - Beside the **Quick Filter** field, click ▼. Select a status and type.
 - In the **Enter filter terms** field, select or type the source name, station name, source type, status, source serial number, software version, or station callsign.
5. Click the EnGo.

6. Click .
7. In the **Configuration** section, in the **Stream Encryption Mode** drop-down list, set the stream encryption mode.
8. Click .

During data transmission, if the data is encrypted and sent successfully,  appears in the upper-right corner of the video on the **Preview** screen.

Stream encryption modes

Setting	Description
Always	<p>Audio and video data transmitted (including IFB and Intercom) is encrypted. The  icon appears when the data is encrypted and sent successfully.</p> <p>If EnGo is assigned to a receiver that does not support stream encryption, an error appears. EnGo stops any attempt to stream live videos or any transmission of IFB or Intercom communications.</p>
Never	<p>Audio and video data is not encrypted.</p>
When Available	<p>Audio and video data is encrypted when it is sent to a receiver that supports encryption. The  icon appears when the data is encrypted and sent successfully.</p> <p>If a receiver does not support the feature, streams are sent unencrypted.</p> <p>When the data is sent unencrypted,  appears in the upper-right corner of the video on the Preview screen.</p>

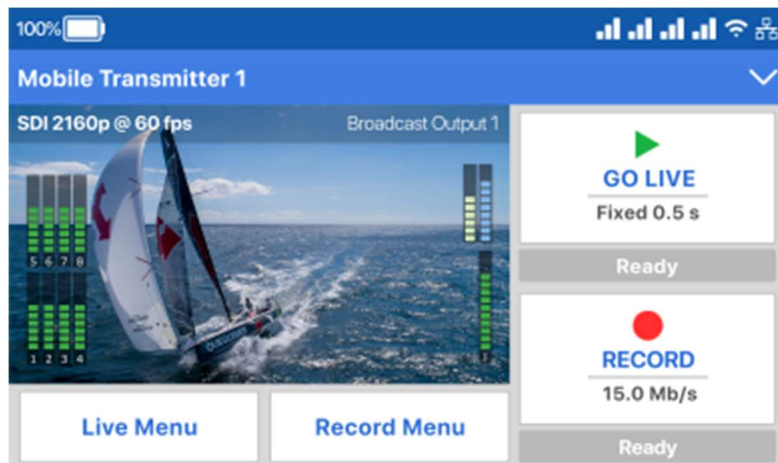
Using the Intercom feature

The Intercom feature is available when the EnGo 3x is ready to transmit live or when it is live. Audio is only received or transmitted when a headset is connected.



Tip: When using Intercom or Prompt Audio in the EnGo backpack, use the provided 3.5 mm extension cable that is labeled "Intercom".

With a headset connected, audio meters appear on the right side of the **Preview** screen.



The green meter shows the audio data received from the WayPoint receiver. It is heard in the connected headset.

The blue meter shows the microphone input audio data from the connected headset.

By default, Intercom is enabled on the EnGo.


Enable Prompt Audio

You can enable Prompt Audio to send a low-latency audio feed from your audio input device to your WayPoint receiver. You can still use IFB when Prompt Audio is enabled.

To use Prompt Audio, you must connect the audio interface device to the receiver. For more information, visit support.dejero.com to read the *Dejero Intercom Reference Guide*.



Note: When you enable Prompt Audio, you cannot use the Intercom feature.

1. On the **Preview** screen, select .
2. Select **Audio Comms**.
3. Select **Prompt Audio**.

After you enable Prompt Audio, the transmitter sends one channel of audio to the receiver at a lower latency. Along the left side of the **Preview** screen, the green audio meter with a white background is the audio channel that is being sent.



Note: By default, the receiver sends the first channel of audio. If you want to send a different channel of audio by default, contact Dejero Support.

Enable Intercom


By default, Intercom is enabled on the EnGo. If you enable Prompt Audio, you must enable Intercom again before you can use it.

1. On the **Preview** screen, select .

2. Select **Audio Comms**.
3. Select **Intercom**.

Turn off Intercom and Prompt Audio

If you do not want to use the Intercom or Prompt Audio features, you can turn them off.

1. On the **Preview** screen, select .
2. Select **Audio Comms**.
3. Select **Off**.

Using Record mode

With Record mode, you can record up to 70 hours of HD video clips directly onto the transmitter. You can preview, transfer, and delete the clips. If you turn on transfer while recording, when in Record only mode, the EnGo starts to transfer the clip as it is recording it. There might be a delay between 1 and 10 seconds between starting the recording and the transfer starting.

You can start and stop a live stream separate from recording clips. However, if you enable auto transfer when setting up Record mode, you cannot start and stop live streams.

Each clip is named with the date and time that the clip finished recording, using the following format: YYYY-MM-DD_hhmmss.




Note: Assignments are controlled in Control. For more information on assignments, visit support.dejero.com to read the *Dejero Control User Guide*.


Set up Record mode

You can record clips when EnGo is in either Live & Recording or Record mode. The selected quality setting impacts the file size of the clip. A higher quality setting results in a larger file.



Tip: You can set the quality setting when configuring Record mode. You can also select the quality setting on the **Preview** screen.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Record**.
5. Select **Quality**.

6. Set the recording rate to **2.5 Mb/s**, **4.0 Mb/s**, **6.0 Mb/s**, **12.0 Mb/s**, **15.0 Mb/s**, or **30.0 Mb/s**.
7. Select **Back**.
8. Select **Clip File Format**.
9. Set the clip file format: **MP4**, **MOV**, or **M2TS**.
10. Select **Back**.
11. Select **Auto transfer**.
12. To transfer clips while they are recording, set the **Auto transfer** field to **On**.
13. Select **Back**.
14. Select **Prefix**.
15. Type the prefix that you want to add to the names of clips.
16. Select .

Clip file format settings

Setting	Description
MP4	The standard MP4 clip contains H.264 video and AAC audio. For interlaced input formats, the video is encoded in MBAFF format.
MOV	The MOV clip contains H.264 video and AAC audio. Interlaced input formats are encoded in progressive frame format to use with QuickTime-based players and editors. You need to tell QuickTime-based software that the file is interlaced.
M2TS	This format creates usable clips, even if the power is lost during recording. This setting is ideal when the lowest possible latency is the priority.



Note: Your administrator can create custom metadata profiles for clips using Control. For more information on how to add a profile to your device, visit support.dejero.com to read the *Dejero Control User Guide*.

Transmit live and record a clip

You can transmit live and record a clip at the same time. Depending on the connection and network conditions, the resolution of the live broadcast might change, but the resolution used when recording the clip does not change.

1. On the **Preview** screen, select **Go Live**.
2. Select **Record**.

The **Preview** screen shows the video that you are transmitting and recording.



Note: When transferring a clip, you can switch to a CellSat connection, if one is available. In the **Start CellSat** dialog box, select **Yes**. If a CellSat connection becomes available after starting a clip transfer, on the **Preview** screen, select **Start CellSat**. Select **Yes**.

Record a clip

Prerequisite: Confirm that the clip quality that appears on the Record button is appropriate for the clip. To change the quality of the video, select **Record Menu**. Select a rate.



Note: You do not need to connect EnGo to a network to record a clip.

1. On the **Preview** screen, select **Record**.

The **Preview** screen shows the video that you are recording.

Statistics about the current clip also appear above and below the **Record** button, including the clip length and the quality setting. Based on the available free disk space and the current quality setting, the estimated time remaining for the current clip appears. The format of the clip length and time remaining is: hh:mm:ss.

Stop recording

1. To stop recording, on the **Preview** screen, select **Stop Record**.
2. In the **Stop Recording** dialog box, select **Yes**.


The **Preview** screen continues to show the input from the camera. The device remains ready to resume broadcasting. To resume the transmission, select **Record**.

Transfer a clip

The receiver that receives the transferred clip is defined in Control.



Note: You cannot transfer a file or transfer a clip while recording if you are streaming live content.

1. On the **Preview** screen, select .
2. Select **Transfer**.

3. Select **Clips**.
4. Scroll through the clips to find the correct clip.
5. Perform one of the following actions:
 - To select a clip, select the check box.
 - To select all clips, select **All**.
 - To cancel selecting all clips, select **All** again.
6. Select **Actions**.
7. Select **Transfer**.


To stop transferring the clip, select **Stop**.




Note: When transferring a clip, you can switch to a CellSat connection, if one is available. In the **Start CellSat** dialog box, select **Yes**. If a CellSat connection becomes available after starting a clip transfer, on the **Preview** screen, select **Start CellSat**. Select **Yes**.

Import a clip

You can import your edited clips to EnGo. Imported clips appear with the other recorded clips. You can transfer them to your receiver to view and play them back from Control.

1. On the **Preview** screen, select .
2. Select **Transfer**.
3. Select **Files**.
4. Using the arrows on the right side of the screen, navigate to the file that you want to import.
5. Select a file.
6. Select **Actions**.
7. Select **Import**.


Back up a clip

1. On the **Preview** screen, select .
2. Select **Transfer**.
3. Select **Actions**.
4. On the **Clip Selection** screen, select clips.
5. Select **Actions**.
6. Select **Backup**.

7. Select the drive.
8. To start the backup and save it in the currently selected destination folder, select **Backup**.

View a clip's information

The clip information includes the transfer receiver, the transfer complete percentage, as well as the timestamp.



1. On the **Preview** screen, select .
2. Select **Transfer**.
3. Select **Clips**.
4. Select a clip.
5. Select **Actions**.
6. Select **Info**.

Change the prefix for a clip


You can change the prefix for a single clip before you transfer it to a receiver.



Note: When you change the prefix for a clip, you are not changing the default prefix. For more information on changing the default prefix, see "Set up Record mode" on page .

1. On the **Preview** screen, select .
2. Select **Transfer**.
3. Select **Clips**.
4. Scroll through the clips to find the correct clip.
5. Select the clip.
6. Select **Actions**.
7. Select **Change Prefix**.
8. Type a new name for the clip.
9. Select .

Delete a clip


1. On the **Preview** screen, select .
2. Select **Transfer**.
3. Select **Clips**.

4. Select a clip.
5. Select **Actions**.
6. Select **Delete**.
7. To delete the clip from the transmitter permanently, select **Yes**.

Transferring files

In addition to using the transmitter to transfer recorded video clips, you can use the file transfer feature to transfer non-executable files, such as documents or other videos. You can insert a USB drive into either of the USB ports on the EnGo. After you insert a USB drive, you can transfer files to the EnGo and then send the files to a receiver.

Transfer a file

1. On the side of the EnGo, insert a USB drive.
2. On the **Preview** screen, select .
3. Select **Transfer**.
4. Select **Files**.
5. Using the arrows on the right side of the screen, navigate to the file that you want to import.
6. Select the file to transfer it. You can select and transfer multiple files from the same folder.
7. Select **Actions**.
8. Select **Transfer**.

The file transfer progress appears on the screen.



Note: When transferring a file, you can switch to a CellSat connection, if one is available. In the **Start CellSat** dialog box, select **Yes**. If a CellSat connection becomes available after starting a file transfer, on the **Preview** screen, select **Start CellSat**. Select **Yes**.

About warning and error states


Live

If EnGo encounters an issue during a live transmission, the background color of the **Preview** screen changes.

- If a warning appears, the background color changes to yellow. You can troubleshoot the underlying issue and resolve the problem.

- If an error appears, the background color changes to red. EnGo requires more advanced troubleshooting and might require support from your system administrator.

View error or warning information

1. On the **Preview** screen, select .
2. Select **Error** or **Warning**.

Record

If an error occurs during recording (such as EnGo is out of disk space), the error appears in the status area under the **Record** button.

Transfer


If an error occurs during a clip or file transfer, a red X appears on the row.

Using Control for remote management

You can use the Control to manage the EnGo from a remote location. For more information, visit support.dejero.com to read the *Dejero Control User Guide*.

When the EnGo is under remote control, a blue border appears on the **Preview** screen. The blue border only appears at the top of the menu screen. The **Info** screen shows the name of the user who is controlling the EnGo.

View the user that is controlling the EnGo

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Info**.


When using Control for remote management, the **Preview** screen and the transmission activity continue to appear and the buttons work.

Setting the display orientation

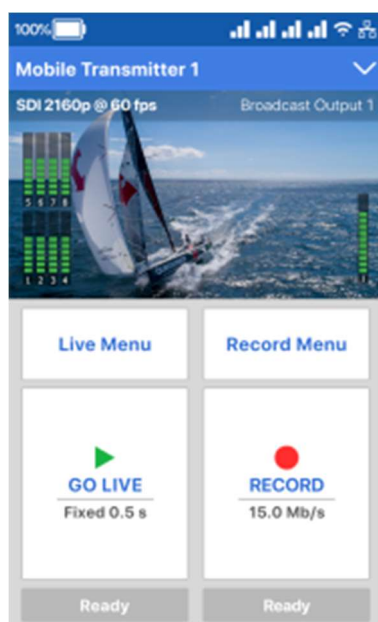
By default, the EnGo appears in landscape mode. When you rotate the EnGo, the display orientation changes automatically, but you can set it manually.



Note: If you set the display orientation manually, it remains in that orientation until you set it manually again. It does not rotate automatically.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Operation**.
5. Select **Display**.
6. Select a display orientation.

If you changed the display orientation from landscape to portrait, the EnGo appears in portrait mode.




Viewing connection information

The EnGo communicates data through modems, Ethernet, CellSat, and Wi-Fi connections. Individual connections show the active data transmission rate and, if enabled, the roaming status.



Note: On the **Connections** screen, the modem number for the connection appears before the network name.

1. On the **Preview** screen, select .
2. Select **Connections**.


3. To view detailed connection information, including the latency, MB/s transferred, roaming status, the network that you are roaming on to, and the connection's MAC address, select a connection.



Note: If roaming is not on for a connection, on the **Connections** screen, an X appears over the signal strength indicator for that connection.

View SIM connection information

You can view SIM-specific details for any cellular connection that you changed the APN for. For more information on changing an APN, see "Change the Access Point Name" on page .

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Connections**.
5. Select **Carrier Data**.

Any connection that you changed the APN for appears on this screen along with the connection's ICCID, network, and APN. If you did not change the APN for any connections, **No Carrier Data** appears.



Note: You can also change the SIM settings from this screen. On the **Carrier Data** screen, select **Edit**. Change the APN, network name, or PDP type. Select **Apply**. Restart the EnGo for the changes to take effect.

About stream indicators

On the **Preview** screen, you can view overall stream performance.

Glass-to-glass latency

Latency measures time delay. Glass-to-glass refers to the delay from the time that EnGo detects an image to the time that it appears on a video monitor connected to the receiver output, or is output from the Cloud Server.

When transmitting live, the glass-to-glass latency appears on the **Preview** screen, above the **Go Live** button.

Stream Health indicator

When transmitting live, the Stream Health indicator appears on the **Preview** screen above the **Live** menu. It appears as either **Good**, **Marginal**, or **Poor**. A colored dot appears along with the value to show the stream health.

The Stream Health indicator measures the quality of the live video stream received, decoded, and displayed by the output receiver.

The two components that have the strongest effect on the health of the stream are:

- The number of video frames that arrive at the receiver in time. Frames that are late or missing can result in paused or stuttering video, or video artifacts such as smearing or discoloration.
- The bitrate at which the video frames are encoded. Excessively low bitrates result in poor quality picture, indicated by blockiness and lack of detail.

When neither of these events occurs, the Stream Health indicator appears as Good.

Using the Wired Remote

The EnGo 3x backpack comes with a Wired Remote that you can use to go live quickly and easily. You can also use this Wired Remote to monitor the state of the EnGo during the live transmission and the battery level of the EnGo.



Start a transmission with the Wired Remote

After you connect the Wired Remote to the EnGo, you can use the remote to start a live transmission.



Note: If a red light appears beside **Ready** on the Wired Remote, the EnGo is not ready to transmit live. Use the **Preview** screen to review the network connection status and verify that the EnGo is connected to a video source. Resolve any other warnings that appear on the **Preview** screen. For more information, see "Troubleshooting" on page .

1. On the Wired Remote, ensure that a green light appears beside **Ready**.
2. On the remote, press and hold the Go Live button for three seconds.

After you press the Go Live button, on the Wired Remote, a green light beside **Live** flashes. When the EnGo is transmitting live, the flashing green light beside **Live** turns solid green. During this process and during the live transmission, the green light beside **Ready** continues to appear.



Note: If a flashing yellow light appears beside **Live**, the EnGo is still transmitting live, but there is a warning on the **Preview** screen. Review the **Preview** screen to resolve the issue.

Stop a transmission with the Wired Remote

1. On the Wired Remote, press and hold the Go Live button for three seconds.

About the Battery light states on the Wired Remote

The Battery light on the Wired Remote provides information about the charging or battery status of the EnGo.

Light setting	Description
No light	The battery level is higher than 20%.
Solid yellow	The battery level is lower than 20%.
Flashing red	The battery level is lower than 5%. Connect the EnGo to a power source immediately.

Troubleshooting

No display on Preview screen

If you do not see a video on the **Preview** screen, perform the following actions:

- Make sure that all cables are connected correctly.
- Verify that your video source is on and sending video.
- If necessary, select the specific video input type (HDMI or SDI), input resolution, and input frame rate for your camera.
- Verify that the supplied video is in a compatible format.

Start-up or power problems

Problem	Possible solution
EnGo does not turn on	Make sure that the internal battery has enough charge to power the EnGo. Connect the EnGo to a power outlet or attach a charged auxiliary battery. After you connect to a power source, the EnGo starts immediately. If the EnGo still does not turn on, contact Dejero Support.
EnGo does not turn on when power applied	Confirm that the power adapter cable connection is secure and firmly inserted into place. If using the auxiliary battery, ensure that it is connected properly and has enough charge. If the EnGo still does not turn on, contact Dejero Support.
No network coverage	Move to an area with better network coverage. The device detects an available network automatically.
Modem error: "One or more modems have malfunctioned. Restarting this device may resolve the problem."	Reinitialize the modems: <ol style="list-style-type: none"> 1. Power off the EnGo. 2. Disconnect the power source. 3. Wait 30 seconds, reconnect the power source, and restart. If this does not resolve the problem, contact Dejero Support.
EnGo is inactive	Contact your system administrator to activate your transmitter.

EnGo needs to be assigned to a receiver output	Contact your system administrator to assign a receiver output. When assigned, the output destination for EnGo appears on the Preview screen.
EnGo is disabled	Contact Dejero Support. You will need to restart EnGo after it is re-enabled.
Low power	<p>If battery power in the EnGo is low, the Power button flashes quickly (approximately two times a second), and a warning appears on the screen and in Control. The battery icon also changes to red or yellow and includes the percentage of battery power remaining. For more information, see "About the Power button settings" on page</p> <p>Connect the EnGo to a power outlet or connect a fully charged auxiliary battery. When you do, the internal battery starts charging, even if you are using it.</p>

Video, audio, or transmission problems

Problem	Possible solution
Preview screen is black	<p>A source is not connected to EnGo. Make sure that the cable from the source is securely connected to the correct input port on EnGo.</p> <p>The video input might not be specified correctly. For more information, see "Configure the video input" on page .</p> <p>If you cannot send video, ensure that the EnGo is not in GateWay Mode. For more information, see "Turn off GateWay Mode" on page .</p> <p>If you recently switched between hotspot mode and Gateway Mode, restart the IP stream.</p>
There is sound, but no picture	The video input might not be specified correctly. For more information, see "Configure the video input" on page .
There is picture, but no sound	The sound is set on your camera. To troubleshoot sound settings, see the camera manufacturer's instructions.
Poor stream health or poor network connectivity	Set the latency to 3 or 8 seconds. For more information, see "Configure the latency" on page .

An error message appears on the screen	For a full list of EnGo error messages and possible solutions, see "Warning and error messages" on page .
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Troubleshooting IFB

IFB might not be working if you encounter one or more of the following problems:

- No sound is coming through the earpiece.
- On the **Preview** screen, the IFB indicator stays at I.
- On the **Preview** screen, the IFB indicator shows X.

To resolve the problems, perform one or more of the following actions:

- Adjust the IFB volume on the receiver.
- Check the IFB connection to the EnGo. Verify that the IFB cable is connected to the correct port on the EnGo and that you did not connect the Intercom cable to the IFB port by mistake. If you are using the EnGo in the backpack, ensure that you are connecting the earpiece to the IFB cable extension.
- Verify that the correct capture device is set as the default on the receiver.

If you still encounter errors, the transmitter might have an internal hardware problem. For more information, contact Dejero Support.

Troubleshooting Intercom

If no sound is received by the headset connected to the EnGo, verify that the audio interface device is connected to the WayPoint receiver. Verify that an audio input is connected to the input port on the audio interface device that corresponds to the WayPoint output assigned to the EnGo device.

Verify that the Intercom cable is connected to the correct port on the EnGo and that you did not connect the IFB cable to the Intercom port by mistake. If you are using the EnGo in the backpack, ensure that you are connecting the headset to the Intercom cable extension.

Use resilient mode

If there is an issue with the Dejero infrastructure, **Resilient Mode** appears on the **Preview** screen. In Resilient mode, you can still start a transmission or transfer clips or files.

When you start a transmission, the **Confirm Live Assignment** dialog box appears, showing the last receiver and output assignment used for a live transmission.


1. In the **Confirm Live Assignment** dialog box, perform one of the following actions:
 - To use the current receiver and output for the current transmission, select **Go Live**.
 - To change the receiver and output assigned, select **Change Assignment**. Select one of the last 10 receiver and output assignments. Select **Select & Go Live**.



Note: If you transfer clips or files in Resilient mode, EnGo uses the last receiver that you assigned for a clip or file transfer.

Restart EnGo

Occasionally, you might need to restart EnGo to assist with support sessions or during troubleshooting.

1. On the **Preview** screen, select .
2. Select **More**.
3. Select **Settings**.
4. Select **Operation**.
5. Select **Restart**.



Note: If you use Control for remote management of the EnGo, when EnGo restarts, you lose access. Wait until EnGo restarts and **Ready** appears on the screen. Then, restart the remote management session.

Warning and error messages

The following table outlines possible warning or error messages that you might encounter and possible ways to resolve them. If you call Dejero Support, reference the warning or error number, as listed below.

Problem	Error / warning number	Description	Solution
Poor network	Warning 04	There is insufficient connection bandwidth to support the bitrate.	Try repositioning the EnGo for better wireless coverage, or change to a longer latency setting. For more information, see "Configure the latency" on page .
One or more modems have malfunctioned. Restarting this device may resolve the problem.	Error 05	Unable to establish a network connection.	Reinitialize the modems: <ol style="list-style-type: none"> 1. Power off the EnGo. 2. Disconnect the power source.

Problem	Error / warning number	Description	Solution
			<p>3. Wait 30 seconds, reconnect the power source, and restart.</p> <p>If this does not resolve the problem, contact Dejero Support.</p>
Output not assigned	Warning 09	<p>EnGo might not be assigned to a receiver output in Control.</p> <p>The assigned receiver output is either turned off or inactive.</p>	<p>Use Control to assign an output. For more information, visit support.dejero.com to read the <i>Dejero Control User Guide</i>.</p>
Device is disabled. Please contact Dejero.	Error 10	<p>Either EnGo or the assigned receiver is disabled in Control.</p>	<p>Enable EnGo or the assigned receiver in Control. For more information, visit support.dejero.com to read the <i>Dejero Control User Guide</i>.</p>
Device is inactive. Please contact your system administrator.	Error 14	<p>Unable to establish connection with the assigned receiver.</p> <p>This error typically occurs because the receiver IP address is not configured properly or the modems on the EnGo are unable to transmit.</p>	<p>If this occurs, contact your system administrator.</p>
No Ethernet	Warning 16	<p>The Ethernet connection type has been selected but there are no Ethernet connections present.</p>	<p>Connect an Ethernet cable to the EnGo or establish a Wi-Fi connection.</p>
Poor network	Warning 17	<p>Network conditions are too poor to transmit reliably at the current latency setting.</p>	<p>Try repositioning the EnGo for better wireless coverage, or change the latency setting to Adaptive or set a longer latency value. See "Configure the latency" on page .</p>

Problem	Error / warning number	Description	Solution
No disk space	Warning 18	There is not enough space on EnGo to store an additional clip.	Delete existing clips to free up storage space.
All outputs in use	Warning 19	This error message appears if EnGo is assigned to an output pool (in Control), but all the outputs in the pool are currently in use or unavailable.	Wait for another user to finish using a receiver output and try again.
Unsupported output	Error 20	The assigned output is set to an unsupported video format.	Use Control to select a different output video format. For more information, visit support.dejero.com to read the <i>Dejero Control User Guide</i> .
Device not licensed	Error 21	This device is not licensed.	Contact Dejero Support.
Device needs to be assigned to a clip receiver. Please contact your system administrator.	Warning 22	The device needs to be assigned to a clip receiver.	Use Control to assign a clip receiver to your EnGo.
Device needs to be assigned to a file receiver. Please contact your system administrator.	Warning 23	The device needs to be assigned to a file receiver.	Use Control to assign a file receiver to your EnGo.
Device not licensed for CellSat. Please disconnect the satellite connection or contact Dejero at 1-519-772-4824.	Error 24	The device is not licensed for CellSat services.	Disconnect the satellite connection or contact Dejero Support.

Problem	Error / warning number	Description	Solution
CellSat is not ready. Please make sure the satellite connection is correctly set up or completely disconnected.	Warning 25	The satellite connection is not ready.	Give the satellite more time to connect. If it has not connected within a suitable time, check that the satellite connection is configured correctly or disconnect it. If the problem persists, contact Dejero Support.
CellSat is not allowed in Ethernet-only mode. Please change the Connection Types setting to 'All'.	Error 26	You cannot use CellSat services in Ethernet-only mode.	Change the Connection Type setting to All . For more information, see "Configure the connection type" on page .
Satellite capacity is not available at the moment. This message will automatically clear when satellite capacity is available again.	Warning 27	The device cannot establish a satellite connection.	Wait for the satellite connection to become available.
CellSat is not allowed. Please contact Dejero at 1-519-772-4824.	Error 28	The EnGo does not have modems or there are no SIM cards in the modems.	Contact Dejero Support.
Battery Critical	Warning 29	The battery level is critically low.	Connect the EnGo to a power source or attach a charged auxiliary battery. If you cannot connect the EnGo to a power source, turn it off to preserve the power. The EnGo turns off automatically if the power level falls below 2%.
Battery Error	Warning 30	The EnGo recorded an internal battery fault.	Contact Dejero Support.

Problem	Error / warning number	Description	Solution
Live receiver does not support encryption	Warning 31	EnGo is assigned to a receiver that does not support encryption.	Assign EnGo to a different receiver that does support encryption or contact Dejero Support.
Unable to create or maintain a secure connection	Error 33	The connection between EnGo 3x and the receiver couldn't be authenticated so a secure connection is not available.	Contact Dejero Support.
Decryption error	Error 34	The data is not encrypted properly or is corrupted. It could not be decrypted.	Contact Dejero Support.
Battery charging inhibited	Warning 35	The battery in the EnGo is outside the specified temperature range for charging.	You can continue to use the EnGo, but to resume charging the battery, bring the device closer to room temperature.
Intercom issue	Error 36	Multiple transmitters are assigned to the same output. Intercom does not support multiple assignments.	Assign any other transmitters to different outputs.
Output in use	Warning 100	Could not start the live stream. The assigned receiver output is in use by another device.	Wait for an output to become available and try again. Or, use Control to assign a different output. For more information, visit support.dejero.com to read the <i>Dejero Control User Guide</i> .
Check in/out formats	Warning 101	This error message appears if the input/output video format combination is not supported.	Select an input format that is compatible with the output or use Control to select a different output.
Invalid assignment	Warning 109	Could not broadcast. Invalid receiver output assignment.	Contact your system administrator, or use Control to assign a different destination.

Problem	Error / warning number	Description	Solution
Clip transfer failed	Warning 110	This error message appears if there was an error creating a new clip transfer session.	Attempt to transmit the clip again. If the problem persists, contact your system administrator. Consider managing the clips on the Dejero receiver to reduce the total number of clips to less than 1000.
File transfer failed	Warning 111	This error message appears if there was an error creating a new file transfer session.	Contact your system administrator, or use Control to assign a different destination.
Capacity reached	Warning 112	The assigned output has reached its live stream capacity.	Wait for an output to become available and try again. Or, use Control to assign a different output.
Capacity reached	Warning 113	The assigned receiver has reached its stream capacity.	Try again later or use Control to assign a different receiver.
Failed to complete transfer to the assigned receiver – insufficient disk space	Warning 114	This error message appears if the receiver cannot complete the clip transfer due to insufficient available disk space.	Contact your system administrator to free up some disk space on the receiver.
Failed to start Live stream – the assigned output has malfunctioned	Warning 115	This error message appears if the receiver did not initialize correctly.	Contact Dejero Support.
Receiver not licensed	Warning 118	Cannot stream to the assigned receiver because the receiver is not licensed.	Contact Dejero Support.
Receiver incompatible	Error 119	Could not broadcast. The receiver is incompatible and requires a software update.	Contact Dejero Support.

Problem	Error / warning number	Description	Solution
Latency is being adjusted to optimize the requested operation. This message will automatically clear when the latency adjustment has completed.	Warning 120	The CellSat service requires a minimum latency of 1.5 seconds. The device is adjusting the latency from a lower level.	Wait for the device to adjust the latency.
SSL Handshake failed	Warning 121	The SSL handshake failed due to poor network conditions.	Wait for network conditions to improve and try again.
Requested latency setting is too low	Error 125	The assigned receiver is not capable of a latency of less than 0.8 seconds.	Assign this source to a receiver with a compatible latency setting or contact Dejero Support for assistance.
Hardware failure	Error 200	The input device has malfunctioned.	Contact Dejero Support.
Software failure	Error 201	The software stopped unexpectedly and was restarted automatically.	Contact Dejero Support.

Technical specifications

Video

Resolutions	1080p 23.98/25/29.97/30/50/59.94/60 (3G-SDI Level-A), 1080i 25/29.97/30, 720p 50/59.94/60, 576i 25, 480i 29.97
Encoding	H.264 AVC and H.265 HEVC, adaptive encoding
Inputs	3G/HD/SD-SDI, HDMI 1.0

	IP (MPEG-TS, RTMP, RTSP)
Recording	Up to 70 hours of HD (with 175 GB of storage)

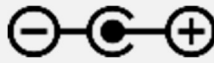
Audio

Encoding	<p>Live:</p> <p>Recording: AAC 48 kHz, stereo or 4-channel</p>
Inputs	Embedded (SDI, HDMI)

Network connections

Cellular	6 x 3G/4G/LTE/LTE-A, compatible with external 5G modems
LTE Bands	<p>LTE FDD: B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B17, B18, B19, B20, B21, B25, B26, B28, B29, B30, B32, B66</p> <p>LTE TDD: B38, B39, B40, B41</p>
WCDMA Bands	B1, B2, B3, B4, B5, B8, B9, B19
Ethernet	Dual 1 Gb/s port for LAN, WAN, and portable satellite (including BGAN, Ku-band, Ka-band)
Wi-Fi	<p>Dual-band wireless-AC with Wi-Fi 6 (802.11 a/b/g/n/ac/ax)</p> <p>Open WEP, WPA-PSK, and WPA2-PSK</p>

Power

DC IN	100-240 VAC adapter, 19VDC 90W  (included)
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Physical

Dimensions (H x W x D)	21.8 x 14.2 x 8.4 cm (8.5 x 5.6 x 3.3 inches)
Weight	1.9 kg (4.2 lbs)
Operating conditions	0°C to 45°C (32°F to 113°F)* 0°C to 40°C (32°F to 104°F) in backpack, up to 95% RH (non-condensing)
Storage conditions	-20°C to 70°C (-4°F to 158°F) < 95% RH (non-condensing)
Connectors	SDI in (BNC), HDMI in, HDMI out, 2 x RJ45 Ethernet, 2 x USB 3.0, IFB out (3.5 mm), Intercom headset (3.5 mm), DC In
Accessories (included with the EnGo)	SDI extension cable, HDMI extension cable, IFB extension cable (3.5 mm to XLR and 3.5 mm to 3.5 mm), D-Tap adapter (DC In to D-Tap), Intercom extension cable (3.5 mm to 3.5 mm), auxiliary battery quick connect plate (V-Mount or Gold Mount), DC In power adapter, user-accessible SIM module, backpack cover for weather protection

*operating with internal/external battery; up to 40°C with included certified external power adapter.

Key functions

Live	Transmit broadcast-quality live video over IP networks.
Record mode	Record video for later transfer.
Live and Record mode	Transmit live while also recording video for later at a higher quality.
File transfer	Transfer edited video or other files to Dejero receivers.
Wi-Fi hotspot	Internet access over a single network connection, preserving remaining connections for video

Multiple output formats	Reliably transmit to a wide range of outputs including SDI, SMPTE ST 2110, MPEG-TS, Content Delivery Networks (CDNs), social networks, and MultiPoint.
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Regulatory compliance

Product	EnGo 3x
Model	EG3x
Compliance	This product is compliant with international EMC and safety standards.

Additional help

If you still require assistance operating your Dejero EnGo 3x:

- Visit the Dejero SupportHub online knowledge base at support.dejero.com
- Email the Dejero technical support team at support@dejero.com
- Call the 24-hour technical support number for your region.
 - US & Canada: 1 866 808 3665, ext. 2
 - International: +1 519 772 4824, ext. 2

Document revision history

Version	Date	Changes
001	TBD	Initial release.



Technical Support:

support@dejero.com

US & Canada (Toll Free): 1 866 808 3665, ext. 2

International: +1 519 772 4824, ext. 2