Version: 2023-08-23



Black Box Video has been designed to operate autonomously, while also providing diagnostic functionality to ensure optimal performance. It includes a range of configurable features to tailor the system's performance to individual vessel requirements. Key features of the firmware include:

Robust Video Recording Strategy

Robust strategies have been developed to ensure video is captured to meet desired monitoring objectives. These strategies include continuous recording (24/7), recording from departure to return to harbour, and recording only when inside or outside defined geo-fenced areas. These are also all integrated with a rules based recording engine which can start/stop recording based upon the activity of sensors.

Geo-Fencing

Enables systems to be configured to record, or not record, when a vessel enters or leaves a specified area. Therefore systems can be configured to only record in certain areas, such as a specific Exclusive Economic Zone (EEZ) or when inside a Marine Protected Area (MPA). Geo-Fencing is fully integrated with the Black Box Videos recording rules engine.

Data Transfer

The firmware enables wireless uploading of video and sensor data securely. It supports data transfer through 4G/5G cellular networks, WiFi, or satellite connections. With network prioritisation functionality, the system intelligently determines what data should be transferred based on available connectivity.

On-Demand Video

It is possible to effectively manage what video data is uploaded from the system. Optimizing the data bandwidth usage through only uploading videos related to fishing activities that require review. Video ondemand works through the system secure messaging feature which also enables the exchange of messages between the monitoring authority and fishers.



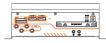














| Remote desktop |
|----------------|
| functionality |
| (Live view) |

In combination with the Black Box Analyzer, which empowers users to directly and securely interact with individual Black Box Video systems. This functionality proves invaluable during the system's initial installation, enabling seamless troubleshooting of any issues that may arise, as well as facilitating the review and configuration of camera image quality settings.

Edge computing

The scalability of a monitoring program can be enhanced by extracting information directly from a camera's view. By employing image analysis, machine learning, and artificial intelligence techniques, various tasks can be performed onboard a vessel, including detecting fishing activity, counting fishing gear, and identifying instances of catch and bycatch.

Automatic updates

Automatic update functionality within the firmware eases the required maintenance from the fisherman's perspective, while also ensuring the firmware is kept up to date. Updates are downloaded when within wireless connectivity range and automatically installs when the vessel is in harbour.

Multilingual user interface

The Black Box Video user interface is currently available in English, Danish, French and Spanish. The application has been designed explicitly to support additional languages, which can be included as application updates as required.