

T&S CONCEPTS

K9VS

K9 VISION SYSTEM



Morin

FABRICANT DISTRIBUTEUR





A WORD FROM THE DEVELOPERS

The idea for the K9 Vision System arose from the need to solve a very real problem for us as military operatives. No matter how many breakthroughs we made in K9 training - for example in teaching our dogs directionals for control at distance - we found ourselves limited by our visual field. We needed a way to see what our dogs could see, and give them commands when completely out of sight.

Having tested every camera system available at the time, we found nothing that performed up to standard on real missions. Consequently, we decided to do what so many units end up doing, and make one ourselves! Our goal was to develop a high quality, no-latency video and radio transmission system that would maximize our operational capabilities, but would also be comfortable and unrestrictive for the dogs. We learned the hard way this was much more difficult than it appeared.

Fortunately, we were able to cooperate with innovators from a wide range of industries, from drone technologies to K9 equipment. Thus, our ideal video transmission system slowly began coming to life. It took about three years of field testing and adjustment until we finally had a prototype that performed in the way we envisioned. Once we began cross-training with other units, we realized that we weren't the only ones with the need for this kind of high-performance system. And so, the K9 Vision System was officially given a name and made available to others.

Today we are still involved in police and military K9 training, working closely with our former units to ensure the K9VS evolves with current operational needs. Our goal is to continue helping military and law enforcement professionals push the boundaries of K9 operations.

THOMAS & STEPHANE

**FORMER FRENCH SPECIAL FORCES (GIGN)
AND FOUNDERS OF T&S CONCEPTS**



MAIN FEATURES

No latency, encrypted COFDM video and audio transmission.

Unmatched range in urban environments and dense vegetation: 350-800 meters.

Night vision with remote control infra-red and white LEDs.

Custom mounts and configurations.

Field tested and operational in 16 different countries.



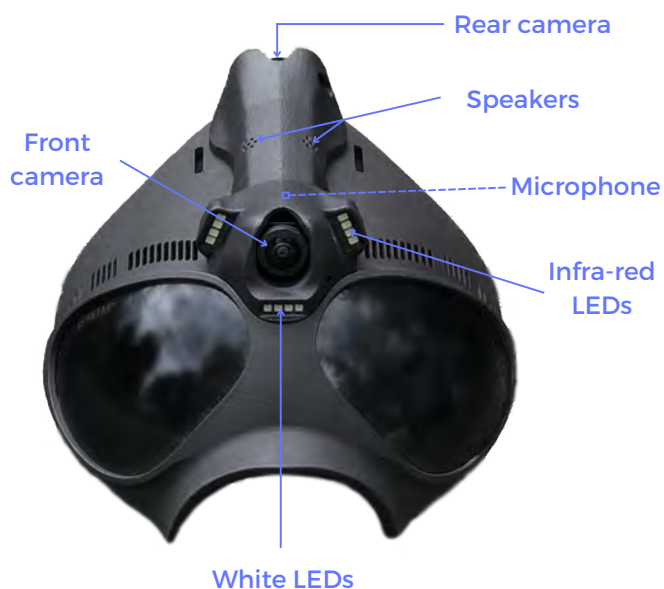
K9 MOUNTED SYSTEMS

K9HELM MOUNT

SINGLE CAMERA

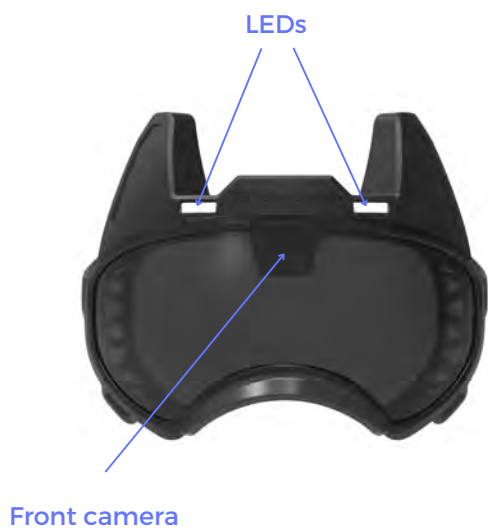


DUAL CAMERA

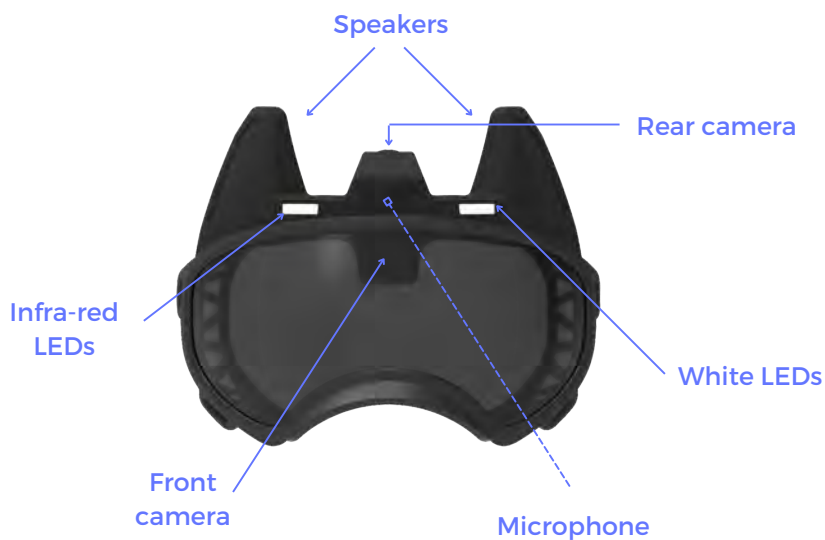


REXSPECS MOUNT

SINGLE CAMERA



DUAL CAMERA



K9 MOUNTED SYSTEMS

SPECIFICATIONS

CAMERA B&W or color available. For use with infra-red night vision, B&W option is required. Wide angle: 145°

COLORS Custom and color-matching available.

CUSTOM MOUNTS Our designers are ready to work with your equipment of choice.

DUST & WATERPROOF IP67 rated: protected against dust/sand and the effects of temporary immersion (30 mins) in up to 1 meter.





TRANSMITTER (TX)

COLLAR SYSTEM



Radio
(optional)



Streamlined design



Transmitter

SPECIFICATIONS

HARNESS OPTION

Can be tailored for mounting onto your preferred harness.

LIGHTWEIGHT

Equipped collar system weighs only 200g.

TRANSMISSION

Power and RF output can be remotely controlled from receiver.

DUST & WATERPROOF

IP67 rated: protected against dust/sand and the effects of temporary immersion (30 mins) in up to 1 meter.

BATTERY

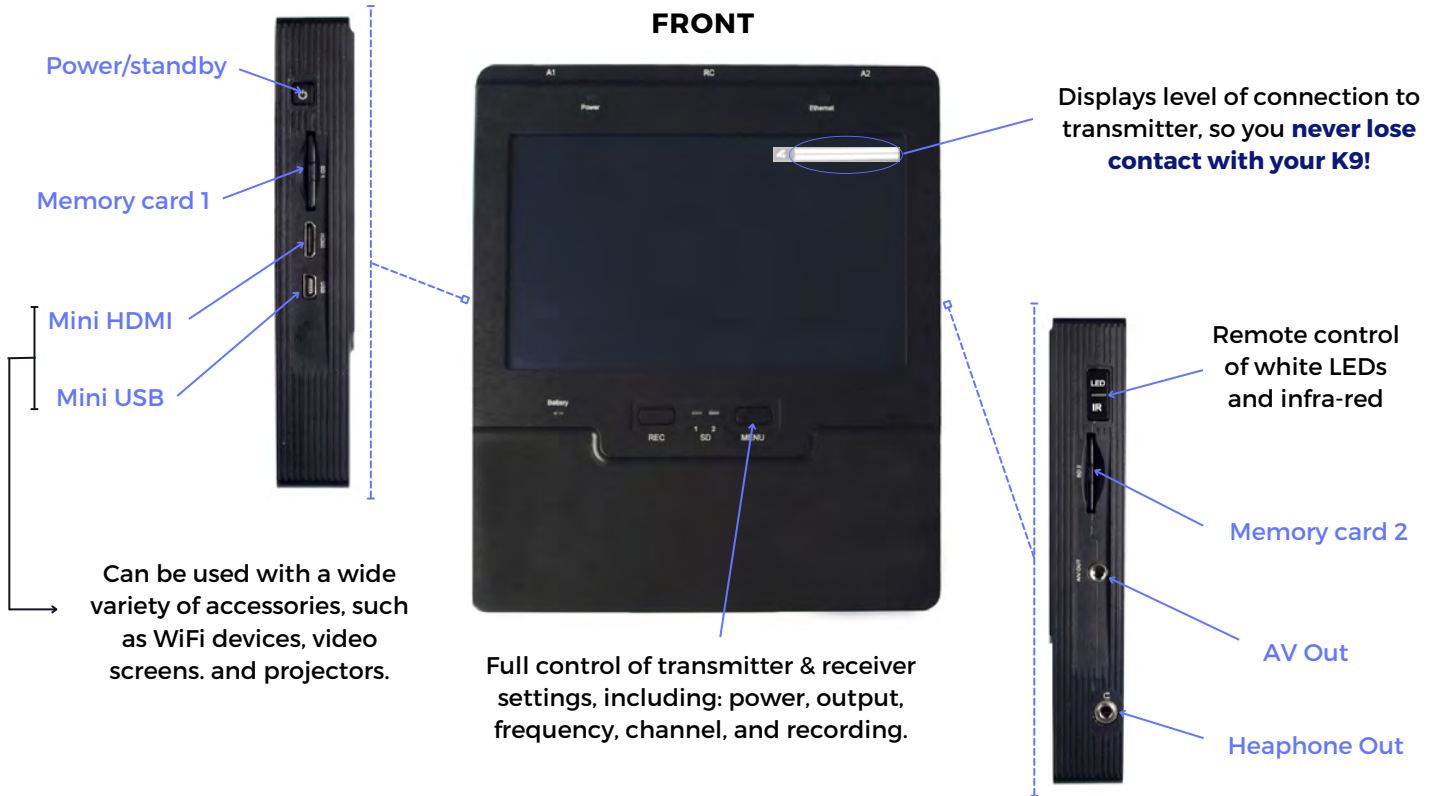
4 hours while in use. "Standby" mode can be controlled from receiver.

RADIO SPEAKER

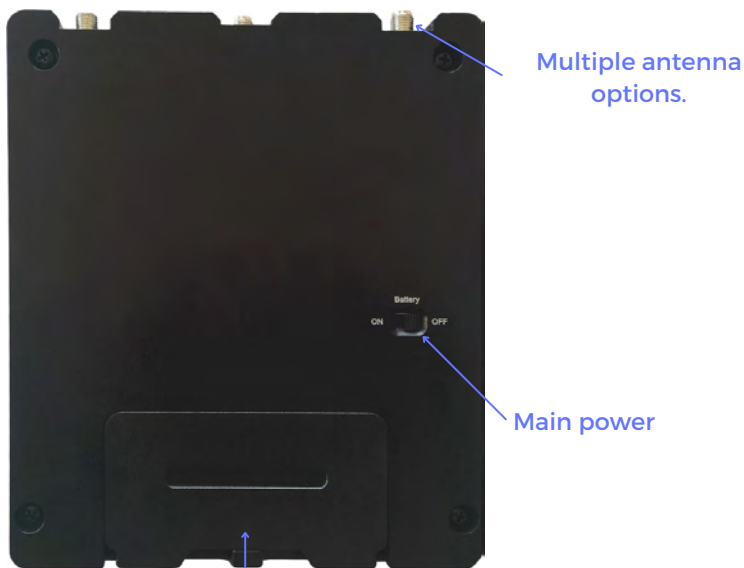
Can be integrated with radio system of choice, comes with Hytera PD362i.

RECEIVER (RX)

FRONT



BACK



Removable battery with hot-swap function (3 minutes)

WRIST MOUNTED MONITOR



Connects via cable to RX - enabling RX to be mounted on handler vest/belt and freeing use of hands.

RX ANTENNAS & SPECS

ANTENNAS

Short, Rubber



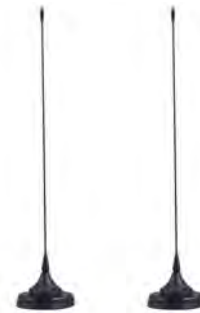
Range ~ 350m
(line of sight)

Gooseneck



Range ~ 600m
(line of sight)

Magnetic Mount



Range ~ 800m
(line of sight)

SPECIFICATIONS

VIDEO TRANSMISSION

Encrypted COFDM , RF range: 990 - 1400 MHz. RF bandwidth: 8.7 MHz

BATTERY LIFE






4 hours while in use.

RECORDING CAPACITY









54 hours total: 18hrs in receiver, 36hrs in transmitter. Can be set to manual or auto record when powered on.

STANDARD KITS












|ONE|

-  Front-facing camera (color or B&W option)
-  Infra-red (IR) LEDs
-  Transmitter
-  Receiver (no remote control)
-  Short antennas

|PRO|

-  Front & rear facing camera (color or B&W option)
-  White & IR LEDs (control from RX)
-  Transmitter
-  Spare TX battery
-  Radio speaker system
-  Receiver with remote control function of TX (cameras, LEDs, rec & power)
-  Short antennas
-  Dummy training kit if mask-mounted

|SPEC OPS|

-  Front & rear facing camera (color or B&W option)
-  White & IR LEDs (control from RX)
-  Water & dustproof transmitter
-  Spare TX battery
-  Radio speaker system
-  Receiver with remote control function of TX (cameras, LEDs, rec & power)
-  Removable RX battery with hot-swap function
-  Wrist-mounted monitor
-  Short antennas
-  Gooseneck antennas
-  Dummy training kit if mask-mounted

* All systems are available with the choice of either K9Helm or Rexspecs mount.

FUNCTIONS COMPARISON

	ONE	PRO	SPEC OPS
 Can be used on K9s deployed in water or sandy environments.	✗	✗	✓
 Hands-free viewing option via wrist monitor.	✗	✗	✓
 Uninterrupted view on long missions with RX battery hot-swap function.	✗	✗	✓
 IR night vision controllable from RX.	✗ <small>IR Permanently ON</small>	✓	✓
 Visible (white) LEDs, alternate for night vision and aid to K9.	✗	✓	✓
 Front and rear view from K9.	✗	✓	✓
 RX remote control of TX transmission and output settings.	✗	✓	✓
 Give commands to K9 at distance.	✗	✓	✓
 Distance controlled sleep mode of K9 system for battery preservation.	✗	✓	✓
 Audio recording & transmission	✓	✓	✓
 Encrypted COFDM video	✓	✓	✓



FAQ

WHY IS RANGE GIVEN AS "LINE OF SIGHT" ?

The surrounding environment plays a significant role in the range of transmission systems, potentially reducing or increasing capacity. "Line of sight" is the only consistent measurement that can be provided for a transmission system. For safety, the estimates we provide are conservative. Most special operations units using the K9VS today have found the short, rubber antennas to be more than sufficient for their missions. Performance in buildings will vary with building structure, but the short antennas will typically cover the entire first and second floor of a standard residential building.

WILL THE SYSTEM WORK IN SIGNAL-BUSY ENVIRONMENTS?

Yes. The K9VS uses Coded Orthogonal Frequency-Division Multiplexing (COFDM) data links to transmit between its transmitter and receiver. The advantage of using COFDM (as opposed to VHF/UHF radio, Wifi, or 4G), is its ability to completely overcome interference caused by objects or other signals (multipath effects).



FAQ

IS THE SYSTEM AVAILABLE IN 4G or WiFi?

K9VS receivers (RX) can be used with attachments that transmit video from the RX to other devices using other forms of transmission, for example WiFi. However, we no longer manufacture systems that directly transmit over WiFi or cellular networks because they are unreliable (see above question) and have significant latency. Our systems are designed with high performance in mind, to ensure the handler never loses contact with their dog, no matter the operational environment.

WHY IS THE RADIO SYSTEM SEPARATE?

The first reason, is that the vast majority of units prefer (or are required) to use their own radio systems. Therefore the K9VS has been designed such that the integrated speakers can be connected to the user's radio of choice. The second, is as an important safety measure to always maintain a separate communication line with the dog.

THE K9VS IS CUSTOMIZABLE BASED ON OPERATIONAL NEEDS

Systems distributed by:

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