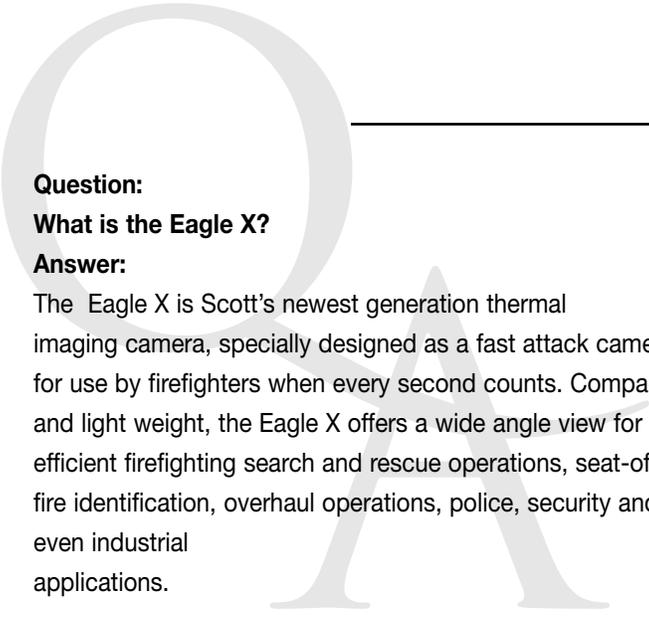


EAGLE X™

QUESTIONS & ANSWERS





Question:

What is the Eagle X?

Answer:

The Eagle X is Scott's newest generation thermal imaging camera, specially designed as a fast attack camera for use by firefighters when every second counts. Compact and light weight, the Eagle X offers a wide angle view for efficient firefighting search and rescue operations, seat-of-fire identification, overhaul operations, police, security and even industrial applications.

Question:

How is the Eagle X different from other thermal imagers?

Answer:

The Eagle X is light weight, durable and compact in size, but features a large format viewing screen. With batteries installed, the camera weighs just 2.6 pounds. The camera core is contained in a 5 X 5 X 4-inch housing attached to an ergonomically designed handle, comfortable for use with gloved hands.

Question:

How was the camera designed?

Answer:

The Eagle X was designed based largely on end-user input. These end-users comprised several diverse groups of firefighters and other thermal imaging users who examined different types of camera housings and indicated their preference for the Eagle X camera's unique packaging. Users also said they preferred a "no frills" camera; a unit that provided simple but efficient operation without costly options.

The Eagle X design means it is typically used in a "look through" fashion by holding the camera up to the user's face. This is particularly helpful in environments with dense smoke when firefighters are forced to hold the viewing screen close to eye level. The camera may also be held in an inverted position to look under objects close to the ground, or "side arm" fashion to look around corners.

The camera's compact size also makes it an ideal thermal imager camera for police and security applications including accident and crime scene investigations. Industrial users find the camera to be an excellent tool for quickly identifying heat sources, particularly in areas with confined spaces.

Question:

What is the camera's detector technology?

Answer:

The Eagle X contains the same vanadium oxide microbolometer core that is featured in the Eagle Imager 160, the innovative thermal imager that broke new ground because of its ergonomic design and user adjustable operating positions.

The detector has a 160X120 focal plane array, a 60 Hz. update rate and an 1,100-degree dynamic range. These features enable the camera to generate clear, sharply detailed images in both neutral temperature and high temperature environments. Ghosting, blooming, halos and other image artifacts, so apparent in earlier generation thermal imagers are eliminated with the Eagle X advanced microbolometer technology.

Question:

Why is the camera's dynamic range important?

Answer:

The cameras overall 1,100-degree dynamic range is actually divided into two levels, both designed to optimize the image of the scene being viewed. The lower level dynamic range extends to 200-degrees F. In this portion of the range, the sensitivity of the detector is maximized to produce crisp and clear images even in low temperature environments.

When viewing scenes of 200-degrees F° or more, the camera's detector functions much like a human eye when looking into a bright light. Less sensitivity is required because of the significant thermal energy produced at the scene. The camera's LCD will display an "EI" (Electronic

Integration) legend when viewing scenes that take the camera into its higher dynamic range at temperatures over 200-degrees F.

Question:

How durable is the camera?

Answer:

The Eagle X is constructed of a tough polymer material selected to withstand tough day-to-day firefighting operations. The camera's head housing provides a durable shell for the core camera, including its optics, detector and electronics. The core camera lens is recessed and surrounded by a durable polymer protective bezel and by a germanium protective window. A hard-coated protective cover further protects the camera's viewing screen.

Question:

How large is the viewing screen?

Answer:

The viewing screen is a large format 3-1/2-inch diagonal LCD. It was selected because of its ability to display detailed images for fast, accurate viewer interpretation.

Question:

What is the camera's field of view and why is this important?

Answer:

The field of view is 54 degrees horizontal and 44° degrees vertical. This is important because it means the user can capture thermal information over a reasonably wide expanse.

Question:

Does the Eagle X provide temperature readout?

Answer:

Yes. The Eagle X is available with a radiometric temperature readout that is available in either a bar graph format or a digital display. The radiometry readout measures the surface temperature of the object seen through the cross hairs on the LCD. This relative temperature measurement enables greater situational awareness by allowing the user to know the

approximate temperature of objects being viewed. In addition, the user will be easier able to recognize upward or downward trends in the level of heat in the environment.

The digital display is a numeric representation of the temperature; the bar graph is a thermometer-type display of the temperature. Each display is available in Fahrenheit or Celsius scales.

Question:

Can the camera be used with a neck/shoulder strap?

Answer:

Yes. The camera features a retaining ring on its battery cover. This ring may be used to suspend the camera from the user's body by means of a strap.



Question:

What controls does the camera feature?

Answer:

The Eagle X is activated by simply pressing the thumb button, which is easily accessible by users with gloved hands. The single action switch activates the core camera and display for fast illumination of the thermal image.

Question:

Can the camera be placed in standby mode?

Answer:

Yes. The camera can be placed in standby to conserve battery life when a thermal image is not required. This is accomplished by momentarily pressing and releasing the thumb switch. Green LEDs in both the front and back thumb button will flash to indicate that the camera is in standby mode.

Question:**What is “Image on Demand?”****Answer:**

Once the Eagle X is placed in standby, the user can activate “Image on Demand,” for an immediate thermal image. This is accomplished by pressing the thumb switch, or the conveniently located trigger finger switch at the front of the camera.

Question:**Can the image be recalibrated?****Answer:**

Yes. Quickly pressing and releasing the thumb switch recalibrates the detector to refresh the image being viewed. The camera automatically recalibrates approximately once every 60 seconds, however, recalibration on demand by pressing the thumb switch may be helpful to refresh the image after viewing an extremely hot scene.

Question:**What type of batteries are required?****Answer:**

The camera features a rechargeable NiMH battery pack that provides up to two hours of continuous operation. The battery pack is held in a compartment located inside its handle featuring one-way insertion. A gas gauge style icon provides the user with a general indication of battery power left.

Question:**Can the camera also run on AA batteries?****Answer:**

Yes. In addition to running on its rechargeable NiMH battery pack, the camera may be operated by AA disposable batteries. Six AA batteries are simply inserted into the camera’s speed loader fixture, which is then inserted into the battery compartment. The camera is capable of continuous operation for one hour using disposable AA batteries. This run time, of course, can be extended by use of the camera’s standby mode. (The gas gauge icon functions only with rechargeable NiMH batteries.)

Question:**How easy is it to change batteries?****Answer:**

Battery change out can be accomplished in seconds by simply removing the threaded and gasketed battery cover at the end of the handle and inserting a fresh NiMH battery pack or the AA battery speed loader.

Question:**How is the NiMH battery pack recharged?****Answer:**

The camera’s NiMH battery pack can be recharged by inserting it into the Eagle X desktop charging cradle. The charger is approximately 4 X 4.25 inches in size and it can be placed on any flat surface, or it can be mounted in vertical position.

Question:**How long does it take to recharge the battery pack?****Answer:**

A fully discharged NiMH battery pack can be recharged in approximately two hours by placing it into the desk charger.

Question:**What kind of power supply is required?****Answer:**

The charging cradle comes with power cables for connection to a 12 VDC or 110 VAC power source.

Question:**Is a truck charging system (TCS) available?****Answer:**

Yes, the Eagle X is available with a truck charging system that securely holds the camera in place and recharges the NiMH battery pack contained in the camera’s handle. Like the separate charging cradle, the TCS is capable of recharging a fully depleted NiMH battery pack in approximately two hours.

Question:

How can the TCS be mounted?

Answer:

The TCS can be mounted either vertically or horizontally in a vehicle or on a wall. The unit has been tested to ensure that it is capable of securely retaining a mounted camera when sustaining impacts with forces of up to 9-Gs. This means it satisfies the NFPA Standard for Automotive Fire Apparatus specified in NFPA 1901, Current Edition.

Question:

Does the camera display status icons or messages?

Answer:

The gas gauge style battery power icon is displayed in the upper right corner. This gauge provides a general indication of the battery's charge.

The gauge will be completely white when a fully charged NiMH battery pack is used; the white colorization recedes as power is expended.

Because the gas gauge is calibrated based on the camera's NiMH battery pack, it does not function when AA batteries are used.

A "Low Bat" alert in the form of a text prompt will appear on the viewing screen when only about 20% of NiMH battery power remains. A high heat text warning will automatically appear on the viewing screen when the internal temperature of the camera reaches 160-degrees F.



Eagle Imager... See What You
Have Been Missing.



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