X60-X90 User Manual

Focusing on the Future

Scanprobe Techniques Limited

Contents

Figures

Copyright © 2025 Scanprobe Techniques Ltd.

Introduction

The Scanprobe Techniques Limited X-Range 60-meter and 90-meter Pipeline Inspection Coiler (X60–X90) is a fully integrated CCTV pipeline survey and inspection solution, purpose-built for deployment in non-hazardous environments. Designed with versatility and performance in mind, the system is fully compatible with the X-Range Tablet, the mina application, and the Maxprobe™ Camera Control Unit.

Note

The X60-X90 System is not suitable for use in environments with potential exposure to firedamp or any hazardous locations where explosive atmospheres may be present.

Symbols

Throughout this document, symbols have been used to highlight points to note.

Warning:

This symbol highlights risks where death or injury may occur.

Caution:

This symbol highlights risks where damage to property or to the X60-X90 System could occur.

Maintenance:

This symbol highlights maintenance and cleaning instructions.

Note

The symbol highlights additional information that maybe relevant to the current topic.

About This Manual

This User Manual contains essential instructions and critical information that must be followed when operating the X60–X90 System. It outlines fundamental user procedures and routine maintenance tasks, as well as guidance on the proper setup, operation, and functionality of the system during pipeline surveying and inspection activities. Adhering to the procedures detailed in this manual is vital to ensure safe, effective, and reliable use of the X-Range Systems.

Please retain this document in a secure location for future reference.

⚠ **Warning:**

Prior to operating the X60–X90 System, it is imperative to thoroughly read and fully understand the contents of this user manual. This manual provides critical information, safety warnings, and operational guidelines designed to mitigate risks, enhance system reliability, and prolong the lifespan of the equipment and its components. Adherence to all instructions and observance of all safety notices is essential to ensure user safety and to prevent potential damage to the system.

Note

A digital copy of this user manual is available by scanning the QR code located on the side of your X-Range product with your smart phone. This label also includes information on applicable compliance standards and power specifications.

Safety Instructions

This chapter illustrates the safety requirements that should always be adhered to when operating or maintaining any product purchased from Scanprobe Techniques Limited or one of their authorised agents. Please take the time to read and understand all the instructions within this document.

⚠ **Warning: Risk of injury due to electric shock:**
When using electrical equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

⚠ **Warning: Risk of injury or damage:**

Do not use or charge an X60-X90 System with a damaged or an exposed battery pack.

⚠ **Warning: Risk of damage to eyes and eyesight:**

X-Range Systems feature bright LED illumination on the camera head which may cause damage to the eyes or to eyesight when fully illuminated. Do not look directly at them or point them at other people's eyes when illuminated.

Safety Instructions for the X60–X90 System

To ensure safe and effective operation of the X60–X90 System, the following safety guidelines must be strictly observed:

- **Visual Inspection:** Prior to each use, conduct a thorough visual inspection of all system components, including cables and connectors. Do not operate the system if any parts are damaged. All damaged components must be repaired or replaced before use.
- **Manual Handling:** Always follow approved safe lifting practices when handling or transporting any part of the system to avoid personal injury or equipment damage.
- **Charging:** Use only the power supply and charging cables provided with the system, or those supplied by Scanprobe Techniques Limited authorised distributors. The use of unapproved charging equipment may result in damage or pose a safety risk.
- **Mains Operation:** The mains power adaptor included with the system is designed strictly for indoor use. Do not attempt to operate or charge the unit from an outdoor mains power source.
- **Health and Safety:** When operating in foul sewer systems or similar environments, users may be exposed to biological hazards. Always wear appropriate personal protective equipment (PPE) and adhere to relevant health and safety protocols to minimise the risk of infection or contamination.
- **Maintenance:** Ensure all connectors, ports, and interface points are kept clean and free from dust, debris, and moisture to maintain optimal performance and prevent damage.
- **Cable Integrity:** Immediately replace any cables that show signs of wear, damage, or malfunction to prevent system failure or electrical hazards.

Compliance with these safety instructions is essential for protecting the operator, maintaining system integrity, and ensuring reliable operation in the field.

Battery Safety

The battery is securely enclosed within the X60–X90 System housing and is not accessible during normal operation. In the event that the system casing becomes damaged, and the battery pack is exposed, the following safety precautions must be observed:

- Immediately contact Scanprobe Techniques Limited or an authorised service centre to arrange for inspection and repair of the unit.
- Do not send damaged batteries or battery cells via postal or courier services.
- Do not attempt to tamper with, handle, or repair an exposed battery pack.
- Avoid short-circuiting the battery or individual cells. Never store the battery or cells in proximity to metal objects that may cause a short circuit.
- Do not dismantle, open, or shred the battery or its cells under any circumstances.
- Protect the battery and cells from mechanical shock or impact.
- In the event of leakage, avoid direct contact with the leaked substance. If contact occurs, rinse thoroughly with soap and water and seek medical advice if irritation persists.
- Do not expose the battery or cells to excessive heat or open flames. Avoid storing the system in direct sunlight or high-temperature environments.
- If a battery or cell is ingested, seek immediate medical attention.
- Ensure any exposed batteries or cells are kept clean, dry, and in a safe location.

Strict adherence to these guidelines is essential for ensuring safe operation.

General Safety Precautions

Always maintain situational awareness when operating an X-Range System and always remain attentive to your surroundings. Ensure appropriate personal protective equipment (PPE) is worn, and that the correct tools, warning signs, and physical barriers are in place to safeguard both the operator and others in the vicinity.

To minimise the risk of injury or equipment damage, all operators and maintenance personnel must thoroughly read and understand this user manual prior to operating the system, replacing accessories, or conducting any maintenance procedures.

The X60–X90 System should be carefully inspected for signs of damage or wear both before and after each use. Any required cleaning, servicing, or repairs must be carried out promptly to maintain safe and effective operation. Use of the system is strictly limited to a trained and competent personnel.

Always adhere to the procedures outlined in this manual and ensure the document is readily accessible for reference during operation.

Intended Use

The X60 and X90 Pipeline Inspection Coilers are versatile CCTV systems designed for the inspection and maintenance of all types of pipeline systems. These systems are suitable for pipes ranging from 50mm to 450mm in diameter, making them ideal for use in both domestic and commercial properties where detailed visual inspection is necessary to identify blockages and assess the internal condition of pipelines.

It is important to note that the X60 and X90 Coilers are **NOT** certified for use in ATEX zones and should not be operated in environments with a risk of explosions due to flammable gases or dust. To ensure safety and effective operation, these systems must be used only in appropriate environments.

Any use beyond or deviating from the intended purpose is considered misuse. The manufacturer disclaims all responsibility and liability for any warranty claims or other liabilities resulting from misuse of the equipment.

⚠ **Warning:**

The X60–X90 System is not intended for use in mines susceptible to firedamp or in any environments with explosive atmospheres of any kind. Conducting surveys or inspections in such hazardous areas is considered extremely dangerous and must be strictly avoided. For alternative equipment suitable for use in explosive atmospheres, please contact Scanprobe Techniques for further guidance.

About Your System

The X60-X90 System represents a cutting-edge CCTV pipeline survey and inspection solution, expertly engineered for use in non-hazardous locations. The X60 model features 60 meters of durable pushrod, while the X90 model extends the reach with 90 meters of pushrod, both encased in a robust outer jacket. Each model includes a camera head designed to effectively navigate multiple medium bends in pipe sizes ranging from 50mm to 300mm.

Control of the system is versatile, accommodating a dedicated X-Range Tablet, the Maxprobe™ Camera Control Unit (CCU), and has compatibility with iOS/Android devices via the appropriate apps. The system's 44mm Hybrid Camera head includes a frequency magnetic sonde that can be traced, enhancing functionality and efficiency in complex pipeline environments.

Designed for operation from a surface location, only the camera head and pushrod enter the pipeline under inspection. The coiler of both systems is tailored for outdoor use and comes with an IP56 protection rating, ensuring it can withstand heavy rain and subsequent washdowns, though it is not protected against dust ingress and powerful water jets.

Both the pushrod and camera are ideally suited for use in flooded pipelines, drains, and culverts, being completely dustproof and operational at depths up to 3 meters in standing water, with an IP68 rating.

Operating Temperatures

Operating Temperature: -10°C to +50°C

⚠ **Caution:**

Do not attempt to operate or charge the X60-X90 System outside the recommended temperature specifications, as this may damage the battery. Exposing the battery to temperatures below -10°C or above 50°C may damage the battery or activate the battery's safety systems, causing a permanent battery failure.

Disposal

The X60-X90 System is classed as electrical equipment and is covered by the Waste Electrical and Electronic Equipment Regulations 2013 (as amended). The X60-X90 coiler and the Maxprobe™ CCU both contain batteries and by law must not be disposed of in landfill waste.

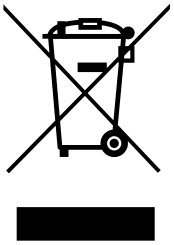


Figure 1: Waste Electrical and Electronic Equipment (WEEE)

Scanprobe Techniques Limited is registered with a WEEE Producer Compliance Scheme under Registration Number WEE/MM5507AA. As part of our commitment to responsible electronic waste management, any Scanprobe-manufactured electronic device can be returned to us at the end of its service life for environmentally compliant disposal, free of charge.

X60-X90 Overview

Design and Application

The X60-X90 consists of the following main components; all accessories for this product are listed in the Accessories section:

Qty 1 off X60 Coiler (model number 1006-1002-0)

Qty 1 off X90 Coiler (model number 1008-1001-0)

Qty 1 off Hybrid Camera (model number 1015-1004-0)

Note

The system needs to be powered up before any devices can be recognised.

X60-X90 Coiler

The X60-X90 Coiler contains the electronics hub and gathers the push rod in a uniformed and redistributable way. The X60-X90 Coiler has been designed to be compact and user friendly. The top of the frame has a device holder used to hold a tablet in position and the base of the frame is designed to sit stable on a variety of surfaces (see). Key components are identified in .

Figure 2: X90/X60 System

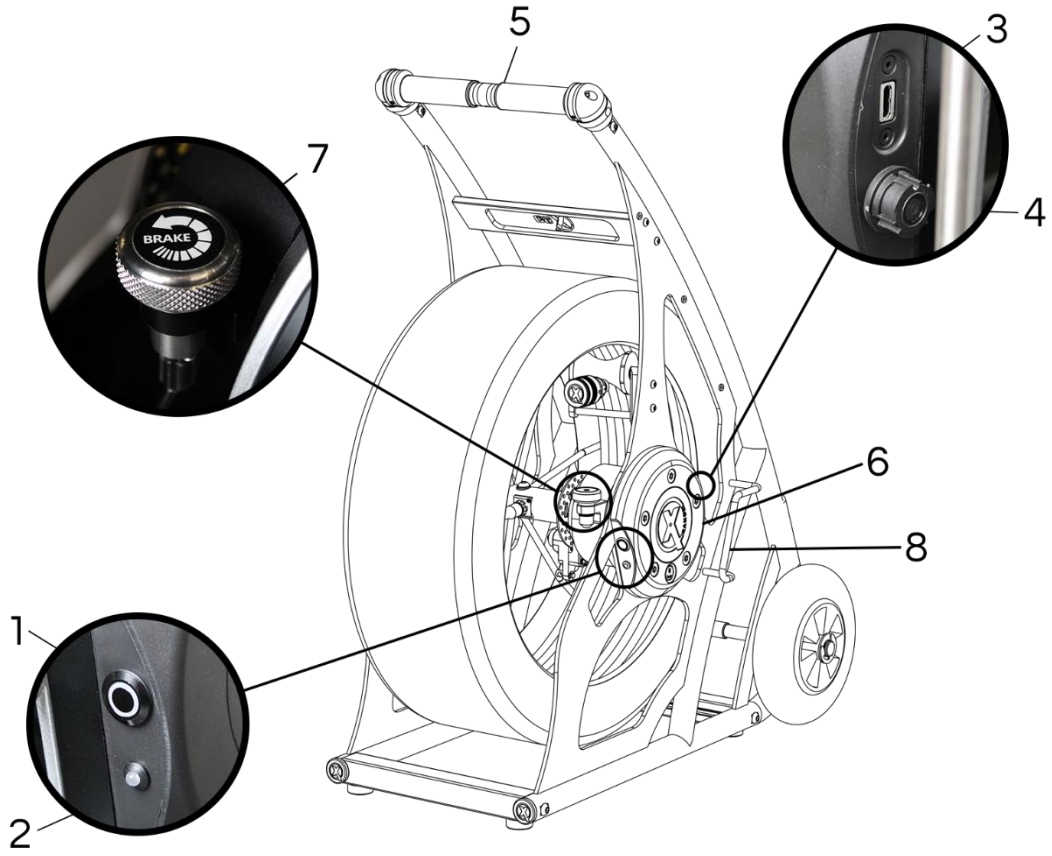


Figure 3: X60-X90 System Components

1	Power Button	5	Table holder clamp
2	Status LED	6	Side Plate
3	USB-C Connector	7	Coiler Brake
4	Charger input and Maxprobe Connector	8	Connector Guard

Hybrid Camera

The Hybrid Camera, illustrated in Figure 4, is a cutting-edge, fully sealed unit with an IP68 rating, built to withstand depths of up to 3 metres in standing water. With its self-levelling image technology and integrated high-intensity LED illumination, this camera ensures crystal-clear visibility in even the most challenging conditions.

Equipped with an innovative magnetic sonde, the camera emits an oscillating magnetic field, offering the flexibility to choose between two frequencies -512Hz or 33kHz- tailored to meet the unique needs of each inspection.

Designed for pipelines ranging from 50mm to 450mm in diameter, the Hybrid Camera empowers engineers to conduct precise, detailed inspections with unparalleled accuracy. Its advanced sonde technology enables the camera to traced at depths of up to 4 metres, ensuring targeted and efficient identification of pipeline issues. This innovative solution

allows for accurate fault detection, dramatically reducing the need for extensive excavation and making pipeline repairs faster, less disruptive, and more cost-effective. With this powerful tool, engineers can take a smarter, more focused approach to maintenance, optimising both time and resources for superior outcomes.

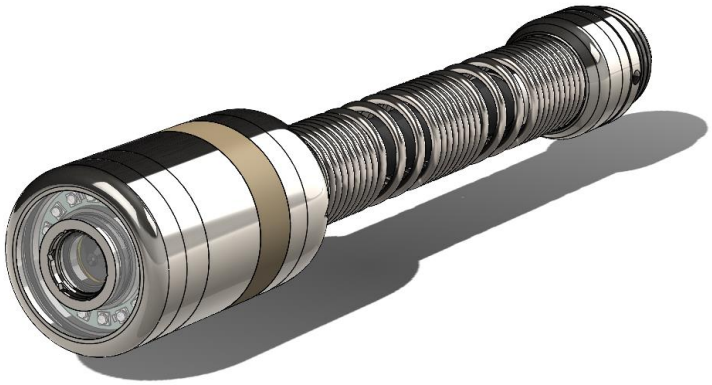


Figure 4: Hybrid Camera

⚠ **Warning:**
Do not attempt to open the camera head at any time. The camera enclosure has no user serviceable components.

⚠ **Warning: Risk of damage to eyes and eyesight:**
X-Range system cameras are equipped with high-intensity LED illumination - which, when fully activated, may pose a risk to vision. To avoid potential eye damage, refrain from looking directly at the illuminated LEDs or directing them towards the eyes of others.

Component Identification

All Scanprobe components are marked with unique serial numbers for identification. Do not erase these identification markings or tamper with these in any way.

X60-X90 Coiler

The serial number can be found on the mental plate engraved on the side of the reel. (see Figure **5**).

Figure 5: X60-X90 Coiler Product Label and Serial Number positions

Hybrid Camera Head

The Hybrid Camera Head has a serial number marking etched around a recess on the connector (see

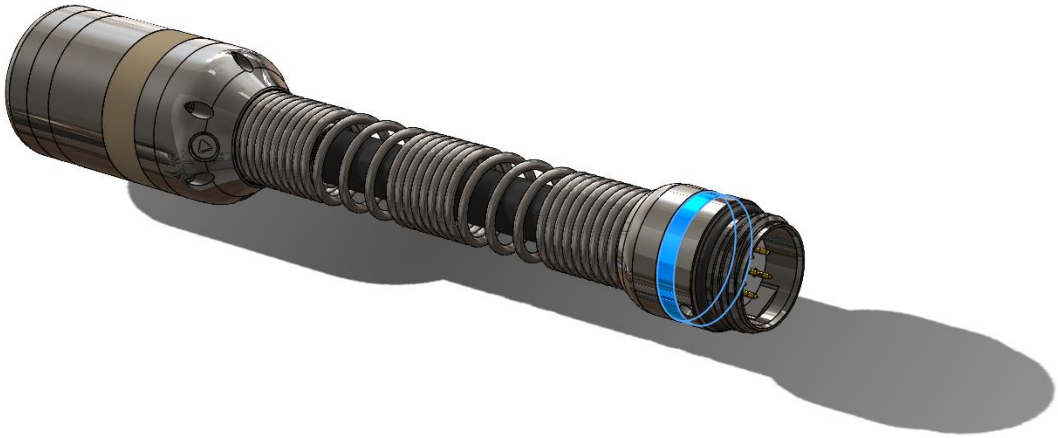


Figure 6).

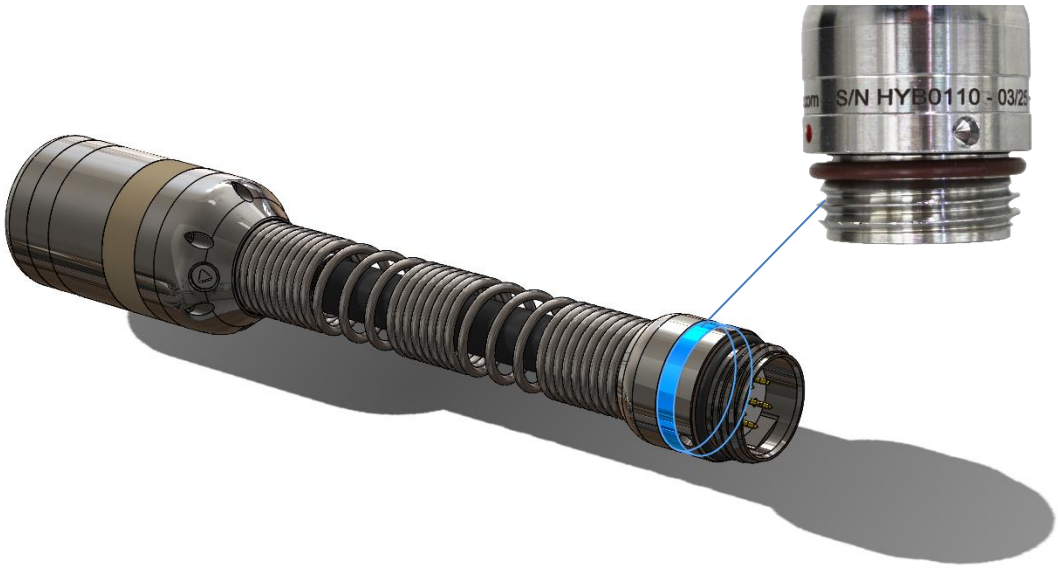


Figure 6: Hybrid Camera Serial Number

Prior to Use

Safety Precautions for Operating the X60-X90 System

Prior to using the X60-X90 System, it is essential to assess your surroundings and identify any potential hazards that could result in serious injury or fatality. To ensure safe and reliable operation, the following checks must be performed:

- **Connector and Interface Maintenance:** Ensure all connectors and interfaces are free from dust and debris, as contamination may compromise system reliability.
- **Secure Connections:** Regularly inspect all connectors to confirm they are secure, clean, and in proper working condition.
- **Cable Inspection:** Conduct a thorough visual inspection of all cables before each use to identify any potential damage or wear.

It is imperative to evaluate potential hazards before operating the X60-X90 System, as failure to do so may lead to severe or fatal injuries. The following major risks must always be considered prior to use.

⚠ **Environmental Awareness**

Operators must maintain constant awareness of their surroundings and potential hazards during CCTV inspections or surveys. This includes being vigilant of nearby plant machinery, heavy construction equipment, exposed electrical installations, earthworks, excavations, and other sources of danger.

⚠ **Risk of Explosion**

Explosive atmospheres may arise from the presence of flammable gases, mists, vapours, or combustible dusts. Pipelines containing such hazardous conditions should only be surveyed using appropriately certified equipment and by operators trained in the necessary safety protocols.

For pipeline inspections in potentially explosive environments, please contact Scanprobe Techniques Ltd to discuss alternative equipment specifically designed for use in such conditions.

⚠ **Environmental Risk**

Contamination of drinking water sources by sewage can occur when wastewater inspection systems are used in freshwater pipelines. Never use an inspection system alternately between wastewater and freshwater surveys, as cleaning your inspection system is not sufficient to sanitise the equipment. Always use a dedicated freshwater inspection system to survey freshwater pipelines.

⚠ **Risk of Infection**

Workers whose activities bring them into contact with sewage and sewage products are at risk of contracting a work-related illness. Most illnesses are relatively mild cases of gastroenteritis, but potentially fatal diseases, such as leptospirosis (Weil's disease) and hepatitis have been reported to HSE. Before undertaking any form of work where there is a risk of contact with sewage and

sewage products, make sure you understand the risks to health and the ways you can pick up infections, use safe systems of work and wear appropriate protective equipment. Further information can be obtained the Employment Medical Advisory Service at any HSE area office within the UK, or through the HSE website at www.hse.gov.uk.

⚠ **Electric Shock**

Before operating the system, carefully inspect the connector cable and pushrod to ensure they are undamaged and free from signs of bending, crushing, or compromise.
If any damage is detected, immediately disconnect the power supply and **do not use the equipment** until it has been fully inspected and repaired by Scanprobe Techniques Ltd. or an authorised Scanprobe repair centre.

To prevent water ingress, ensure no liquid enters the Control Tablet or coiler hub. Always fit all rubber blanking bungs securely and check that the connector lock ring is fully closed, particularly when operating in wet or damp environments.

After completing a survey, wipe the Control Tablet dry and place it in a warm, dry location to allow any residual condensation to evaporate.
If using the Maxprobe™ CCU and you suspect that water has entered the unit, do not connect it to the mains power supply. Instead, contact Scanprobe for further guidance and support.

☝ **Note**

All electrical work on X-Range products must only be carried out by Scanprobe Techniques Ltd. or Scanprobe-trained and authorised engineers. Unauthorised repairs or modifications will void warranty and may compromise safety and performance.

Initial Set-up

X-Range Tablet

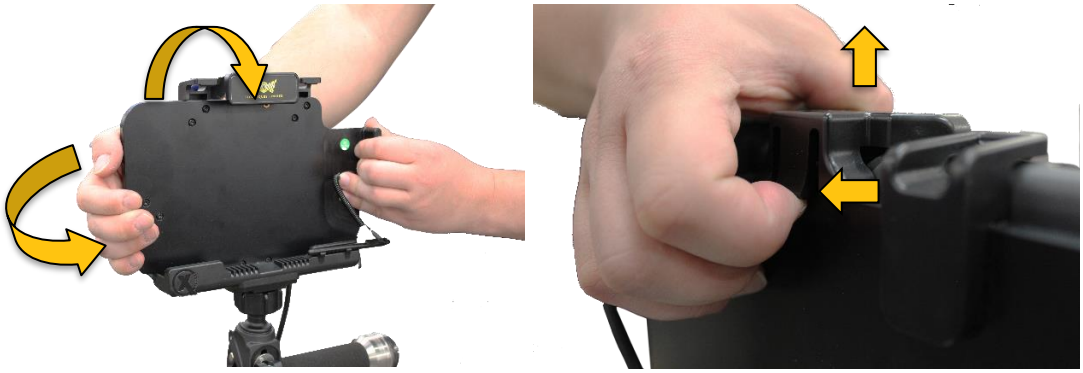
From the moment you purchase an X-Range System and throughout its continued use, one of the most noticeable advantages is the attention to detail invested in its design and user experience. If your system includes an X-Range Tablet, please follow the steps outlined below to ensure a smooth and efficient setup process.

X-Range Tablet Setup Instructions

1. **Unpack the Equipment**
   Carefully remove all packaging materials from the tablet and associated components.

2. **Insert Tablet into Protective Boot**
   Place the tablet securely into the rubber protective boot to provide shock absorption and ensure a snug fit.

3. **Adjust the Tablet Holder**
   Set the tablet holder on the X-Range coiler to your desired viewing angle. Gently release the locking clip by pulling the latch in the opposite direction.



4. **Mount the Tablet**
   Slide the base of the tablet into the lower section of the holder.

5. **Secure the Tablet**
   Press the top of the tablet into the holder until it sits flush against the main body of the holder.

6. **Reattach the Locking Clip**
   Replace the locking clip to secure the tablet in position and prevent accidental removal.

7. **Finalise Setup**
   Insert the security screw to lock the tablet in place. Connect the USB cable to establish communication between the tablet and the X-Range system.

Tablet Licencing

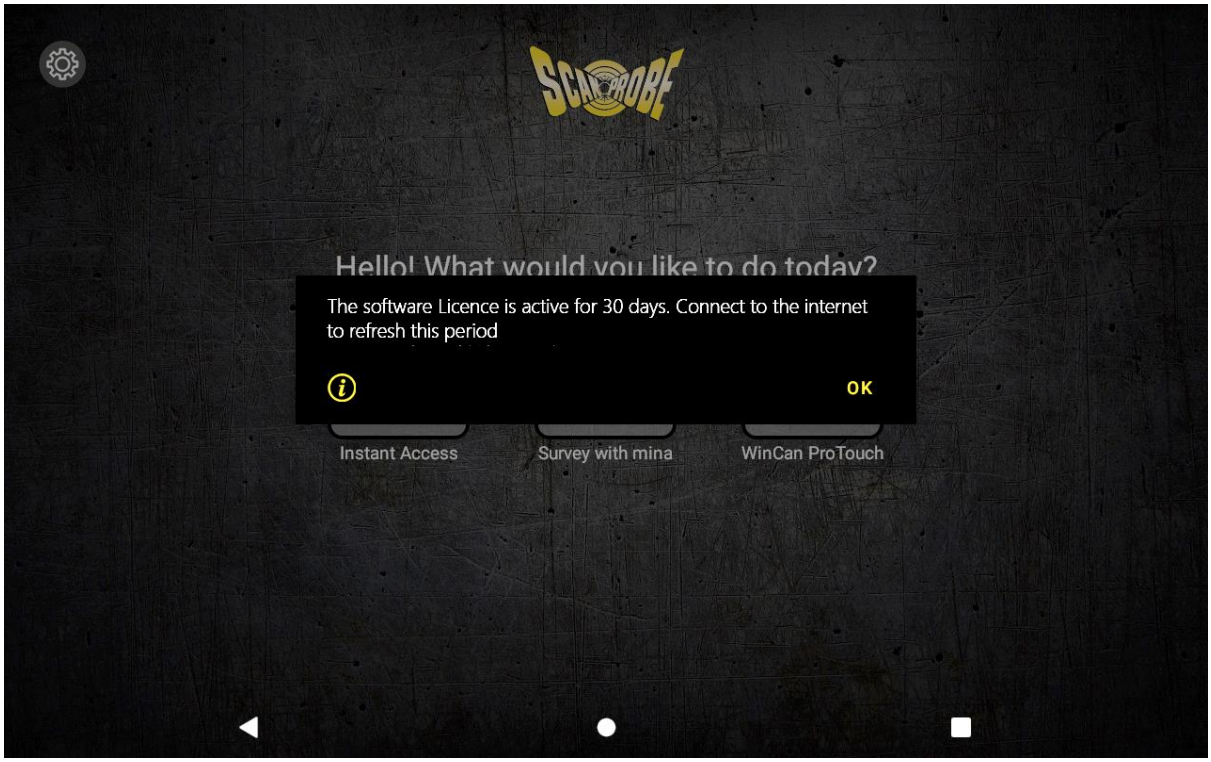
Software License Activation & Connectivity Notice

The X-Range tablet is equipped with a built-in software license designed to enhance security and enable remote updates.

> **Note**
> This license is included at no additional cost as part of the tablet package.

To maintain activation, the license requires periodic verification via an internet connection. If the tablet is offline for an extended period, a notification will appear indicating that you have **30 days remaining** before the software becomes temporarily disabled.

There is no need for concern. Simply reconnecting the tablet to the internet at any point will automatically refresh the license and restore full software functionality. Even if the 30-day period lapses, connecting to the internet will reactivate the system without issue or data loss.



> **Note**
> For a comprehensive overview of the reporting software and tablet functionality, please consult the Tablet User Manual.

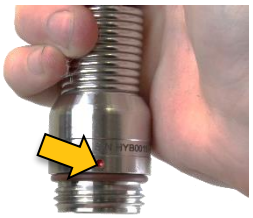
Connectivity

Camera

Ensure the system is powered off before attaching or detaching the camera head to prevent damage and ensure safe operation.

Unscrew the dust cap on the rod and camera.
Turn the dust caps anticlockwise to loosen it, then take them off.

Lining up the camera and rod.
Line up the red dot with the shoulder on the connector (the flat part).



Connecting the camera and rod.
Once aligned, push the rod and camera together to connect.

Securing the connection.
Slide the lock over to the connection. Screw the lock clockwise until the redline is no longer visible.

Figure 7: Connecting the Hybrid Camera

Note

Always ensure the connector contacts are clean, free from grease, and show no signs of corrosion.

Warning

Exercise care when connecting or disconnecting system connectors, as excessive force may compromise the environmental seals. Damage to these seals can lead to water ingress, potentially impacting the integrity and performance of the system. Always ensure protective caps are securely fitted when equipment is not in use.

USB Data Cable

To connect the X-Range Tablet or a mobile device, insert the device's USB data cable into the USB port located above the charging connector.

Figure 8: CCU and Charger Connector

Charging cable

To connect the charging cable, align the connectors using the white line as a visual guide. Gently push the connector into place, then rotate the outer shell a quarter turn until it securely locks into position (refer to Figure 9).

Note

The same connector on the X-Range Coiler is used for both charging the internal battery and for connecting a Maxprobe™ CCU. As a result, when the Maxprobe is connected, the charging function is temporarily disabled.

Note

When a Maxprobe™ CCU is connected to the X-Range Coiler, its internal battery becomes the primary power source, as the coiler's charge port is no longer accessible. In this configuration, the Maxprobe battery will supply power to the X-Range Coiler as needed.

Figure 9: CCU and Charger Connector

Warning:

Do not force the connector as this will result in damage. If you're struggling to get the connectors to mate, check the keyway is aligned and there is no dirt obstructing connectivity.

Getting Started

Power Button

Before powering up the X60–X90 Coiler, ensure that the internal battery has sufficient charge. For detailed guidance on charging the unit, please refer to the X-Range Charging Procedure.

The power button, positioned on the side of the X60–X90 coiler (see Figure 3), operates as follows:

Operating State	Button Action	Function
While Powered Down	Press < 2 seconds	Power on the system
	Press > 2 seconds	No action
While Powered Up	Press < 2 seconds	Toggle Sonde on/off
	Press and hold > 3 seconds	Initiate power-down sequence
	Press and hold > 20 seconds	Perform hard shutdown (forced power off)

Table 1: Multifunction Button Actions

Follow these guidelines to turn your X60-X90 ON /OFF and to use the sonde function.

Step-by-Step Start-Up Process

Step 1:

Press the coiler power button briefly (do not hold).

Step 2:

Connect the USB cable to the Tablet.

Step 3:
Press and hold the tablet power button until the device powers on.

Step 4:
Allow the system a few moments to fully boot up. Once ready, tap the X-Range icon on the home screen.

Step 5:
Select your preferred operating mode from the following options:

- LookSee
  Provides immediate access to the live camera image and lighting controls.
  Ideal for quick recordings and snapshots.
- mina
  A user-friendly, guided inspection report tool.
  Perfect for creating detailed PDF inspection reports.
- WinCan
  A fully integrated, globally recognised pipeline reporting solution with cloud storage capabilities.
  Note: This service requires an additional licence, which can be purchased directly from WinCan or through Scanprobe at the time of equipment purchase.

Brake and coiler control

Engineered for optimal safety and operational efficiency, the X60-X90 features an advanced brake disc system that precisely manages cable tension and retraction speed. This mechanism ensures smooth, controlled operation, reducing the risk of equipment damage and enhancing the overall reliability of inspections. Robustly constructed to endure rigorous field conditions, the brake disc system is essential to maintaining consistent inspection quality.

Figure 10: Brake disk system

Charging procedure

To begin charging, connect the X-Range Battery Charger (Part No. 1007-3001-0) to the CCU and Charger connector, then connect the charger to mains power. The Status LED indicates the status of the system as illustrated in

Table 2.

Table 2: LED State

System State	LED Behaviour	LED Colour
Charger connected, fully charged	Solid	Green
Charger connected, charging	Flashing	Green
Charger connected, charging fault	Flashing	Red
System running, battery > 50%	Solid	Green
System running, battery 10% to 50%	Solid	Amber
System running, battery < 10%	Solid	Red

Charging Temperature: +10°C to +45°C

Lithium Battery Shipping

The X60-X90 lithium-ion battery pack contains lithium-ion cells and is subject to international shipping regulations. Scanprobe Techniques Ltd. can provide certification to confirm compliance with UN38.3 requirements. The X60-X90 battery pack has a capacity below the 100Wh limit permitted for individual batteries in standard shipping conditions.

When traveling by air, lithium-ion batteries under 100Wh are generally permitted in both carry-on and checked baggage, subject to airline policies and transportation regulations. However, it is recommended to check with the airline in advance, as restrictions may vary.

⚠ **Warning!**

Damaged lithium-ion batteries or cells must never be transported via courier or mail services. If any X-Range product containing Lithium-ion has been damaged, exposing the batteries or showing signs of battery damage, immediately contact Scanprobe Techniques Ltd. or an approved service centre for guidance on proper handling and disposal.

Battery Maintenance

Lithium-ion batteries do not suffer from the memory effect associated with nickel-cadmium batteries. To maximise the lifespan of a lithium-ion battery, it is advisable to perform shallow discharge and recharge cycles, rather than allowing the battery to fully deplete before recharging. For optimal battery longevity, recharge the battery when it reaches a low level of charge and avoid charging it to its absolute full capacity.

To prevent degradation of battery life, avoid leaving the X60-X90 system plugged into the charger once the battery has reached full charge.

Compatibility

The X-Range Systems have been engineered with seamless connectivity in mind, allowing them to be controlled through smartphones, iPads, tablets, and the Maxprobe CCU, providing versatile and convenient operation.

Figure 10: X-Range Connectivity

X-Range Tablet

The X-Range application is a bespoke software platform designed to incorporate all the functionality of the Maxprobe™ CCU on a tablet and offers all the benefits that come with tablet designs i.e., touch screen, multiple sharing options, light-weight design. etc.

The X-Range application offers three options:

1. **Look-see:** This option allows users quick access to the video stream without the need to start a report. Users can record live, include text overlay, meterage, all the coiler functions and create a compact video ready to give to a client.
2. **Mina+:** All the functionality of mina but with the added option to create a report. Users can personalise documents with company logos, and the software guides the user through the process of a pipeline inspection survey to create an industry recognised PDF report that can be edited and shared via Outlook, WhatsApp and Dropbox.
3. **WinCan ProTouch**: All the features you expect from WinCan at the touch of a button. WinCan ProTouch provides everything you need to easily document inspections with zoom and push cameras. Data captured by ProTouch can be used directly in WinCan VX for advanced reporting, filtering/query, GIS-Integration and WSA, WRc, EN13508 compliance.

Maxprobe CCU

The Maxprobe CCU is a bespoke control unit specifically designed for the use in the pipeline inspection sector. This device is designed for use across the Scanprobe range of pipeline inspection systems, it is IP56 rated for outdoor use and has the capability of creating industry-recognised WRc reports using “mina”, “WinCan VX” or “WinCan Web” applications.

mina

The mina application can be downloaded on, and is compatible with, most iOS and Android devices. When used in conjunction with any X-Range product, it will give the user the ability to control the coiler functions, stream live video and create a small video report that will include text overlay and meterage. This option is ideal for those engineers who are new to the surveying world or to professionals with an occasional need to provide reports for pipeline inspections.

To get started - scan the QR code with your mobile device

Google Play App Store

Application Support

Online support is available within the “mina” and X-Range applications via the “Help” button. For further assistance, please contact the Scanprobe service department to speak with a member of our team.

Accessories

The following accessories are compatible with the X60–X90 systems.

1006-3105-0

X-Range 10" Tablet Holder Complete

1006-3104-0

X-Range 8" Tablet Holder Complete

1022-3443-0

X-Range Camera Bag

1015-1005-0

CANbus Connector Skid Complete

1015-3007-0

44mm CANbus Camera Skid 60mm, Slip, Complete

1007-3007-0

X-Range 12V Charging Cable

1021-3003-0

X-Range Kick-Out Adapter

1007-3006-0

X-Range Battery Charger

1015-3008-0

44mm CANbus Camera Skid 75mm, Sculptured Complete

1015-3009-0

44mm CANbus Camera Skid 100mm, Sculptured Complete

1021-3991-0

X-Range Control Unit Weather Visor

1007-3007-0

X-Range Battery Charger UK Plug Adaptor

1007-3008-0

X-Range Battery Charger EU Plug Adaptor

1007-3009-0

X-Range Battery Charger US Plug Adaptor

1007-3010-0

X-Range Battery Charger AU Plug Adaptor

1022-4020-0

USB-A to USB-C Converter

Figure 11: Illustration of X60-X90 System Accessories

All accessories and replacement components, including the X-Range to Maxprobe Cable (Part No. 1007-2061-0), are available for purchase through Scanprobe Techniques or an authorised service centre.

Planning and Organisation

The X60-X90 camera system is designed and manufactured in accordance with EU Safety regulations. Nevertheless, when undertaking pipeline inspections, accidents can happen. These could endanger life or cause serious injuries for the user or third parties and could damage the inspection system itself as well as other machinery and property.

The operator of this camera system is bound to guarantee a safe and secure operation of the system. This can be achieved by the following measures:

- Ensure this user manual is always kept with the operator should he need it.
- Make sure the operators are familiar with the user manual.
- Keep all records of maintenance and care work undertaken.
- Stay informed about the latest regulations and ensure ongoing training to maintain compliance and operational safety.
- Regularly check the safe working practices and risk awareness of staff.

The staff responsible for operation, maintenance and upgrade work must be trained or receive specific instructions from somebody with the specialist knowledge. Due to their professional training and experience these trained specialists will have sufficient knowledge on camera inspection systems, their components, and accessories. They will be familiar with the relevant work safety and accident prevention regulations and the general norms and standards to an extent that they are capable of judging that the inspection system is safe to operate.

- Identify, read, and follow, the operating instructions for your workplace.
- Adhere to the relevant accident prevention regulations.
- Obtain advice for the handling of hazardous substances.
- Follow all safety instructions as described in this document.

As the operator of the X60-X90 Camera System, it is your responsibility to ensure the following:

- Use the camera system exclusively for the works described in the **Intended Use** section of this document.
- Adhere to the Intended Use section of this document for this inspection system, as defined in this user manual.
- Keep the equipment clean and well organised. Follow the "**Aftercare and Maintenance**" instructions for this purpose.

Aftercare and Maintenance

To maximise the longevity and performance of your X60–X90 System, all components should be kept clean and well-maintained. Regular cleaning helps reduce abrasion and general wear during operation, significantly extending the system's operational life while minimising the need for repairs.
The system should be cleaned routinely by rinsing with a hosepipe. Connectors may be disconnected and carefully cleaned using a can of compressed air or a small amount of isopropyl alcohol applied with a cotton bud to remove dirt or debris. The pushrod should be cleaned after each use by feeding it back through a damp cloth or towel to remove any accumulated detritus.
Avoid forcing connectors together, as this may result in damage to the pins. Always use the supplied protective caps when transporting the system and ensure that cables are neatly arranged to prevent tangling. Cables should never be deliberately bent. Conduct a visual inspection of all cables before each use and arrange for immediate repair or replacement if any damage is detected.
After use, recharge all X-Range System components using the designated X-Range Battery Charger, connected to a suitable indoor mains power source.

Maintenance:

High-pressure water jets (e.g., pressure washers) must not be used to clean any part of the X-Range System, as this may allow water ingress into the coiler and cause damage to protective seals, batteries, and internal electronic components such as printed circuit boards. For safe cleaning of your pipeline inspection system, use a standard hosepipe and a damp cloth, ensuring that the camera and all connectors remain securely attached during the process.

Repairs

Due to the specialised knowledge, equipment, and verification procedures required for the repair and resealing of certain Scanprobe-manufactured components, all such work must be carried out exclusively by Scanprobe Techniques Limited, by agents expressly authorised by Scanprobe Techniques Limited.

If a customer experiences an issue with an X-Range System during the warranty period, they should contact Scanprobe Techniques Limited immediately to discuss the problem. Scanprobe may request that the equipment be returned for further assessment. Please note that the warranty provided is a back-to-base warranty, meaning it is the owner's responsibility to return the system to Scanprobe for evaluation and repair.

⚠ **Warning:**

The X-Range Tablet, X60–X90 Coiler, and Hybrid Camera contain no user-serviceable components. Opening any of these enclosures may pose safety risks and is likely to compromise or irreparably damage the protective seals that safeguard the integrity of the equipment.

⚠ **Warning:**

Any repair or modification an X-Range System carried out without the prior consent and authorisation of Scanprobe Techniques Limited is strictly prohibited. Unauthorised repairs or modifications will result in the immediate invalidation of the product warranty.

User Notes

Data Sheet

X-60 Datasheet

The Scanprobe **X60** pipeline inspection system redefines industry standards with its capability to inspect pipelines up to 300mm. It introduces groundbreaking features like PDF editing, clock position observations, extended battery life, and disc brakes for enhanced control and safety. Seamless integration with popular platforms like Outlook and WhatsApp streamlines report sharing, while selecting **mina** plus or **WinCan ProTouch** (Optional) ensures detailed and efficient reporting. With screen size options of 8 or 10 inches, the X-60 offers versatility to suit diverse user preferences. In essence, it represents the pinnacle of pipeline inspection technology, delivering comprehensive and reliable results with ease.

X60

Rod Length	60 metres / 197 foot
Rod Diameter	12.0mm
System Weight	8" - 25.4 kg / 10" - 26.3 kg
Coiler Dimensions	W 441mm, H 837mm, L 656mm
Camera Diameter	44mm
Pipe Use	50mm to 300mm Ø, 2" to 12" Ø
Sonde Locator	33kHz or 512Hz (optional)
Distance Counter	Meters/Feet
Self-levelling camera	Yes / Dual bearing stability
Camera Resolution	PAL: 720Hx576V
Light Source	High Power LEDs - White 5700K
Operating Temperature	-10°C - +50°C
Output	USB-C
Battery type	Li-ion
Battery Life	Up to 12 hours
Capacity	13.04Ah
Charge Current	1.5A
Nominal Voltage	7.4V
Charging Options	12V & 240V
IP Rating	Camera: IP68, Coiler: IP54
Approvals	CE and UKCA

Connectivity

mina ZEBRA WINCAN

Scanprobe Techniques Ltd.
Unit 11, Kenley Trade Park, Old Barn Lane
Kenley, Surrey, CR8 5AU

Tel. (0)203 253 2001
Email. sales@scanprobe.com
Web. www.scanprobe.com

D1/May24/Rev1/DS

X-90 Datasheet

The Scanprobe X90 pipeline inspection system sets a new benchmark in the industry, offering the capability to inspect pipelines up to 450mmØ with unmatched precision. Equipped with advanced features such as PDF editing, clock position observations, extended battery life, and disc brakes for enhanced control and safety, the X90 is designed for optimal performance. Its seamless integration with platforms like Outlook and WhatsApp simplifies report sharing, while compatibility with mina plus or WinCan ProTouch (optional) ensures thorough, efficient reporting. The 10-inch touch screen provides a user-friendly interface, adaptable to various operator preferences. The X90 embodies the pinnacle of pipeline inspection technology, delivering comprehensive, reliable, and efficient results.

Rod Length	90 metres / 295 ft
Rod Diameter	12.0mm
System Weight	31.3 kg
Coiler Dimensions	W 509mm, H 837mm, L 657mm
Camera Diameter	44mm
Pipe Use	50mm - 450mmØ / 2" - 17.7"Ø
Sonde Locator	33kHz or 512Hz (optional)
Distance Counter	Meters/Feet
Self-levelling camera	Yes / Dual bearing stability
Camera Resolution	PAL: 720Hx576V
Light Source	High Power LEDs - White 5700K
Operating Temperature	-10°C - +50°C
Output	USB-C
Battery type	Li-ion
Battery Life	Up to 12 hours
Capacity	13.04Ah
Charge Current	1.5A
Nominal Voltage	7.4V
Charging Options	12V - 230V
IP Rating	Camera: IP68, Coiler: IP54
Approvals	CE and UKCA

Connectivity

Scanprobe Techniques Ltd.
Unit 11, Kenley Trade Park, Old Barn Lane
Kenley, Surrey, CR8 5AU

Tel. (0)203 253 2001
Email. sales@scanprobe.com
Web. www.scanprobe.com

D1/Sep24/Rev1/DS

Scanprobe Techniques Ltd
Unit 11, Kenley Trade Park,
Old Barn Lane,
Kenley, Surrey,
CR8 5AU

www.scanprobe.com

sales@scanprobe.com