



## THE JD7 INVESTIGATOR IS AN ASSET MANAGEMENT AND LEAK DETECTION TOOL FOR INSERTION INTO PRESSURIZED PIPELINES UP TO 232PSI.

The Investigator is a pressurized pipe inspection and leak detection system and is designed for 3" diameter pipework and above. Access through fire hydrants\*, 1.5" and above pressure fittings, air valves, gate valves and Quadrina's at full mains pressure.

The system is mounted onto pipework through a selection of fittings and/or 'hot tapings'. This process makes access into the pipework simple and cost effective.

Monitoring the real-time data captured by the camera and hydrophone sensor head allows the operator to understand internal pipework conditions and identify leaks. A 300ft cable is supplied with the system which potentially offers a maximum inspection distance of 600ft upstream and downstream of the insertion point. This is influenced by pipe diameter, internal condition and the configuration of the pipe. The software is specific for the Investigator technology and is used to control the sensor head and view both video and acoustic results from live surveys. The software displays video in a resizable window and also acoustic results in order of amplitude and frequency. The software also operates the sonde which is built into the camera sensor head. The system is compatible with LiveFeed software for maximum performance.



### Overview

- Tri sensor head (CCTV, hydrophone and sonde)
- Pressurized insertion up to 232psi
- Extremely robust camera head with bend mechanism
- Interchangeable hi-resolution CCTV and hydrophone system
- Internal hydrophone for precise leak detection
- Sonde for above ground location
- Ruggedized control station
- Real-time analysis software

## Operational Requirements

Operating mode	Tethered
Application	Potable
Pipe materials	CIP, SIP, DIP, Steel, PSC, Concrete, AC, Plastic, GRP, All
Max. operating pressure	232psi
Min. operating pressure	No limit for visual inspection and a minimum of 15psi for leak detection
Min. pipe diameter	3"
Max. pipe diameter	12"
Max. flow/velocity	No Limit
Min. flow/velocity	No Limit
Max. inspection distance	600ft (300ft on either side of access point)

## Insertion Requirements

Access points	Fire hydrants, air valves, ball valves, hot tap
Min. tap diameter	2" bore min.
Min. valve size	2" full bore
Min. external clearance	6ft above insertion fitting

## Specifications

Sensor head	Tri Sensor head with CCTV, Hydrophone and Sonde/22mm and 37mm(standard)/wide angle optic fix focus (PAL system) with illumination 3LUX at F1.2
Sensor material	Stainless steel and interchangeable
Sonde frequency	512hz
Hydrophone frequency	240Hz (Nominal)
Hydrphone beam pattern	Circumferencial: Omni +/-2dB up to 100kHz/ Horizontal: Omni +/-4dB up to 100kHz
Power	110-240v (Charging)
Operating temperature	23-104F
Cable length	328ft (100m)
Cable drum	Assembly approx. 800x750x350mm with slip ring and encoder
Encoder accuracy	1%
Control box	Control box with Panasonic Toughbook with 12v internal power supply
Chlorination	Chlorination points built in to cable drive systems
Data processing	JD7 Investigator software, video and acoustic analysis software
Drive system	12vdc electronic drive system with seal arrangement

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