

# P340 flexiprobe™ system

ADVANCED PERFORMANCE. CLASS LEADING FLEXIBILITY





### PORTABLE CONTROLLER

Light-weight controller with optional built-in rechargeable battery (P340+), weatherproof and easy to use.



### ULTRA-TOUGH HIGH RESOLUTION CAMERAS

Stainless steel construction in a compact design. High resolution sensors and ultra bright white LEDs ensure a clear picture, even when submerged in water up to 330' (100m) deep.

## P340 flexiprobe™ pushrod inspection systems redefine convenience and control in pipeline inspection.

At the heart of the P340 flexiprobe system is the weatherproof P340 flexiprobe controller, which displays color footage in digital quality on an ultra-bright 8" TFT screen. USB flash drive and Compact Flash storage options along with PC connectivity provide flexible data storage and comprehensive reporting capabilities.

The P340+ controller option features an internal lithium-ion battery, providing convenient power for up to a full day's typical usage, removing the inconvenience and set-up time of an external power lead.

P340 flexiprobe systems have been designed to deliver controllable and high quality video inspection for any situation, from residential work and commercial use through to specialist plant and municipal applications.

Fully sealed 1" (25mm) and 2" (50mm) cameras can be mounted on a range of rods: from the ultra-flexible 100' (30m) Plumbers reel, designed for accessing tight corners, to the 500' (150m) P343 reel designed to push for long distances. A range of compatible sondes, skids, brushes and accessories completes the package.

### DIGITAL RECORDINGS

The fully digital controller system architecture provides precise control over inspections and recordings. Digital rotate, pan and zoom functions let you focus in on problem areas during live or recorded inspections.

Video and still images are recorded directly onto USB memory sticks or Compact Flash cards for easy management and transfer.

Tough and convenient high speed USB flash drives or Compact Flash cards are widely available in a variety of memory sizes, so you can choose the type and size of storage device that meets your needs. With no moving parts your valuable data is protected against shocks and impacts.

### ONE-TOUCH RECORDING AND STILL PICTURE CAPTURE

A single key press on the ruggedized keypad records high quality, full digital video, which is automatically time and date stamped and logged against the job that you are working on. Similarly, still pictures can be captured, inspected and filed at any point during your inspection with a single key press.

An 8Gb storage device is capable of storing up to 7 hours of high quality video.

To enhance the inspection, audio can be added to recordings via the optional microphone headset, and text commentary incorporated using the splashproof keyboard. To add flexibility, up to 20 pages of text can be stored into the controller module.

## RUGGEDIZED CONSTRUCTION

Despite weighing less than 13.5lbs (6.2kg), the P340 controller is designed to operate reliably in harsh weather conditions. The tough polypropylene casing is designed to resist scuffs and impacts, while the comprehensive sealing gives an IP53 rating when operating – and IP55 with the covers closed, minimizing the risk of damage from debris or water ingress. The cameras are designed to operate at up to 11 bar of pressure, the equivalent of a depth of 330' (100m) of water.

## USB FLASH DRIVES

The P340 command module supports the popular USB flash drive: simply plug your own or your customer's high speed memory stick into the USB slot and start recording and storing inspection videos, photos and observations directly into it. USB memory sticks can be connected to any PC for direct access to your digital data without the need of an external card reader or the P340 controller.

## OUTSTANDING PICTURE QUALITY

The P340 flexiprobe system offers two cameras, a 1" (25mm) and a 2" (50mm), equipped with high resolution sensors and the latest generation ultra-bright white LEDs, which combine to deliver a crisp, clear picture in most pipe conditions.

The P340 self-leveling 2" (50mm) camera features a sapphire window to protect its lens and a sensor which boasts over 39% higher horizontal resolution than its predecessor (460 vs 330 usable horizontal TVL).

The P340 1" (25mm) camera features a tough polycarbonate cover to protect the LEDs all in a small, compact package, specifically designed to help navigating through bends.

Both cameras come with a manual focus tool which allows you to adjust the focus of your camera to the correct pipe size ensuring you do not miss the smallest defect.

Packaged in tough 303 stainless steel cases, they can withstand 11 bar of pressure.



## DIGITAL VIDEO

Digital zoom and pan to focus in on problem areas. Rotate images to make them easier to interpret. Pictures and video are stored in portable USB or Compact Flash memory.



## PLUMBERS REEL

Where extra flexibility is needed, the P341 Plumbers reel coupled with the compact 1" (25mm) camera offers outstanding performance around tight bends and traps, negotiating most traps (from 2"/50mm) and bends (from 1 1/4"/32mm). The Plumbers system is the ideal tool for your small pipe plumbing needs.

The flexible rod termination has a built-in transmitter sonde (512Hz/640Hz) which allows you to pinpoint its location and depth without compromising maneuverability around tight corners.



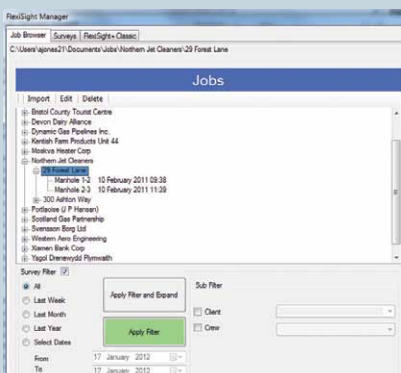


## A RANGE OF RODS TO SUIT YOUR APPLICATION

From 100' (30m) for residential and small commercial plumbing use, right up to 500' (150m) for specialist applications.

## INTEGRATED REPORT WRITER

Quickly enter observations on site and export Sewer.Dat report files without needing to connect up – then view and edit them at your convenience on a PC and produce detailed reports with pipe graphics.



## EASY TO USE SOFTWARE INTERFACE

The P340 controller software has been specifically developed to make the P340 flexiprobe system easy and intuitive to use. Setting up and customizing your controller is very simple thanks to the color based list menus, which clearly define all the options available.

Adding text to your survey is never more than one keyboard click away. Browse or edit up to 20 pages of text or automatically use them as titles at the beginning of your video recordings.

## ORGANIZE WORK EFFECTIVELY

The P340 controller quickly organizes your work in "Job" folders which are linked to the inspection you are carrying out, making the review and storage of videos, photos and observations straightforward.

Jobs can be created very quickly at the start of your first recording by entering a minimum set of information or by accessing the "Job Browser" menu and entering detailed information about your client, site and survey.

Jobs can be expanded by adding multiple surveys to the site you are inspecting or by adding different sites to the client you are working for.

## BE MORE PRODUCTIVE ON-SITE

Use the comprehensive, built-in, P340 reporting system to quickly fill out report observations on-site without the need for extra equipment. Report templates are customizable to meet your own requirements.

Entering detailed observation, including grading and photos, could not be easier, thanks to the built-in WRC™, PACP or custom made defect code lists.

Produce a SEWER.DAT report file directly from your P340 controller.

## MANAGE YOUR DATA AND PRODUCE REPORTS

The FlexiSight™ Manager software is the ideal PC companion of the P340 controller. With this Windows® XP/Windows Vista®/Windows® 7 compatible software, you will be able to import, store and manage all your digital inspection data.

Use the "Job Browser" screen to quickly import and browse all your saved jobs.

Use the "Surveys" screen to review and edit videos, take snapshots, annotate photos and review, edit or create observations.

Produce comprehensive customizable reports, with your company logo, incorporating pipe graphics and color coded defect grading (requires Microsoft® Word 97 or higher).



Ultra-bright 8" TFT screen

Durable keypad for easy access to all key functions:

- One-touch still picture capture
- One-touch record
- One-touch digital functions

Splashproof keyboard for text entry

Easily transportable compact reel options

Waterproof stainless steel camera with ultra bright white LEDs

Video In/Out

Audio In/Out

USB flash drive socket

PC connection

Power socket

Internal battery power connector (P340+ controller only)

Compact Flash card

Battery status indicator (P340+ controller)

Ultra-flexible Plumbers reel



Each P340 flexiprobe system comes complete with a universal easy-fit brush skid set, that allows the 1" (25mm) camera to be used in pipes up to 4" (100mm) diameter and the 2" (50mm) camera in pipes up to 6" (150mm) diameter. Brushes can be conveniently replaced in seconds. Additional standard equipment may vary due to regional variations.



## P340 flexiprobe system specifications

### P340 flexiprobe systems include as standard:

- P340 or P340+ flexiprobe controller.
- Choice of NTSC/PAL color camera and 512/640Hz flexisonde:
  - 1" (25mm) camera, skid ball and sonde.
  - 2" (50mm) self-levelling camera, skid ball and 1.4" (35mm) sonde.
- Choice of pushrod reels:
  - 100' (30m) P341 Plumbers reel.
  - 115' (35m) P341 reel.
  - 200' (60m) or 400' (120m) P342 reels.
  - 500' (150m) P343 reel.
- Controller adaptor clamp (optional for the P341).
- FlexiSight™ Manager Windows® PC software.
- Compact Flash card.
- Universal brush and skid kit.
- Splashproof keyboard, IP67 external power supply (P340), 12V automotive jackplug lead.
- Internal battery options: 10-30V automotive charger, IP54 mains adaptor

P340 AND P340+ CONTROLLERS	
Power requirements	P340 (+) controller input 12-24VDC, 40W External power supply (PSU) input 100-240VAC, 50-60Hz, 1.2A P340+ automotive battery charger input 10-30VDC, 4.0A
Battery capacity (P340+)	14.8V, 6.6Ah (98Wh)
Battery run-time (P340+)	Up to 1 day's typical usage, 7hrs view only/4hrs continuous recording*
Display	8" Industrial TFT
Storage	High speed Compact Flash Card or USB flash drive
Connectivity	USB, Analog video in/out (PAL/NTSC), Analog audio in/out
Environmental protection	P340 (+) controller IP55 (covers closed) IP53 (covers open and socket panel closed) P340 External PSU IP67 rated for outdoor use P340+ External PSU option IP54 rated for indoor use
Temperature	Storage: -4°F to 176°F / -20°C to +80°C Operating: 14°F to 122°F / -10°C to 50°C Charging (P340+): 14°F to 104°F / -10°C to 40°C
Dimensions	14" x 14" x 8" (360 x 360 x 200mm)
Weight	P340 controller 12lbs/5.5kg P340+ controller 13.5lbs/6.2kg

\*May vary according to ambient conditions, accessories attached, recording time and other factors

RODS AND REELS	P341 Plumbers	P341 Reel	P342 Reels	P343 Reel
Dimensions	22.4" x 16.9" x 10.6" 570 x 430 x 269mm	22.4" x 16.9" x 10.6" 570 x 430 x 269mm	33.5" x 29.5" x 16.5" 850 x 750 x 420mm	32.0" x 46.0" x 18.7" 813 x 1168 x 475mm
Weight	21lbs/9.4 kg 25lbs/11.2kg	24lbs/11kg	40lbs/18.2 kg 55lbs/25kg	81.6lbs/37kg
Construction	Powder-coated tubular steel frame			
Rod	100' / 30m 200' / 60m	115' / 35m	200' / 60m 400' / 120m	500' / 150m

CAMERAS	P340 1"/25mm Camera	P340 2"/50mm Self-leveling Camera
Dimensions	1" x 1.52" / 25.4 x 38.7mm	1.89" x 2.87" / 48 x 72.8mm
Weight	0.1lbs/0.06kg	0.8lbs /0.36kg
Construction	Stainless steel/polycarbonate	Stainless steel/sapphire glass/ polycarbonate
Power	1.8W	3.8W
Environmental	IP68 to 330' (100m) /11bar	
Temperature	Storage: -4°F to 176°F / -20°C to +80°C Operating: 14°F to 122°F / -10°C to 50°C	
Focus	Adjustable	
Focal range	10mm to ∞	
Lighting	Ultra bright white LEDs	
LED luminance	≥ 75lm	≥ 208lm
Active pixels (HxV)	656 x 492 NTSC 768 x 576 PAL	768 x 492 NTSC 765 x 582 PAL
Horizontal resolution	≥ 460TVL	





P341 Plumbers Reel

P341 Reel

P342 Reel

P343 Reel



## ACCESSORIES THAT EXTEND YOUR CAPABILITIES

Tailor your system to your needs with a range of solid sondes, flexisondes, cable and pipe locators and flexis.

## Options

### SONDE AND LOCATOR COMBINATION

By combining your P340 flexiprobe system with a suitable locator, you can pinpoint the camera's location and depth, providing a valuable tool for repairs and tracing alike. The RD7000DL+, capable of detecting 3 different sonde frequencies and featuring Dynamic Overload Protection and Compass, is specifically designed for the water industry, and capable of precisely locating a sonde even in electrically noisy areas.



### BATTERY OPTIONS

Ultra-portable with our optional, rechargeable internal battery, which provides up to 4 hours\* continuous operation. An automotive charger is supplied as standard, with mains chargers available separately.

External battery options are also available: the 7Ah (4 hours\*) and 12Ah (8 hours\*) battery are available. These come with mains chargers as standard, and automotive chargers are also available



\*Figures are approximate and condition dependent.

## EXTENDED MODULARITY

All cameras, controllers, rods and accessories are fully interchangeable\*, giving you the flexibility to expand your system at your pace.

\*P341 Plumbers sonde not detachable.

## P350 FLEXITRAX™ COMPATIBLE

The P350 flexitrax controller is compatible with the full range of P340 flexiprobe cameras, reels, sondes and accessories providing unmatched modularity from the small 100' (30m) Plumbers system to the 1000' (305m) motorized P356 steerable crawler system.



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