

Equipment Care

Never push the equipment beyond its design limits. If it will not do what you want it to do with reasonable ease and speed, assume you have the incorrect equipment for the job. **All** units are subjected to 30-50kg strength testing.

Keep the equipment clean. You will find this less of a chore if you clean the equipment regularly, rather than wait until it is completely dirty and have to clean it before use.

When not in use store the equipment somewhere clean dry and safe from damage or theft.

Dart Systems Ltd are also the UK Distributor for IT Concepts Camera Systems, RIDGID Drain Camera/Drain Cleaning /Inspection Camera Systems. RF Systems Articulated Videoscopes and many more products which can be viewed at our Web Shop at www.dartsystems.co.uk



Various Accessories



Wheeled Guide Tip



Spring End Guide



Guide Tips



Rod Guide Eye Bolt



End Fittings



Ball Guide Tip



Repair/Accessory Kits

Accessories dependant on rod diameter (see web shop)



Operating Manual for Cobra/Duct Rod

A fibre glass rod for pushing or pulling cables through pipes and ducting channels.



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General Safety

There is a serious risk of personal injury if you do not follow **all** instructions laid down in this guide.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability should seek expert advice before using it.

Keep children, animals and bystanders away from the work area. Cordon off a **NO GO** area using cones and either barriers or tape.

Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.

Safety goggles **MUST** be worn by everyone in the work area.

Wear practical, protective clothing, gloves and footwear. Avoid loose clothing and jewellery that could catch in moving parts, tie long hair back.

This equipment is heavy never attempt to lift it on your own, always get help. Never carry, lift or pull the equipment by its fibre glass rod, use the handle.

Ensure the work area is well lit and ventilated, if in doubt, contact Dart Systems Ltd.

Always check the condition of the equipment before use.

Getting Started

Take the unit to a suitable access point such as a manhole cover or inspection plate.

Cordon off the area with barriers to prevent unauthorised persons gaining access.

If entering a service pipe that contains power or telecommunication cables, check with the necessary authority as to their safety.

Ensure the Guide Tip/attachment is securely screwed onto the rod End Fitting and the rod is fed through the Rod Guide Eye Bolt.

Basic Technique

You have the option of either attaching the cable to the Guide Tip first then feeding the rod to the destination or, feeding the rod to the destination, attaching the cable to be fed or the rope then pulling it back through.

Whichever way you decide always ensure that the cable is securely attached to the Guide Tip. Where possible, feed the cable through the Guide Tip and double it back onto itself. Secure with strong tape or a clamp.

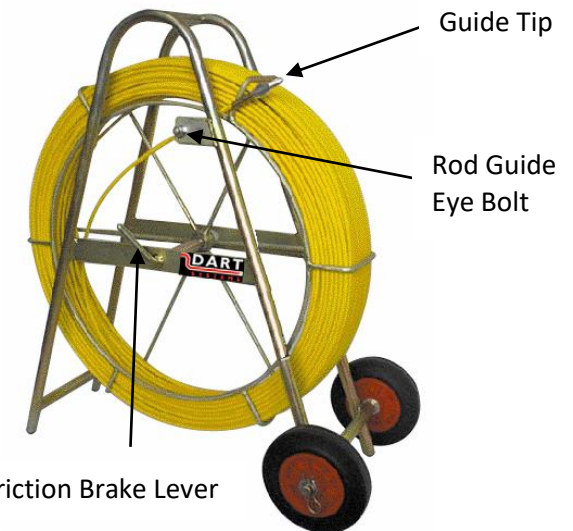
Avoid making too large an attachment and make sure that there are no awkward ends that could become trapped within the service.

Loosen off the friction brake lever to allow the wheel to rotate, without freewheeling. **Use the brake to control rod release.**

Ensure the brake is on **FULLY** before leaving the unit. If not the cage will spin under its own steam and release the rod at great speed.

Slowly feed the rod into the service, until the Guide Tip has reached its destination.

If you encounter an obstruction, do not force the rod or use a stabbing action as this may cause damage to the service or other cables within.



Pull the rod back about 0.5 to 1m then try again until the rod clears the obstacle. If that fails try attaching one of the accessories available from Dart Systems Ltd such as the Wheeled Guide Tip, Ball Guide Tip or Spring End Guide Tip (9mm, 11mm & 14mm only).

In some instances it may be advantageous to feed an additional length of rope into the service to allow you to feed cables through at a later date.