Important Safety Notice: The instructions below call for the use of certain hand and power-tools – please therefore take great care and if in doubt seek the assistance of a qualified professional contractor.

CD 470 "CHAMELEON"" INSTALLATION INSTRUCTIONS

- The CD 470 "Chameleon®" from Clark-Drain has been developed to provide a quick, simple and low-cost solution for anyone looking to improve the appearance of circular inspection chamber covers ("manholes" as they are sometimes known) within their garden.
- The Chameleon® pack comprises a tough plastic frame with a high-quality robust tray cover which is fastened into place by three chunky screws. Each Chameleon® comes supplied with all necessary fittings, including two specially designed lifting keys that can be used to remove the tray cover should access to the drains ever be required. We recommend you keep these somewhere safe.
- The Chameleon® is designed to fit all 450mm diameter circular inspection chambers (ICs). These circular "manholes" have been used extensively on most properties built since the 1980s and are sometimes 'retro-fitted' when additions or alterations are made to drainage systems on older properties.

- The Chameleon® tray cover has been specially designed to fit directly into the frames used on Clark-Drain ICs without needing any further work. ICs from other manufacturers can easily be adapted by fitting the supplied Chameleon® frame as described below.
- The Chameleon® tray cover is designed to be filled with soil, turf, bark, gravel or whatever loose material is required to blend in with your garden. Should you wish to plant-up the Chameleon® tray cover, it's a good idea to drill a few small diameter holes (3mm will be adequate) to prevent waterlogging. Guide marks have been formed in the base of the tray cover to help position drainage holes as deemed necessary.
- In some cases the recessed cover section of the Chameleon® will not fit plastic frames from other manufacturers. In this case follow instructions from section 3.
- There are three common fitting options. Identify your particular option and then follow the appropriate step-by-step instructions to fit your Clark-Drain Chameleon® with minimum fuss.

Option A

Replacing an existing Clark-Drain CLKS 452 Plastic cover (or other manufacturer's equivalent)

Option B

Replacing an existing Clark-Drain CLKS 1657 Cast Iron cover (or other manufacturer's equivalent)

Option C

Complete replacement of cover and frame. (Replacing an unidentified cast iron cover and frame)

Whichever fitting option is to be followed, familiarise yourself with the components before starting work and make sure you have the correct tools to hand. The fitting instructions are on the reverse of this leaflet.

Clark-Drain Limited will not be held responsible for product damage and/or failure as a result of failure to follow these instructions, changes made to the product after purchase, and/or incorrect installation.

Clark-Drain, Station Road, Yaxley, Peterborough, Cambridgeshire, England PE7 3EQ

Telephone: +44 (0) 1733 765317 Fax: +44 (0) 1733 246923

Email: sales@clark-drain.com Website: www.clark-drain.com

Option A Total fitting time: About 5 minutes

- 1 Use a Flat Blade Screwdriver to remove the three chunky M8 Screws that fasten the Chameleon® tray cover to the Chameleon® frame by turning them anti-clockwise. Put the screws inside the tray cover and set to one side.
- 2 Clean the top of the existing cover using a Hand Brush and identify the prising slots located on opposite sides of the cover.
- 3 Insert a large Flat Blade Screwdriver (or small lever bar) into one of the prising slots and lever upwards to lift the cover free from the frame. Push the blade of the screwdriver under the cover to support it above the frame while you get a firm grip of the cover, and lift it clear of the frame. Set the old cover to one side.
- 4 Use the hand brush (and the blade of the screwdriver if necessary) to clean any detritus from the inner seating groove of the frame.
- 5 Carefully place the new Chameleon® tray cover within the cleaned frame, rotating the cover as necessary to align the holes for the fastening screws.
- 6 Take the chunky M8 screws from inside the tray cover and use them to securely fasten the new Chameleon® tray cover to the frame by turning them clockwise with the flat blade screwdriver.
- 7 Fill the Chameleon® tray cover with your chosen loose material.

Option B Total fitting time: About 10 minutes

- 1 Use a Flat Blade Screwdriver to remove the three chunky M8 Screws that fasten the Chameleon® tray cover to the Chameleon® frame by turning them anti-clockwise. Put the screws to one side as they will not be needed again in this installation.
- 2 Clean the top of the existing cover using a Hand Brush and identify the lifting eyes located on opposite sides of the cover. Use a Small Flat Blade Screwdriver to remove any detritus in the lifting eyes.
- 3 Insert suitable Lifting Keys into the lifting eyes, lift the existing cover clear of the frame, and set it to one side. Note that while these cast iron covers are not particularly heavy, they can become jammed by detritus sitting between the cover and the frame, so may require extra effort to remove. Tapping the cast iron cover with a Rubber Mallet can help loosen any detritus and make it easier to remove the cover.
- 4 Use the hand brush (and the blade of the screwdriver if necessary) to clean any detritus from the inner seating groove of the frame.
- 5 Carefully place the new Chameleon® tray cover within the cleaned frame.
- 6 Fit a 3mm HSS bit into a Power Drill. Use the drill to carefully pierce the three smaller countersunk indentations within the Chameleon® tray cover and drill through into the existing frame beneath.
- 7 Take the three supplied Self-Tapping Screws (long and thin) from the pack supplied with your Chameleon® cover and thread them into the drilled holes, using a Phillips cross-head Screwdriver to turn them clockwise until tight. (A power screwdriver can be used, if preferred).
- 8 Take the three supplied blanking plugs (small black plastic stoppers) and push them into the holes left by the chunky M8 screws removed earlier.
- 9 Fill the Chameleon® tray cover with your chosen loose material

Option C Total fitting time: About 15 minutes

- 1 Use a Flat Blade Screwdriver to remove the three chunky M8 Screws that fasten the Chameleon® tray cover to the Chameleon® frame by turning them anti-clockwise. Put the screws inside the tray cover and set to one side.
- 2 Clean the top of the existing cover using a Hand Brush and identify the lifting eyes located on opposite sides of the cover. Use a Small Flat Blade Screwdriver to remove any detritus in the lifting eyes.
- 3 Insert suitable Lifting Keys into the lifting eyes, lift the existing cover clear of the frame, and set it to one side. Note that while these cast iron covers are not particularly heavy, they can become jammed by detritus sitting between the cover and the frame, so may require extra effort to remove. Tapping the cast iron cover with a Rubber Mallet can help loosen any detritus and make it easier to remove the cover.
- 4 Inspect the existing frame ring to identify any fixing screws or other fastenings. These are usually located on the inside of the frame ring but may not be present at all on some installations. Any fixing screws will need to be removed to allow the frame to be lifted free from the chamber/manhole.
- 5 Remove the existing frame ring and set to one side.
- 6 Take the Chameleon® Frame and identify the three small self-tapping screws located on the inside face. Unscrew these by turning them anti-clockwise using a Phillips cross-head Screwdriver but do not remove them completely.
- 7 Place the Chameleon® frame, with the partially undone selftapping screws, onto the IC/manhole and settle it into position.
- 8 Fasten the Chameleon® frame to the IC by using the Phillips cross-head screwdriver to turn the three partially undone screws clockwise until they tighten onto and pierce the wall of the IC, locking the Chameleon® frame into position.
- 9 Carefully place the new Chameleon® tray cover within the new frame, rotating the cover as necessary to align the holes for the fastening screws.
- 10 Take the chunky M8 screws from inside the tray cover and use them to securely fasten the Chameleon® tray cover to the frame by turning them clockwise with the flat blade screwdriver.
- 11 Fill the Chameleon® tray cover with your chosen loose material.

