

# Standard Model Dynamic Cone Penetrometer

## User Guide

The **Geo-Con** Standard Dynamic Cone Penetrometer (DCP) was designed over 30 years ago and is extensively used by engineers, consultants, and road and building authorities throughout Australia.

It's unique and key design features are:

**Shear Pins** – the upper slide bar is fixed into the anvil with polyurethane shear pins, which act to reduce wear and tear, and which will shear if the DCP is back-hammered, pulling the slide bar from the anvil. The slide bar will never break-off inside the anvil during normal use, and the shear pins are easily replaceable in the field.

**Quick Release Mechanism** – allows for quick and easy removal of the DCP upper section at the end of the test, or for the addition of extension rods during the test.

**Reversible Top Nut** – to convert the hammer drop height for Perth Sand Penetrometer testing.

### Instructions:

Please refer to the Parts Key.

The DCP upper section is ready to use upon receipt. Join a cone (10) to one end of an extension rod (11) and join the hardened helmet (7) to the other end of the rod, using grub screws (8), Allen key (6) and spanners (9). Always be sure to securely tighten the pieces together. Position the helmet end all the way into the anvil (4), and lock into position by rotating the red levers 180 degrees downward.

Carry out the penetration test following AS 1289.6.3.2 or other applicable Standard test method.

To add additional rods, simply rotate the red levers 180 degrees upward; lift the DCP upper section from the rod; remove the helmet from the rod and join it to the top of the next rod; join the bottom of this rod to the previous rod in the ground; then position the DCP upper section on top of the helmet/rod and lock into position by rotating the levers downward.

To remove rods from the ground, use the Extractor (16-T0012/A6.CON).

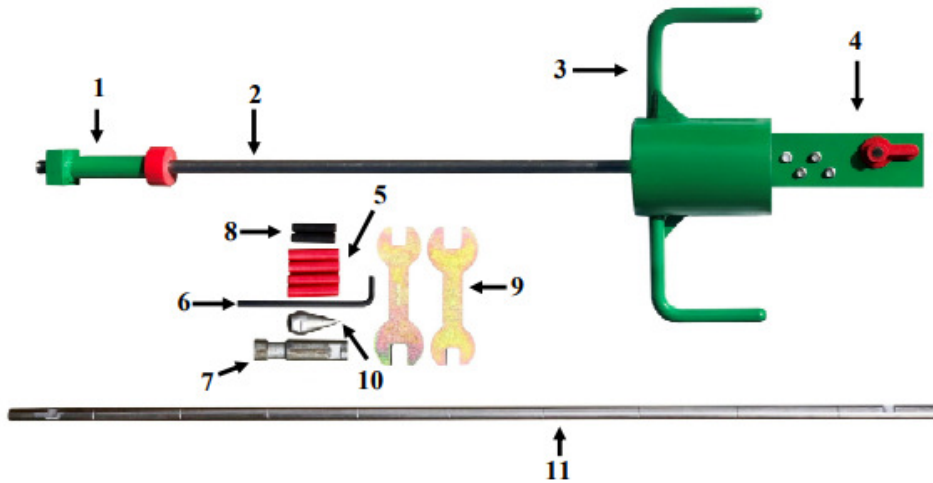
### Shear Pin Replacement:

The anvil contains 4 red shear pins. To replace them, undo the hex screws on both ends and tap out the pins using a suitable punch. A drill can be used if they are stubborn. Smear a small amount of grease on the new pin and push it into position. Replace the screws using the pin's hole as a guide.

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### PARTS KEY

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| <ol style="list-style-type: none"> <li>1. Reversible Top Nut</li> <li>2. Slide Bar</li> <li>3. Hammer</li> <li>4. Anvil Assembly</li> <li>5. Spare Set of Shear Pins (4)</li> <li>6. Long Series Allen Key</li> </ol> | <ol style="list-style-type: none"> <li>7. Helmet</li> <li>8. Grub Screws</li> <li>9. Spanners to suit Rods and Helmet</li> <li>10. DCP Standard Cone</li> <li>11. 1m Extension Rod (also in 1.2 &amp; 1.5m)</li> </ol> |
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#### Extractor Use:

Unfold the Extractor and place it over the rod starting with the clutch wheels. Ensure the base is flat on the ground. Extract the rod from the ground using the lever bar as shown.



#### Geo-Con Products Pty Ltd