INSTRUCTIONS

1. NOTATIONS USED

(a) **Faces**

There are 6 faces.

Key u = uppermost
d = underneath
l = left side
r = right side
f = front
b = back

(b) **Superscripts**

Key 3 = 1 = 90°
Key 2 = 2 = 180°

It is important to keep the u (uppermost) face upwards, the f (front) face forwards etc. while doing these moves. It is easy to lose orientation.

(c) **Further notation**

A subscript s (for slice) is a double move.

$u_s = ud' = d'_s$
$f_s = b'f = b'_s$
$r_s = rl' = l'_s$

A subscript a (for antislice) is similarly defined.

$u_a = ud = d_a$
$f_a = fb = b_a$
$r_a = rl = l_a$

ud means do u then do d.

2. PICTURE

The picture is in two parts.
The left hand view is shown looking from up, front, right corner.
The right hand view is shown looking from the same corner with the first three faces apparently transparent.

3. KEYBOARD COMMANDS

Pressing u, f, d, r, l, b keys give required move.
s, a, 1, 2, 3 operate after a letter has been pressed, (3 = ').
When the required number of moves has been input, press 'Enter' to tell the computer to do the moves.
S = 'Solve' solves the cube.
C = 'Clear/Reset' resets everything.
I = 'Input Position' allows a messed up cube's position to be entered this results in tests for legallity of position. If an error message is reported, then 'solve' may not solve, but all other keys remain operational as specified. This facility is for the experts who may wish to study different orbits.
M = 'Mode' changes mode from fast to slow and vice-versa.
All non labelled keys give 'pretty patterns'.

If in slow mode and a prompt is given, "Press a key for next move" then it is usually best to press "CAPS SHIFT' as when the move is finished, accidentally pressing a key too many times results in that key's operation being performed, with 'CAPS SHIFT' this is neglible.