

Dark surface does not
illuminate down-sun zone

Orbital sunrise >>

Particle in orbiter
shadow exits from
eclipse into full
sunlight

Sunlit surface
reflection
illuminates
down-sun zone

To Sun ---->



The diagram illustrates a spacecraft in a circular orbit around a planet. The Sun is located to the right, indicated by a dashed arrow labeled 'To Sun ---->'. The planet is shaded to show its sunlit side (right) and dark side (left). The spacecraft is shown in two positions: one in the dark side of the planet (top left) and one in the sunlit side (middle right). In the dark side position, a box labeled 'Dark surface does not illuminate down-sun zone' points to the spacecraft's shadow on the planet's surface. A box labeled 'Orbital sunrise >>' points to the spacecraft's path. A box labeled 'Particle in orbiter shadow exits from eclipse into full sunlight' points to the spacecraft's shadow on the planet's surface. In the sunlit side position, a box labeled 'Sunlit surface reflection illuminates down-sun zone' points to the spacecraft's reflection on the planet's surface. The spacecraft's shadow is shown as a dark region on the planet's surface, and its reflection is shown as a bright region on the planet's surface. The spacecraft's path is indicated by a curved arrow with a downward-pointing arrowhead.