Claims

[Claim 1] A meter reading device that reads a measurement value from an existing meter device having a display surface, which measures usage of an energy supply medium such as water, gas, or electricity and displays the measurement value on the display surface, the meter reading device comprising:

a camera configured to pick up an image of an image pickup range including the display surface;

a casing configured to accommodate the camera;

an opening formed in a rear surface of the casing;

a mirror provided inside the casing,

the mirror being arranged so as to be opposed to the display surface at a given angle, and being configured to reflect light that has been reflected by the display surface and has passed through the opening,

the camera being configured to receive the light reflected by the mirror to pick up the image of the image pickup range;

an attachment member that enables attachment of the casing to the meter reading device;

a recognition unit configured to recognize the measurement value measured by the meter device from image data obtained through image pickup by the camera and generate numerical data indicating the recognized measurement value; and

a storage device configured to store the image data or the numerical data,

the attachment member having a holding frame capable of holding the casing and a fixing member which is connected to the holding frame and includes gripping portions being removably fixable to the meter device,

the holding frame being connected to the fixing member so as to be turnable about an axis perpendicular to a plane opposed to the display surface as a rotation axis

with respect to the fixing member.

[Claim 2] An attachment member that enables attachment of a meter reading device to an existing meter device having a display surface, which measures usage of an energy supply medium such as water, gas, or electricity and displays a measurement value on the display surface, the meter reading device including a casing having a rear surface with an opening and a camera provided inside the casing to read the measurement value displayed on the display surface through the opening, the attachment member comprising:

a holding frame capable of holding the meter reading device, which has an open window formed at a position that allows the open window to communicate with the opening; and

a fixing member which is connected to the holding frame and includes gripping portions being removably fixable to the meter device,

the holding frame being connected to the fixing member so as to be turnable about an axis perpendicular to a plane opposed to the display surface as a rotation axis with respect to the fixing member.

[Claim 3] An attachment member that enables attachment of a meter reading device to an existing meter device having a display surface, which measures usage of an energy supply medium such as water, gas, or electricity and displays a measurement value on the display surface, the meter reading device including a casing having a rear surface with an opening and a camera provided inside the casing to read the measurement value displayed on the display surface through the opening, the attachment member comprising:

a holding frame capable of holding the meter reading device, which has an open window formed at a position that allows the open window to communicate with the opening; and

a fixing member having a hollow annular shape, which is connected to the holding frame and includes gripping

portions being removably fixable to the meter device,

the holding frame being connected to the fixing member so as to be turnable about an axis perpendicular to a plane opposed to the display surface as a rotation axis with respect to the fixing member.

[Claim 4] An attachment member configured to enable attachment of a meter reading device to an existing meter device having a display surface that measures usage of an energy supply medium such as water, gas, or electricity and displays a measurement value on the display surface, the meter reading device including a casing having a rear surface with an opening and a camera provided inside the casing to read the measurement value displayed on the display surface through the opening, the attachment member comprising:

a holding frame capable of holding the meter reading device, which has an open window formed at a position that allows the open window to communicate with the opening; and

a transparent fixed plate, which is provided so as to project from a bottom surface of the holding frame, and is removably fittable into a peripheral wall formed at an outer periphery of the display surface of the meter device.