

[0014] According to the present invention, the electronic device reports to the user that an operation input has been received by causing vibration at a location designated by the user in advance.

[0015] Further, the present invention provides an electronic device provided with an operating unit for receiving an operation input, a first vibration generator for imparting vibration to the operating unit, a second vibration generator for imparting vibration to a hand-touched portion of the electronic device, detecting means for detecting whether the electronic device is being held by a user, and vibration control means for selecting at least one of the first vibration generator and the second vibration generator in accordance with the results of detection of the detecting means and causing vibration to be generated from the selected vibration generator in the case of detecting that an operation input to the operating unit has been received. Further, the present invention provides a vibration-type reporting method in an electronic device comprising selecting at least one of a first vibration generator for imparting vibration to an operating unit and a second vibration generator for imparting vibration to a hand-touched portion of the electronic device provided in the electronic device and causing vibration to be generated from the selected vibration generator to give vibration to the user in the case of detecting that an operation input to the operating unit has been received.

[0016] According to the present invention, the electronic device reports to the user that an operation input has been received by causing vibration at a different location in accordance with whether the electronic device is being held by the user.

[0017] Further, the present invention provides an electronic device provided with a display panel over which a touch panel is superposed, a vibration generator set in the display panel, an elastic member comprised using an elastic body for supporting the display panel in a vibratable manner by vibration generated from the vibration generator, and vibration control means for causing vibration to be generated from the vibration generator in the case of detecting that a touch operation on the touch panel has been received, the vibration generator provided with a weight, a support member supporting the weight so as to allow it to reciprocate, and connected to the display panel or a base member of the vibration generator in contact with the display panel, and excitation generating means for imparting excitation for making the weight reciprocate.

[0018] According to the present invention, the electronic device reports to the user that a touch operation has been received by causing vibration at the touch panel together with the display panel.

[0019] Further, the present invention provides an electronic device provided with a display panel over which a touch panel is superposed, a vibration generator supporting the display panel and imparting vibration to the display panel, and vibration control means for causing vibration to be generated from the vibration generator in the case of detecting that a touch operation on the touch panel has been received, the vibration generator provided with a weight, a support member supporting the weight so as to allow it to reciprocate, and connected to the display panel or a base member of the vibration generator in contact with the display panel, and excitation generating means for imparting excitation for making the weight reciprocate.

[0020] According to the present invention, the electronic device reports to the user that a touch operation has been received by causing vibration at the touch panel together with the display panel.

[0021] Further, the present invention provides an electronic device provided with a display, a touch panel covering the display screen of the display, a vibration generator provided between the display and the touch panel, supporting the touch panel on the display screen, and imparting vibration to the touch panel, and vibration control means for causing vibration to be generated from the vibration generator in the case of detecting that a touch operation on the touch panel has been received.

[0022] According to the present invention, the electronic device reports to the user that a touch operation has been received by causing the touch panel to vibrate.

[0023] Further, the present invention provides an electronic device provided with a display, a touch panel covering a display screen of the display, a vibration generator placed at the touch panel and imparting vibration to the touch panel, a vibration absorbing member provided between the display and the touch panel and absorbing a vibration component which would be transferred to the display in vibration components generated from the vibration generator, and vibration control means for causing vibration to be generated from the vibration generator in the case of detecting that a touch operation on the touch panel has been received.

[0024] According to the present invention, the electronic device reports to the user that a touch operation has been received by causing only the touch panel on the display screen to vibrate.

[0025] Further, the present invention provides an electronic device provided with an operating unit for receiving an operation input, a vibration generator at least a part of which is provided exposed to the outside from a housing of the electronic device and imparting vibration directly to the user, and vibration control means for causing vibration to be generated from the vibration generator in the case of detecting that an operation input to the operating unit has been received.

[0026] According to the present invention, the electronic device reports that a touch operation has been received by directly imparting vibration to the user from the vibration generator.

[0027] Further, the present invention provides an electronic device provided with an operating unit for receiving an operation input, a vibration generator for imparting vibration to part of a housing of the electronic device different from the operating unit, and vibration control means for identifying a type of operation input and causing vibration to be generated from the vibration generator by a vibration mode linked with the type of the operation input in the case of detecting that an operation input to the operating unit has been received. Further, the present invention provides a vibration-type reporting method in an electronic device comprising identifying the type of operation input, causing vibration to be generated from a vibration generator provided in the electronic device by a vibration mode linked with the type of the operation input, and causing part of a housing of the electronic device different from the operating unit to vibrate.