

## To maintain good contact with the battery

## Beware unexpected memory erasure

Coin-type Lithium batteries are widely used for memory backup purposes. However, incidents of accidental memory erasure due to inadequate connecting to batteries have been informed to us. To prevent unexpected memory erasure, consider the following tips for proper use.

## <In case of long-term use>

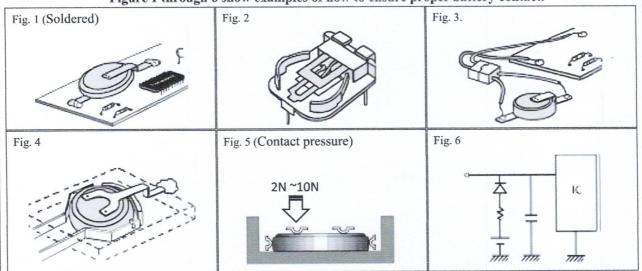
- Highly recommended to use a battery with tab terminals for soldering, so that the battery can keep stable connection on the circuit board. (Fig. 1)
- If the battery needs to be replaced regularly, it is recommended to install it in a battery holder or use a battery connected by wires and connectors. (Fig. 3) CDA has a battery holder suitable for 2032 size batteries. (Fig. 2)

## <In case of short-term periodical replacement required>

(for batteries without tab terminals or lead connectors)

- Gold or Nickel-plated steel or Au or Ni-plated stainless-steel strips is recommended for battery terminal contacts. Especially, gold-plating is highly recommended to ensure the contact in stable for long-term.
- Y-shaped terminals (double contacts) for both the positive and negative surface offer higher stability in contact (Fig. 4) Each contact on the Y-shaped terminals requires contact pressure which should be 2N to 10N {approximately 0.2kgf to 1kgf} (Fig. 5)
- To protect IC chip against a few milliseconds momentary contact failures, tantalum capacitor-diode-resister circuit shown in Fig. 6 can be solution.
- \* Note: Touching the battery surface with bare hand might cause the contact resistance to be increased due to salt from sweat. Do not touch the contact surfaces of the battery with bare hands. Please consider to keep the battery surface clean in assembling process.

Figure 1 through 6 show examples of how to ensure proper battery contact.



Please share those precautions among all relevant parties/departments including manufacturing and sales department or subcontractors.

For more information, please contact your local dealer or the sales department in charge.