Battery Safety Testing Kit (BSK)

THT product code = ARCSYS-BSK

The Battery Safety Testing Kit comprises:

- 1/4" - 1/4" Modified pressure through tube
- High pressure electrical terminal fittings
- Open battery cells - 2 x 'AA' style (BOA) - 2 x 18650 style (BOS) (or customers preferred cells)
- Closed battery cells - 2 x 'AA' style (BCA) - 2 x 18650 style (BCS) (or customers preferred cells)
- PTFE colour coded leads - 15 x red thin, 15 x red thick, 15 x black thin, 15 x black thick.
- Insertion tool
- Red & Black Low hear loss connecting leads
- Medium battery frame

Fig. 1
The Battery Safety Testing Kit (BSK) contains various components for battery testing.

It contains specially designed battery holders for 18650 and ‘AA’ size batteries. There are two types of these holders, open or closed. The closed holders allow external pressure measurements to be taken while the open allow for precise thermal measurements to be taken.

It also contains the necessary equipment to allow the battery to be connected to a cycler while external pressure measurements are taken.

Finally, it contains a medium battery frame for the support of larger batteries.

Example: External Pressure Measurement

![Temperature and Pressure as a Function of Time](image)

Figure 3 shows data from an 18650 external pressure measurement test.

You can see that as the test proceeds very little pressure change occurs until suddenly, as the cell ruptures, a huge pressure increase is detected.