

# TK-E1HG

## IDX V-Mount Battery Checker

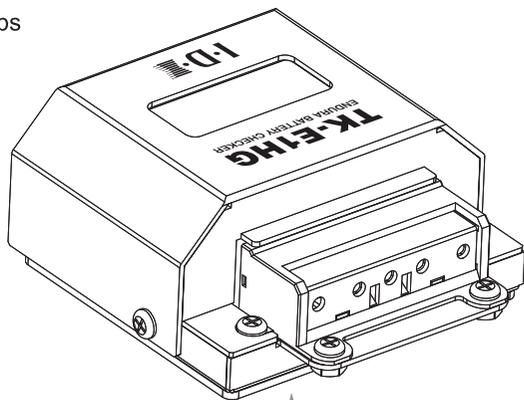


### Instruction Manual

Thank you for purchasing the TK-E1HG. The TK-E1HG is a portable V-Mount battery checker. Prior to using the TK-E1HG, we strongly recommend reading this Instruction Manual on how to best use the TK-E1HG. Please keep this manual for your reference. If you have any additional questions, please contact your local IDX office listed at the end of this manual.

### Specifications

- Dimensions : 68 (W) x 32 (H) x 74 (D) mm  
2.68 (W) x 1.26 (H) x 2.92 (D) inches  
(Protruding part not included)
- Weight : approx. 150g  
approx. 0.33lbs



Magnet on back side

### Features

- Digital data accessing function  
There are three modes : IDX mode, SM-Bus mode, and S-Type (non-digital) mode. Each battery is identified and data displayed. (See page 2 for display items in each mode.)
- Battery deterioration measurement function  
Degree of deterioration is displayed as 5 stages depending on the battery potential difference between no-load and on-load. A larger value indicates a better condition.
- Charge / discharge circuit overheat protection  
Deterioration measurement is interrupted when the internal temperature exceeds 110 deg.C.

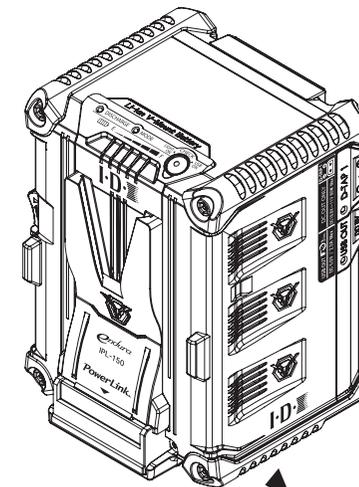
### Applicable batteries

- IDX Mode (IB Mode)  
IPL-150, IPL-98, Imicro-150, Imicro-98, DUO-C198, DUO-C150, DUO-C98, ELITE, E-HL9
- SM-Bus Mode (SB Mode)  
IPL-150, IPL-98, Imicro-150, Imicro-98, DUO-C198, DUO-C150, DUO-C98, DUO-150, DUO-95
- S-Type (non-digital) Mode  
CUE-D300, CUE-D150, CUE-D95, CUE-D75, E-HL10DS, DUO-C190, DUO-C95, ELITE-S, E-HL9S, E-10S

Note : Some battery models can be switched between IDX mode and SM-Bus mode by user operation. For details, refer to the instruction manual for each batteries.  
Applicable batteries are as of October 2019.

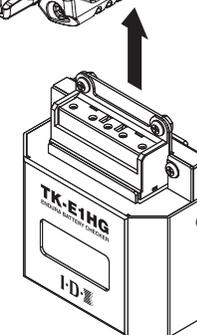
### How to use

- ① Insert the battery connector properly into the checker.  
Since it is not locked, hold the battery and the checker firmly with your hand.
- ② Each item is scrolled at intervals of about two seconds. It will automatically turn off after 60 seconds.
- ③ When the data check with the LCD display is finished, remove the battery from the checker.



### Caution

- ⚠ When attaching and detaching, connect it straight so that the angle is not inclined.  
\* Terminal pin deformation or damage may occur.
- ⚠ When the battery is connected, power will be consumed slightly. Avoid leaving it connected.  
\* There is a risk of overdischarge.



## Display Items

### IDXMode

Each item is scrolled at intervals of about two seconds. It will automatically turn off after 60 seconds.

\* Items ⑤ to ⑨ are not displayed on DUO-C198, DUO-C150, DUO-C98, Imicro-150, and Imicro-98.

① Battery Voltage (V)

V1 14.55  
V2 14.32

\* V1: Non-load Voltage /  
V2: Load Voltage

② Deterioration Level (5-Point Scale)



③ Remaining Capacity Ratio (%)

Status  
100%

④ Current Capacity (Wh)

Capacity  
98Wh

⑤ Version No. / Cycle Count

Ver 6.0  
20cyl

\* Firmware Version /  
Discharge Count  
(only applied at more than Ver.6.0)

⑥ Over-Discharge Count

Over Dis  
2cyl

\* Less than 11.0V

⑦ High Load Count

Hi Load  
3cyl

⑧ First Charge Date

First Chg  
12 / 8 / 16

\* Day / Month / Year

⑨ Serial Number

Ser No.  
A123456

### SM-Bus Mode

Each item is scrolled at intervals of about two seconds. It will automatically turn off after 60 seconds.

① Battery Voltage (V)

V1 14.55  
V2 14.32

\* V1: Non-load Voltage /  
V2: Load Voltage

② Deterioration Level (5-Point Scale)



③ Remaining Capacity Ratio (%)

Status  
100%

④ Current Capacity (Wh)

Capacity  
98Wh

⑤ Battery Temperature (°C)

Temperat  
28.0 °C

⑥ Serial Number

Ser No.  
A123456

\* Not displayed on DUO-150 / DUO-95.

### S-Type/Non-Digital Mode

Each item is scrolled at intervals of about two seconds. It will automatically turn off after 60 seconds.

① Battery Voltage (V)

V1 14.55  
V2 14.32

\* V1: Non-Load Voltage /  
V2: Load Voltage

② Deterioration Level (5-Point Scale)

A - 5    B - 3  
C - 1    D - 2

Life  
Battery Group

Battery Group A: CUE-D75, E-7S  
Battery Group B: E-HL10DS, CUE-D95, DUO-C95, E-HL9S, E-10S  
Battery Group C: CUE-D150, ELITE-S  
Battery Group D: CUE-D300, DUO-C190

### General Notes and Safety

- Do not attempt to open or modify this unit. All work should be carried out by IDX service personnel only.
- Do not expose to, use or place the TK-E1HG in direct sunlight, extreme dust, smoke, water or other hazardous conditions.
- Store the product in a stable place to avoid injury or malfunction due to falling.
- The connector is a consumable item. If the terminal is deformed, worn, or corroded due to long-term use, it may not be possible to discharge normally. If any deformation or abnormality is found, it must be replaced or repaired. Stop using the product and contact our customer service.
- If the magnet surface is dirty, the attractive force will be weakened. Wipe with a damp cloth any dirt on the magnet surface and dry it. Do not use solvent as it will damage the magnet surface. Also, when using outdoors for a long time, please attach and detach regularly (once every couple of days). If left on for a long time, the steel surface may be damaged. Keep magnetic cards away.
- To avoid battery terminal damage be sure that the battery and TK-E1HG are correctly aligned before connection. If an incorrect connection is made an error will be displayed or there is a risk of falling.
- The displayed "Deterioration Level" and "Current Capacity" are approximate. Operation is not guaranteed for actual use.
- If nothing is displayed, the battery may be broken down. Check the operation of TK-E1HG with another battery, and do not use a broken down battery.
- In case of breakdown, please contact your IDX dealer or appropriate IDX office.

Design and specifications are subject to change without notice.

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