Clevertest Plus
OPERATION GUIDE V1.1

INTRODUCTION

Clevertest PLUS™ emergency luminaires are capable of automatically testing themselves every six months. The results of the discharge test are provided via the multi-colour LED indicator and can be recorded via visual inspection or SmartPhone (CleverSparky APP) capture of the test data encoded over this same multi-colour LED indicator. Clevertest Plus™ emergency luminaires are installed the same way as a "normal" single point emergency light with no data cable, PC or special wiring involved.

Emergency Luminaires and EXIT signs marked with this symbol ☀ are equipped (enabled) with Clevertest Plus™ capabilities. By default the Clevertest Plus™ functions are deactivated from the factory and must be activated to perform Clevertest Plus™ functionality.   All products ordered with the –CT suffix and that are marked with the Clevertest Plus™ symbol have the Clevertest Plus™ functions activated by default from the factory.

Activate Clevertest Plus™ (CTP)

Products supplied with standard part numbers with the CTP Symbol will need CTP activated before automatic testing functions will commence. To active CTP by power cycling there is a choice of two methods as follows;

1. From a power ON state - switch power OFF for 30-40 seconds, then ON for 2 seconds then OFF for 2 seconds and then back ON. This method **does not** invoke an immediate test but does start the 6 month (182 day) timer. The CTP functions are activated and the fitting/s will test every 182 days. After accepting the command the fitting/s will flash the status LED at 16Hz for 30mins and after this time the CTP Test status will revert to "No Test Result" (see LED indication in the table below).
2. From a power ON state – switch power OFF for 6 seconds, then ON for 2 for seconds then OFF for 2 seconds, then ON for 2 seconds then OFF for 2 seconds and then ON again. This function **will put the fitting/s into an immediate Test** and restart the 182 day test timer (the fitting/s will test every 182 days).

Each of the above actions will "synchronise" fittings on the same circuit if the power switching actions are performed via the MCB at the distribution board.

To activate CTP by attending the individual fitting/s, and pressing the momentary push button, please see the section titled ADJUSTING THE 6 MONTH TEST TIMER (to activate CTP and/or re-sync a replacement fitting).

Emergency luminaires and EXIT signs require a minimum 16 hour charge before initiating the first test.

LED INDICATIONS (LP and L10 CTP enabled products)

The LED indicator on a CTP activated emergency or exit luminaire provides two output modes, automatic scanning of data via the CleverSparky APP and a visual indication that can be interpreted by the user. When CTP is activated the LED indicator will constantly toggle between the two output modes.

Automatic scan via CleverSparky: The LED will display a rapid green flashing that is outputting the "STATUS" of the fitting that can be captured and collected by the CleverSparky APP. See the release material on the CleverSparky APP for details.

Visual indication: Below is the table detailing the visual indicator outputs for interpretation by the user:

1	**SOLID GREEN** (not flashing)	NORMAL. Luminaire is in a normal state awaiting next discharge test.
2	**SLOW YELLOW FLASH** (2s Yellow, 2s Off)	TESTING. The luminaire is currently performing a test
3	**VERY SLOW YELLOW & GREEN FLASH**[1] (4s Yellow, 1s Green)	RECENTLY PASSED. The luminaire has recently tested and passed. This indication remains for 5 days after the test, and then changes to SOLID GREEN.
4	**FAST YELLOW & GREEN FLASH- Lamp**[1] (0.5s Yellow, 0.5s Green)	FAILED LAST TEST. The luminaire has recently tested and failed to remain illuminated for the required duration. This indication will remain until the required maintenance work has been completed and the luminaire passes a subsequent discharge test.- Lamp Failure
5	**FAST YELLOW & RED FLASH –Control Gear**[1] (0.5s Yellow, 0.5s Red)	FAILED LAST TEST. The luminaire has recently tested and failed to remain illuminated for the required duration. This indication will remain until the required maintenance work has been completed and the luminaire passes a subsequent discharge test. – Control Gear Failure
6	**FAST YELLOW & OFF FLASH -Battery**[1] (0.5s Yellow, 0.5s OFF)	FAILED LAST TEST. The luminaire has recently tested and failed to remain illuminated for the required duration. This indication will remain until the required maintenance work has been completed and the luminaire passes a subsequent discharge test. – Battery Failure
7	**FAST YELLOW & RED FLASH WITH PAUSE** (2 seconds (0.5s Yellow, 0.5s Red), 2s Red)	COMPLETE TIMER FAILURE. There emergency battery has failed and the unit can no longer keep time for scheduled tests during power outage.
8	**FAST RED & OFF** (0.5s RED, 0.5s OFF)	NO TEST RESULT. Clevertest Plus has been enabled but no test completed.

Note (1): The Green LED is used to display that the emergency battery is present and charging or fully charged. If there is a battery problem the green LED will be off and the status LED will be Yellow or off.

HOW TO PERFORM THE FIRST TEST, SYNCHRONISE & RE-SET TEST DATES

This section of the operation guide relates to performing the first "commissioning" test that will also invoke a test and synchronise the fittings on the same circuit to test every six months together. This section also caters for re-setting/re-synchronising the test date. If a number of CTP luminaires have been installed over a period of time, the dates they perform automatic self-testing will also be spread out over time. You can re-set the testing dates so they will test at the same time.

SYNCRONISING AND RE-SETTING TEST DATES – THIS WILL ALSO INVOKE A TEST: Groups of luminaires on the same circuit may be synchronised and re-set together. From a power ON state – turn power OFF for 6 seconds, then ON for 2 for seconds then OFF for 2 seconds , then ON for 2 seconds then OFF for 2 seconds and then ON again. This function will put the fitting/s into an immediate discharge test. All the CTP luminaires on that circuit will perform an immediate discharge test, and subsequent automatic tests will be performed as a group at the same six-monthly (182 day) intervals.
*NOTE: This switching combination/sequence is different to the previous Version 1 Clevertest (node) product which was (and still is) 3 times within a 5 second period.

HOW TO MANUALLY INITIATE A DISCHARGE TEST

You may wish to perform a discharge test immediately on a selected luminaire or group of luminaires without waiting for the pre-programmed 6 month test interval. After initiating a test there is no need to remain on site during the test, and the results can be checked on another day. The manually initiated commands can be done two ways:

INDIVIDUAL LUMINAIRES: Press the luminaire test switch 3 times within a five second period and the unit will immediately perform a discharge test. This action does not alter the schedule for the 6 month synchronised test.

GROUPS OF LUMINAIRES: All CTP emergency luminaires on the same circuit can be tested at once by initiating the test command at the circuit breaker rather than the individual luminaire test switch. Simply switch the relevant circuit breaker OFF for between 15 and 20 seconds, and then back ON again. All CTP luminaires on that circuit will immediately perform a discharge test. This action does not alter the schedule for the 6 month synchronised test.

HOW TO MANUALLY INITIATE A DELAYED DISCHARGE TEST

You may wish to perform a delayed discharge test on a selected luminaire after performing maintenance work on that unit. After initiating a delayed test, the luminaire will test itself 24 hours later, without requiring you to be present on site during the test. The results can be checked on another day and this delay function allows for re-charge of the battery before the test.

DELAYED TEST: Press and hold the luminaire test switch for 10 seconds. While holding the test switch, the LED will flash faster (4HZ) and once the 10 second period has elapsed it will then flash faster again in RED (16Hz) indicating the command is complete. The unit will then test itself 24 hours later. This action does not alter the schedule for the 6 month synchronised test.

ADJUSTING THE 6 MONTH TEST TIMER (to activate CTP and/or re-sync a replacement fitting)

The scheduled test date for a fitting can be shifted using the push button. You may wish to do this after a fitting has been replaced and ideally you want the fitting to test in a similar schedule/routine to the other fittings on the same circuit. This mode is activated by holding the push button for 5-8 seconds then released. While the button is pressed the RED LED should flash at 4Hz and continue for 5 seconds after which time the LED twill flash green and the button should be released. If in this extended 5 seconds of LED flashing at 4Hz the pushbutton is repressed and released the fitting will enter the "Adjusting 6 month test timer mode" for 60 seconds.

Any press of the push button while in this mode will adjust the schedule forward one month (30 days). This function can be used to align a fitting forward to a test event, the next test for example, with fittings on the same site/circuit.

While in "Adjusting 6 month test timer" mode the status LED will flash RED (0.5s on, 0.5s off – Green led is off during this RED flash mode) with the number of RED flashes indicating the number of months in the future the test is to occur as defined in table below. Number of Flashes = Time in months (30 days) until test;
1, test will occur within 30 days (1 month)
2, test will occur within 60 days (2 months)
3, test will occur within 90 days (3 months)
4, test will occur within 120 days (4 months)
5, test will occur within 150 days (5 months)
6, test will occur within 180 days (6 months)
NOTE: In between the flashing sequences above a rapid green flashing will occur that is outputting the "STATUS" of the fitting that can be captured and collected by the CleverSparky APP.

Initially the 6 month (182 day) test timer will start with the number of 30 day increments altered/removed according to the time in months until the test. The 6 month (182 day) test timer will re-start once the scheduled test has occurred.

TERMINATING A TEST

Pressing and holding the push button at the fitting for 10 seconds will terminate a discharge test (whilst in progress). While holding the test switch the LED will flash at 4Hz and the 16Hz once the command has been accepted. Pass and fail status of the fitting will remain unchanged from before the test started.

TEST TIME DURATIONS

All tests will run until a failure occurs or the required test duration is reached plus 10mins. During the extended 10 mins the status LED on the fitting will continue to flash as if the fitting is still in test. E.g. if 120mins is the required duration the test will run for 130mins, and if the required duration is 90mins the test will run for 100mins.
Timing Accuracy 75 seconds per week, (0.124%) 124ppm, 32.5mins in ½ year.

DEACTIVATE AUTOMATIC TEST FUNCTIONS (CleverTest PLUS)

Automatic, Clevertest PLUS, test functions can be deactivated by placing the fitting into an Immediate Discharge Test (via the push button) and pressing the push button another 3 times within 10 seconds of starting the test (we suggest that once in test keep pressing the button until the fitting drops out of test). Automatic, Clevertest PLUS, test functions are then deactivated but can be re-activated by any of the methods mentioned in this document.
NOTE: If the fitting is already in test then the test should be terminated as per procedure above and then the deactivate function performed.

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