



CTP System Installation and operation guide









1. CTP installation scenarios

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Select the scenario applies to your project. The instructions included in this leaflet will guide you through the process for installing and maintaining your CTP System.

Below are the different scenario options.



Installing a new CTP System for new sites with less than 15 exit and emergency lights

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For new sites (or entire replacement of existing fittings) using 15 or less new CTP fittings, follow this process to install, activate and commission your new CTP System with the CleverSparky Mobile app.



Installing a new CTP System for new sites with more than 15 exit and emergency lights

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For new sites (or entire replacement of existing fittings) using more than 15 new CTP fittings, follow this process to install, activate and commission your new CTP System using the CleverSparky Mobile app and the web app at Cleversparky.com



Progressive upgrades to sites with less than 15 exit and emergency lights

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Using only the mobile app

When you have run a test on a site with less than 15 Manual test fittings and there are failures to replace, follow this process to add CTP self-test fittings and build your CleverSparky digital logbook for simple future testing using the CTP System.

upgrade

< 15



Progressive upgrades to sites with more than 15 exit and emergency lights

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Using the web app and mobile app

When you have run a test on a site with more than 15 Manual test fittings and there are failures to replace, follow this process to add CTP self-test fittings and build your CleverSparky digital logbook for simple future testing using the CTP System.



Installing a new CTP System for new sites with less than 15 exit and emergency lights

Using only the mobile app

For new sites (or entire replacement of existing emergencies) using 15 or less new CTP fittings, follow this process to install, activate and commission your new CTP System with the CleverSparky Mobile app.

Step 1 – Before installing the fittings

Ensure all fittings have an ID number and QR code attached before installing.



*Labels included in carton

Step 2 – Charge batteries

Charge the batteries for 16 hours.

Step 3 – Activate the CTP function and perform the initial 120 minute self-test

Use the circuit breaker to activate the CTP self-test function by switching the lighting circuit on and off in the following sequence: (use



a stopwatch as the timer needs to be accurate). The 120min self-test will now begin.



Step 4 – Enter site details

and complete all the relevant fields on the screen and Save. Then press Add New Group.



Step 5 – Create the electronic logbook

Add group/s to your log book then select one to begin collecting results.



Click on the Create New logbook button.

Add details into the following fields; **collection** date, date the fitting tested and duration required to pass this test.(120min for initial test and 90min for subsequent tests).



Press the **Scan Fitting** button in the app.

setting at the top of the screen.

of the circle and Tap to Focus.

visual indicator appears.

CTP fitting

The CTP data encoded fast flashing occurs on

the status LED in a loop for 20sec then a 10sec

Point your device at the status LED on the first

I Select either the Exit or Emergency light level

II Locate the status LED indicator in the centre

III Press Scan while it is flashing fast green and

IV After a successful scan enter the fitting ID,

location. switchboard: install date and any

process. If scan cannot be completed add test results manually using visual indicator on page 17. (See page 19 for more details on

Save, and move to the next fitting and repeat

other details required. If unsuccessful repeat

hold phone still for up to 8 sec.

scanning).

until all are collected.

Scan Fitting



Locate circle over LED to focus LED indicator

Press scan

Step 7 – Generate a report

Select the More button



Then press **Send reports** to instantly generate and email a test report. This report is your logbook report for the site showing fitting information and testing details as per AS/NZ2293.2.



Test reports are sent to your email inbox.







2 Installing a new CTP System for new sites with more than 15 exit and emergency lights

Using only the mobile app

For new sites (or entire replacement of existing fittings) using more than 15 new CTP fittings, follow this process to install, activate and commission your new CTP System using the CleverSparky Mobile and web app at Cleversparky.com

Step 1 – Before installing the fittings

Ensure all fittings have an ID number and QR code attached before installing.



Add a duplicate sticker into the installation register provided in this booklet along with the corresponding fitting ID, fitting location, group name, install date and any other details you would like to capture.

You can do this as you install the fittings OR complete the register from the site drawings.

Step 2 – Charge batteries

Charge the batteries for 16 hours.

Step 3 – Activate the initial 120 minute self-test

Use the circuit breaker to activate the CTP self-test function by switching the lighting circuit on and off in the following sequence: (use a stopwatch as the timer needs to be accurate).



The 120min self-test will now begin.

Step 4 – Go to cleversparky.com on your PC

While the fittings are testing, use a PC to Login to your account on the at www.cleversparky.com and add a new site by searching for the address. Give the site a name, save then select it.

Download the CSV template and enter the information from the installation register and save on your PC.

Press the upload CSV button and select the saved file.

All your fitting data will now be uploaded to the CleverSparky web and mobile app so you can collect the results using CleverSparky on your phone.

Step 5 – Create the electronic logbook

Add group/s to your log book then select one to begin collecting results.

Open the CleverSparky mobile app. Select vour site.



Click on the Create New Logbook button.

Add details into the following fields; **collection date**, **date the fitting tested** and **duration required** to pass this test.(120min for initial test and 90min for subsequent tests).



Step 6 – Collecting test results

Option 1 – Quick Collect

- I Press the **Quick Collect** button, select one fitting at a time or **Select All.**
- II Walk to each fitting and inspect the flashing LED. The LED will flash fast Green for 20 sec (Scanning mode) then a 10 sec visual mode. During the visual mode look for the very slow amber and green flash or a solid green which indicates a pass.

VERY SLOW AMBER & GREEN FLASH*

(4s amber, 1s Green)

If battery is disconnected, 3s off

RECENTLY PASSED. The fitting has passed a test. This indication remains for 5 days after the test and then changes to green.

- III Any other flashing sequence is a likely fail and you should scan the fitting using the process on page 19 to accurately log the fault/status. When all fittings are collected press Save.
- IV See the CTP Faults and Maintenance section on Page 16 for information on how to manage any replacement fittings

Option 2 – Scan

Follow the process on page 19 to scan the LED during the fast green flashing mode which will add the test result automatically. **NB. For larger sites this will take longer than Option 1**.

Step 7 – Generate a report

Select the **More** button



Then press **Send reports** to instantly generate and email a test report. This report is your logbook report for the site showing fitting information and testing details as per AS/NZ2293.2.



Test reports are sent to your email inbox.



Progressive upgrades to sites with less than 15 exit and emergency lights

Using only the mobile app

When you have run a test on a site with less than 15 manual test fittings and there are failures to replace, follow this process to add CTP self-test fittings and build your digital logbook.

Step 1 – Enter site details

Download and Open the CleverSparky app, add your site details and a group name that identifies the area of the fittings.



Step 2 – Add all pre existing fittings

Select your group and press "manually add fitting."

Enter in the fitting ID and location details for the pre-existing fittings on site, including any that failed the last test.



Step 3 – Install the replacement **CTP fittings**

Ensure all fittings have an ID number and stick unique QR code to any CTP lamp heads before



Activate the CTP self-test at each fitting by pushing the test button as shown. (Please note pushing the button after this sequence will move the next test forward one month each press see iv on page 18)



Step 2

24 hours.

Wait 60 sec and then

delayed test to allow

the battery to charge by holding the test

button for 10 sec until

fitting will now test in

it flashes fast red. The

initiate a 24 hour

Step 1 Push the test button for 6 seconds, release then press again once.

0

Press the Scan button.

Step 5 – Replacing fittings

press the maintenance tab then "Add

maintenance report."

Add a Maintenance R button be

Add Maintenance Report

notes if required and save.

Replaced Fitting

To replace the fittings in the system select each

Add Maintenance

Replaced Fitting

Report

fitting in your group that has been replaced,

Tap repaired and select replaced fitting, add

Choose the fitting type you are scanning, Exit or **Emergency** and scan the LED indicator on the fitting when it flashes fast green.



After a successful scan enter the fitting ID, location, install date and any other details required and save.

Step 6 – Generate a report

Select the More button



Press send reports to instantly generate and email a test report. This report is your logbook report for the site showing fitting information and testing details as per AS/NZ2293.2.



Test reports are sent to your email inbox.





Progressive upgrades to sites with more than 15 exit and emergency lights

Using the web app and mobile app

15 + When you have run a test on a site with more than 15 Manual test fittings and there are failures to replace, follow this process to add CTP self-test fittings and build your digital logbook.

Step 1 – Go to cleversparky.com on vour PC and set up the site

Step 2 – Install the replacement **CTP fittings**

Download a csv template and use the existing logbook or site drawings to enter the fitting ID. group, location, installed date and any other details required for the existing fittings on site including any that failed the last test.



Go to cleversparky.com on your pc



Download csv and upload csv templates

Save, then upload the file to populate the data to the site.



Completed register

Ensure all fittings have an ID number and stick unique OR code to any CTP lamp heads before installing.



Step 3 – Activate the CTP function

Activate the CTP self-test at each fitting by pushing the test button as shown. (Please note pushing the button after this sequence will move the next test forward one month each

0

Step 1 PFESS SEE iv on page 18)

button for 6

once.

seconds, release

then press again



Step 2

Wait 60 sec and then initiate a 24 hour delayed test to allow the battery to charge by holding the test button for 10 sec until it flashes fast red. The fitting will now test in 24 hours.

Step 4 – Replacing fittings

To replace the fittings in the system select each fitting in your group that has been replaced,



press the maintenance tab then "Add





over LED focus LED

indicator II Locate the status LED indicator in the centre of the circle and Tap to Focus.

Scan

III Press Scan while it is flashing fast green and hold phone still for up to 8 sec.





maintenance report."

Tap Repaired and select replaced fitting, add notes if required and save.



Press the Scan button.

Step 5 – Collect the test results

Press the Scan Fitting button in the app.

The CTP data encoded fast flashing occurs in a loop for 20sec then a 10sec visual indicator appears.

Point your device at the status LED on the first CTP fitting

I Select either the Exit or Emergency light level setting at the top of the sreen.



2 Ongoing Testing

2.1 Ongoing Testing for a CTP System

The process below is for ongoing testing of a site with only CTP activated fittings. You can use quick collect feature or scan each fitting as detailed below.

Step 1 – Select your site on the CleverSparky phone app

Open the CleverSparky Mobile app and select vour site.



- i Click on the Logbook button and click create new logbook.
- ii Enter the start date of the collection period.
- ii The date the fittings tested.
- iv The duration required for a pass result (120min for initial test and 90min for subsequent tests.
- v Then select your first group to begin collecting results.

Step 2 – Collecting test results

Option 1 – Quick Collect

- i Press the Quick Collect button, select one fitting at a time or **Select All.**
- ii Walk to each fitting and inspect the flashing LED. The LED will flash fast Green for 20 sec (Scanning mode) then a 10 sec visual mode. During the visual mode look for the very slow amber and green flash or a solid green which indicates a pass.

VERY SLOW AMBER & GREEN FLASH*

(4s amber, 1s Green)

If battery is disconnected, 3s off

RECENTLY PASSED. The fitting has passed a test. This indication remains for 5 days after the test and then changes to green.

- III Any other flashing sequence is a likely fail and you should scan the fitting using the process at Step 3 below to accurately log the fault/status. When all fittings are collected press Save.
- IV See the CleaverSparky reports on Page 22 for information on how to manage any replacement fittings.

Option 2 – Scan

Alternatively you can follow the process below to scan the LED during the fast green flashing mode which will add the test result automatically. NB. For larger sites this will take longer than Option 1.

Step 3 - Scan the LED indicator for any fittings displaying a failed test result

Select Scan Fitting to open the camera on your phone.

Choose the **Exit** or **Emergency** light level setting at the top of the screen.

During the 20 sec "Fast Green Flash" locate the circle on your screen over the LED Indicator. Best results are achieved between 30cm to 1m from the fitting.

The circle should now be green. Tap the circle to focus your camera on the LED indicator.

Press Scan Fitting to collect the result.



After a successful scan save, move to the next fitting and repeat until all are collected.

Step 4 – Generate a test report

Select Send reports to instantly generate and email your test report.

2.2 Ongoing Testing for sites with a mix of CTP and Manual test fittings

The process below is for the ongoing testing of a site with both CTP and manual test fittings. Using the Ouick Collect feature is recommended on these sites.

Step 1 – Select your site on the CleverSparky phone app

Open the CleverSparky Mobile app and select your site.



- i Click on the Logbook button and click create new logbook.
- ii Enter the start date of the collection period.
- ii The date the fittings tested.
- iv The duration required for a pass result (120min for initial test and 90min for subsequent tests.
- v Then select your first group to begin collecting results.

Step 2 – Collecting the test results of the CTP fittings

- i Press the Quick Collect button, select one fitting at a time or **Select All.**
- ii Walk to each fitting and inspect the flashing LED. The LED will flash fast Green for 20 sec (Scanning mode) then a 10 sec visual mode. During the visual mode look for the very slow amber and green flash or a solid green which indicates a pass.

VERY SLOW AMBER & GREEN FLASH*

(4s amber, 1s Green)

If battery is disconnected, 3s off

RECENTLY PASSED. The fitting has passed a test. This indication remains for 5 days after the test and then changes to green.

III Any other flashing sequence is a likely fail and you should scan the fitting using the process at Step 3 below to accurately log the fault/status. When all fittings are

collected press Save.

IV See the CleaverSparky reports on Page 22 for information on how to manage any replacement fittings.

Step 3 – Put the SPU (Manually tested) fittings into test

- 1 Put the SPU fittings into test using the manual test switch timer. Doing this will also remove power to the CTP fittings causing the emergency lights to come on but will not affect self-test timer.
- 2 Inspect the SPU fittings to ensure they have gone into test.

Step 4 – Collect the test result of the SPU fittings after 90 min test

- 1 Open your Phone app, select your site and testing group.
- i Click on the Logbook button.
- ii Select the current logbook.
- iii Select your first group.
- iv Press Ouick Collect walk the site and select the illuminated fittings that are still passed and press Pass Fittings.
- V Select fittings that have not reached 90 mins, press Fail Fittings and enter the fail reasons under Test Status and save.

Step 5 – Generate a report

Select the More button



Then press **Send reports** to instantly generate and email a test report. This report is your logbook report for the site showing fitting information and testing details as per AS/NZ2293.2.



Download this template at www.cleversparky.com

Clevertronics Luminaire Register 1.0	Clevertronics Pty Ltd	Site Name								
Serial Number (as per QR code number)	Product Code	Group Name	Fitting ID	Location	Install Date	Building	Level	Switchboard	Circuit	Asset Code
00053310	LCFLED	Office	EX1	Reception	8/2/2019	Main	G	DB1	I	N/A

4. Routine maintenance tasks for CTP Systems

i Battery Replacements

- 1 Disconnect the failed battery and connect the correct new replacement
- 2 Energise the fitting then hold down the test button for 10 seconds until the LED flashes fast red. This will set a delayed 24hr test to allow the battery to fully charge. This test will run for 120 mins as per the AS/NZS2293.2 requirement.

ii Complete Fitting Replacements

- 1 Remove the existing fitting.
- 2 Label the new fitting/s with an ID number and ensure the QR code with serial number is clearly visible.
- 3 When installed and energised, activate CTP by holding the test button down for 6 seconds until the light flashes green, release then press again once. At this time if required you can adjust the future test date in monthly blocks by additional presses of the test button.(i.e. 2 times = test in 2 months).
- 4 **Wait 60 seconds** then using the test button again, put the fitting into a 24hr delayed test by holding the test button down for 10 seconds until the LED flashes fast red. This test will run for 120 mins.

iii Replacing fitting in CleverSparky

To replace the fittings in the system select each fitting in your group that is being replaced, press the



maintenance tab then "Add maintenance report."



Tap Repaired and select replaced fitting, add

notes if required and save. Press the **Scan** button.



Locate circle over LED indicator

Choose fitting the type you are scanning, **Exit** or **Emergency** and scan the LED indicator on the fitting when it flashes fast green.

After a successful scan enter the fitting ID, location, install date and any other details required and save. If scan fails add fitting manually.

iv Additional info

- After battery replacement The status LED will flash indicating either a fault or no test result until the fitting has tested.
- Battery disconnection for more than a few seconds may cause the fitting to lose the existing 6 month self-test timing schedule. This will be shown as the "Complete timer failure" LED indication.
- A Complete timer failure occurs when a fitting is disconnected from the main supply and battery for an extended time. When the main power supply is returned CTP will still be activated,

The 6 month timer will start from the time the power is reinstated.

- Activating CTP starts the 6 month self-test timer. The timing is accurate to within +/- 30 mins every 6 months so keep this in mind as the fittings will perform future discharge tests at roughly the same time of day.
- You can synchronise the test date/time of all fittings on a circuit at any time by performing a CTP activation sequence at the breaker (see Page 4).

5.LED Status indicators

VERY FAST GREEN FLASH

(20s Green then 10s of status



Data can be scanned with CleverSparky App during the 20 second fast flashing cycle

Use the table below to visually interpret the test result using the flashing LED sequence. This indication is shown for 10 seconds, followed by 20 sec of fast flashing as per above.



* The LED when green displays that the emergency battery is present and charging or fully charged. If the battery is not present or not charging the LED will be off or AMBER. For items 4-8 this indication will remain until it is receives the required maintenance and passes a subsequent discharge test.

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6. CTP Self-test functions

i Initiating an immediate discharge test

a Testing groups of fittings:

CTP fittings on the same circuit can be tested immediately by switching the circuit breaker OFF for 18 seconds, and then back ON again. This action does not alter the schedule for the six-month synchronised test.



b Testing Individual fittings:

Press the test button 3 times within a five second period for an immediate discharge test. This action does not alter the schedule for the six-month synchronised test.

ii Delayed 24 hr test on individual fitting:

(If replacing a fitting that is not charged).

From a power on state, press and hold the fitting test switch for 10 seconds.

Hold the test button until the LED changes to a faster RED flash (greater than 10 seconds) this will indicate the command is complete. The unit will then test itself 24 hours later.

iii Terminating a discharge test

While test in progress, press and hold the test button for 10 seconds to terminate the discharge test.

iv Adjusting the test timer on an individual fitting

The scheduled test date for a fitting can be shifted by 30-day increments up to 6 months using the fitting test switch. You may wish to do this after a fitting has been replaced and you want the fitting to test in a similar schedule to the other fittings on the same circuit. (Note: This sequence is the same as activating a fitting) and will NOT impact activation. 10 sec.

1. Hold for 6 sec release when red LED turns green and then

press again.

new test time

10 sec.

3 times in 5 sec.



will move the test date forward 30 days. Once done leave fitting for 60 sec to save the

7. Scanning CTP fittings with CleverSparky

i Accessing scan feature

You can access the scan feature from the bottom menu or when in the fitting page for sites already set up.

*Multiple users working under a business account can scan and add fittings to the same site at the same time!



Emergency

ii Light level settings

Choose the **Exit** or **Emergency** light level setting.

You may find one setting works across all fittings due to the light levels at the sites. The exposure of the camera is affected by what light it is exposed to when the settings are chosen. Experiment to find the best outcome on each site.

During the 20 sec **Fast Green Flash** locate the circle on your screen over the LED Indicator. Best results are achieved between 300mm to 1m from the fitting.

The circle should now be green. Tap the circle to focus your camera on the LED indicator so you can see it clearly.

Press scan fitting to collect the result, which will take 8 seconds maximum to complete. If unsuccessful try again from a different distance or light setting.

After a successful scan save, move to the next fitting and repeat process.





8. The digital logbook

Groups included – Engineering, Buisness, Admin, Gvm Block 12, Car park A., etc 1. Access logbook Archived Log Book Reports The CleverSparky app includes a simple digital logbook to manage the results of emergency Log Book Report - 22-08-18 lighting on each site. Each test will be saved as a Log Book Report - 22-02-18 logbook entry for easy access to the results and .og Book Report – 22-08-17 maintenance actions. Open the CleverSparky Mobile app and select Create New Logbook Entry your site. Click on the logbook button and then create a Groups A 001 More new logbook entry. 9 i 🗖 🗖 2. Set up logbook Log Book Entry Sav Enter the start date of the collection period. Test collection date Date the fittings tested. Eitting test date (ontional or scan) The next test collection date. Next collection da Duration required for a pass result (120min for Test duration 🥆 initial test and 90min for subsequent tests. Log Book Site Name Create a single logbook or multiple Test Collection date – 22-08-18 Next Collection due – 21-02-19 logbooks on larger sites Broups included – Engineering, Br dmin, Gym Block 12, Car park A shiwed I on Rock Reports Add all groups to the logbook or select the groups for each logbook you would like to create. Separate logbooks are ideal when the site is tested at different times or tested over Cristle New Logbook Sirity long periods. Log Book Site Name t Collection date - 22-08-18 t Collection due - 21-02-19 Archiving and editing logbooks froups included – Engineering, Buisness dmin, Gym Block 12, Car park A... etc chived Log Book Reports Each logbook can be archived once the next test report is required by sliding the logbook tab across and press archive. Previous test results are available to view in the site archive. To edit Could New Logical Strip Citate Report or delete logbooks click on edit at the top of the screen and select the logbook. Drouge Logical Faults State More \bigcirc

9. Using Quick Collect to gather test results



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10. Maintenance reports and faults

After completing routine fitting maintenance on your CTP site you can update the fitting details in CleverSparky by doing a maintenance report.



If replacing a complete fitting you will then be taken to the **Update fitting information** screen where you can choose to scan the new CTP fitting to update the serial number details automatically or enter the new fitting details manually.

Fittings will remain in your group list as a fault until the next test is performed and a test result entered.

You can review maintenance performed on fitting by reviewing the **Actioned** column or by printing a maintenance report.



11. Menu options explained



12. The CleverSparky Web App

The CleverSparky Web app is the essential site management tool for managing and reporting the testing of multiple sites. It offers additional capabilities to the Mobile version of the app.

Such as :

- Invite and manage multiple users under your business account.
- Employees or contractors can be granted various levels of access and permissions depending on their role within your business.
- Save time by bulk uploading of data for larger sites via Excel file.
- Transfer sites between business accounts Perfect if you are installing the emergency lighting but not doing the ongoing testing.
- Easily create Business sub accounts.



Go to cleversparky.com on your pc



Download csv and upload csv templates



Completed register

13. Frequently asked questions

Battery

How long will CTP fittings run under test?

When activated and put into test, CTP fittings will run on battery for up to a maximum of 10 mins past the required duration ie 130 mins for commissioning or for a delayed 24hr test (battery replacement) or 100 mins for regular testing.

If a site loses power for more than 5 hours and the batteries are totally discharged, on return of power is all the timing for the next scheduled test retained?

The batteries in a CTP fitting will run to nearly flat but will leave enough charge to keep the timer running for a maximum of 4-6 weeks. After any time longer than that you would have to recharge and reactivate/sync the fittings.

Standards

How does AS/NZ2293 allow there to be no test switch for CTP fittings?

AS/NZ2293 states that emergency lights must be tested either manually using a test switch or by an automatic testing system. Clevertest fittings fall into the latter category as they are deemed to be automatic testing.

Activation

If fittings have had CTP previously activated, can you reset the timer/ re-synchronise the fittings via the breaker?

Yes, use the 6/2/2/2/2 method for activation and immediate test via the breaker, see Page 4 Step 3.

When activating CTP at the fitting, how soon can you put the fitting into test?

You will need to wait at least 60 seconds after activating CTP before initiating a test. Pushing the test button prior to 60 seconds starts the process for moving test dates forward one month for each press.

Deactivating CTP

Can you turn CTP self-testing off?

Yes, Press the test button on the fitting 6 times in 10 seconds. After 3 presses the LED will discharge, press another 3 times to disable CTP.

Replacing fittings/Battery – 24hr delayed test

When you replace a battery do the fittings test for 120 mins?

If you initiate a 24hr delayed test it will always run for 120 mins. If you replace a battery during maintenance a 24hr delayed test should always be done.



Victoria

1 Caribbean Drive Scoresby VIC 3179 Phone: +61 3 9559 2700 Fax: +61 3 9559 2799

New South Wales

9 Distribution Place Seven Hills NSW 2147 Phone: +61 2 8805 6400 Fax: +61 2 8805 6444

Queensland

2/8-12 Monte-Khoury Drive Loganholme QLD 4129 Phone: +61 7 3442 9700 Fax: +61 7 3442 9777

Western Australia

12 Milly Court Malaga WA 6090 Phone: +61 8 9207 0000 Fax: +61 8 9248 3725

South Australia

U2/19 Main Terrace Richmond SA 5033 Phone: +61 8 8301 8800 Fax: +61 8 8351 8286

Auckland

Unit 22/761 Great South Road Penrose Auckland 1061 Phone: +64 800 548 448

Christchurch

163C Wordsworth Street Sydenham Christchurch 8023 Phone: +64 092 224 635

clevertronics.com.au