

**Anztec Quick Wash  
Quest CT400 Card Reader  
Upgrade Instructions**

## Contents

|            |  |           |
|------------|--|-----------|
| <b>0</b>   | <b>Introduction.....</b>                                       | <b>3</b>  |
| <b>1</b>   | <b>Disassembly .....</b>                                       | <b>3</b>  |
| <b>2</b>   | <b>Quest CT400 Mounting Plates.....</b>                        | <b>4</b>  |
| <b>2.1</b> | <b>Door Mounted Insertion and Contactless Readers .....</b>    | <b>4</b>  |
| <b>2.2</b> | <b>Door Pod Mounted Insertion and Contactless Readers.....</b> | <b>5</b>  |
| <b>2.3</b> | <b>Door Mounted Swipe Readers.....</b>                         | <b>6</b>  |
| <b>3</b>   | <b>Cutting the Door or Pod .....</b>                           | <b>7</b>  |
| <b>3.1</b> | <b>Cutting the Door .....</b>                                  | <b>7</b>  |
| <b>3.2</b> | <b>Cutting the Pod.....</b>                                    | <b>10</b> |
| <b>4</b>   | <b>Fitting the CT400 .....</b>                                 | <b>11</b> |
| <b>5</b>   | <b>Fit Insertion Card Reader Blanking Panels .....</b>         | <b>13</b> |
| <b>6</b>   | <b>Fitting the Merlin 2 Logic board .....</b>                  | <b>14</b> |
| <b>7</b>   | <b>Cable Connections .....</b>                                 | <b>16</b> |
| <b>8</b>   | <b>Fitting the Merlin LCD Cover .....</b>                      | <b>19</b> |

## 0 Introduction

This manual contains instructions for retrofitting a Quest CT400 Contactless card reader to an existing Anztec Quick Wash Entry System.

### **Warning**

Never remove, unplug, or replace any components inside the Quick Wash Entry System without first turning off the mains power. Failure to comply may result in damage to your machine and void your warranty.

## 1 Disassembly

Remove any sensitive components to avoid damage from cutting through the door or contamination from swarf, these will be refitted

For Example:

- MEI Note Acceptor and brackets
- Coin mechanism
- Hoppers

Remove the following components if fitted as they will not be required any more after this upgrade:

Swipe Card Reader.

Insertion Card Reader.

Contactless Reader.

Merlin 600-10X PCB and 640-101 Ethernet PCB.

## 2 Quest CT400 Mounting Plates

The section below outlines the available mounting plate options for retrofitting the Quest CT400 card reader.

### 2.1 Door Mounted Insertion and Contactless Readers



For door mounted Insertion and Contactless readers order Anztec kit **Prowash Part # QCCT412**

Note: The door may have both or only one reader fitted, the kit contains mounting and blanking plates to cover all options.

Below are the mounting and blanking plates supplied with Anztec kit QCCT412



## 2.2 Door Pod Mounted Insertion and Contactless Readers



For pod mounted Insertion and Contactless readers order Anztec kit **Prowash Part # QCCT411**

Note: The door pod may have both readers or only one fitted, the kit contains mounting and blanking plates to cover all options.

Below are the mounting and blanking plates supplied with Anztec kit QCCT411



### 2.3 Door Mounted Swipe Readers



For door mounted Swipe card readers order Anztec kit **Prowash Part # QCCT410**

Below is the mounting plate supplied with Anztec kit QCCT410



### 3 Cutting the Door or Pod

The instructions below can be used to cut through the door; the pod will need to be removed from the door first to take out the card readers that are fitted to it before cutting.

#### 3.1 Cutting the Door

Temporarily fit the supplied metal blanking plate into the hole left by the previous contactless card reader.

This acts as a template to indicate where the door hole is to be cut.



Using a hole saw or similar cut a 32mm hole through the inner door skin.

## Quest CT400 Retrofit

---

This hole does not have to be circular but must be big enough to allow the connector area of the CT400 to pass through the door





## Quest CT400 Retrofit

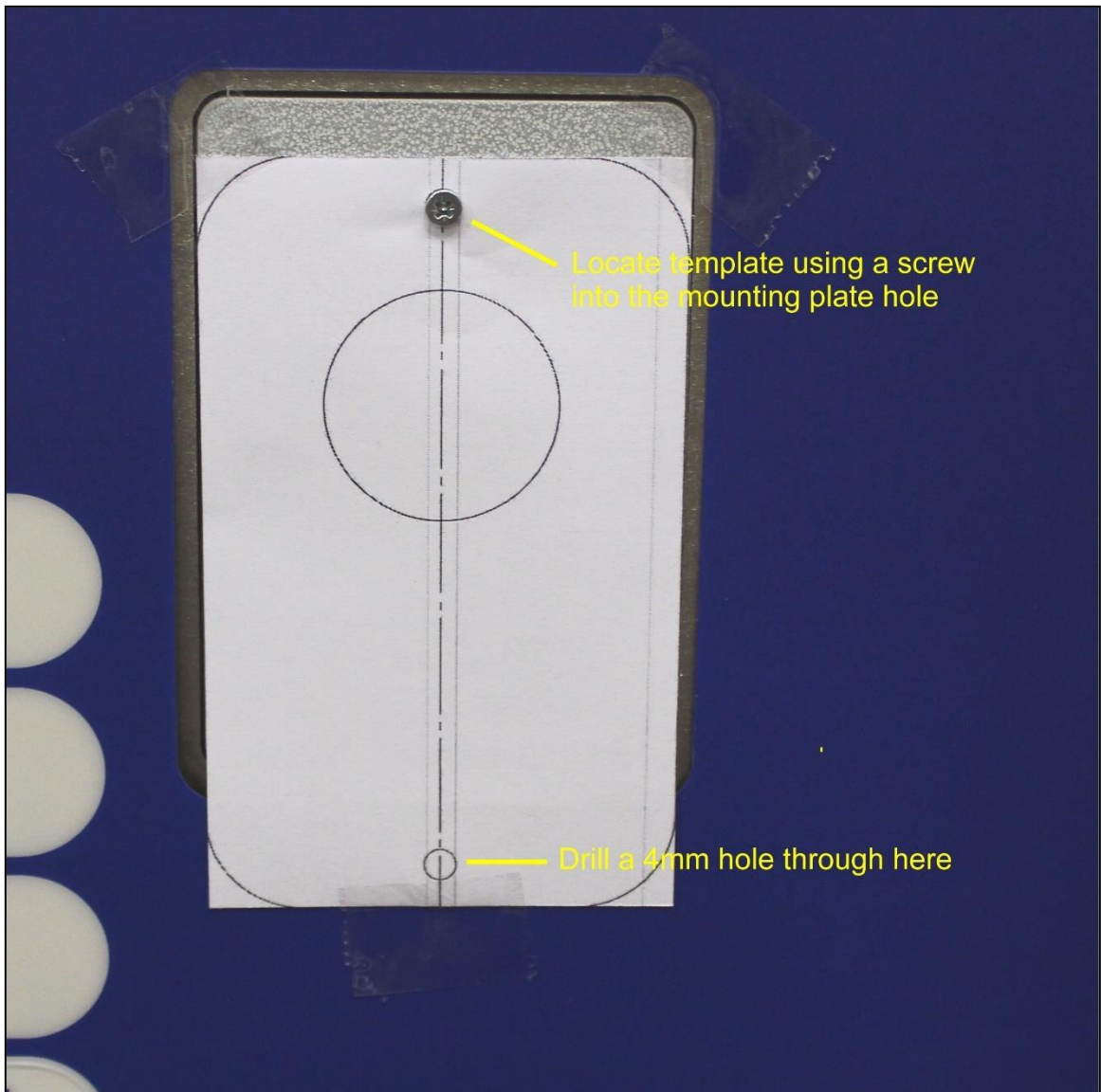
---

Use a paper template of the CT400 to mark where the lower 4mm mounting hole should be drilled in the front panel.

To do this press a mounting screw through the centre of the top hole marked on the template and into the top hole of the mounting panel. Carefully align the template to make sure it is straight, holding the template in place with some tape is recommended.

At the bottom hole on the template accurately drill a 4mm hole through the door.

Remove the paper template.



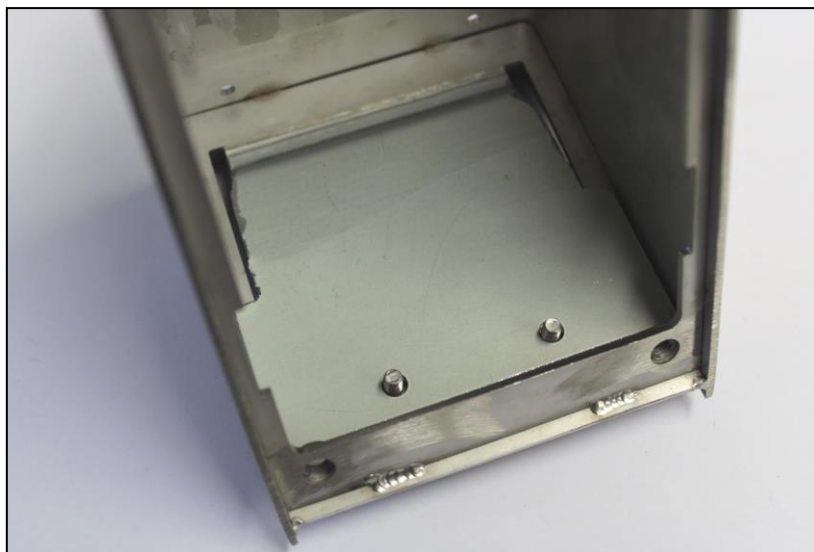
## 3.2 Cutting the Pod

For the pod fit the mounting plate as shown mark and cut out the large hole to allow the CT400 to fit.

Secure the CT400 to the mounting plate using the two countersunk screws and secure the whole assembly back on to the pod.



Fit the blanking plate to the bottom of the pod as shown to blank of the old insertion card reader hole, secure with the two nuts provided.



## 4 Fitting the CT400

**Note:** the decal fitting instructions only applies to the door mounted contactless reader retrofit, they do not apply to the Pod or Swipe retrofit, no decals will be supplied for these kits.

With the mounting plate temporarily mounted in the door remove the backing and apply the blank rectangular decal to the plate making sure it aligns with the cutout in the main decal.

Press the decal lightly onto the plate so it does not adhere to the machine front as the plate has to be removed to fit the CT400.



Using a scalpel or similar cut a circular hole in the decal where the CT400 mounts as well as around the hole where the top mounting screw is.



Remove the mounting plate and secure the CT400 to it using a screw in the top mounting hole.



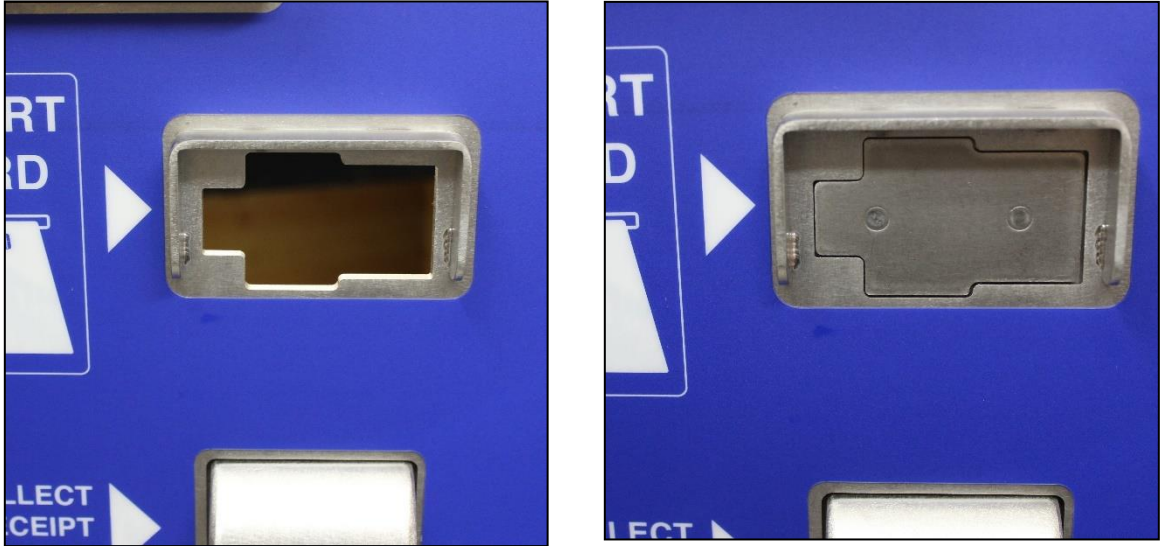
Run a bead of appropriate grade silicon sealer around the flat surface of the door cutout where the CT400 and mounting plate will be fitted, this is to ensure that moisture does not enter the cabinet through the CT400 connector cutout.

Secure the mounting plate onto the door using four Nylock nuts. Press the exposed self-adhesive edges of the decal onto the cabinet to achieve a tidy finished look.

Fit the bottom mounting screw to the CT400, this secures the bottom of the CT400 to the door.

## 5 Fit Insertion Card Reader Blanking Panels

Fit the Insertion Card Reader blanking panels into the cutout left after the removal of the reader.



Secure the blanking plates to the door using six M4 flange nuts.



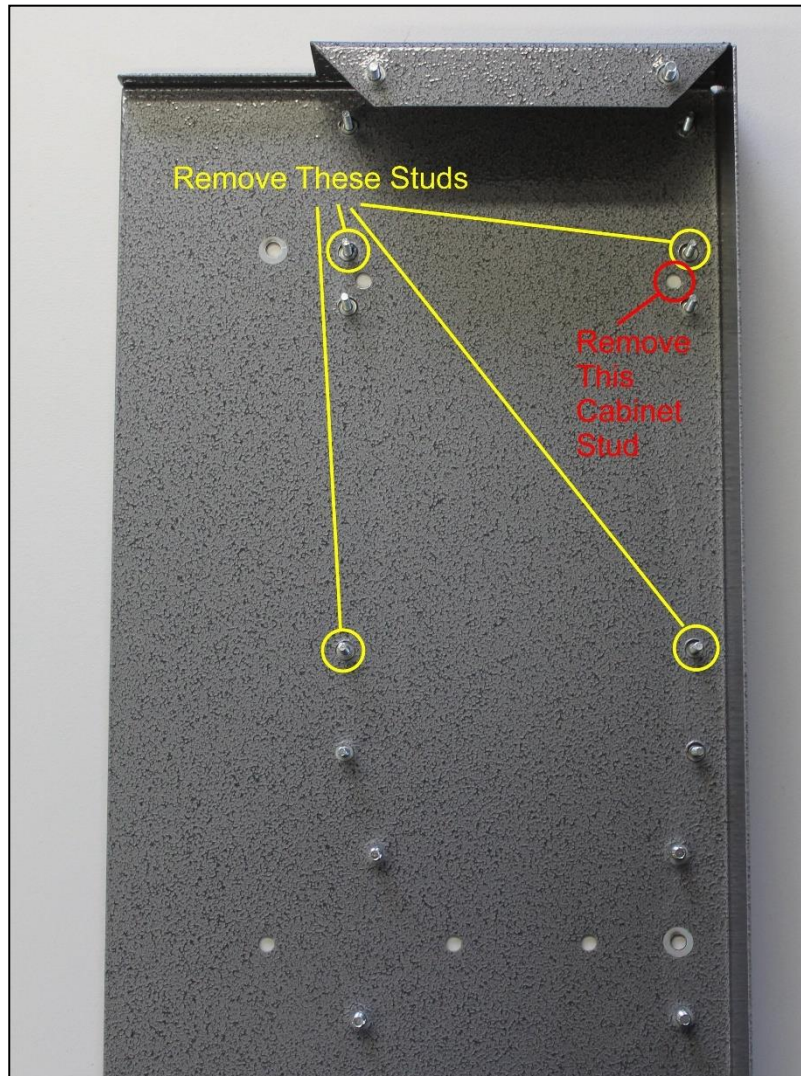
## 6 Fitting the Merlin 2 Logic board

**ATTENTION:** Use appropriate forms of ESD protection when installing the new Merlin 2 board, failure to do so may damage the board and void your warranty.



The Merlin 2 logic board has a mounting stud pattern that is not compatible with the Merlin and Ethernet board, to allow the new board to fit four studs must be removed from the mounting plate and one stud must be removed from the rear wall of the cabinet.

Using whatever means is easiest remove the studs as shown in the picture below. Studs must be cut off near flush with the mounting plate so that they never contact the bottom of the Merlin 2 logic board.

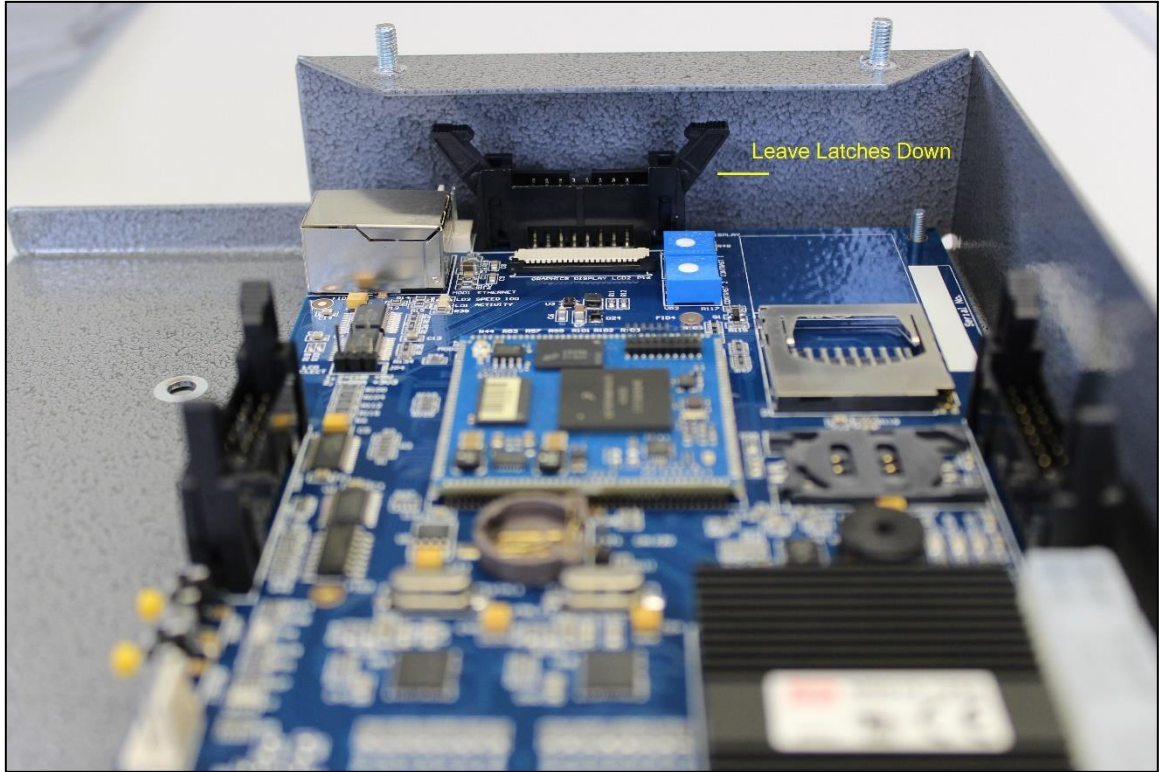


## Quest CT400 Retrofit

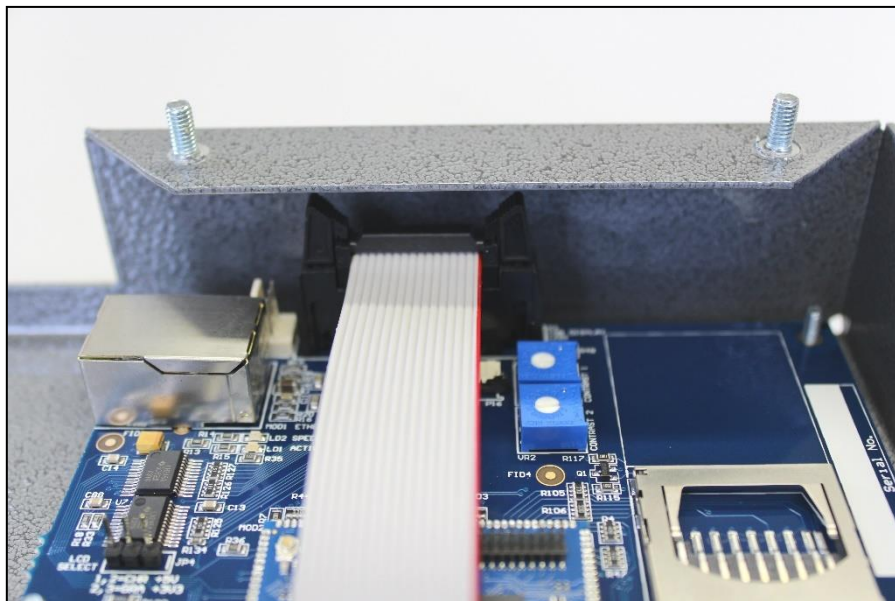
---

Using the existing plastic spacers fit the new Merlin board onto the remaining studs.

In order for the board to fit under the folded edge on the top of the mounting plate the latches on the display ribbon cable must be initially left in the down position.



Fit the display ribbon cable and press down, this should engage the latches and secure the cable into place.



## 7 Cable Connections

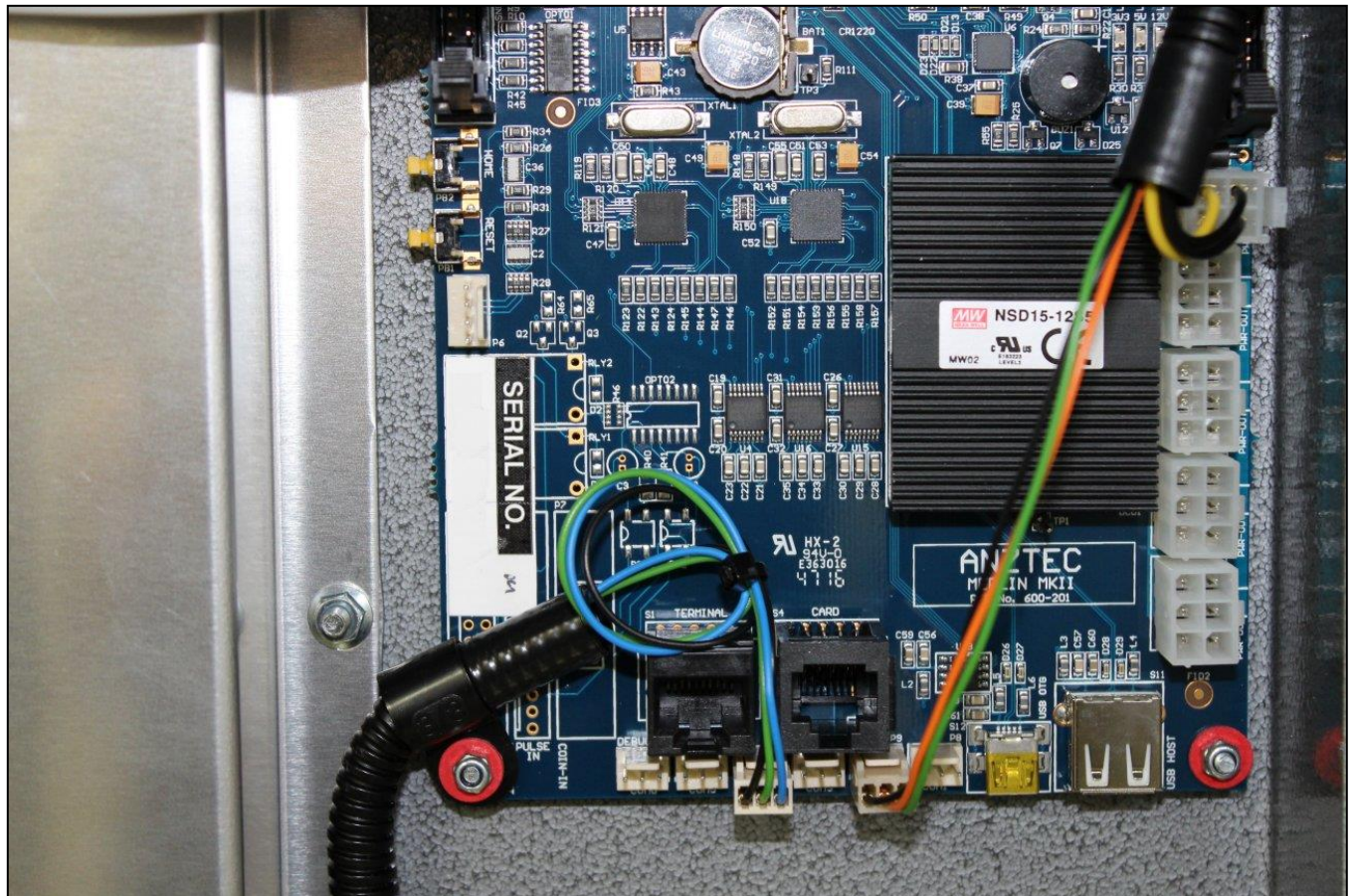
Connect the existing Merlin power loom that runs from the backplane into connector S3 (pwr-in) on the Merlin 2 board.

Connect the existing Merlin communications loom that runs from the backplane into connector COM2 on the Merlin 2 board.

Fit the new printer communications loom into COM4 on the new Merlin board, the other end of this plugs into the D9 socket on the back of your existing printer. The power feed to the printer remains unchanged.

The existing printer loom that runs from the backplane to the printer is now redundant, cable tie this out of the way so it doesn't interfere with any other operation.

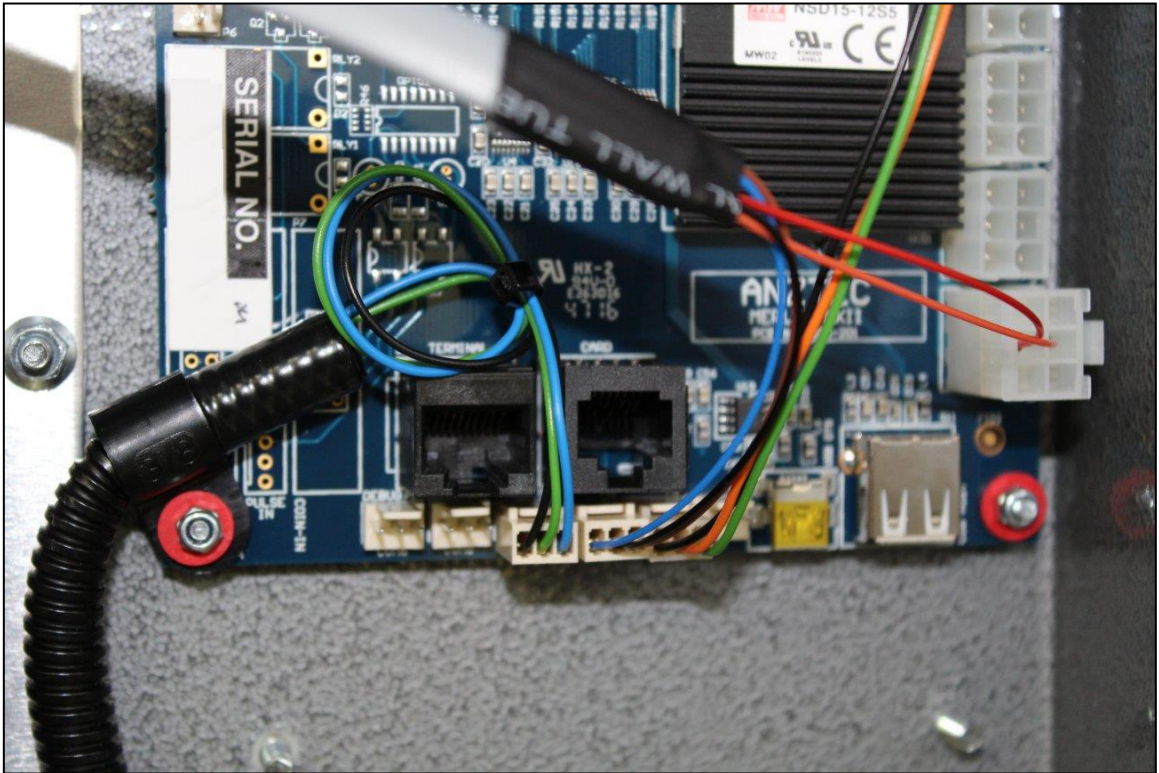
Plug your existing Ethernet cable into the RJ45 socket.



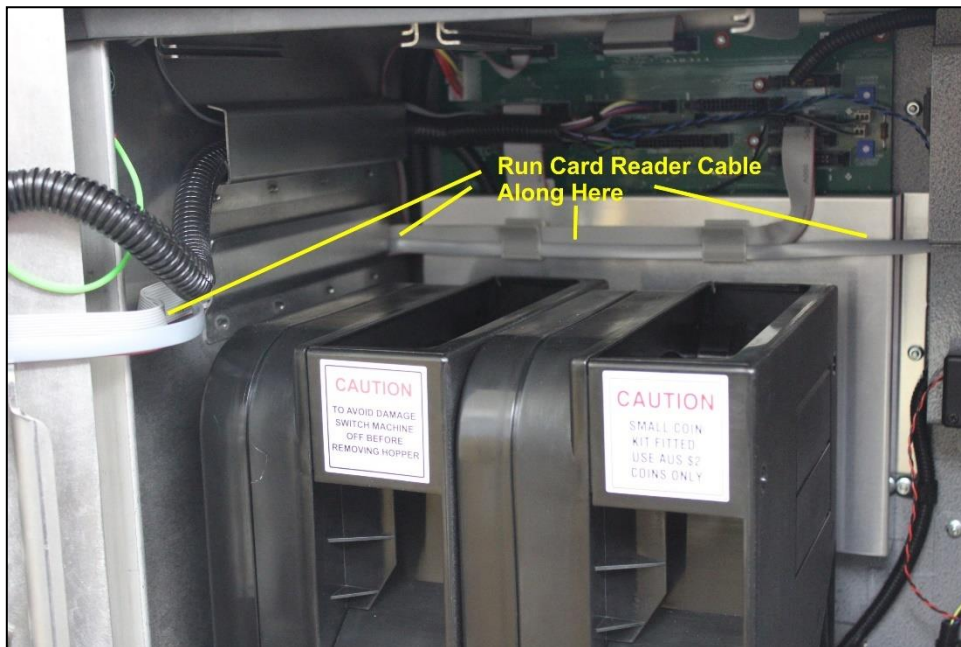


## Quest CT400 Retrofit

Connect the combined communications and power cable from the Quest CT400 to connectors COM3 and S8



Run the CT400 cable along the back of the machine over the logic board cover and through the cable holder bracket on the internal side wall.



## Quest CT400 Retrofit

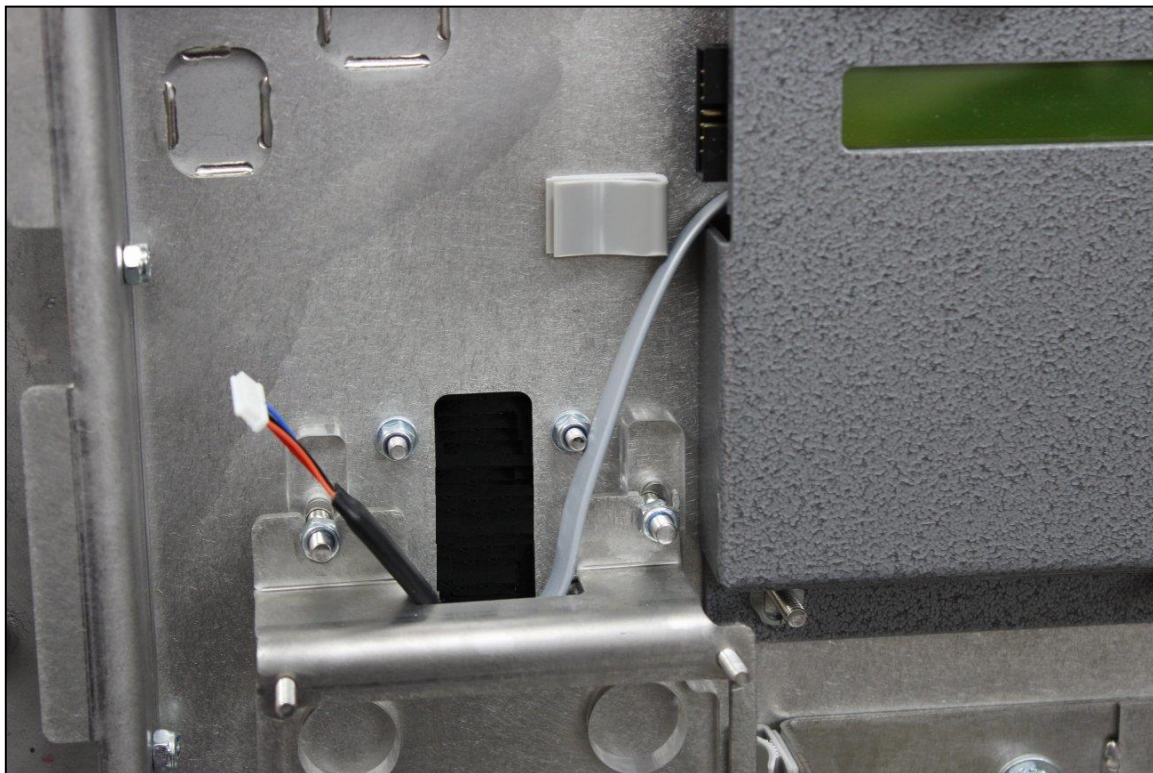
---

Take care to make sure the cable is flat and in parallel with the existing door ribbon looms as it comes around the door hinge area.



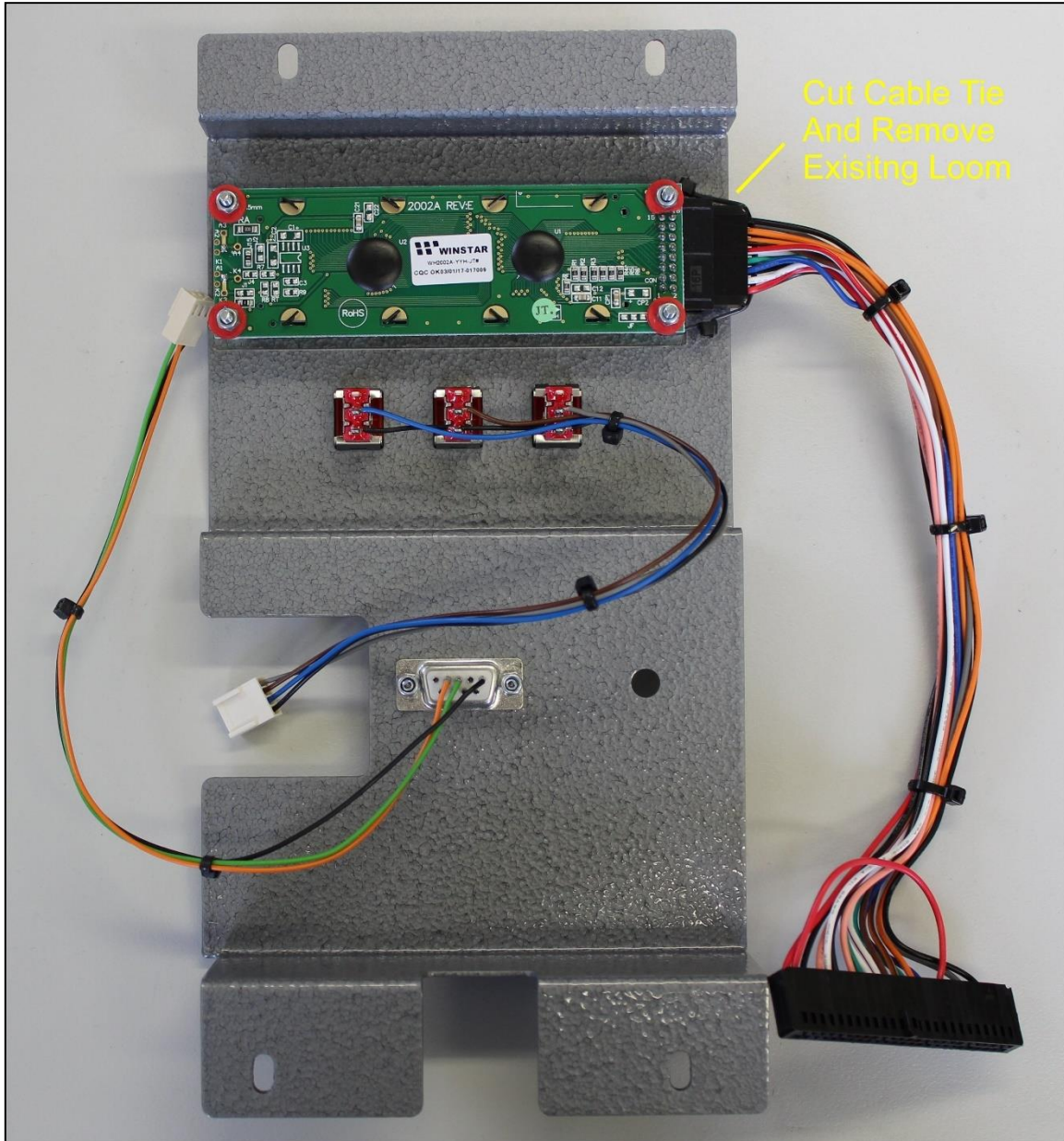
Run the cable behind the attendant display module to the newly created cutout for the CT400, you will need to briefly remove the attendant module to do this.

Plug the cable into the CT400.



## 8 Fitting the Merlin LCD Cover

Remove the existing LCD loom but cutting the cable tie that holds it in position, this loom is replaced by the new ribbon cable.



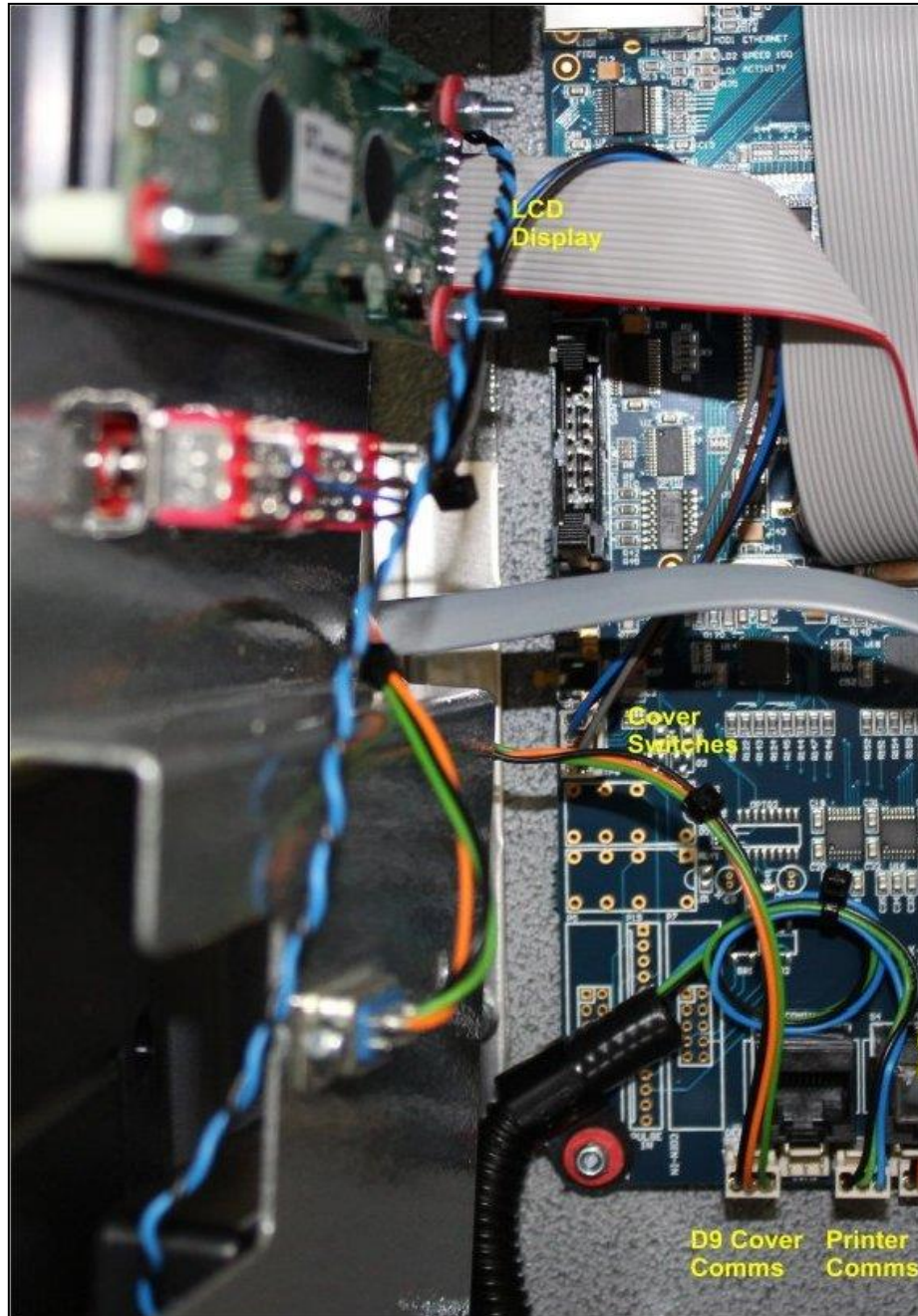
## Quest CT400 Retrofit

---

Plug the new LED ribbon cable in to the display. Putting some light folds in this cable allows it to sit correctly under the cover without becoming damaged

Plug the 4 Way switch connector into connector P6 on the Merlin 2 Board.

Plug the 3 Way D9 connector loom into connector COM6 on the Merlin 2 Board.



Fit the cover back on to the Merlin mounting plate and secure with 4 nuts, installation is now complete.