



Technical Bulletin

12 Key Preset Upgrade

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Scope

This Service Bulletin applies to the fitting of a 12 key preset keypad to existing dispensers with either a 3 key preset or no preset fitted.

Issue

A 12 key preset keypad upgrade was requested for dispensers that did not have them fitted at the factory.

Solution

An upgrade kit has been developed which includes the keypad, interface board, wiring looms and software chip. A slot is cut in the front panel of the cabinet to accept the ribbon cable from the preset keypad. The keypad is fastened to the front panel using adhesive tape. The keypad connects to an interface board which is fastened to the inside of the cabinet using adhesive tape. The interface board connects to the display. A software upgrade is required to reprogram the C4000.

Tools required

Typical service tool kit of screwdrivers, nut drivers, spanners etc.

Cleaning cloths and cleaning fluid.

Measuring tape or ruler, masking tape, pen

Drill and drill bits. Use a hand drill or intrinsically safe electric drill if operation is being done in a potentially explosive atmosphere.

Small, thin file suitable for sheet metal.

Cable ties

EPROM extracting tool

Earth strap

Safety

Wear appropriate PPE and follow all safety protocols for the site and procedures set out in the service manual. If in doubt, check with site management before starting any procedures.

Procedure

1) Before you start

Record all set-up data by using the (K-Factor) switch and the parameter switch. Refer to your dispenser service manual if unsure of procedure. Copies are available from the resource pages on the Compac website: www.compac.co.nz

2) Fit preset keypad

Caution: You must isolate the unit from the mains power supply before starting this procedure.

Caution: You must isolate the unit from the fuel supply.

Note: Cleanliness is essential, do not allow any metal chips or filings to contact electrical components.

Note: Do not press the buttons on the preset keypad until it has been attached to the cabinet. Pressing the buttons can break the key pad.

Note: Please follow the instructions in order.

1) Turn off power. Open the cabinet and double check the dispenser has no power to it.

- 2) If the unit is fitted with a three button preset keypad, peel off the keypad to expose the existing slot and remove the keypad. Unplug the cable from J5 and J6. Thoroughly clean off any remaining glue from the panel.
- 3) If the unit has no existing keypad, use the attached template to locate the approximate position of the preset cable slot. To avoid marking the cabinet, cover the area with masking tape. Measure and mark the position of the preset cable slot on the masking tape. The minimum slot dimensions are approximately 22 mm wide x 4 mm high.
- 4) Carefully cut out the slot until you can slide the preset plug through it. Try not to make it any bigger than you need. The three button preset slot may have to be widened slightly to accept the new plug. Smooth all rough edges and remove all metal chips or filings.
- 5) Remove any masking tape and thoroughly clean and dry the surface of the panel. Slide the plug through the slot, remove the adhesive backing from the keypad (including the small piece under the ribbon cable).
- 6) Before attaching the new keypad make sure that:
 - The cable slot is fully covered by the keypad
 - The ribbon cable is not bent, kinked or stretched
 - The keypad is level

Caution: Trying to remove the keypad once it is stuck in place may damage it. Make sure it is positioned correctly before pressing it into place. Hint: You can use strips of masking tape to give you guide marks to line up the edges of the keypad.

- 7) Make sure the keypad is properly stuck to the cabinet by pressing firmly to remove any air bubbles.

3) Connect cables and mount interface board

Note: The cables should be already fitted to the interface board.

Note: To make sure the preset keypad cable is securely fastened to the wiring loom a plastic clip has been included. This must be fitted.

Note: It is important that the plastic clip is installed after the keypad has been installed and that the clip is the right way round. Looking at the cable from the inside of the cabinet, the two spikes on the clip point down and the centre clip faces you. The clip needs a firm push to get it onto the plug.



- 1) See above note to make sure the clip is the right way round before installing. Locate the plastic clip and push it onto the keypad ribbon cable plug until it slides freely.
- 2) Unwrap the cables from the interface board and plug the cable marked CON2 onto the CON2 plug on the display making sure that it is the right way round so that the clips on the plug and socket engage. **Note:** *If CON2 socket is being used, connect the plug to CON7.*
- 3) Find a suitable location inside the cabinet to place the interface board. Thoroughly clean and dry the area then remove the adhesive backing and stick the interface board in place.
- 4) Plug the J3 cable from the interface board into the keypad cable, making sure the securing clips engage.
- 5) Use cable ties to neatly secure the cables taking care to make sure no plugs or cables are being pulled or stretched.

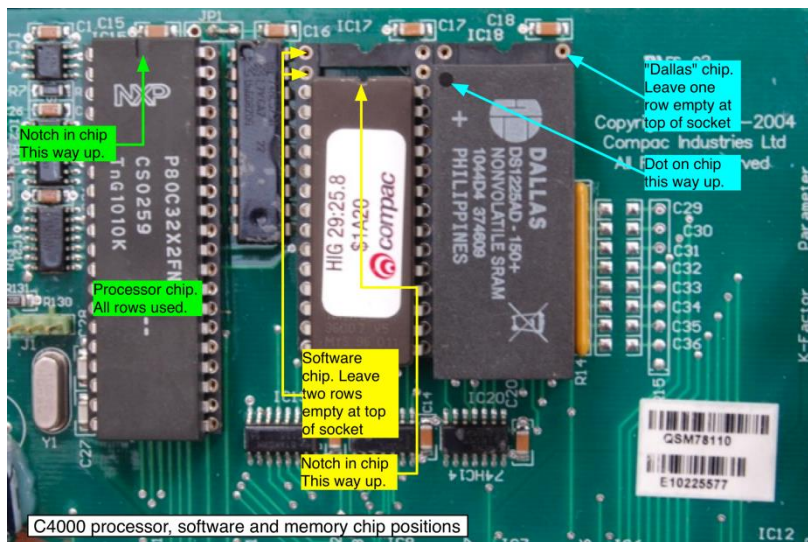
Note: If the cables have been removed from the interface board, the keypad connects to J2 and the display connects to J1

4) Upgrade software

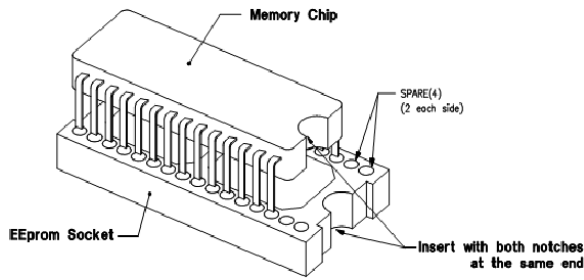
Note: Take precautions to prevent static electricity damage to the IC chips. Wear an earth strap connected to an unpainted, metal part of the cabinet. Do not remove the software chip from its static resistant bag until you are wearing an earth strap.

Note: These instructions are a shortened version of the instructions contained in the dispenser service manual. If unsure, please refer to the full instructions.

- 1) Ensure before working on the dispenser, that anti-static precautions are taken (i.e. wearing of wristband with earth strap).
- 2) If you haven't already done so, record all set-up data by accessing the configuration (K-Factor) switch and the parameter switch.
- 3) Turn off power.
- 4) Remove the cover from the C4000 board and remove the Compac software (middle) EPROM using an EPROM extractor.



- 5) Plug in new software EPROM, being careful that the notch is at the correct end of the socket. Also that all the legs are correctly located in the socket (see diagram below).



- 6) Turn on power.
- 7) Check that the set up data you recorded is there. If not, use the parameter and K-Factor switch to re-enter it.
- 8) Check the electronic totals, if not as before then record the 'before' and 'after' totals and give the information to the relevant people on site.
- 9) Test dispenser operation.

CAUTION When replacing Integrated Circuit chips ensure that the notch is facing in the direction of the IC board socket (the notch is the end that we refer to as the "front").

When inserting the IC chip, the rear pin (of the IC chip) must be plugged into the rear pin socket of the IC board socket. Any spare pin sockets should be in front.

Failure to correctly insert the IC chips or adhere to the above guidelines may result in a loss of memory data.

5) Finishing up

Make sure there are no metal filings or debris left inside the cabinet

Make sure all boards and cables are well secured and that cables are not under any strain

Re-seal the parameter switch and replace C4000 cover

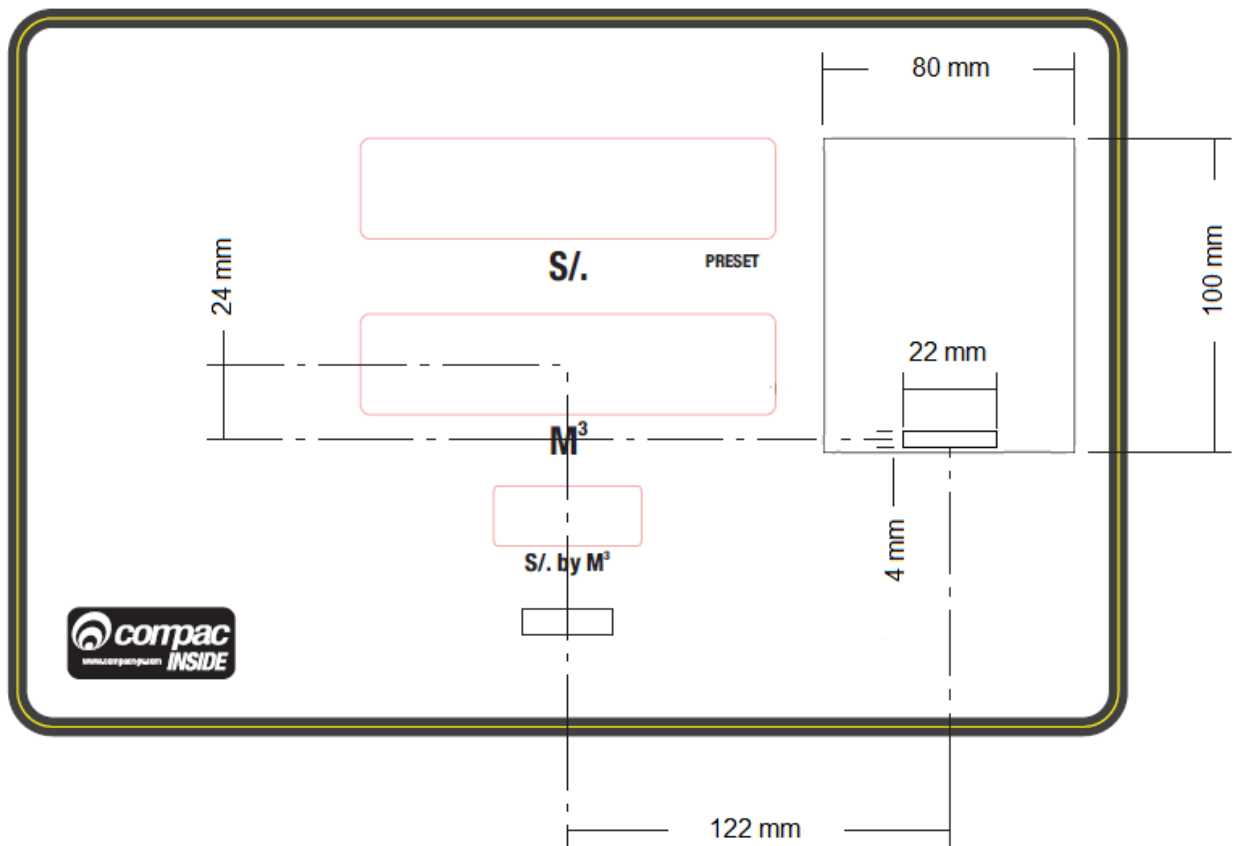
Replace all cover panels

Clean the cabinet to remove all marks

Check the dispenser is working correctly

Dispose of the software chip and any other removed parts in a responsible manner

Position of slot from centre of display panel.



Revision history

Version	Previous issue date	Summary of changes
1.0.1	10 June 2015	Added CON7 connection option and instructions to remove existing 3 key pad from J5 & J6