
# CAN KEYPAD
# QUICK START GUIDE

## CAN KEYPAD OVERVIEW

The Haltech CAN Keypad is a plug and play control solution for your Haltech system.

With soft touch, ergonomically designed buttons, the Haltech CAN Keypad is easy to use and simple to configure.

Available in 2x4 and 3x5 configurations, the keypad expands the functionality of your Haltech ECU by adding extra inputs.

Vibration and impact resistant (IP67 rating) these keypads are rugged, robust and ready for action!

Dimmable backlight and LED indicator lights add clarity and tastefully blend with any car interior.

- Plug'n'Play with Haltech ECUs using the NSP software
- Environmentally sealed to IP67
- Fully programmable, backlit buttons
- 140 Custom button labels
- 3 LED status indicators per button
- Operating temperature: -40C to 85C (-40F to 185F)
- Short circuit, reverse polarity protection

Haltech CAN Keypad 2 x 4
Part Number: HT-011501


Haltech CAN Keypad 3 x 5
Part Number: HT-011502




### What's in the box?

- Haltech CAN Keypad 2 x 4 (HT-011501) or
- Haltech CAN Keypad 3 x 5 (HT-011502)
- Hatech Keypad Label Set
  Includes 140 individual labels (HT-011500)
- DTM-4 to DTM-4 CAN Cable 1200mm (HT-130025)
- DT-4 to DTM-4 CAN Adaptor Cable 200mm (HT-130045)
- Mounting Hardware: nut and washer set
- Quick Start Guide

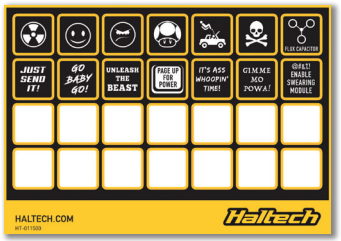
## Spare Parts

Haltech keypad label set. Includes 5 label sheets, (140 individual labels) Part No: HT-011500

DTM-4 to DTM-4 CAN Cable 1200mm
Part No: HT-130025

DT-4 to DTM-4 CAN Adaptor Cable 200mm
Part No: HT-130045









## Wiring

Connect the keypad to the Haltech CAN Bus by using the provided DT-4 to DTM-4 CAN Adaptor Cable and the DTM-4 to DTM-4 1200mm CAN Cable.

## Enabling the Keypad

The keypad is enabled via the Haltech ECU software.

When connected to the Haltech CAN Bus for the first time, the keypad will appear in the left sidebar.

Click on the device and select Enable Device in the pop up window.

The keypad can also be enabled through Connections → CAN → Haltech CAN System

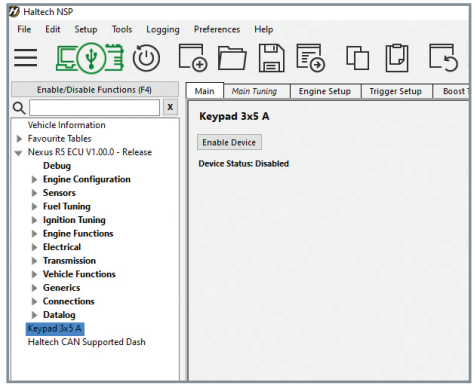
From the pop up menu you can Enable or Disable the keypad.

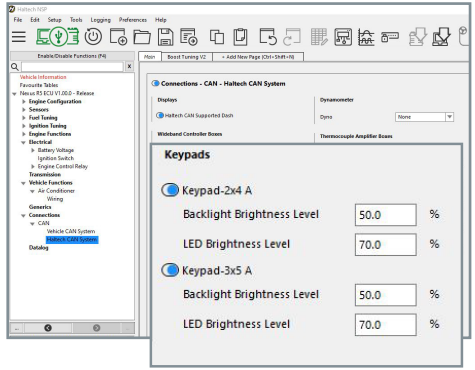
## Keypad Brightness Settings

Haltech CAN keypads have user configurable brightness control, so you can adjust the brightness of the backlight and LED indicators to suit your environment.

Accessed in the main enable area Connections → CAN → Haltech CAN System.

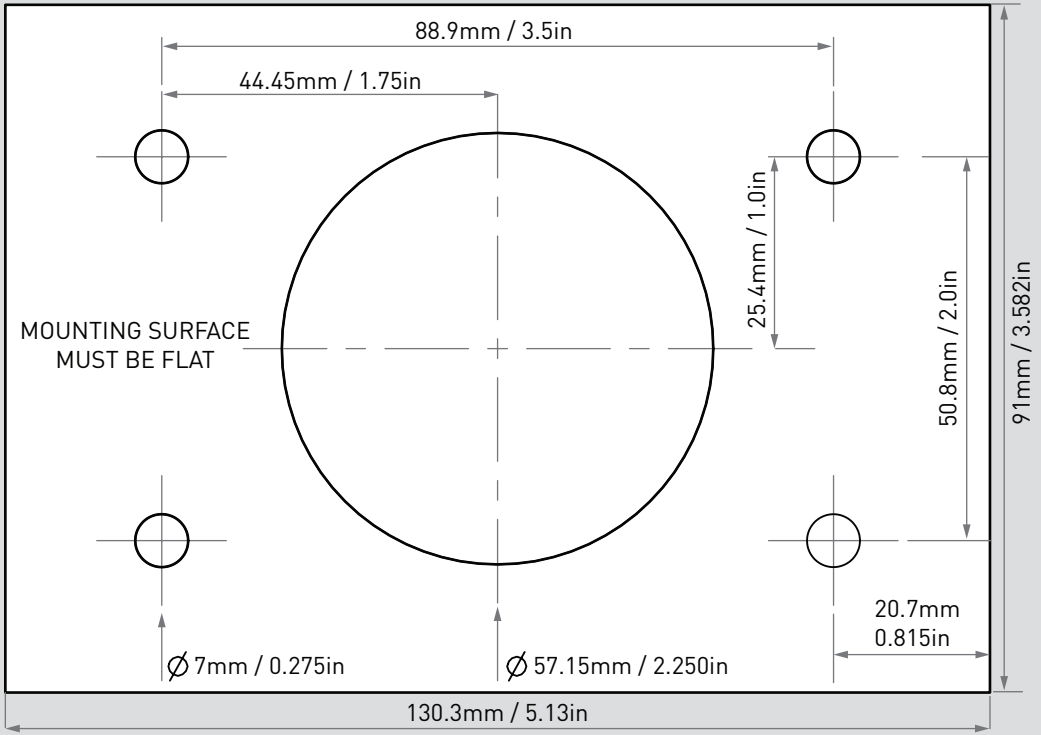
Setup backlight brightness and LED indicator brightness: Min - 0% Max - 100%



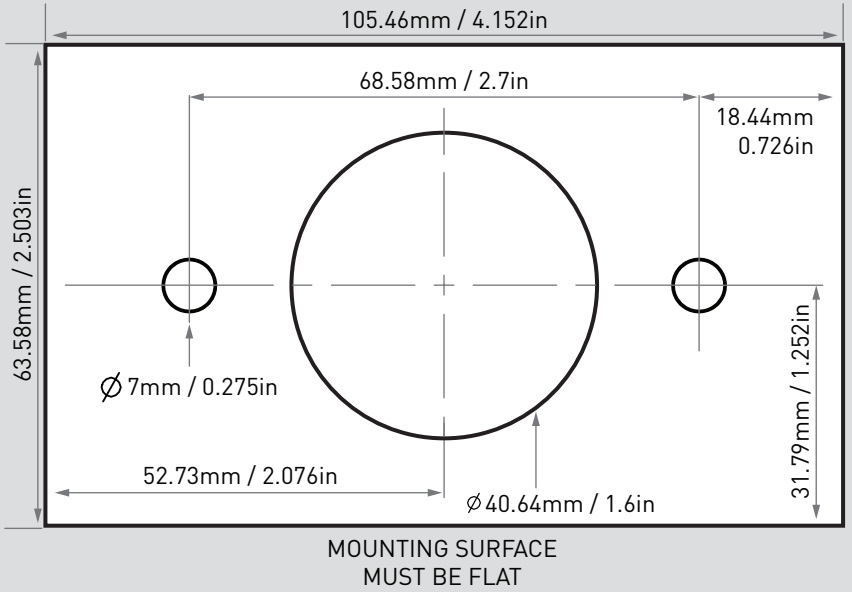
# MOUNTING TEMPLATE

Haltech CAN Keypad 3 x 5  Part No: HT-011502




# MOUNTING TEMPLATE

Haltech CAN Keypad 2 x 4  Part No: HT-011501



## Keypad Button Settings

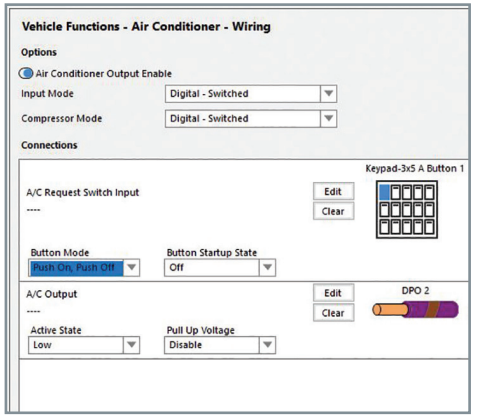
Individual buttons can be setup as either a Momentary switch or Push On / Push Off switch

Accessed in the wiring tab of the function using the keypad button, much like any other input.

Button mode has two options:
Momentary and Push On Push Off.

Momentary: remains active only while pressed.

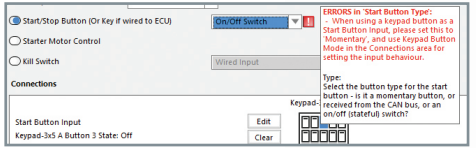
Push On / Push Off: first press activates button, subsequent press de-activates it.




## Button Startup State

When button mode is setup as Push On / Push Off the startup state option can be configured to one of these options: Off, On, Last State.

In some cases the keypad button and the input have overlapping settings which dictate how to treat the input state. In these cases an error will be displayed to ensure the input allows the keypad button mode to define the input behaviour.




## Where Can It Be Used?

Any function that uses a State type input can use a keypad button eg Nitrous Enable / Override, Engine Start/Stop Button, A/C Enable, Datalogging Switch. Sensors can not be setup to use a keypad button as its input eg. Brake Switch, Clutch Switch, Water Injection Safety Cut Off.

## Overrides

NSP software supports Input Overrides, included in functions like Fuel Pump, Thermofan, Generic Outputs and Generic Conditions. The keypad buttons can be used as the input to any of these overrides.



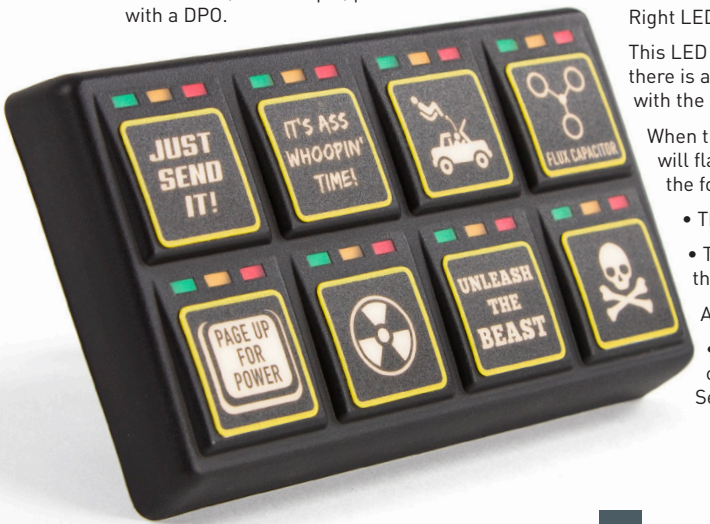
## Indicator LEDs

The three LED indicators at the top of each button indicate the state.

Left LED (Green) is the current state of the button (on or off)

Middle LED (Amber) is the output state of the function associated with the button.

This LED is on if the function is outputting, and will not, for example, pulse in time with a DPO.




Right LED (Red) is the error state of the function.

This LED lights up if the function sends a DTC, or there is an error with an input or output associated with the function (eg short circuit on an output wire)

When the ECU sees the keypad on the CAN bus, it will flash all the LEDs briefly. This occurs once in the following circumstances:

- The ECU has rebooted.
- The ECU lost connection with the keypad, then regained it, without the ECU rebooting.

All the keypad LEDs will also flash when:

- The LED Brightness Settings have been changed (see the Keypad Brightness Settings section)

## CAN KEYPAD SPECIFICATIONS

| | |
|---|---|
| **Keypad 2 x 4** | |
| Size (without connector) | 105.46 x 63.58 x 15.52mm |
| Weight | 105g |
| **Keypad 3 x 5** | |
| Size (without connector) | 130.30 x 91.00 x 15.74mm |
| Weight | 175g |
| | |
| Operating Voltage | 8V to 32V DC, Short circuit,reverse polarity protection |
| Ambient Operating Current | 0.2A Maximum |
| Ingress Protection | IP67 (1m submersion for 30 minutes) |
| Operating Temperature | -40C to +85C (-40F to 185F) |
| Backlight Colour | Amber (software configurable brightness 0 - 100%) |
| Status LED Colours | Green, Amber, Red (software configurable brightness 0 - 100%) |
| Communications | CAN with baud rate of 1000kbps |
| Configuration | via Haltech NSP Software |
| CAN Connection | DT-4 Receptacle |

4 Pin Deutsch DT Connector.




Pin1: Power
Pin 2: Ground
Pin 3: CAN High
Pin 4: CAN Low



# WARRANTY CERTIFICATE

*At Haltech we make every effort to design and manufacture fault-free products that perform up to or above the market expectations. All our products are covered by a Limited 12 Month Warranty.*

### Haltech Limited Warranty

Unless specified otherwise, Haltech warrants its products to be free from defects in material or workmanship for a period of 12 months from the date of purchase.

If the Haltech product is found to be defective as mentioned above, it will be replaced or repaired if returned prepaid along with proof of purchase. Proof of purchase in the form of a copy of the original purchase invoice, receipt or bill of sale which indicates that the product is within the warranty period, must be presented to obtain warranty service.

Replacement or repair of a defective product shall constitute the sole liability of Haltech. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representations, either expressed or implied, including any implied warranty of merchantability or fitness. In no event shall Haltech, be liable for special or consequential damages.

### Product Returns

Please include a copy of the original purchase invoice, receipt or bill of sale along with the unused, undamaged product and its original packaging. Any product returned with missing accessory items or packaging will incur extra charges to return the item to a re-saleable condition.

All product returns must be sent via a freight method with adequate tracking, insurance and proof of delivery services. Haltech will not be held responsible for product returns lost during transit.

### Returns of Products Supplied in Sealed Packaging

The sale of any sensor or accessory supplied in sealed packaging is strictly non-refundable if the sealed packaging has been opened or tampered with. This will be clearly noted on the product packaging. If you do not accept these terms please return the sensor in its original unopened packaging within 30 days for a full refund.

A sensor or accessory product may be returned after 30 days of purchase (with its sealed packaging in tact) for credit only (no refunds given) and will be subject to a 10% restocking fee.

### Installation of Haltech Products

No responsibility whatsoever is accepted by Haltech for the fitment of Haltech Products. The onus is clearly on the installer to ensure that both their knowledge and the parts selected are correct for that particular application. Any damage to parts or consequential damage or costs resulting from the incorrect installation of Haltech products are totally the responsibility of the installer.

Always disconnect the battery when doing electrical work on your vehicle. Avoid sparks, open flames or use of electrical devices near flammable substances. Do not run the engine with a battery charger connected as this could damage the ECU and other electrical equipment.

Do not overcharge the battery or reverse the polarity of the battery or any charging unit. Disconnect the Haltech ECU from the electrical system whenever doing any welding on the vehicle by unplugging the wiring harness connector from the ECU.

After completing the ECU installation, make sure there is no wiring left un-insulated. Uninsulated wiring can cause sparks, short circuits and in some cases fire. Before attempting to run the engine ensure there are no leaks in the fuel system. All fuel system components and wiring should be mounted away from heat sources, shielded if necessary and well ventilated. Always ensure that you follow workshop safety procedures. If you're working underneath a jacked-up car, always use safety stands!

### Haltech Off-Road Usage Policy

In many states it is unlawful to tamper with your vehicle's emissions equipment. Haltech products are designed and sold for sanctioned off-road/competition non-emissions controlled vehicles only and may never be used on a public road or highway.

Using Haltech products for street/road use on public roads or highways is prohibited by law unless a specific regulatory exemption exists (more information can be found on the SEMA Action Network website www.semasan.com/emissions for state by state details in the USA).

It is the responsibility of the installer and/or user of this product to ensure compliance with all applicable local and federal laws and regulations. Please check with your local vehicle authority before purchasing, using or installing any Haltech product.

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