

### Installing the AD IC :: Overview

In order to activate the adapter interface to provide measurement capabilities , the 3000 Series requires installation of an Analogue to Digital IC.

This IC is fitted to the connector PCB behind the 3000 Series front panel.

### STEP I : Releasing the 3000 Series Front Panel



**ENSURE THE CALIBRATOR IS DISCONNECTED FROM THE MAINS SUPPLY BEFORE PROCEEDING**

To install the Analogue to Digital IC it is necessary to remove the front panel screws and drop the front panel down, shown below :

1. Remove the two side fixing screws from each side of the calibrator front panel:



2. Turn the calibrator over to expose the bottom of the case.



Screws marked in **blue** hold the bottom of the **front panel** in place. These only need to be removed to allow the front panel to be dropped down. *\*\* It is not necessary to remove these screws to remove the top cover from the calibrator case.*

3. Turn the calibrator 'right side up' – the front panel can now be dropped down to expose the front panel and connector PCB.

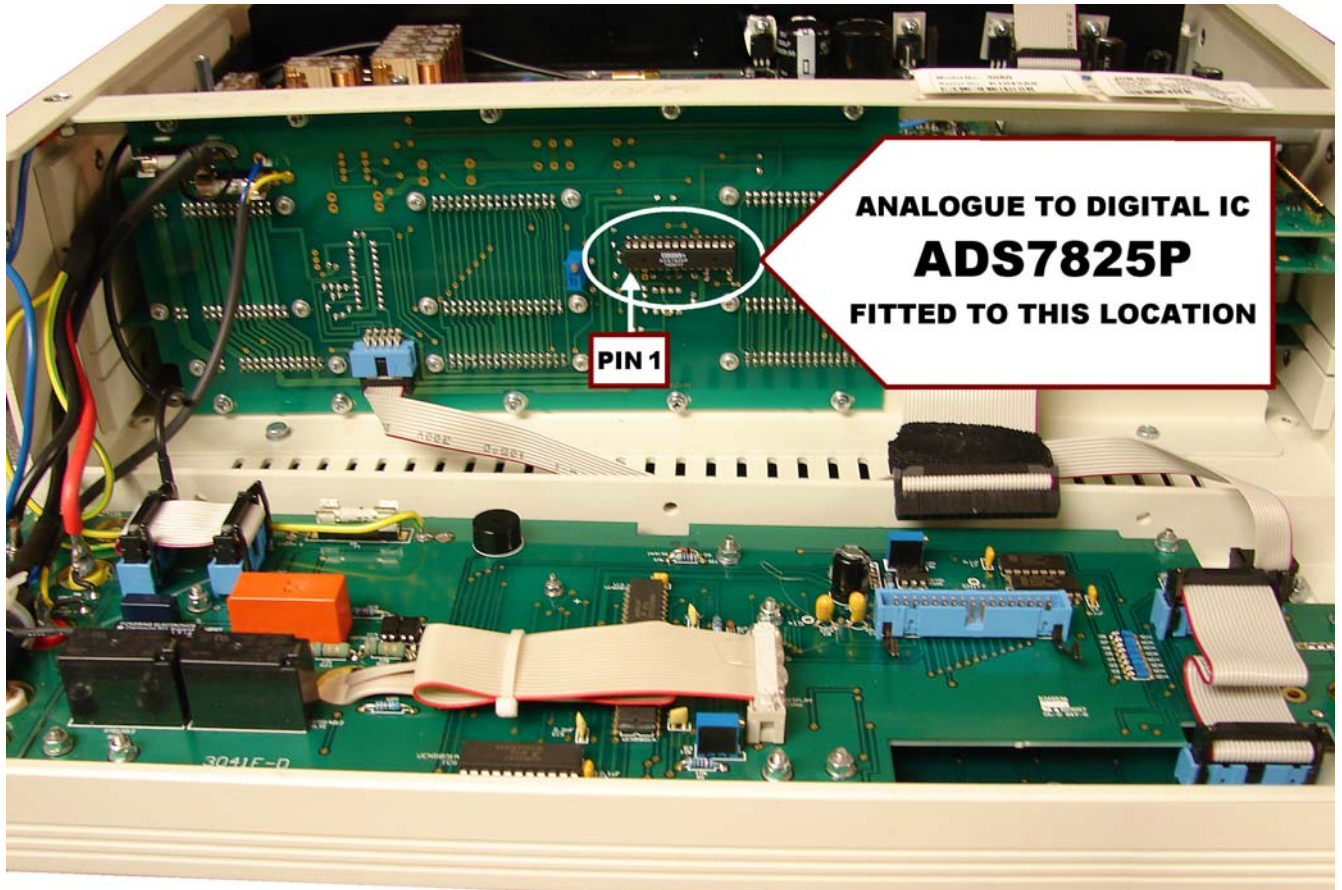
### STEP 2 : Installing the ADS7825P AD IC



**OBSERVE ANTI-STATIC PRECAUTIONS WITH THE A to D IC TO AVOID STATIC DAMAGE**

The AD IC is located as shown below on the connector PCB.

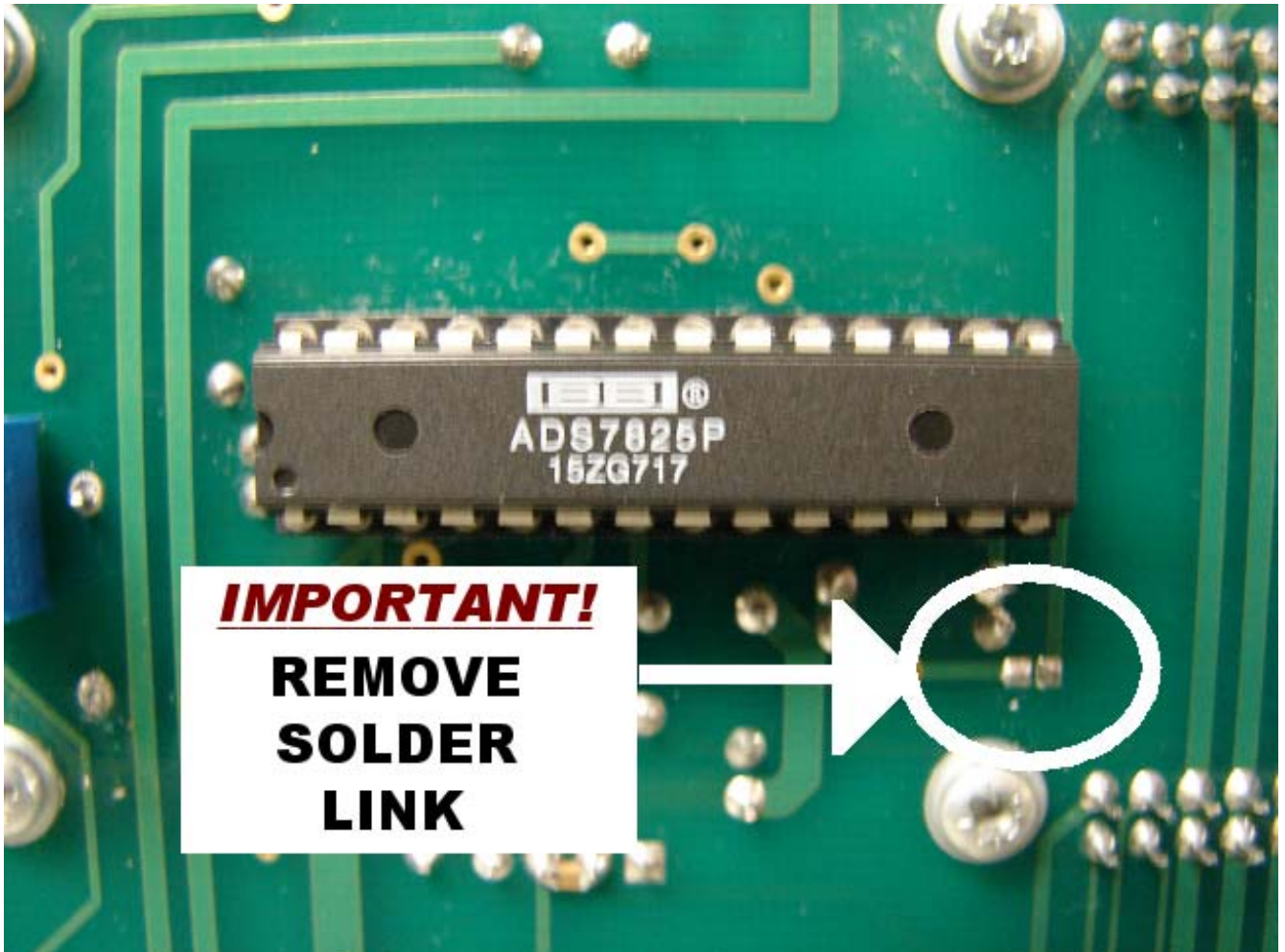
Carefully insert the IC into the socket provided, making sure PIN 1 is to the LEFT HAND SIDE



**STEP 3 : Removing the Solder Link To Activate The AD IC**

**THE ADAPTER INTERFACE WILL NOT FUNCTION UNTIL THE SOLDER LINK IS REMOVED**

It is important to remove the solder link from the pad located under the IC connector as shown below.



### STEP 4 : Enabling The AD Option In The Calibrator Firmware



ENABLING THE AD OPTION IN THE CALIBRATOR FIRMWARE  
REQUIRES THE 3000 SERIES VIRTUAL FRONT PANEL  
SOFTWARE TO BE INSTALLED

VISIT [www.transmille.co.uk/software\\_support.htm](http://www.transmille.co.uk/software_support.htm) TO DOWNLOAD

Please install the 3000 Series Virtual Front Panel software before proceeding  
To set the installed options for the 3000 Series calibrator, select the **general set-up function**  
using the virtual front panel, shown below :

**SELECT SHOW  
CAL CONTROL**

**SELECT GENERAL  
SETUP**

Once the options and setting screen is shown, the options installed can be selected and saved back to the calibrator. To apply these settings, press the **Save & Exit** button

**Set 16 Bit A/D option using  
checkbox, then click **Save &  
Exit** to apply.**



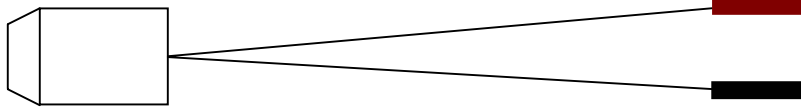
TO ALLOW NEW OPTIONS SETTING TO BE LOADED BY CALIBRATOR, PLEASE  
TURN CALIBRATOR OFF, THEN ON AGAIN AFTER SAVING NEW OPTION SETTINGS.



### STEP 5 : Calibrating the Adapter Interface



**CALIBRATION REQUIRES USE OF THE CUSTOM LEAD (9 WAY D CONNECTOR TO 4mm TERMINALS)**

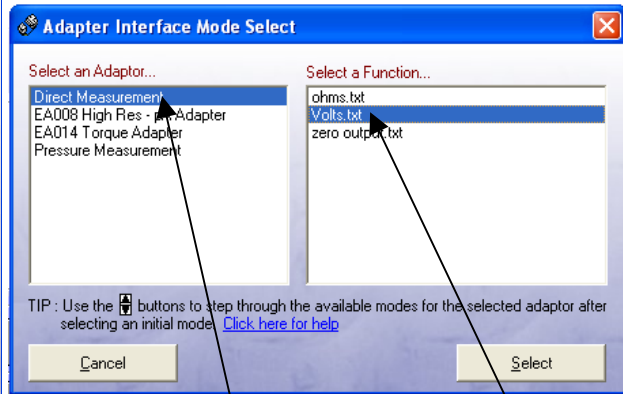
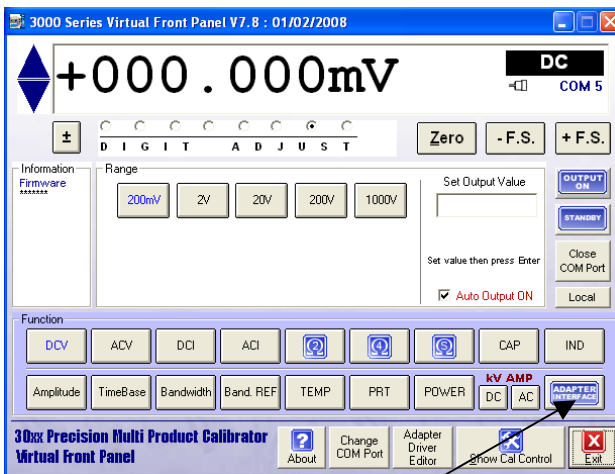


9 Way 'D' Type Connector

Red / Black 4mm terminals

Once the AD IC is installed and activated, the 3000 Series calibrator must be adjusted using the following method :

Start the 3000 Series VFP software.

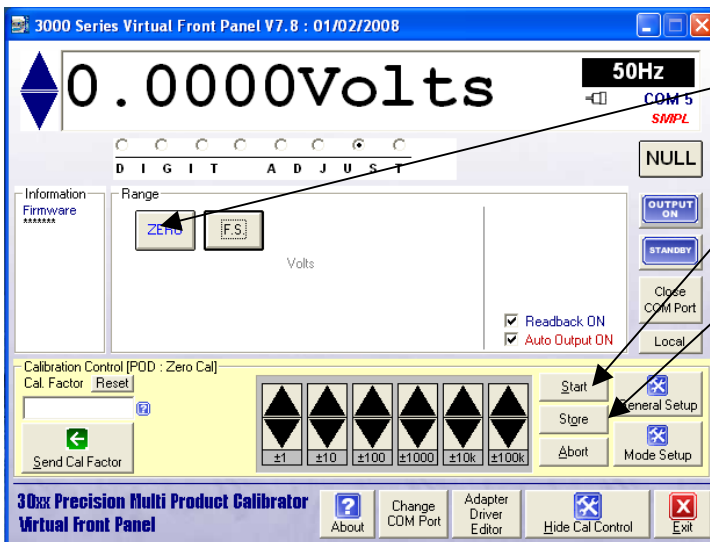


Select the Adapter Interface button

Select **DIRECT MEASUREMENT** -> **VOLTS.txt**

Connect the custom test lead to the ADAPTER INTERFACE connector on the 3000 Series front panel.

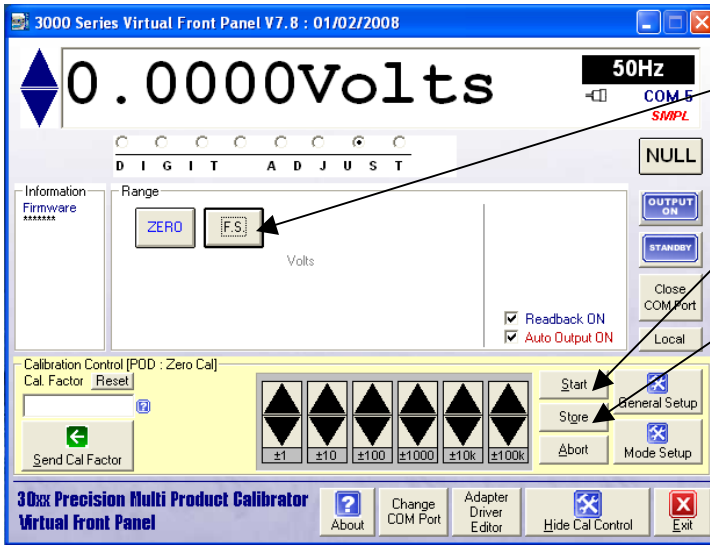
### Zero Calibration (Short Circuit Test Leads)



#### ZERO CALIBRATION

- SELECT ZERO BUTTON
- SHORT-CIRCUIT CUSTOM TEST
- LEAD 4mm TERMINALS TOGETHER
- CLICK THE START BUTTON
- USE UP/DOWN BUTTONS TO SET TO ZERO ON VFP DISPLAY
- CLICK THE STORE BUTTON

### Full Scale Calibration (5V Source 0.01% Accuracy required)



#### **FULL SCALE CALIBRATION**

- SELECT F.S. BUTTON
- CONNECT CUSTOM TEST LEAD 4mm CONNECTOR TO A
- **0.01% ACCURACY 5V SOURCE**
- CLICK THE START BUTTON
- USE UP/DOWN BUTTONS TO SET 5V ON VFP DISPLAY
- CLICK THE STORE BUTTON