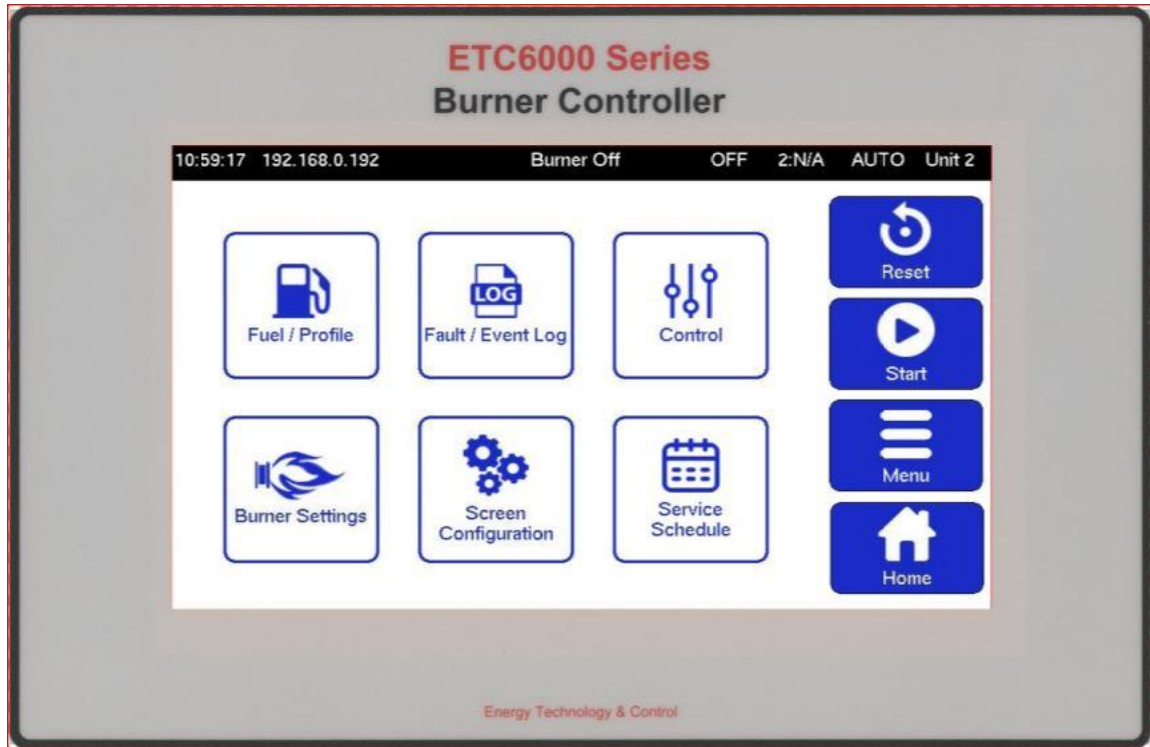


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# HA224805 – ETC6076 Touch-screen HMI.

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# 1. Introduction

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This supplement introduces the ETC6076, a 7" touch-screen HMI for the ETC6000 series of burner controllers. The information in this document is supplementary to the standard ETC6000 Installation and Commissioning Manual. It covers how to install the device into a panel and the various screen formats including how to navigate between the screens.

## 1.1 Features.

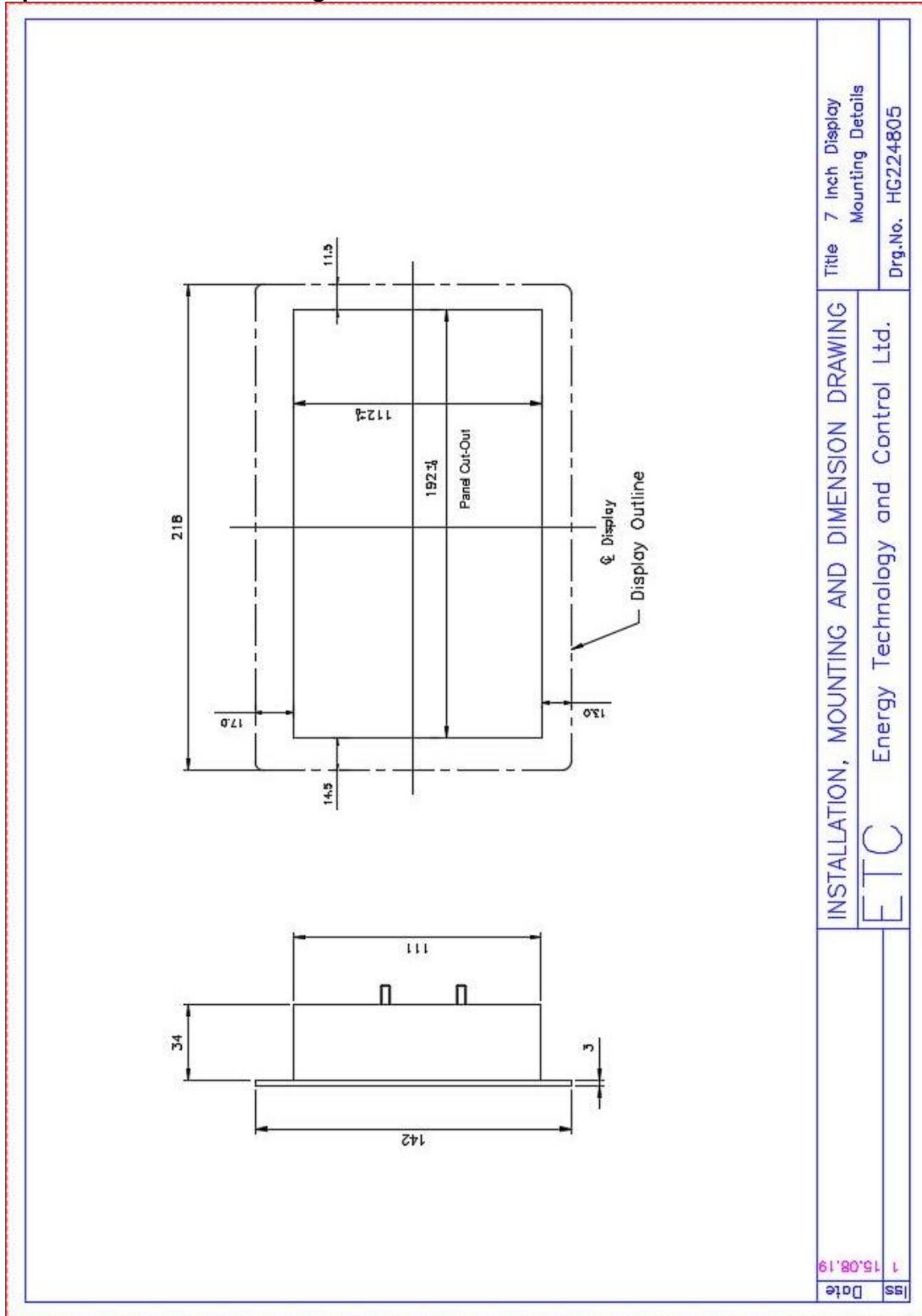
The ETC6076 has been introduced to meet customer requirements for a lower cost touch-screen HMI as an up-to-date alternative to the OLED and keypad HMI. This model has reduced functionality when compared to the ETC6075 10" model. The differences are shown in the following feature table.

<b>Features</b>	<b>ETC6076 7"</b>	<b>ETC6075 10.4"</b>
Relay Outputs	<b>3</b>	<b>4</b>
Backup and Restore	✓	✓
Ethernet connection	✓	✓
BACNET	✓	✓
Modbus TCP	✓	✓
Multiple Language support	✓	✓
USB for updates and backup	✓	✓
Set-back Scheduler	✓	✓
Web interface for remote operation	✓	✓
Boiler and Burner mimic display	--	✓
On-screen Customer Logo	--	✓
Water Level control support	--	✓
Twin Burner in Unison mode	--	✓
Plant Master mode	--	✓
Real-time Trending	--	✓
Screen digital inputs.	--	✓

## 2. Installation.

The ETC6076 HMI is designed to be mounted in the front door of an electrical panel. This requires an aperture to be cut in the panel door and then the HMI is offered up to the door, to thread the rear through the aperture.

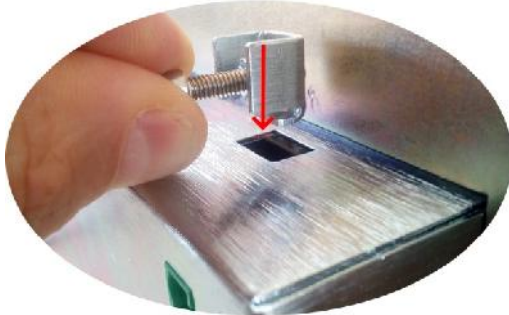
### Aperture dimension drawing.



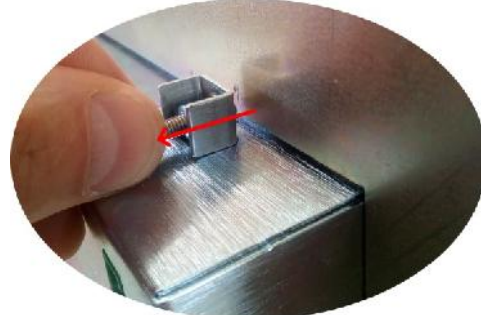
Screw-jack clamps fix the HMI in place providing tension to compress a moulded gasket between the panel front and the HMI fascia plate which provides a water proof seal. The screw-jack clamps are provided with the HMI.

The clamps are put into place like this..

1.



2.



....then the cap head clamp screws (3mm AF) are tightened evenly.....



until the fascia plate of the HMI is tight to the panel door forming a IP65 seal to the door front surface.

There are two clamp mounting apertures in the HMI cover, this is to cater for different panel thicknesses. In most applications the apertures closest to the fascia plate should be used.

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## 3. Wiring

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### 3.1 General



## CAUTION

- Disconnect the power supply before beginning installation, to prevent electrical shock, equipment and/or control damage. More than one power supply disconnect may be involved.
- Wiring must comply with all applicable codes, ordinances and regulations.
- Loads connected to the ETC6000 series control and optional daughter board must not exceed those listed in the specifications given in this manual.
- Make sure the maximum total load on the CANBus cabling (servo motors, display etc) is within the specifications for the cable being used.
- This control **MUST NOT** be directly connected to any part of a 'Safety Extra Low Voltage' (SELV) circuit.



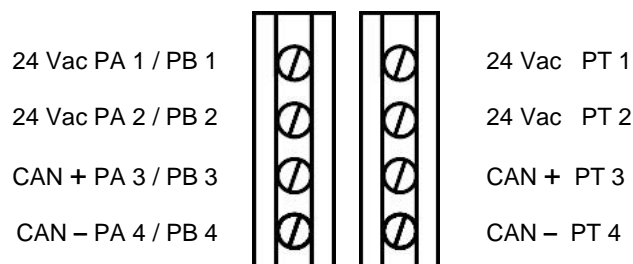
## WARNING

- **The Touch screen chassis earth point MUST be earthed to maintain electrical safety and ensure reliable operation.**
- **The screen of the CANBus cable is NOT designed to provide the earth connection for the Touch screen display. Therefore, you must make a separate earth connection using the largest cross-section area cable possible.**

### 3.2 Wiring Text Display

The ETC6076 HMI connects to the ETC6000 via the CANBus wiring, which provides both signals and power. The electrical connection between the ETC6000 series controllers and the ETC6076 HMI must be to the CANBus 4-core screen cable specification in the main product manual, HA221888.

The connections are as follows...



<b>Terminal no.</b>	<b>Function</b>	<b>Voltage Range</b>
PR1	Relay output 1 normally open	0 – 250 V
PR2	Relay output 1 normally closed	0 – 250 V
PR3	Relay outputs 1 common	0 – 250 V
PR4	Relay output 2 normally open	0 – 250 V
PR5	Relay output 2 normally closed	0 – 250 V
PR6	Relay output 2 common	0 – 250 V
PR7	Relay output normally open	0 – 250 V
PR8	Relay output 3 normally closed	0 – 250 V
PR9	Relay output 3 common	0 – 250 V
PT1	24 Vac Supply	24 – 40 Vac
PT2	24 Vac Supply	24 – 40 Vac
PT3	CAN +	0 – 5 V
PT4	CAN -	0 – 5 V
Earth stud.	Screen connection	Not applicable

## 4. Using the ETC6076.

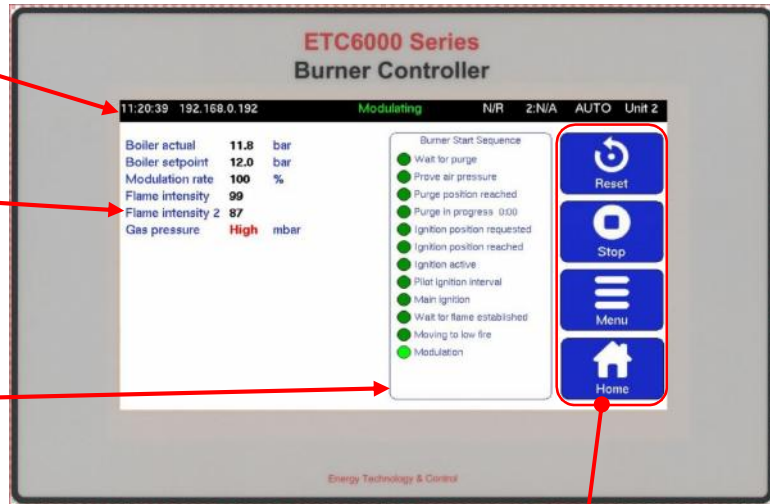
### 4.1 Run Mode.

The ETC6076 touch-screen HMI will have a familiar feel to existing users of the 10.4" ETC7075. However, the boiler and burner mimic feature is not available. This is the format of the Home screen.

There is a status line at the top of the screen in a similar manner to the ETC6075.

Key burner operation data is shown here and the list will expand to show more values depending upon the Option parameter settings

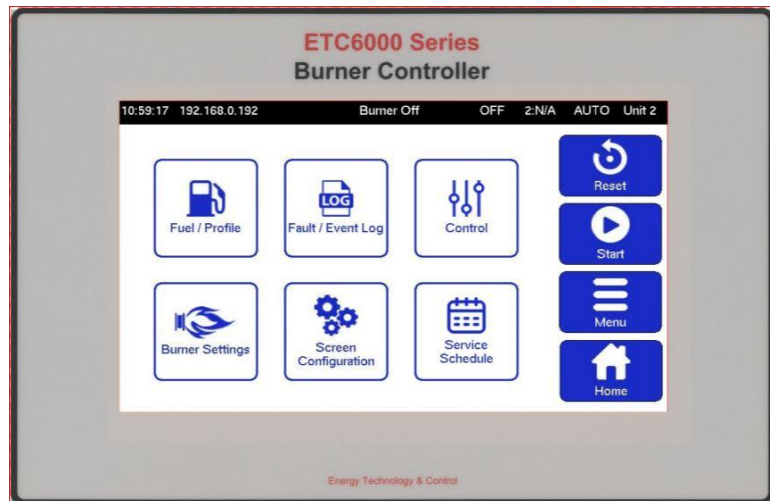
The Sequence list is retained to show the start-up and shut down steps.



The Alarm Mute/Reset button, the Start/Stop button and Menu button are moved to the right-hand side of the display.

Tapping the **Menu** button will reveal the function menu which is grid of large buttons like this.

From this screen you can select a new display function mode.



The **Fuel / Profile** button opens this screen which allows the user to change profiles and view the Hours Run counter for each profile.

Tap the **Menu** or **Home** button to exit this screen.



The **Fault / Event Log** button opens this screen which is similar to that shown on the ETC6075.

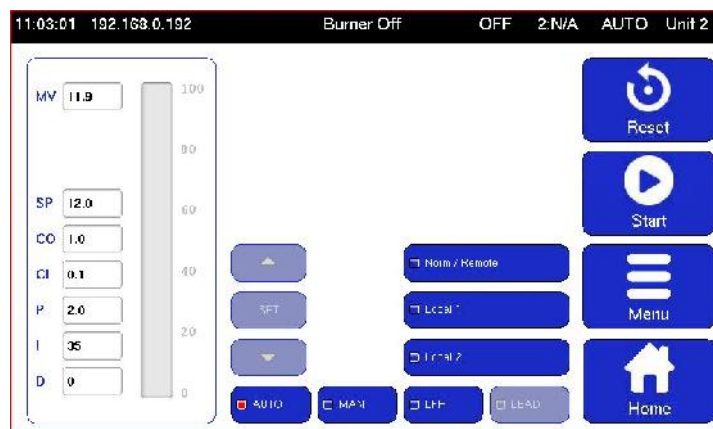
Tap the **Menu** or **Home** button to exit this screen.



The **Control** button opens this screen to allow the adjustment of operation Set-point, PID and other parameters related to the operation of the burner.

These controls are very similar to those found in the ETC6075.

Tap the **Menu** or **Home** button to exit this screen.







## 4.2 Lockout mode.

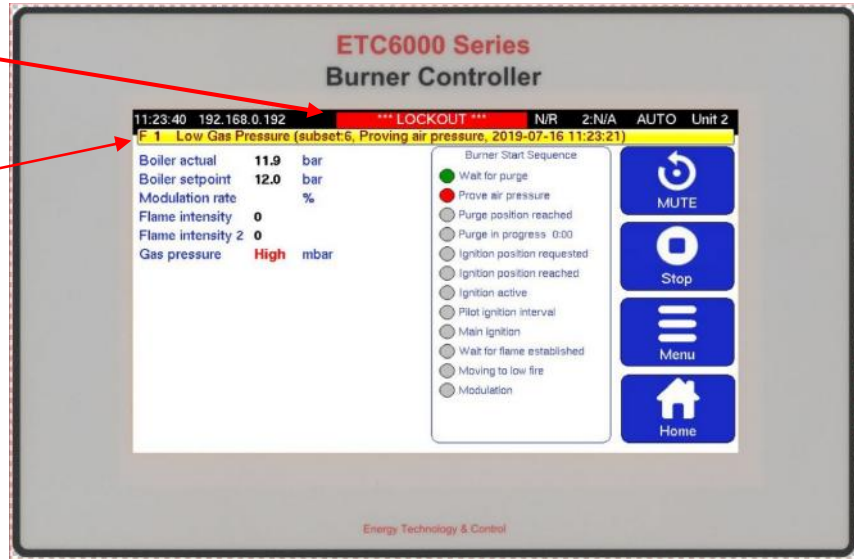
If the ETC6000 series controller is forced to a Lockout, then the screen will look like this...

The Status bar will show \*\*\* Lockout \*\*\*

A fault description box will pop up to show the fault code, subset and date time stamp.

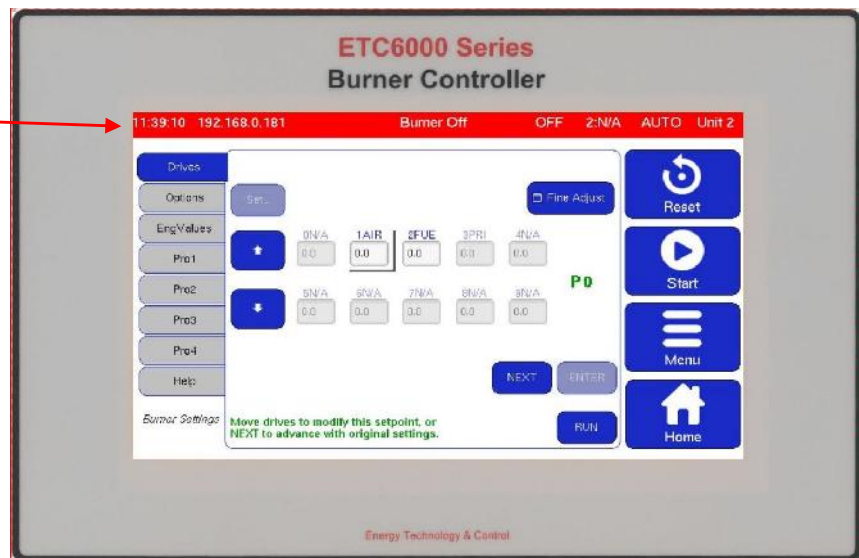
The Reset button changes to an alarm Mute button. As with the ETC6075, tapping this once will mute the alarm and then the button will change back to Reset.

Pressing the Reset button for 4 seconds will reset a Cxx message and allow the burner to restart



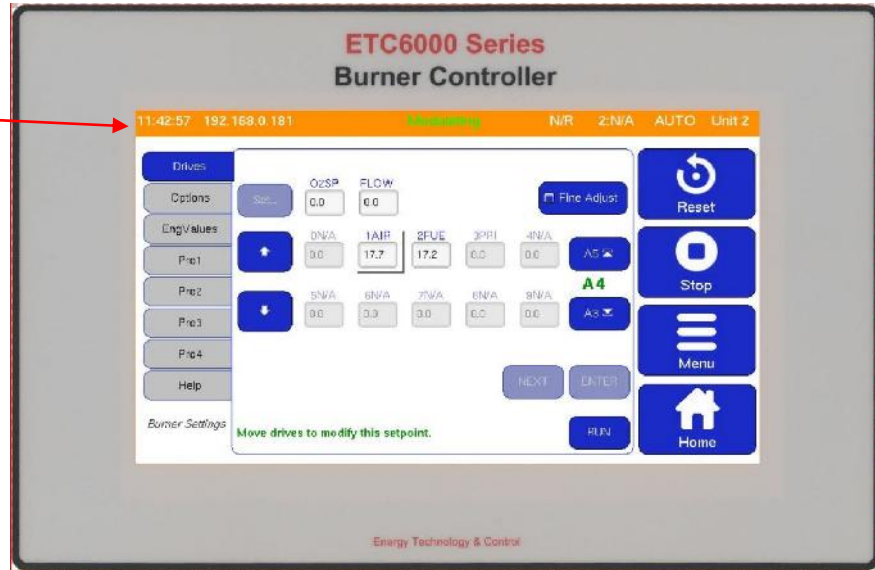
## 4.3 Commission and Adjust Modes.

Commission mode is identified by a red status line as shown here.



Enter and Exit full commissioning mode from the Burner Settings screen in the same way as for the ETC6075.

Adjust mode is identified by an orange status line as shown here.



Enter and Exit the Adjust mode from the Burner Settings screen in the same way as for the ETC6075.

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## 5. Update History

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<b>New version</b>	<b>Date</b>		<b>Changes in brief</b>
PA1	Aug 2019	GFS	First draft

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