



# APULJACK

## ELECTRONICS LTD

DESIGN AND REPAIR SPECIALISTS

### AE Big Square Panel - 10 Button Version



Replacement Control Panel for Plug In Systems 10 Button Panel

Part Number: CTP-APU-012-NE

## 1 General information

This panel replaces the old 10 button AutoTrail panel. The button layout is the same so should be familiar to users. The troublesome membrane switches have been replaced with proper buttons that give a positive click when pressed.

## 2 Installation

The new panel uses male blade connectors. These need to be connected to the original female blade connectors on the wiring loom from the old unit. The installer should move each connection over ensuring that the correct function goes to the correct pin.

The blade connections on the new panel and the typical wire colours are shown below:-

Connection	Function/Board	Wiring Colours
Leisure battery (VAN)		Brn/Blue
0V		Wht/Org
Charger Input		Brn/Wht
Output to Fuse board		Brn/Re
Internal Pump Negative		Wht/Blk

***WARNING: Incorrect connection could cause permanent damage to the unit.***

## 3 Power input

When correct power is applied, the green LED on the back of the panel will be illuminated (the LED is quite dim to save power).

## 4 Button Functions

### 4.1 Water levels Button

Push the water levels button to show the amount of water in the fresh tank in 25% increments i.e. 0,25,50,75,100. See also Internal Pump.

### 4.2 Clock/Clock setting

The clock shows the current time when the decimal point is flashing. To set the time push the clock button - the clock will flash to show you are in SET mode. Use the HOURS and MINUTES buttons to change the Hours and Minutes to the correct time. The clock is in 24hr format only. Once the clock has been set, the display will return to the running clock display denoted by the decimal point flashing once a second.

### 4.3 Display dimming

When the clock button has NOT been pressed the HOURS and MINUTES buttons can be used to dim the display. Use the HOURS and Minutes buttons to increase and decrease the brightness, respectively.

### 4.4 Internal/External temperature

Push the INT or EXT TEMP buttons to show the internal or external temperatures. If a temperature probe is disconnected/open circuit, the display will show 'OPEN'.

### 4.5 Current

Push the CURRENT button to display the current, in amps, into or out of the selected battery. Current into the battery (charging) shows as positive and out of the battery (discharging) shows as negative.

### 4.6 Internal Pump

To turn on/off the internal pump, push the INT PUMP button. The light next to the internal pump button illuminates when the pump is on. If the fresh water level is at 0% then the display will warn that the tank is empty by showing 'NO H2O' (the pump will still switch on).

### 4.7 12V On/Off

To turn the system on push the 12V ON/OFF button – the LED next to the button will illuminate. If the button is pushed again the system will switch off and "OFF" will be shown briefly on the display. All outputs will be turned off and the display will go blank (the clock will still keep the correct time). The system is now in a low power standby mode and normal functions (e.g. pumps) cannot be selected. To turn the system back on, push the 12V ON/OFF button again. If you are not going to use the system for an extended period then you should isolate the power to the vehicle/panel to avoid it flattening the battery.

### 4.8 Voltage

Pushing the VOLTAGE button will show the voltage of the Leisure battery.

## 5 Low Voltage Alarm

If the voltage of the Leisure/Van battery is lower than 12.0V then the panel will switch to the Voltage display automatically. The display will show the value of the low voltage along with 'ERR' to alert the user to the low battery situation. To remedy this, charge your battery/turn on your charger.

## 6 Waste Full Alarm

If the waste tank is full, the display will show 'SOIL FULL'. Empty the waste tank to rectify this.

## 7 Default Display

Each of the displays will return to the Clock display after 5 seconds.

## 8 Display Dimming

Between 10PM and 6AM the display and any lit indicators are set to their lowest brightness to avoid disturbing people.

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