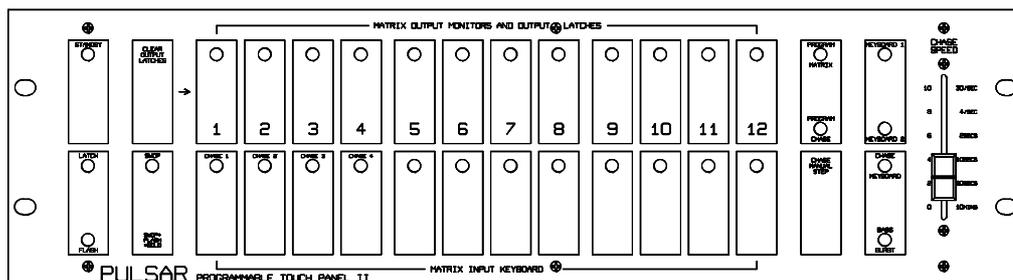


# PROGRAMMABLE TOUCH PANEL II



## SPECIFICATION

### 26000.3 - PROGRAMMABLE TOUCH PANEL II 3U x 19" Rack Mounting

The **Touch Panel II** is capable of controlling up to 12 channels of lights or equipment. As the **Touch Panel II** is a low voltage controller it is often connected to one or more power packs, such as the Pulsar 6 x 5amp Switching Pack or any Pulsar Dimmer Pack. This will enable control of any lighting effect such as ordinary tungsten, neon, pinspots, motorised effects etc., in any combination. Many other Pulsar controllers can also be remotely controlled from the **Touch Panel II** and Strobes may be driven directly, making the **Touch Panel II** a fully programmable Strobe Controller.

IN ADDITION, the outputs of other Touch Panels may be controlled via their **Remote Standby Enable Input** and the Chases may be synchronised via their **Chase Step Input/Output**. Thus, the **Touch Panel II** may be used as the heart of an integrated control system, with a combination of individual effects and lighting controllers being centrally controlled from one **Touch Panel II** by the lighting operator OR the **Touch Panel II** can be programmed to automatically control the whole lighting system without an operator - making it ideal for advertising signs, displays, etc.

## FRONT PANEL CONTROLS

**OUTPUT LATCHES** - The top row of 12 pads are numbered 1-12, these may be used to hold any of the output channels on.

**MATRIX OUTPUT CHANNEL MONITORS** - There are 12 LEDs in the **Output Latch** pads, these monitor the output to the lights/effects.

**STANDBY** - When the **Standby LED** is on, the **Touch Panel II** is in Standby mode. No output is sent from the DIN sockets but all **Touch Panel II** pads and LEDs work normally. **Standby** may be used for an instant blackout.

**Standby** may be overridden by the **REMOTE STANDBY ENABLE INPUT** on the back panel - see **Back Panel Connections** overleaf.

**CLEAR OUTPUT LATCHES** - This clears all 12 independent output latches in one go. It may be used in **Program Matrix** mode for speed.

**MATRIX INPUT PADS** - These 12 pads are the main working pads. By programming the **Matrix**, each pad can be made to switch on any combination of the 12 output channels.

**LATCH/FLASH, SWOP** - These 2 pads control the operation of the **Matrix Input Pads**.

**LATCH** gives them a latching toggle action - changing from off to on or from on to off at each touch.

**FLASH** gives them a momentary action - only staying on so long as they are touched.

**LATCH + SWOP** latches the last pad to be touched **on**, while turning any others **off**.

**FLASH + SWOP (SOLO)** flashes the last pad to be touched **on** while turning **off** all other **Matrix Input Pads**. These pads are restored when the last pad is no longer pressed.

The **SOLO** effect could be used to flash Strobes on while simultaneously killing all other effects.

It should be noted that **LATCH + SWOP** and **SOLO** are GLOBAL functions and work across **Keyboard 1**, **Keyboard 2**, and **Chase Keyboard** if they are also in the same function.

**KEYBOARD 1 / KEYBOARD 2** - 24 Matrices can be programmed - 12 on Keyboard 1 and 12 on Keyboard 2.

**PROGRAM MATRIX/CHASE** - This pad toggles through **Off**, **Program Matrix**, **Program Chase**, **Off**. The status of the pad is shown by the LEDs in the pad.

To program a **Matrix**, toggle the pad until the **Program Matrix LED** comes on, the **Keyboard 1 / Keyboard 2** pad will be active with one Keyboard selected, the other can be selected by touching the **Keyboard 1 / Keyboard 2** pad.

The **Program Matrix LED**, the 12 **Matrix Input Pad LEDs (green)** and the **Keyboard 1 / Keyboard 2 LEDs** will be flashing to show you which of the pads needs pressing, select the **Keyboard** you wish to program then select a **Matrix Input Pad** by touching it.

The **Output Monitor LEDs** in the **Output Latch Pads** will show which channels are currently switched on by that **Matrix Input Pad** - its Matrix. They will be flashing to show they require pressing to include/exclude in the Matrix. The **Keyboard 1 / Keyboard 2 LEDs** will also be flashing, offering you the chance to change Keyboards.

Select another **Matrix Input Pad** or terminate by touching **Program Matrix/Chase**, also flashing, again.

The **Program Chase LED** will now be on and Chases may be programmed OR a further touch on the **Program Matrix/Chase Pad** will resume normal operation.

As stated, a **Chase may be programmed** when the **Program Chase LED** is on and flashing. The **Chase Keyboard LED** will also be on and the green LED's on the pads **Chase 1**, **Chase 2**, **Chase 3** and **Chase 4** will be flashing. This is to invite you to select which of the 4 Chases you wish to program.

Once the Chase to be programmed has been selected, the **Chase Keyboard LED** will go out. To program that Chase, touch the **Matrix Input Pads**, (flashing green LEDs), one at a time, in the sequence that you require for your chase.

The **Keyboard 1 / Keyboard 2** pad is active with one Keyboard selected, the other can be selected by touching the pad, allowing a Chase to be programmed across the Keyboards

You may use any number of steps up to a total maximum of 84 for Chase 1 and 2, and 84 for Chase 3 and 4. Touch **Program Matrix / Chase** again or **Chase Keyboard** to terminate.

You may enter the same step more than once if you want it to last longer than other steps.

Each chase step may bring up any combination of output channels depending on the **Matrix** you have programmed.

**CHASE KEYBOARD / BASS BURST** - This pad allows access to the 4 Chases and also the **Bass Burst** function. Adjust the **Speed Control** to the desired level or use the **Chase Manual Step** pad - see next section.

In **Bass Burst** mode, with the **Speed Control** at minimum, one step will be produced with each Bass Beat but as the **Speed Control** is increased, a Burst of steps will be produced for the duration of the Beat.

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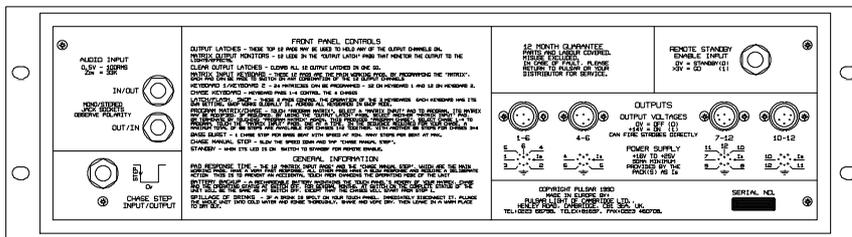
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**CHASE MANUAL STEP** - Select a Chase (or chases) and slow the Speed Control down. **Chase Manual Step** may now be used to step the chase.

**CHASE SPEED** - A very wide speed range is provided - from 30 steps/second to 10 minutes/step. Although this speed range is 18000:1, it has been very carefully profiled over the travel of the control so that it is easy to use.

**PAD RESPONSE TIME** - The 12 **Matrix Input Pads** and the **Chase Manual Step**, which are the main working pads, have a very fast response. All other pads have a slower response and require a deliberate action. This is to prevent an accidental touch from changing the operating mode of the unit.

**AUTOMATIC DISPLAY CONTROL** - The **Touch Panel II** has been carefully designed to be suitable for automatically controlling a lightshow in situations where a 'Light Jockey' is not available. However you can still add a manual flourish during the show without affecting the stored program! You can program up to 84 chase steps and each one may last up to 10 minutes at the slowest speed, making 14 hours before repeating. Program your Matrix and Chase, switch the Chase on and set the Speed Control so that the **Touch Panel II** brings on the combinations of lights and effects in the required sequence for your lightshow. When switched off and then back on again, at the beginning of the performance, the **Touch Panel II** chases will start from step 1.

**STROBE CONTROL** - The **Touch Panel II** is one of the most advanced, fully programmable Strobe Controllers available and is capable of firing Pulsar Strobes directly. It can also be used to switch a Strobe Controller (eg. Pulsar's Rainbow Strobe) on and off.

**SET USER ACCESS LEVEL** - The programmer may wish to deny access to some of the pads by inquisitive fingers, using the following procedure: First set up the state of all the pads that you wish to make inaccessible, then Touch the **Manual Step** and **Clear Output Latches** pads at the same time for about 15 seconds. (Touch Manual Step before Clear Output Latches if you have outputs that you want to keep latched on). All the LED's now flash, long flash = accessible, short flash = inaccessible. Simply touch a pad to change the access state. When you have finished, touch the **Manual Step** and **Clear Output Latches** pads at the same time for about 2 seconds and the unit will return to the same state that it was in before this procedure.  
Note: Clear Output Latches and Manual Step cannot themselves be disabled.

## BACK PANEL CONNECTIONS

**OUTPUTS** - Four DIN sockets are provided on the back panel. They are wired so that 2 six-channel leads or 4 three-channel leads may be used (or 2 six-channel + 2 three-channel if necessary). See back panel printing.

**OUTPUT VOLTAGES** - 0V = OFF, +14V = ON, Zout = 1K5. The outputs come via isolating diodes so these outputs may feed the same Switching/Dimmer Packs as other controllers - the highest taking priority.

**CHASE STEP INPUT / OUTPUT** - This 1/4" Mono Jack socket on the back panel is used to connect a number of Touch Panels together to synchronise their chases. Use a jack to jack leads to link from unit to unit. Whichever **Touch Panel II** has the highest speed setting or has its Manual Step pad pressed, becomes the **Master**. A negative going edge to 0V on this input causes a step. A small voltage is provided to the tip of the jack plug, so simply closing a contact on the end of the jack lead will step the **Touch Panel II**.

**AUDIO INPUT/OUTPUT** - Two 1/4" Stereo Jack sockets provided. Input voltage: 0.5 - 100V R.M.S. - automatic gain controls built in. Input impedance 33K.

**REMOTE STANDBY ENABLE INPUT** - For use where a **Master Touch Panel II** is controlling one or more **Slave Touch Panel IIs**. The 1/4" Mono Jack socket on the back panel will override the unit's **Standby** state. A level of >3V is required to override the **Slave's** Standby.

## OTHER INFORMATION

**BATTERY BACKUP** - A rechargeable battery maintains the **Touch Panel IIs** memory of your Matrix, Chase and the operating status at switch off, for many months. At switch on, the complete status of the unit will be the same as at switch off, except that if a chase is on, it will start at step 1.

An enhancement has been built into the software (v1.2) which takes effect from Serial No.8877. If the unit is not used for a long period the battery will become exhausted and the contents of the memory will be lost. In this event the software will load in a default set of matrices and chases, and make all pads accessible. You may then re-program and, providing the battery is OK, the unit will function normally again. It takes 100 hours to completely recharge the battery.

**POWER SUPPLY** - No mains connection is required. The **Touch Panel II** needs 50ma at 16 to 25V DC. This is normally automatically supplied by its Switching or Dimmer Pack. However, if the **Touch Panel II** is only operating other controllers (which cannot provide current) it will be necessary to 'daisy chain' any one of the DIN leads from the **Touch Panel II** through a **Pulsar Power Supply Unit Part No.25100**. If the supply voltage falls too low, the **Touch Panel II** will shut down to protect its memory until the supply voltage rises again.

**STANDARDS** - The **Touch Panel II** complies with the following International and National Standards:

**Electrical Safety** - IEC65, EN60065, BS415

**EMC** - EN50081-1, EN55022, EN50082-1

**Rack Mounting** - IEC297

**Index of Protection** - IP20

**Marking Directive 93/68/EEC** - The **Touch Panel II** meets the EMC Directive 89/336/EEC.

**CE** This is a low voltage unit operating on 16-25V d.c. without a direct connection to the mains supply, it is therefore inherently safe as it operates on less than 75V d.c. as specified in the Low Voltage Directive 73/23/EEC.

**SPILLAGE OF DRINKS** - If a drink is spilt on your **Touch Panel II**, immediately disconnect it, plunge the whole unit into clean water and rinse thoroughly. Shake and wipe dry, then leave in a warm place to dry right out before re-using.

**GUARANTEE** - 12 months from the date of original purchase. The guarantee is limited to parts and labour. The guarantee is void if the unit is misused or if repairs are performed by unauthorised persons. In the unlikely event of a fault occurring, do not use without repair. Return the unit, with a description of the fault, to your supplier or direct to Pulsar for immediate attention.

## ACCESSORIES

Pulsar also manufacture a comprehensive range of Cables, Splitter Blocks, Strobes, Dimming and Switching Packs, Control Desks, Pinstops, and Stage and Rock and Effect Lanterns. Please contact us to receive further details of these superb products!

## DIMENSIONS AND WEIGHTS

Code	Unit	Width	Height	Depth	Weight
		mm.	mm.	mm.	kgs.
26000.3	Programmable Touch Panel II	482.6	132.5	33.0	2.0
	Touch Panel II Inc.Skts	482.6	132.5	113.0	2.0
	Console Cut Out	450.0	126.0	113.0	-
	Fixing Holes	465.6	57.1	-	-