## A Comprehensive But Shabby Guide To Mantis Shift Functions

(In advance of the proper user manual, still in production)

PATCH SECTION B	PATCH SECTION BUTTONS		
SHIFT Plus	Action		
Patch Tens	UNDO		
	<ul> <li>An undo point is created if an unsaved patch is overwritten by one of the following operations: <ul> <li>Recalling a patch from memory;</li> <li>Overwriting the current patch by sending Mantis a SysEx dump;</li> <li>Using the panel pickup or random functions.</li> </ul> </li> </ul>		
	You can also create an undo point with SHIFT+Save. There are ten undo points available, with '0' being the most recent.		
	The idea is not to create a granular, multi-level undo, but to allow you to get back unsaved work if you press a patch button and immediately regret it. Undo points do not survive a power cycle.		
	The LEDs light when SHIFT is held down if the undo point is used.		
Patch Bank A, B	BANK WRITE PROTECT		
	Disables the save function across a whole bank. Will still allow SysEx dumps to overwrite the memory, though.		
	If both locks are on, the Save feature is disabled entirely.		
	The LEDs light when SHIFT is held down if the banks are write-protected.		
Compare	RANDOMISE		
	Creates a patch by randomising parameters. This feature works a lot better after firmware version 1.22, where certain parameters are properly constrained so that the patches are more likely to be usable.		
Init	PANEL PICKUP		
	Creates a patch by reading the current values of the potentiometers on the control panel. Other parameters set to their default Init Patch values.		
Save	SYSEX DUMP		
	Writes the current patch memory out as a System Exclusive MIDI dump. This can be replayed back into Mantis to recall the status.		
	Also (from firmware version 1.22) forces the creation of an undo point, so you can use it as a 'quick save' while tweaking a patch.		

SYNTH SECTION BUTTONS		
SHIFT Plus	Action	
LFO Sync	ONE SHOT	
	Makes the LFOs stop operating after they have completed one cycle.	
	The LEDs light when SHIFT is held down if one-shot mode is engaged.	
SYNTH SECTION POTENTIOMETERS		
SHIFT Plus	Action	
Osc Bal	PATCH LEVEL	
	An extra volume control for loud patches, saved with the patch.	
	The output level of the mixer into the analogue circuitry can be turned down by up to 15dB to prevent clipping in the filter section, and overloading the output.	
Noise Bal	NOISE SPARSENESS	
	Starts to strangulate the noise so that only the larger amplitudes make it to the output. This enables a range of noise palettes from plain white noise to noises that are somewhat dirtier and more 'digital', right down to sparse crackles.	

JOYSTICK SECTION BUTTONS		
MODE Plus	Action	
Octave buttons	PITCH BEND RANGE	
	MODE acts as a shift button in this section. The pitch bend range can be adjusted by holding MODE and tapping the octave buttons. When the button is held, the octave LEDs show the pitch bend range in binary. For example: OFF-OFF-ON-OFF is two semitones; ON-ON-OFF-OFF is an octave.	

## Holding down buttons during Power-On

Hold while turning on	Action
Arp	LOCAL OFF
	Decouples the keyboard from the synthesiser so that they can be used as separate MIDI devices.
	Mantis reverts to LOCAL ON on the next power cycle. Otherwise we'd get phone calls.
Arp + Mode	FACTORY TEST
	Enters factory test mode: the octave buttons toggle different tests for buttons, potentiometers, and each part of the synth engine.
	The first part of the test has 16-note polyphony, which is quite novel, but only if you're happy playing sine waves.
First 16 white	SET MIDI CHANNEL
notes	MIDI is transmitted and received on the appropriate channel, from 1 (the bottom C) to 16 (the D two octaves above). This setting survives a power cycle and persists until it's changed again.
Highest note	GENTLE FACTORY RESET
	<ul> <li>Performs a non-destructive reset of the Mantis back to factory settings.</li> <li>Sets the power-on default patch back to A00;</li> <li>Sets the MIDI channel to 1;</li> <li>Locks bank A and unlocks bank B;</li> <li>Turns off the 'sticky hold' mode that is toggled by pressing down on the joystick.</li> </ul>
Env 1 Legato + Env 2 Legato + LFO 1 Keytrig + LFO 2 Keytrig	BRUTAL FACTORY RESET
	Performs a full, irrevocable, destructive reset of Mantis back to factory settings.
	<ul> <li>This does the same as the soft reset, but also:</li> <li>Reinstates default patches in bank A;</li> <li>Reverts all patches in bank B back to Init Patch.</li> </ul>