



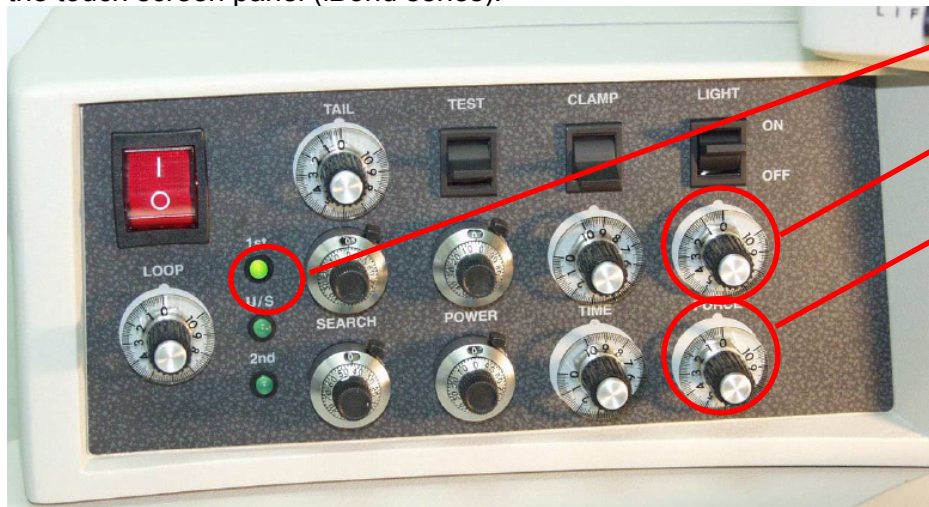
## MPP ADJUSTING BOND FORCE PARAMETERS (4500, 5000 iBond)

ADVANCED TECHNOLOGY FOR  
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KNOWLEDGE BASE  
FACT SHEET

- SCOPE: Adjustment of the process bond force parameters for 1<sup>st</sup> and 2<sup>nd</sup> Bonds on Micro Point Pro (KnS) 4500 Series and 5000 iBond Series Manual Wire Bonders.

- During the bonding cycle, bond force is applied while ultrasonic energy is being applied to the wedge/capillary. The static bond force is a combination of the Static Bond force and also additional bond force applied from the Force coil. The Force coil is controlled via the 1<sup>st</sup> Bond and 2<sup>nd</sup> Bond potentiometer dials on the left hand side front panel (4500 series) or 1<sup>st</sup> and 2<sup>nd</sup> Bond adjustment on the touch screen panel (iBond series).

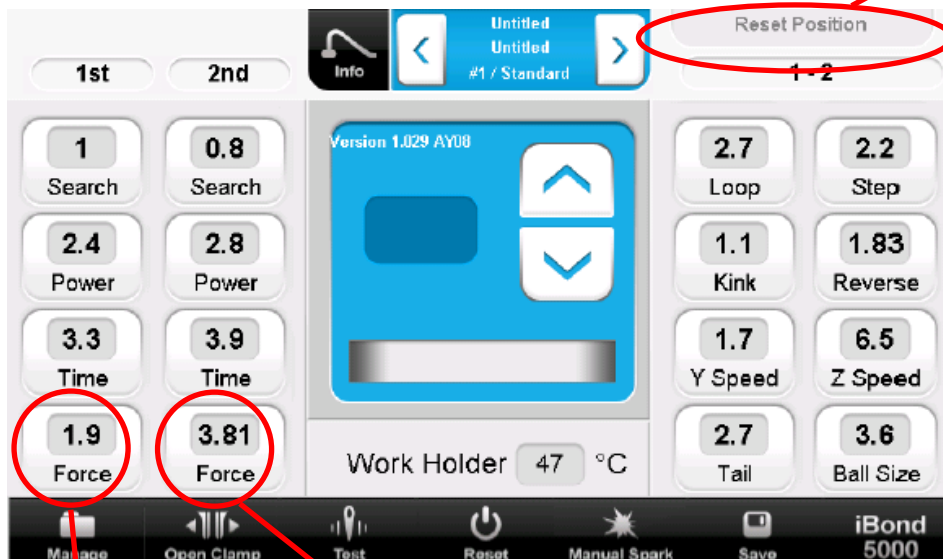


1<sup>st</sup> Bond LED (Reset)

1<sup>st</sup> Bond Force Dial

2<sup>nd</sup> Bond Force Dial

Status Window

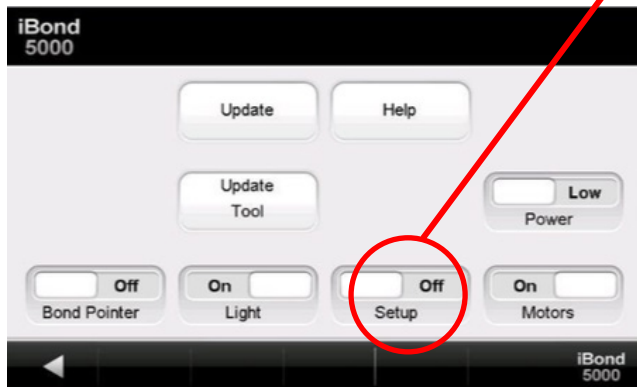
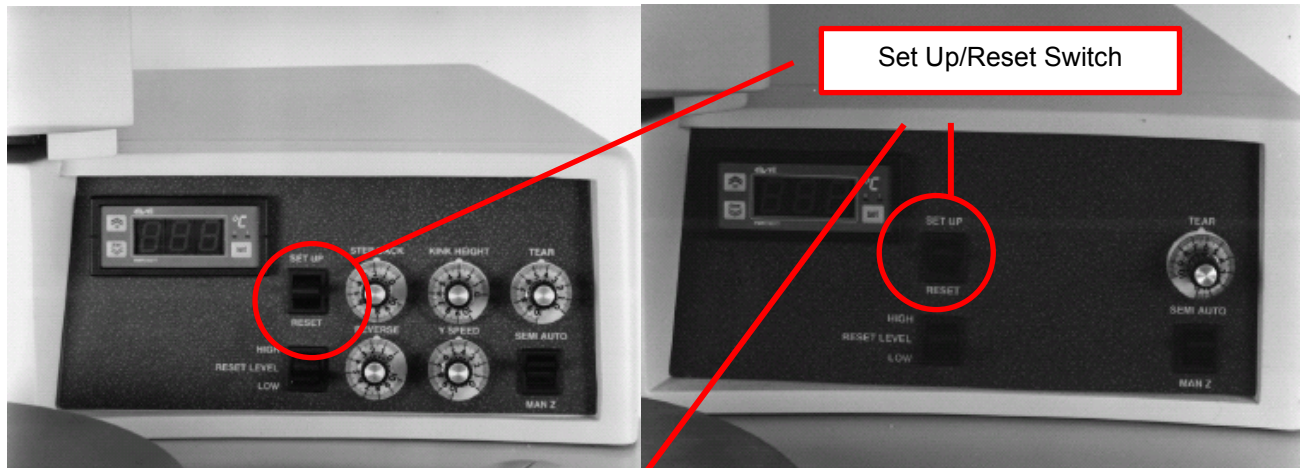


1<sup>st</sup> Bond Fore Adjust

2<sup>nd</sup> Bond Force Adjust

## To Set the Bond Force

- Ensure the Bonder is in Reset Position; confirm this by ensuring the '1<sup>st</sup> Bond LED' is illuminated (4500 series) or 'Reset Position' is displayed in the status window (iBond series).
- Set the 'Set Up/Reset' switch located on the right hand side panel (4500 series) or in iBond5000 menu to 'Set Up'.
- With the switch in 'Set Up' this will drive the Force Coil constantly.



- Set both 1<sup>st</sup> and 2<sup>nd</sup> Search adjust to zero.
- Press and hold the 'Semi/Auto Chessman button'. The bond head will move into the '1<sup>st</sup> Search height'.
- Using a suitably scaled gram gauge lift the bond head under the wedge/capillary.
- As the bond head starts to rise, read the value on the gram gauge.
- This measured value is the bond force for the 1<sup>st</sup> Bond; adjust the '1<sup>st</sup> Bond Force adjustment' until a desired force is measured on the gram gauge.
- Release the 'Semi/Auto Chessman button', the bond head will move to the 'Loop Height'.
- Press and hold the 'Semi/Auto Chessman button'. The bond head will move into the '2<sup>st</sup> Search height'.
- Again lift the bond head with the gram gauge under the wedge/capillary until the bond head starts to rise.
- This measured value is the bond force for the 2<sup>nd</sup> Bond; adjust the '2<sup>nd</sup> Bond Force adjustment' until a desired force is measured on the gram gauge.
- Release the 'Semi/Auto Chessman button', the bond head will move to the 'Reset Height'.
- Return the 'Set Up/Reset' switch to the mid position.

