

Touch Box Instructions 4 January 2022.

On Power Up the display will count down:

9 999 – 8 888 – 7 777 – 6 666 – 5 555 – 4 444 - 3 333 – 2 222 – 1 111 – 0 000 - - ---

Puller head will move back and forth one time on puller track (linear machines), or make a full counterclockwise turn (rotational pullers).

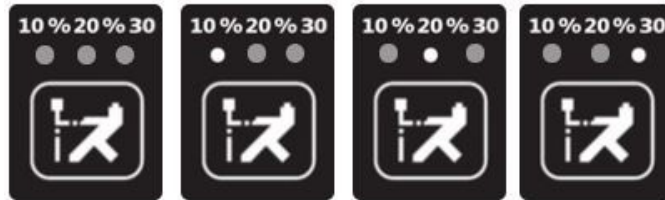
Touch Display will show:



Touch the Knot button to tie off with 10, 20 or 30% extra tension. (To activate, touch the button short, to change % hold button longer (approx. ½ second), default is 10%). After touch the knot button, the display shows the 10% extra tension to be pulled:



The LED light above knot button lights up, until the string is tensioned. This function works for one single time only.

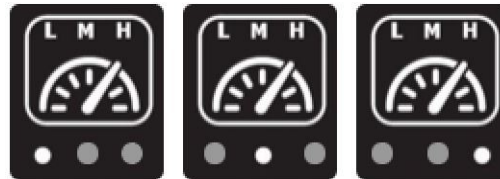


Toggle Pre-Stretch with:

Default is none.



Turn buzzer sound On or Off by:



Select any of 3 pulling speeds by toggling:  
High.

Default is

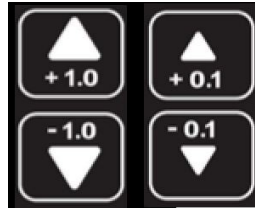


Toggle between LB and KG by touching weight button for 1/2 second. The delay is to avoid LB/KG change by accident. The display will now show KG, as indicated by the LED light above kg:



LB – KG setting is a “global” setting and can be changed at any moment. (Even during Calibration).

TENSION SETTING.



Set tension with Up / Down buttons: Tension change is in 0.1 LB or 0.1 KG increments.

Hold a button longer to increase scrolling speed.



SETTINGS BUTTON. At any time **QUIT** settings by touching BACK button



Hold settings button for 3 seconds to bring up various other settings. The first setting displayed is calibration:



Touch enter button to start Calibration, then the screen shows as below to start Calibration.




(Here shown for LB setting):




To calibrate the machine a tension meter must be mounted, start from screen above.

Pull a string. Check the value on tension meter. Adjust tension displayed on machine with Up /Down

buttons to match tension on string tension meter. Push Enter  to confirm. Now is displayed:




Pull a string. Check the value on tension meter. Adjust tension displayed on machine with Up /Down

buttons to match tension on string tension meter. Push Enter  to confirm. Now is displayed:



Pull a string. Check the value on tension meter. Adjust tension displayed on machine with Up /Down

buttons to match tension on string tension meter. Push Enter  to confirm. Now is displayed:



To confirm and finish calibration touch Enter button

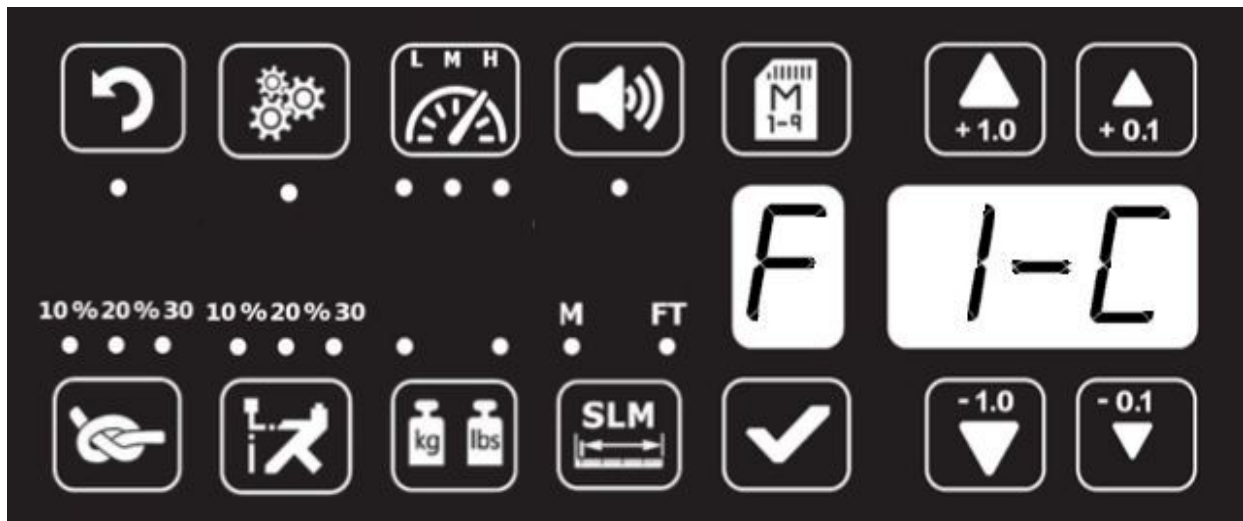


CALIBRATION NOW IS COMPLETE.

SETTINGS.



Hold settings button for 3 seconds to bring up various other settings. The first setting displayed is calibration,



to go to next setting touch UP button  once for next function:



This function resets the calibration of machine to original factory calibration.



To do so on this screen simply touch ENTER

THE MACHINE IS RESET TO ORIGINAL FACTORY CALIBRATION.

Next settings function is:



This function can modify the sensitivity of the activation metal touch switch. **WARNING:** Do not adjust if metal activation switch works fine.

Next settings function is:







This function shows and adjusts sensitivity of all touch buttons ON TOUCH DISPLAY.

WARNING: do not adjust this setting, unless sensitivity of touch panel makes it hard to use.

To adjust sensitivity use Up / Down buttons. The range is 0 to 7. 7 is least sensitive, 0 is most sensitive. Set at 0, the touch buttons may be so sensitive that they only work with an air

gap between touch panel and finger. After modify confirm by  or go out without

confirmation by touching BACK 

Next settings function is:





This function displays the approximate number of rackets strung. Touch ENTER



(Machine counts 38 strings pulled as 1 racket strung).

Next settings function is:




The function EXITS the settings, touch ENTER



**Calibration in KG mode: (KG-LB button must be set to KG to calibrate in KG).**

SETTINGS BUTTON. At any time **QUIT** settings by touching BACK button




Hold settings button  for 3 seconds to bring up various other settings. The first setting displayed is calibration:




To calibrate the machine a tension meter must be mounted, start from screen above.

Pull a string. Check the value on tension meter. Adjust tension displayed on machine with Up /Down

buttons to match tension on string tension meter. Push Enter  to confirm. Now is displayed:




Pull a string. Check the value on tension meter. Adjust tension displayed on machine with Up /Down

buttons to match tension on string tension meter. Push Enter  to confirm. Now is displayed:



Pull a string. Check the value on tension meter. Adjust tension displayed on machine with Up /Down

buttons to match tension on string tension meter. Push Enter  to confirm. Now is displayed:



To confirm and finish calibration touch Enter button 

CALIBRATION NOW IS COMPLETE.

## MEMORY FUNCTION:

Button in shape of memory card:

here you can store 9 different



tensions setting in memory. Push to Toggle and display the 9 string tensions already in



memory. If you want to store a tension in memory, press "return"

here you can store 9 different tensions setting in memory. Push "enter (V-OK)" to Toggle and display the 9 string tensions already in memory. If you want to store a tension in memory, press enter (V-OK)" button and current tension setting displayed on 3 right LED digits will be saved in one of 9 memories as indicated on most left of 4 LED digits as number 1~9. (Example: If left LED digit shows 4 when enter is pushed, the shown tension on display will be stored in memory 4. Customer can freely choose between 1~9 to select in which memory location they want to store the string tension setting by pushing memory button repeatedly before pushing "enter"). The most left digit indicates the memory number (1~9). The right 3 digits show string tension setting.

## OPTIONAL EXTERNAL STRING LENGTH METER. (SLM).



String length --> only working if (separate) electronic string length meter is connected. (Separate electronic string length meter is available for purchase).

On machines without SLM, the SLM button is disabled and does nothing when touched. (Except when a string is being pulled, then this button still works, as all other buttons, to let the puller immediately return to "start" position).

On machines with SLM, the SLM button is enabled.

At any time the SLM button can be enabled/disabled by during “countdown” pushing both start/stop button and SLM button. start/stop button = <black button on winder house (rotational pullers) behind par plates (linear pullers)>

COUNTERCLOCKWISE (EXTRA) RETURN FOR ROTATIONAL PULLER.

Touch “return” button and this will make puller drum another turn back, and overrides the stop



function of the limit switch behind puller drum. (Useful is string is jammed).

(This function is for rotational pullers only).

ERROR CODES.

Error C-06. This error shows up when a string suddenly slips in the jaw of the clamps, or in the jaws of the puller head. Touch any key, then the error message disappears, and you can continue stringing as normally.

#### Error codes for rotational machines

- C 01 - if puller jaws do not return to start position in 6 seconds after power up of machine
- C 02 - there is a string detected in puller head when machine is powered up
- C 03 - Initial voltage of load cell is too high
- C 04 - Motor current too big
- C 06 - Sudden drop in load cell signal (like when machine is pulling string and it slips in jaws of clamp or puller)

#### Error codes for linear machines

- C 01 - if puller head does not reach right side limit switch in 6 seconds after power up of machine
- C 02 - there is a string detected in puller head when machine is powered up
- C 03 - Initial voltage of load cell is too high
- C 04 - Motor current too big
- C05 - Left and right limit switch both engaged
- C06 - Sudden drop in load cell signal (like when machine is pulling string and it slips in jaws of clamp or puller)
- C07 - Motor over current. (happens when string is in puller during start up; or if one of limit switches does not work).

#### 60 second maximum tensioning (as protection for electronics box).

If a string is tensioned, there is a maximum of 60 seconds the string will be pulled at the requested tension. After 30 seconds the buzzer will sound and display will for a short time display -30-, this is repeated at 20 seconds left. Onward from 10 seconds left the buzzer will sound at every number change and a countdown from -10- to -0- will be shown on display. After that the string will not be tensioned anymore, and “stop” is displayed on keypad. Only the

start/stop button (rotational pullers), or lever-button behind parallel plates (linear pullers) will let you return to operational mode.

(Note: if buzzer is disabled, no buzzer sound will be heard).