



Control Series Knifeholder

Touchscreen User Manual



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About this manual

These operating instructions contain important information on operating the Tidland Control Series knifeholders safely, properly and efficiently. Observing these instructions helps to avoid dangers and increase the service life of the knifeholders.

Additional manuals

This manual is intended to be used with the supporting documentation provided with your system:

Installation and maintenance	Control Series Knifeholder Installation and Maintenance Part No. 270015468
PC software interface (optional)	PC Interface User Manual Part No. 27L771795
Wireless operation (optional)	User Manual Part No. 270015470

Operating principle

The Tidland Control Series electronic knifeholder uses motors for overlap and side force adjustment. The knifeholder comes configured with a default overlap of 0.035" and 5 lbs of side force.

The Control Plus model provides closed-loop side force control and real-time monitoring.

The touch-activated display screen allows operators to calibrate, engage, and disengage the knifeholder. Password protected security levels control access to side force and overlap adjustment, blade life details, fault history, and other settings.

Safety

**Warning**

Knife blades are sharp.

Can cause serious injury to hands.

Do not remove safety guards.

Use only recommended tools when handling knife blades.

**Warning**

Pinch point.

Keep hands away from moving knifeholder parts.

**Information**

Disconnect power while working with knifeholders on the beam or servicing the knifeholder cabinet.

Safety equipment

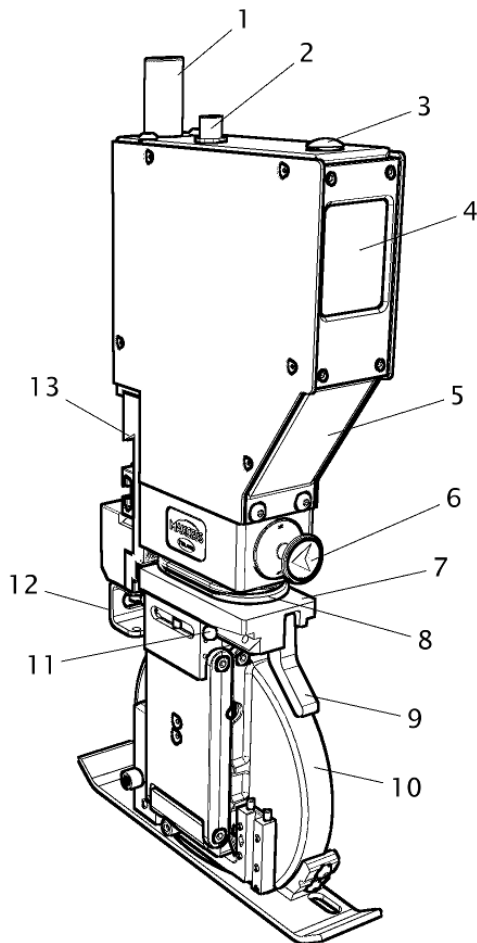
With a Tidland 360 Degree Blade Guard Cartridge installed, the blade is fully guarded when the knifeholder is disengaged.

If the electrical power fails, the blade will stop and remain in that overlap and side force position.

All replacement parts used on this product shall be made to original Tidland specifications.

Knifeholder components

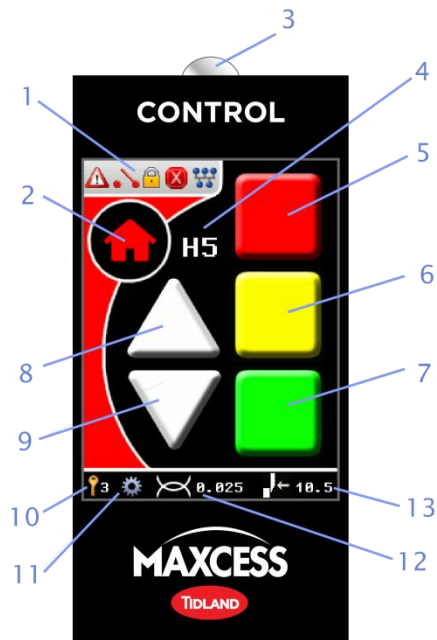
Class II shown



- | | |
|----|--|
| 1 | Brake knob |
| 2 | Power/communication cable (not shown) |
| 3 | Status LED* |
| 4 | LCD touchscreen display |
| 5 | Control body |
| 6 | Cant key |
| 7 | Control body to cartridge dovetail interface |
| 8 | Knifeholder bellows |
| 9 | Lock/unlock lever (cartridge to knifeholder) |
| 10 | 360° blade guard cartridge |
| 11 | Safety latch pin |
| 12 | 360° blade guard engagement bracket |
| 13 | Guide bar mount assembly (gib or linear bearing) |

* Class II – top of knifeholder
Class III – front of knifeholder

Main screen display



1	Status bar	See Table 1
2	Knifeholder state	See Table 2
3	Status LED	See Table 5 (LED location varies)
4	Fault codes	See Tables 3 and 4
5	Red button	Disengage knifeholder
6	Yellow button	Calibrate knifeholder
7	Green button	Engage knifeholder
8	Up arrow	Jog UP
9	Down arrow	Jog DOWN
10	Security enabled / level of access	
11	Press to access Setup menus	
12	Overlap set point and blade use alarm	
13	Side force set point	

This area of the main screen is referred to as the **set points bar**.

Touchscreen



Use only your finger to tap the display.
Do not use pens, tools, or other objects.
Excessive pressure will damage the display.
See page 12-3 for cleaning instructions.

Table 1. Description of status bar icons






Icon	Name	Description
	Armed	Appears when the engage button has been pressed. If this icon is active, the knife is either engaged or can be engaged via the remote engage switch or by a PC/serial command.
	Remote Engage Off	Appears when the remote engage switch is OFF.
	Locked	Appears when the knifeholder is locked by a PC/serial command.
	Fault	Appears when a fault has been detected.
	Communication	Appears when the knifeholder is connected to a PC or other device via the RS-422 serial network.

Table 2. Description of mode icons





Icon	Mode	Knifeholder status
	On	Knifeholder disengaged
	Blinking	Knifeholder disengaging
	On	Knifeholder calibration complete
	Blinking	Knifeholder calibrating
	On	Knifeholder engaged/slitting
	Blinking	Knifeholder engaging
	On	Knifeholder in manual/jog mode

Table 3. Fault codes – first digit

First digit	Description
H	Fault occurred while disengaging
C	Fault occurred while calibrating
E	Fault occurred while engaging










Table 4. Fault codes – second digit

Second digit	Description
0	No fault
1	Unexpected anvil touch
2	Anvil not detected
3	Cannot achieve side force
4	Cannot achieve overlap
5	Problem finding home sensor
6	Problem leaving home sensor
7	Action aborted by user
8	Knifeholder not calibrated
9	EEPROM memory error

Table 5. Status LED

Color	Mode	Knifemaker status
Red	Steady	Knifemaker disengaged
	Blinking	Knifemaker disengaging
	Steady / green flash	Knifemaker disengaged; ready to engage
	Blinking / yellow flash	Knifemaker disengaging; will calibrate when complete
	Blinking / green flash	Knifemaker disengaging; will engage when complete
	Steady / white pulses	Knifemaker disengage error
Yellow	Steady	Knifemaker calibration complete
	Blinking	Knifemaker calibrating
	Blinking / red flash	Knifemaker calibrating; will disengage when complete
	Blinking / green flash	Knifemaker calibrating; will engage when complete
	Steady / white pulses	Knifemaker calibration error
Green	Steady	Knifemaker engaged/slitting
	Blinking	Knifemaker engaging
	Alternating Green/Orange	Knifemaker engaged and blade use alarm condition
	Steady / white pulses	Knifemaker engage error
Blue	On	Knifemaker in manual/jog mode
	Alternating blue / yellow	Knifemaker in manual/jog mode and blade is touching anvil

Table 6. Button functions

Button	Function
	Navigate between pages
	Return to the previous screen
	Use to select from a list of items
	Decrease a numeric value
	Increase a numeric value
	Save the value and return to previous screen
	Cancel and return (value not saved)
	Clear or reset a value
	Switch between two options such as enable/disable or yes/no

Menu tree

Main screen



Setup 1



Setup 2



Setup 3



MAIN SCREEN



SETUP 1



1.1 SECURITY



1.1.1 LOGIN



1.1.2 LOGOUT



1.1.3 PASSWORDS



1.2.1 DISPLAY



1.2.1.1 LANGUAGE



1.2.1.2 TIMEOUT



1.2.1.3 UNITS



1.2.1.4 ROTATE



1.2.2 CALIBRATION (TOUCH)



1.3 SIDE FORCE



1.4 OVERLAP



page forward/back

SETUP 2



2.1 ADDRESS



2.2 BLADE USE



2.3 MONITOR



2.3.1 SENSORS



2.3.2.1 COUNTERS



2.3.3 SIDE FORCE



2.4 FAULTS



2.4.1 COUNTERS



2.4.2.1 HISTORY



page forward/back

SETUP 3



3.1.1 ADVANCED



3.1.1.1 MATERIAL



3.1.1.2 PARKING



3.1.1.2.1 PARK?



3.1.1.2.2 HOME FIRST?



3.1.1.2.3 DISTANCE H



3.1.1.2.4 DISTANCE V



3.1.1.3 ASF ENABLE



3.1.1.4 PLUNGE CUT



page forward/back



3.1.2 ADVANCED

3.1.2.1 CALIBRATION SETTINGS





3.1.2.2 ENGAGE SETTINGS



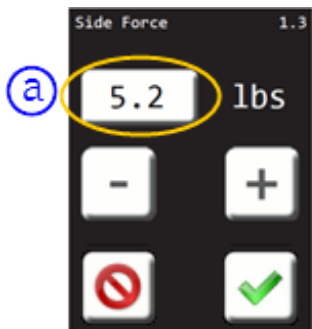
page back

Setup 3 continued

Setup 3 continued

	3.2	MAINTENANCE
		CLEANING
		MAINTENANCE MODE (ENGINEERING)
	3.3	ABOUT

Keypad entries



On any screen where a numeric setting can be entered or adjusted, tap the value field **(a)** to display the numeric keypad **(b)**, which can be used as an alternative to the (+) and (-) buttons.

See page 9-1 for information about units of measure.

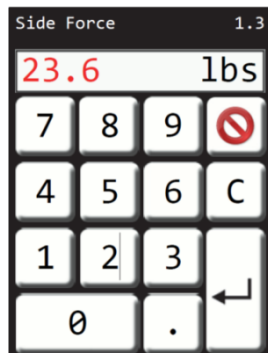


Clears the current value

Use the number keys to enter a new value.



Enter accepts the new value and returns to the previous screen.



Invalid entries

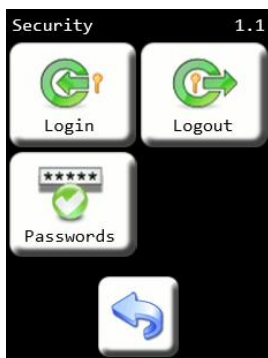
If the value entered is invalid or out of range, the number will turn red when the enter button is pressed and the keypad will not close.

Clear the entry and enter a new value.

To exit the numeric keypad, you must either enter a valid value or clear the entry.

The keypad is also used to define passwords; see page 8-2.

Security strategy



Setup 1 > Security (1.1)

To restrict access to certain screens and menus, you can enable password security for three different authorization levels. When security is enabled, you must log in with a password to make changes to knifeholder settings.

Level 1 – Operator

Access to Main screen only; default level if not logged in

Level 2 – Maintenance

Access to all functions except Passwords, Display Settings, and Advanced menus

Level 3 – Administrator

Full access (default when password security is disabled)



If connected to a PC

The PC software settings can override configuration and any values set at the knifeholder.

This includes passwords and menu access.

	Level 1 Operator	Level 2 Maintenance	Level 3 Administrator
Password required	n/a	NO	YES
Home	Full Access	Full Access	Full Access
Setup	No Access	Full Access	Full Access
Security	No Access	Full Access	Full Access
Passwords	No Access	No Access	Full Access
Display	No Access	No Access	Full Access
Side Force	No Access	Full Access	Full Access
Overlap	No Access	Full Access	Full Access
Address	No Access	Full Access	Full Access
Blade Life	No Access	Full Access	Full Access
Measure	No Access	Full Access	Full Access
Faults	No Access	Full Access	Full Access
Advanced	No Access	No Access	Full Access
Maintenance	No Access	Full Access	Full Access
About	No Access	Full Access	Full Access

Table 7. Authorization levels

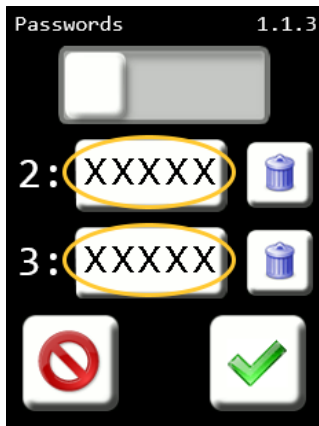


When access to a screen or menu is restricted, a lock icon appears on the menu icon. Pressing the icon will prompt the user for a password.

Define passwords – page 8-2



Security



Define passwords

Setup 1 > Security > Passwords (1.1.3)

Enter a password for each authorization level needed (maximum five characters). Refer to Table 7 on page 8-2 for a description of authorization levels.



Deletes existing passwords

Enable security

You must define a level 3 password in order to enable security; a level 2 password is optional.



1. Press the switch button to enable security (optional).
The switch will turn green.
2. Accept changes and return to the previous screen.



Attempting to save and exit without defining a level 3 password will result in an error if security has been enabled.



Security status

The *key icon* appears on the main screen if password security is enabled. The number next to the icon indicates the current authorization level.

When security is first enabled, you are automatically logged in at authorization level 3.

When logged out, the default authorization is level 1.

continued

Change security authorization levels



Log in

Setup 1 > Security > Login (1.1)

Tap the **Login** icon; if security is enabled, you will be prompted for a password.

(If you log out at this time, authorization returns to level 1.)



Enter the password for the authorization level you wish to set.

You will be returned to the **Login** screen. Navigate back to the main screen to confirm the authorization level, which is displayed next to the key icon at the bottom of the main screen.



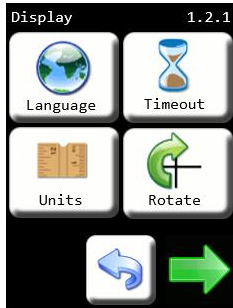
An incorrect password displays in red text.

If you have forgotten your level 3 password, call Maxcess.



Cancel and return to the previous screen.

Display settings



Setup 1 > Display 1 (1.2.1)

Select a menu from the Display screen.

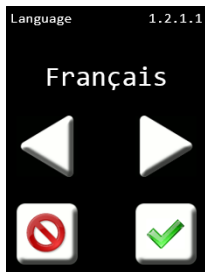
After selecting an option from any sub-menu:



Accept the selection OR



Cancel the selection



Language

Setup 1 > Display 1 > Language (1.2.1.1)

Press the white arrows to scroll through the language options.

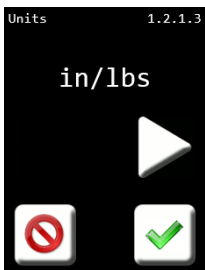


Menu timeout

Setup 1 > Display 1 > M Timeout (1.2.1.2)

A menu display will return to the main screen display after a pre-set interval of inactivity. The default is 180 seconds.

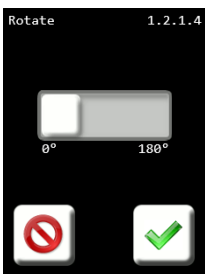
Press the value field to open the numeric keypad and enter a new value, or use (+) and (-) to adjust the interval.



Units

Setup 1 > Display 1 > Units (1.2.1.3)

Press the white arrow to scroll through the options for units of measure: in/lbs, mm/kg, or mm/N.



Rotate

Setup 1 > Display 1 > Rotate (1.2.1.4)

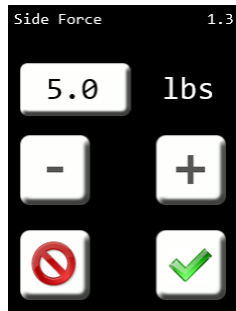


Press the switch button to rotate the screen 180 degrees. The switch turns green, indicating that the screen is rotated.

Knifeholder blade settings



Side force



Setup 1 > Side Force (1.3)

Side force is the amount of pressure that the knife blade applies to the anvil when engaged.

Increase (+) or decrease (-) the parameter, or touch the value field button to open the numeric keypad for manual entry.



Overlap



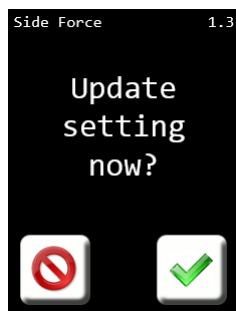
Setup 1 > Overlap (1.4)

Overlap is the depth of the knife below the anvil when engaged.

Increase (+) or decrease (-) the parameter, or touch the value field button to open the numeric keypad for manual entry.

Overlap range is 0.125" to 0.010".

The overlap icon on the main screen also indicates blade use, changing color when the hours of use exceed the number of hours set at the Blade Use screen (page 9-3).



If the knifeholder is engaged when either of these adjustments is made

You will be prompted to apply the new setting.

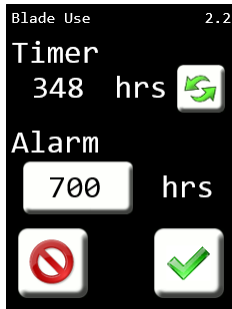


Updates to the new side force setting immediately



The new side force setting will take effect the next time the knifeholder is engaged.

If the knifeholder is not engaged, you will not see this prompt when making adjustments.

Blade settings continued**Blade use***Setup 2 > Blade use (2.2)*

Timer indicates hours of blade use since the alarm was set.

Alarm Touch the button to enter the number of blade use hours that will elapse before the alarm is actuated.



Alarm activated When the number of blade use hours reaches the alarm set point, the **overlap** icon on the main screen turns orange. While the knifeholder is engaged, the LED flashes green/orange.



Resets the timer to zero and clears the alarm.



The system does not automatically detect the presence of a new blade. You must re-set the timer manually each time you replace a blade.

Knifeholder operation



Warning – danger due to cutting

Do not put hands between the knife blade and the web material at any time during operation.

Severe bodily injury may occur.





Warning – danger due to crushing

Keep hands away from all moving knifeholder parts during blade cartridge retraction.

Severe bodily injury may occur.

No remote engage switch installed

If there is no remote engage switch installed in your system, all knifeholder commands are input using the touchscreen. The buttons function as described below.

Button	Action
Red	Disengages the knifeholder
Yellow	Starts the calibration process
Green 	Engages the knifeholder for slitting If pressed during calibration, the knifeholder enters the 'armed' state and will engage when calibration is complete.
Jog 	Moves the knifeholder up or down. – stops knifeholder movement during calibration or engage (knifeholder will fault) – has no effect during disengage Does nothing when the knifeholder is calibrated or slitting (LED steady yellow or green)

The status LED indicates the operation or error status.
See Table 5.

Operation continued

Remote engage switch installed

To engage or disengage the knifeholders remotely you must wire an external engage switch into the knifeholder interface cabinet. Refer to the electrical drawings supplied with your system.

Remote engage switch ON

The user can engage or disengage any knifeholder using the red and green buttons on the touchscreen. The knifeholders will function as they do with no switch installed (page 10-1).





Remote engage switch OFF

Turning the remote engage switch OFF during the slitting operation automatically disengages and retracts the knifeholder. The 'open switch' icon will appear in the status bar to indicate that the switch is OFF.



The knifeholder remains 'armed' (ready to engage) and the 'armed' icon appears in the status bar.

The knifeholder touchscreen will function as described below.

Button	Action
Red	Disarms the knifeholder
Yellow	No action
Green	Knifeholder remains disengaged until the remote engage switch is turned ON.* The knifeholder state is 'armed'. When the switch is turned ON, the knifeholder will engage.
Jog  	No action

* The status LED will be steady red with an intermittent green flash until the remote engage switch is turned ON.

Setting up the knifeholder



Make sure that electrical continuity requirements were met during installation.

Make sure the power/communication cable is plugged in and that the knifeholder is disengaged and disarmed.



Warning – danger due to cutting

Do not put hands between the knife blade and the web material at any time during operation.

Severe bodily injury may occur.



Warning – danger due to crushing

Keeps hands away from all moving knifeholder parts during blade cartridge retraction.

Severe bodily injury may occur.

Position the knifeholder



If you are using anvil rings that are multi-grooved, or closely spaced, see page 11-7 before positioning the knifeholder.



1. Press the red button to retract the knifeholder.
2. Loosen the brake knob and move the knifeholder close to, but not touching, the anvil.
3. With the knifeholder in retracted position, press ▽ button to manually extend the blade cartridge to the approximate cutting depth.
4. Move the knifeholder on the guide bar until the blade just touches the anvil.
5. Tighten the brake knob.

Calibrate

Press the yellow button to begin the calibration sequence. The status LED will blink yellow during calibration. When calibration is complete, the LED will become steady yellow.

Engage to slit

Press the green button: the knifeholder will engage after successful calibration is achieved.

The status LED will blink green while engaging.

Note: You can push the green button during the calibration process; the knifeholder will engage when calibration is complete.

Retract

Press the red button to disengage the knifeholder.

The status LED will blink red while knifeholder is disengaging, and will become steady red when completely disengaged.



If you are using the optional PC control software, that user interface will update to reflect that a button on the knifeholder has been pressed.

Faults (errors)

If a fault occurs during normal operation, an alphanumeric code and a short description of the fault will be displayed on the screen. See page 11-2.

The status LED will be in a steady color state with an intermittent white flash; the steady color corresponds to the knifeholder function at the time of the fault.

Knifeholder actions

Reference only: This page provides details about knifeholder action when a button is pressed.



- ① Disengage knifeholder
 - Moves blade away from anvil, and then retracts blade cartridge.
 - Allows jog buttons ④ to move the knife up/down.
 - Use when moving the knifeholder (with cartridge retracted) to new slit position.



Do not move the knifeholder on the guide bar with extended cartridge except for calibration setup.

- ② Calibrate knifeholder
 - a) The blade will move vertically away from the anvil.
 - b) The blade cartridge will fully side-stroke,
 - c) move down until it just touches the top of the anvil blade,
 - d) move up to clear the anvil,
 - e) side-disengage to zero point,
 - f) move down to desired overlap,
 - g) side-engage until it just touches the side of the anvil blade,
 - h) side-disengage to zero point, and then
 - i) will wait for the next command.

- ③ Engage/extend knifeholder
 - Depending upon commanded engage state, extends blade cartridge to programmed overlap, and then moves side-stroke to the programmed side force.

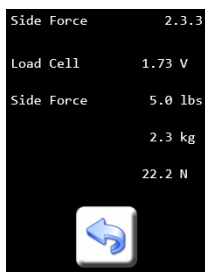
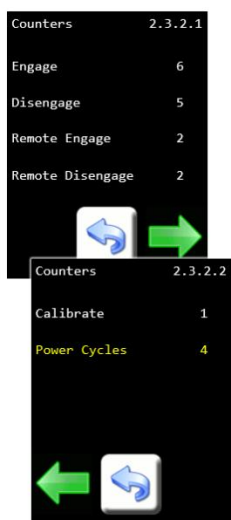
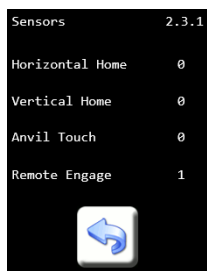
- ④ Jog buttons
 - stop knifeholder movement during calibration or engage (knifeholder will fault)
 - have no effect on disengage
 - put knifeholder in manual mode
 - ▽ DOWN arrow extends the knifeholder
 - △ UP arrow retracts the knifeholder



Use jog buttons with extreme caution.

Keep hands clear of knife blades at all times.

Monitoring tools



Monitor

Setup 2 > Monitor (2.3)

Select a menu item from the Monitor screen to view.



Sensors

Setup 2 > Monitor > Sensors (2.3.1)

Home – horizontal and vertical

Anvil Touch

Remote Engage



Counters

Setup 2 > Monitor > Counters (2.3.2.1)

Counters keep track of these knifeholder actions since the last power cycle:

Engage

Disengage

Remote Engage

Remote Disengage

Calibrate

Power Cycles (Yellow text indicates that the value was saved in EEPROM when the power was cycled.)



Side force

Setup 2 > Monitor > Side Force (2.3.3)

Load Cell: actual measured voltage

Side Force: actual side force reported in pounds, kilograms, and Newtons.

Control Series Plus knifeholders have an Auto Side Force option. See page 11-5.

Knifeholder faults (errors)



When a fault occurs, the fault code and a short description of the fault are displayed on the Active Fault screen (0.A.4).

Refer to the fault code tables on page 5-1.



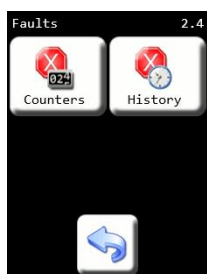
Returns the operator to the Main Screen, but does **NOT** clear the fault.



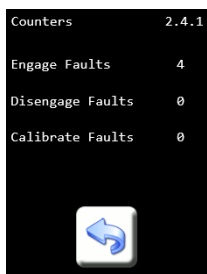
Press the red button on the main screen to clear the fault and resume operation.

The fault is stored in history: *Setup 2 > Faults > History (2.4.2.1)*

Fault data



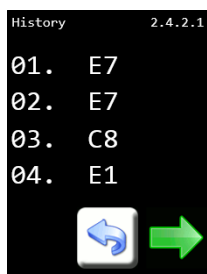
Setup 2 > Faults (2.4)



Counters

Setup 2 > Faults > Counters (2.4.1)

Counts the number of knifeholder fault types — engage, disengage, and calibration — since last power cycle.



History

Setup 2 > Faults > History (2.4.2.1)

Fault code history is remembered between power cycles.

History is limited to ten faults; the oldest faults are deleted as new faults are listed.



Advanced options (3.1.1 and 3.1.2)



Web material

Setup 3 > Advanced > Material (3.1.1.1)

If the knife blade touches conductive material before touching the anvil, an 'unexpected anvil touch' error occurs.

Non-Conductive material (typical web application)

The anvil blade sensor is ON and enables the knife blade to detect the anvil upon touch.

Conductive material

The anvil blade sensor is OFF, which allows the knife blade to plunge-cut conductive material without causing the 'unexpected touch' error.



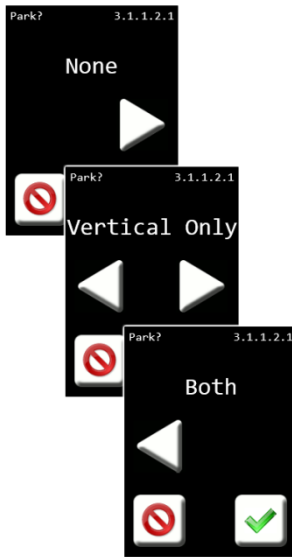
Parking

Setup 3 > Advanced > Parking (3.1.1.2)

Parking a knife blade in a specific location when disengaged allows for consistent elapsed time from engage signal to actual start of cut.

When using the Parking feature, you must 'home' the knifeholder at least once per week. This is necessary to maintain consistent positioning.

continued

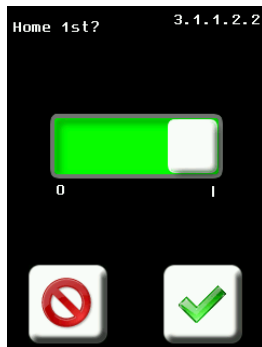
Parking continued**Park?**

Setup 3 > Advanced > Parking (3.1.1.2.1)

None is the default; the knifeholder returns to the home position when disengaging.

Vertical Only maintains a specific vertical distance between the knife blade and the anvil when parked in the disengage position.

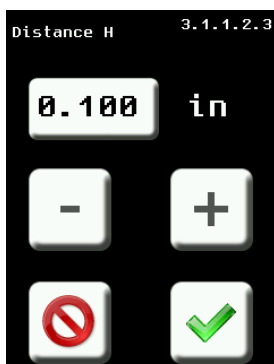
Both maintains a specific vertical and horizontal distance between the knife blade and anvil when parked in the disengaged position.

**Home First**

Setup 3 > Advanced > Parking (3.1.1.2.2)

When disengaging, the knifeholder returns to the home position, and then to the park location. Enable this option to maintain an accurate position.

Press the switch button to turn on this option. The switch turns green, indicating that Home First is enabled.

**Distance H**

and

**Distance V**

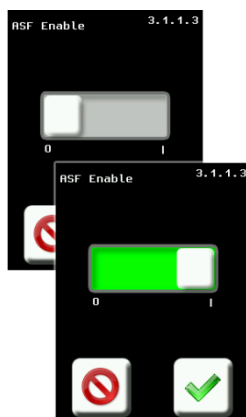
Setup 3 > Advanced > Parking (3.1.1.2.3/3.1.1.2.4)

When parking is enabled and knifeholder is disengaged, this is the *horizontal* and/or *vertical* distance between the knife blade and the anvil.

Press (+) or (-) to increase or decrease the distance, or press the value field button to open the numeric keypad and enter a value.



Auto side force (ASF)



Enable ASF – Control Plus model only

Setup 3 > Advanced > ASF Enable (3.1.1.3)

When ASF is enabled, the knifeholder makes automatic corrections when the measured side force is **more than plus or minus one pound** from the set point.



Press the switch button to enable ASF. The switch turns green, indicating that ASF is enabled.

ASF status icons on Main Screen



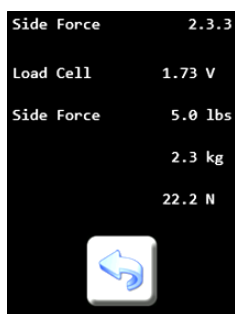
ASF is disabled or the knifeholder is not engaged. Side force is not being controlled.



ASF is enabled and the knifeholder is engaged. Side force is being controlled.



ASF is enabled and the knifeholder is engaged. An error has been detected. Side force is not being controlled.



Monitor side force

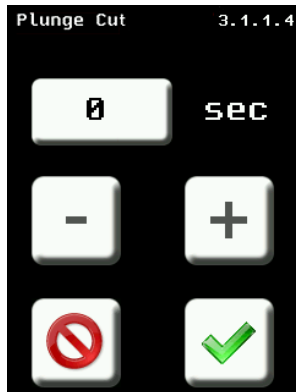
Display 2 > Monitor > Side Force (2.3.3)

Load Cell: actual measured voltage

Side Force: actual side force reported in pounds, kilograms, and Newtons.



Plunge cut timing



Plunge cut

Setup 3 > Advanced > Plunge Cut (3.1.1.4)

When the plunge cut feature is enabled, the knifeholder uses maximum side force to penetrate the web, and then adjusts to the target side force after a number of seconds.

The plunge cut setting allows the user to set the interval, in seconds, that maximum side force is held.

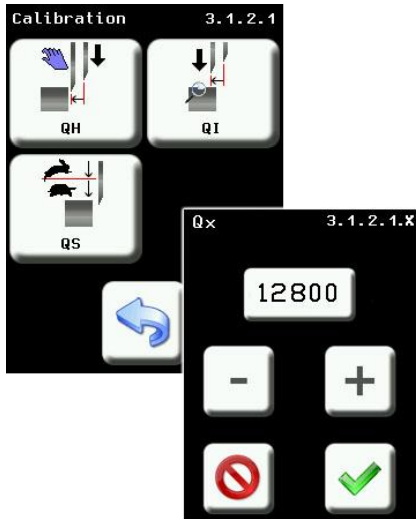
Plunge cutting is disabled if the interval is set to zero (default)



If Auto Side Force (ASF) is also enabled, the plunge cut feature will override it until the knifeholder reaches the target side force for normal slitting. Then ASF will resume monitoring and adjusting the side force.



Calibration settings



Custom settings for grooved anvil rings

Setup 3 > Advanced > Calibration (3.1.2.1)

When using anvil rings that are multi-grooved, or closely spaced, you will probably need to adjust the calibration travel variables for knifeholder side-stroke so that the blade does not collide with the anvil during calibration motions.

You may also need to adjust the full-stroke travel so that the blade does not pass over the anvil into the next gap.

The correct adjustments will help prevent faulty calibration and possible blade damage.

Nominal side-stroke travel defaults for the Control Series knifeholder		Half-stroke	Full-stroke
	Class II	.07	.20
	Class III	.12	.33

Adjust the variables as described below.

The units are in motor counts (approximate):

Vertical travel = 100 counts per thousandth of an inch

Horizontal travel = 140 counts per thousandth of an inch

Variables



QH (3.1.2.1.1)

Distance of half-stroke travel as the blade enters or exits the gap in the anvil. The gap in your anvil needs to be larger than the sum of the blade width and the half-stroke travel, plus .062" clearance.



QI (3.1.2.1.2)

Limits full-stroke travel during calibration to prevent the blade from passing over the top of the anvil blade and into the next gap.

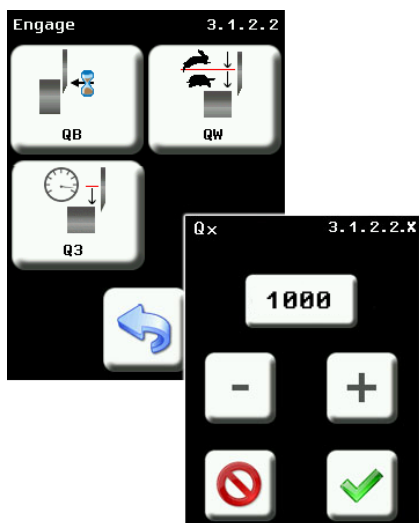


QS (3.1.2.1.3)

Adjust this variable to change the point at which the down-stroke speed decreases.



Engage settings



Setup 3 > Advanced > Engage (3.1.2.2)

When the knifeholder is engaging, the blade first travels vertically to the proper depth (down-stroke), and then travels horizontally until it makes contact with the anvil (side-stroke).

Using the Engage settings, you can create a delay between these two movements that will allow the blade to touch the web and start the blade spinning before it engages to full side-stroke.

Adjust the variables as described below.

Variables



QB (3.1.2.2.1)

Set QB to a value greater than zero to create a delay between the down-stroke and the side-stroke motions. The duration of the delay is in milliseconds.

If QB is zero (default), there will be no delay.



QW (3.1.2.2.2)

During the down-stroke, the knife first moves fast, and then slows down as the knife blade gets closer to the anvil; the default is .050" above the anvil. Adjust QW to change that distance. Units are in thousandths of an inch.



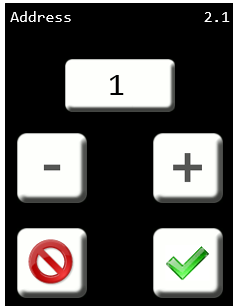
Q3 (3.1.2.2.3)

Adjust Q3 to change the speed of the slower portion of vertical movement. The default is 6000 (motor counts per second).

Knifeholder address



Manual mode



Setup 2 > Address (2.1)

Press (+) or (-) to manually assign an address to a knifeholder, or press the value field button to open the numeric keypad and enter a specific number.



Auto-addressing is not available at the touchscreen. You will need the PC interface software for that function.



Maintenance

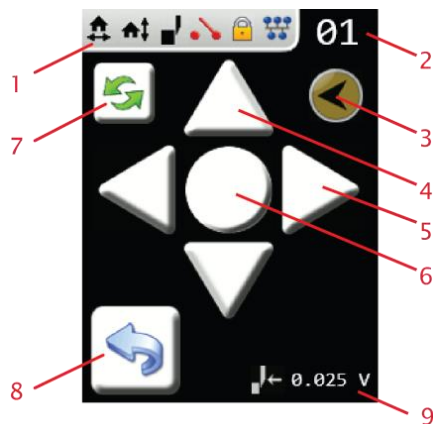


Maintenance mode

Setup 3 > Maintenance > Maint. mode (3.2)

Maintenance mode is used by Maxcess staff or technically trained users to diagnose and potentially resolve problems with a knifeholder.

Call Maxcess for assistance if you cannot solve a problem using the Error Code or Troubleshooting information.



- 1 Status bar
- 2 Knifeholder address
- 3 Cut side: arrow direction must match your knifeholder cant key Press the icon to change it.
- 4 Up/down arrow: jog vertical axis
- 5 Left/right arrow: jog horizontal axis
Direction depends upon **cut side** setting.
- 6 Center button: disable touch sensor relay (momentary)
- 7 Press and hold for 10 seconds to reboot
- 8 Tap to exit Maintenance Mode and return to previous screen.*
- 9 Raw load cell voltage (0 to 3.3 V)

* The device will return to the main screen in manual/jog mode when you exit maintenance mode. Press the red button on the main screen to exit manual/jog mode.

Icon	Name	Description
	Horizontal Home	This icon appears whenever the home sensor is activated in the horizontal axis.
	Vertical Home	This icon appears whenever the home sensor is activated in the vertical axis.
	Anvil Touch	This icon appears whenever the blade is in contact with the anvil.
	Remote Engage Off	The remote engage switch is OFF.
	Locked	The knifeholder is locked by a PC/serial command.
	Communication	This symbol appears when the knifeholder is connected to a PC or other device via the RS-422 serial network.

Table 8. Maintenance mode status bar icons

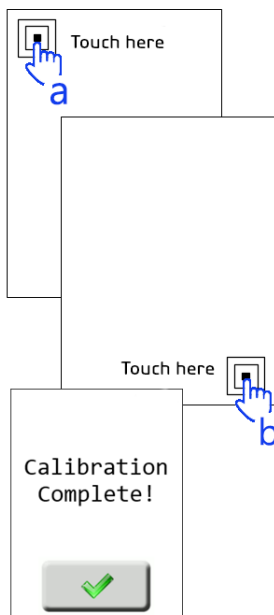
Touchscreen



Calibration

Display 2 (1.2.2)

The knifeholder is factory-calibrated. If it does not respond to touch in any area as expected, you may need to calibrate the touchscreen.



Cal. Touch

Display 2 > Cal. Touch

- (a) Touch the square in the upper left corner of the screen.
- (b) Touch the square in the lower right corner of the screen.

Touch the green check mark when the **Calibration Complete** prompt appears.

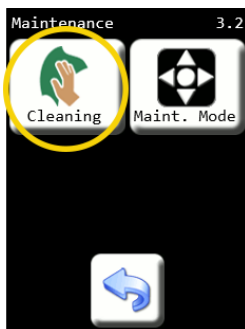


Failed calibration

If you touch the screen in the wrong places during the process, the calibration will fail. If this happens and you cannot navigate away from the calibration screen:

1. Turn off power to the knifeholder.
2. Press and hold at the center of the touchscreen while turning on the power. (This may take two people.)

Touchscreen



Cleaning

Setup 3 > Maintenance > Cleaning (3.2)

1. Press the icon to temporarily disable the screen (30 seconds).
2. Breathe on the screen and wipe dry with a clean, soft cloth.



DO NOT USE: flux, water, acetone, ethanol, isopropyl alcohol, toluene, or ammonia (glass cleaner) to clean the screen.



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