# SCMI Cross Cut Kit Installation Instructions

*Please note this installation kit is designed for installation on SCMI Sliding Table Saws (models SI12,SI16, SI16N, Hydro 3200, 300 Nova), Cross-Cut fences. Accurate Technology manufactures kits for other sliding table saws in which some or all of the components may be different. For more information about ProKits™ feel free to contact Accurate Technology.*

**SAFETY WARNING**

**To avoid injury: Before installing ProScale on a machine, turn off the machine and disconnect it from its power source.**

### Warranty

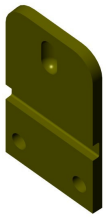
Accurate Technology, Inc., warrants ProKit ™ systems against defective parts and workmanship for one year, commencing from the date of original purchase. Upon notification of a defect, Accurate Technology, Inc. shall have the option to repair or replace any defective part. Such services shall be the customer's sole and exclusive remedy. Expenses incidental to repair, maintenance, or replacement under warranty, including those for labor and material, shall be borne by Accurate Technology, Inc.

Except as expressly provided in this warranty, Accurate Technology, Inc., does not make any warranties with respect to the product, either expressed or implied, including implied warranties of merchantability or fitness for a particular purpose, except as expressly provided in this agreement.

Accurate Technology, Inc., shall not be liable for any special, incidental, or consequential damages or for loss, damage or expense directly or indirectly arising from the customer's use of or inability to use the equipment either separately or in combination with other equipment, or for personal injury or loss or destruction of other property, or from any other cause.

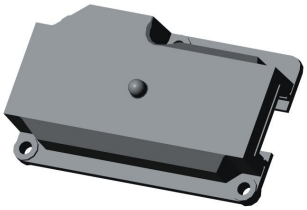
## Tools Required

- Set of clamps
- Phillips screwdriver
- Allen wrench set
- Center punch
- Number 33 drill (2.90mm)
- 8-32 Tap with tap handle



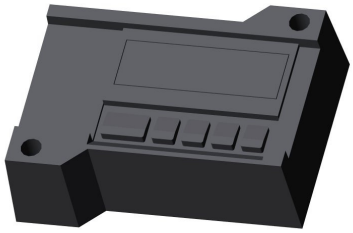
Guide Clip
(Replacement part number 100-1026-001)

Readout Hinge
(Replacement part number 700-1204-001)



Encoder/Readhead (cable not shown)

Digital Scale
(Replacement part number 700-3080-086)



General Purpose Digital Readout
(Replacement part number 700-1600-235)

## Installation:

Be sure to keep the parts for the cross-cut and rip fence kits separate if you have purchased both.
The readhead has been shipped on the scale, and should remain on the scale if possible.

### Mounting the Scale:

1. Clean the back of the fence if necessary. Be sure to remove all dirt and dust. File down any "high" spots along the length of the fence.

2. Place the scale against the back of the fence (orientation does not matter). The top face of the scale should be even with the top edge of the fence (see Figure 1). Clamp the scale in place. Mark the hole locations onto the fence. Drill and tap the fence for #8 screws. Mount the scale to the back of the fence using the supplied #8 machine screws. Use at least four screws for the installation.
   (The scale may also be mounted to the fence using the supplied foam tape to expedite the installation.)

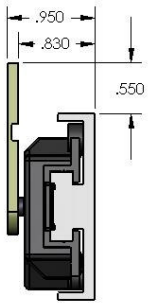
### Readout Assembly:

3. The readout brackets have been partially assembled for you at the factory. Mount the hinge and the digital readout to this assembly. After the readout is mounted, the entire assembly should be mounted to the stop as shown using the set screws.

### Readhead Engagement:

(See ProScale Manual for reference.)

4. Slide the readhead along the scale until it nears the stop assembly. Slip the readhead under the guide clip, making sure the small notch on the inside of the guide clip fits securely over the knob on the outside of the readhead. The guide clip should hold the readhead firmly and allow it to slide smoothly over the full length of the fence when the stop is moved. The guide clip should deflect about 0.050 inches when the correct pressure is set (see diagram at right). Add washers – if necessary – behind the guide clip to increase the pressure onto the readhead.




### Reading Direction:

5. Plug the readhead into the readout. Move the stop left and right along the fence. The readout should read small numbers near the saw blade and large numbers away from the blade. If the readings are backwards, change the reading direction parameter in the digital readout (see Operation Manual for details).

**Calibration of the Digital Readout:**

1. Lock the stop in position near the saw blade. Verify the **ABS** indicator is displayed in the upper left corner of the LCD. (If the INC indicator appears instead, press and hold the ABS/INC key for 3-4 seconds.)

2. Cut a small square board. Measure the cut dimension with the best measuring tool available.

3. Enter the distance from the blade to the stop using the PLUS, MINUS, and DATUM keys. NOTE: When pressing the PLUS or MINUS keys, the display will count slowly at first, and then speed up.

4. Lock the keypad. (This is done to prevent accidental changes to the calibration.)
   a. Press and hold the ON/OFF key.
   b. Tap the UNITS key (press and release in less than a second).
   c. Release the ON/OFF key.
   d. The keyboard is now locked. (**LOCK** will appear in the upper left corner of the LCD.)
   The keyboard can be unlocked by repeating steps a-c.

5. The above calibration procedure should be repeated each time a saw blade is changed and when the batteries in the digital readout are changed.

6. Repeat steps 1-5 if you have purchased the retrofit for a second stop.

## Kerf compensation for repetitive cuts:

The digital readout can also be programmed to automatically compensate for the kerf when making repetitive cuts. This is done by programming the blade kerf into the ABS/INC key. This feature is useful when one or more strips need to be cut to a desired dimension without requiring the operator to account for kerf manually.

**Programming:**

1. Determine the blade kerf.
2. Lock the stop in position. Verify that the **ABS** indicator is lit in the upper left corner of the LCD.
3. Press the ABS/INC key for two seconds. The **ABS** indicator will turn off, and the **INC** indicator will turn on.
4. Enter the blade kerf using the PLUS key.
5. Press the ABS/INC key again for two seconds. The blade kerf is now programmed.
6. Press the ABS/INC key for 4 seconds to return to the absolute distance (from the stop to the blade).

**Operation:**

1. Load a panel onto the machine, and place it against the stop.
2. Make a clean-up (squaring) cut if necessary.
3. Press the ABS/INC key for two seconds. The readout will display the kerf value.
4. Unlock the stop and adjust it down to the desired cutoff dimension. Notice that the digital readout first counts off the kerf amount, then counts up to the cutoff dimension. Lock the stop in the desired position, and cut the panel.
5. Repeat steps 3-4 as many times as needed.
6. Press the ABS/INC key for 4 seconds to return to the absolute distance (from stop to blade).

## Troubleshooting:

The battery clips seem loose when changing the batteries:

- DO NOT bend these clips. They are specially designed to compress and hold the batteries when the readout halves are screwed together. Avoid touching the clips as much as possible.

The display does not change when the stop is moved:

- The readhead is not properly engaged by the guide clip and is not moving. Check to be sure the readhead remains properly engaged.
- The digital readout has been programmed with a very small linear scaling factor. Reset the scaling factor to 1.0000.
- The readout is in HOLD mode. Turn off the HOLD mode and/or disable the HOLD function.

The displayed measurement is off by 0.060 inches (1.524mm):

- There has been a very large static electricity discharge into the measuring system. Ensure the machine and its dust collection tubing is properly grounded. Recalibration is necessary.

The displayed measurement is off by a value other than 0.060 inches (1.524mm):

- Check that all bolts and fasteners are tight.
- Check that the saw blade has not been changed. If it has been changed (kerf changed), recalibration may be necessary.
- The plus, minus, or zero keys have been accidentally pressed. Recalibration is needed.
- The readhead is not properly engaged by the guide clip and is not moving. Check to be sure the readhead remains properly engaged.
- The digital readout has been programmed with an obscure linear scaling factor. Reset the scaling factor to 1.0000.
- There have been several very large static electricity discharges into the measuring system. Ensure the machine and its dust collection tubing is properly grounded. Recalibration is necessary.

ProScale resets itself while saw is running and the stop is locked:

- The readout has been accidentally reset. Large voltage spikes from nearby motors, inverters, or dust collection systems might cause this. Be sure that all devices are properly grounded.
- Also, extreme vibration may cause this. Mount the digital readout in a different location.
- Be sure the DATUM key or ABS/INC key have not been pressed. Recalibration may be necessary.

ProScale resets itself while the saw is *not* running and the stop is locked:

- Be sure the DATUM key or ABS/INC key have not been pressed. Recalibration may be necessary.

ProScale readout reads "**No Enc**":

- The readhead has been removed from the scale, or its cable is damaged.
- The readhead is not connected to the readout.

The LCD **displays a battery symbol**:

- The batteries need to be changed. ProScale uses two standard AA **alkaline** cells. To change the batteries, unscrew the top cover (two screws) and remove old batteries. Do not mix old and new batteries. Only install alkaline batteries. Recalibrate the readout after replacing the batteries. HINT: Record the position of the readout before removing the old batteries. After installing new batteries, use the PLUS and MINUS keys to quickly return to the same calibrated position.

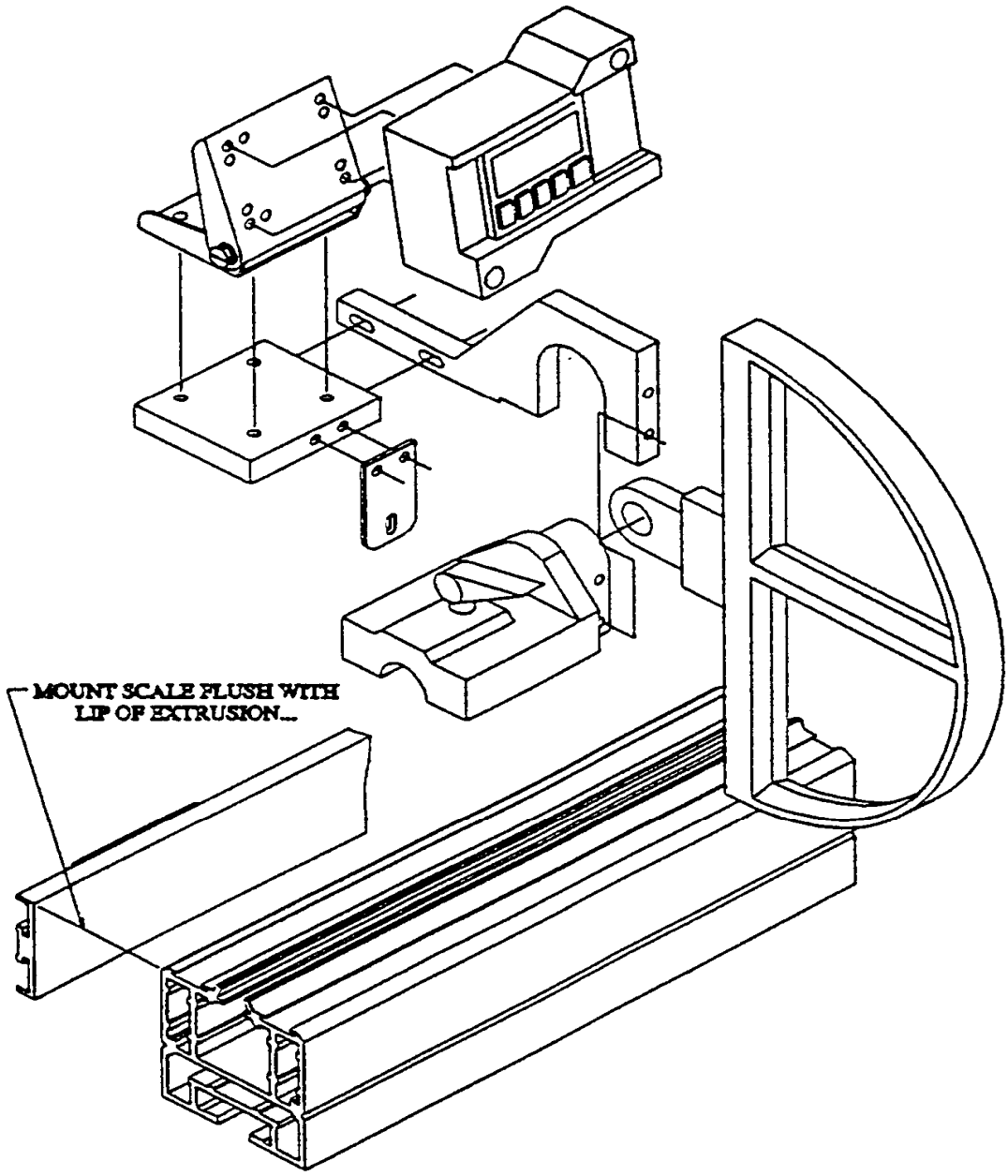



**Figure 1.**