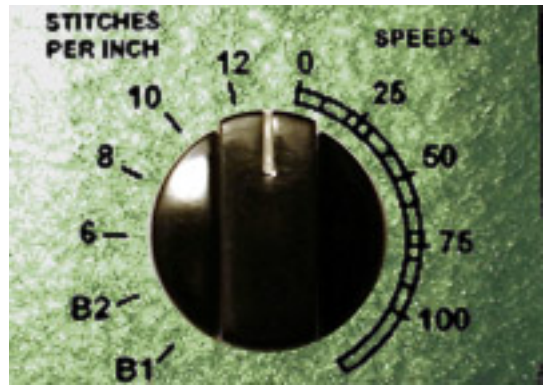
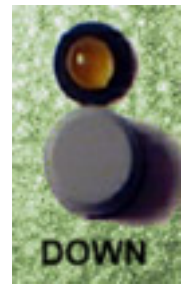
I/S-2KN adjustment procedure for NOLTING machines with REV1.x software

The REV 1.x revisions of the I/S-2KN software provide adjustment means to set the needle speed, the needle positioner's up and down positions, the needle return position of the regulated stitches and the constant speed range. The SELECTOR DIAL is used to select the adjustment modes:

SELECTOR DIAL POSITION	ADJUSTMENT MODE
minimum (B1)	needle speed
12 o'clock	needle positions
	precision needle position
maximum (100%)	constant speed range



The DOWN pushbutton is used to select between decrementing (yellow light on) and incrementing (yellow light off) an adjusted parameter.



To enter the adjustment mode, hold the RED BUTTON down while powering up the unit.

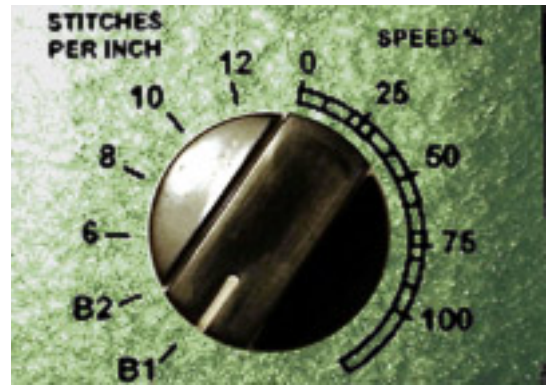
A. NEEDLE SPEED ADJUSTMENT

In this mode the needle speed for the needle positioner can be adjusted.

Note that the needle positioner speed adjustment will change parameters that affect the needle top position and the constant speed range, so it should be performed first.

NEEDLE POSITIONER SPEED

1. Turn the SELECTOR DIAL to its minimum (B1) position.



2. Push and hold down  . A needle positioning step (up or down) will be made.

1. Check the speed and strength of the needle movement. The proper setting should provide just enough strength to stitch through the fabric going down and pull out going up without jamming. Avoid setting the needle speed too high, for it may cause the needle to run over its top and bottom position.

2. If the speed and strength are sufficient, release  , the adjustment is completed.

3. If the speed and strength are not sufficient, while still holding  down, turn on the yellow DOWN light if the speed needs to be decreased, turn it off if increasing is necessary.

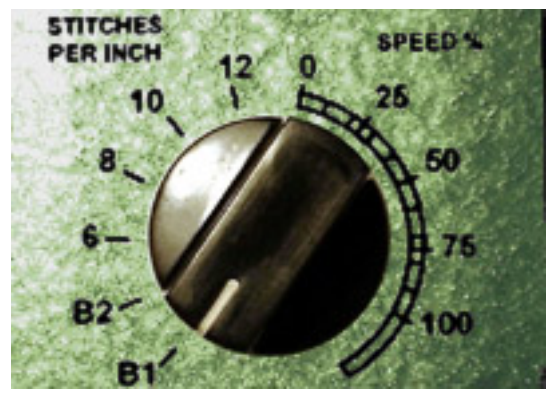
4. While still holding  down, hit  . A beep will indicate that the speed was increased/decreased and the new value was stored in the computer's memory. A missing beep indicates that a high/low limit was reached.

5. Release  and repeat the procedure from Step 2 until the desired speed is reached.

REGULATED STITCHING SPEED
Does not apply to Needle Positioner

1. With the SELECTOR DIAL still at the minimum (B1) position push and hold down  . A fast single stitch will be made.

2. Check the speed of the stitch. The speed should as high as possible without causing double stitching.



1. If the speed is acceptable, release  , the adjustment is completed.

2. If the speed is not acceptable, while still holding  down, turn on the yellow DOWN light if the speed needs to be decreased, turn it off if increasing is necessary.

3. While still holding  down hit  . A beep will indicate that the speed was increased/decreased and the new value was stored in the computer's memory. A missing

beep indicates that a high/low limit was reached.

4. Release  and repeat the procedure from Step 1 until the desired speed is reached.

B. NEEDLE POSITION ADJUSTMENTS

A major improvement in the I/S-2KN software makes it possible to eliminate the mechanical timing and set the regulated stitch return position by software, similarly to the needle up/down positions.

The needle position sensor's timing is set at the time of the installation, there is no need to re-time the sensor. It is recommended, however, to check the proper timing before the needle position adjustment takes place.

To check the sensor timing:

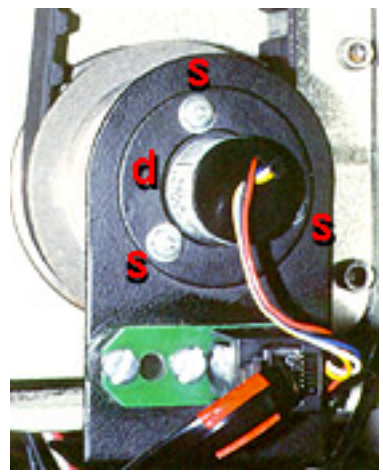
1. While watching the red FAIL light turn the rear handwheel **very slowly** counter clockwise until the light comes on. If the light just flashes, turn the handwheel backward until the light is on again. With fine adjustments of the handwheel the red light can be constantly turned on.

2. If the third mark on the needlebar is aligned when the light is on, the timing is correct, you can proceed to the UP/DOWN POSITON ADJUSTMENT.

3. If the red light is on when the needle is not at the desired position, the SENSOR ALIGNMENT procedure should be followed.

SENSOR ALIGNMENT

The needle position sensor is placed on the lower pulley on the back of the machine. The sensor is mounted on a bracket with its shaft inserted in a plastic plug. The plastic plug is held in the lower pulley by a setscrew.



1. Turn the rear handwheel **very slowly** counter clockwise watching the red FAIL light. If the light just flashes, turn the handwheel backward until the light is on again. With fine

adjustments of the handwheel the red light can be constantly turned on.

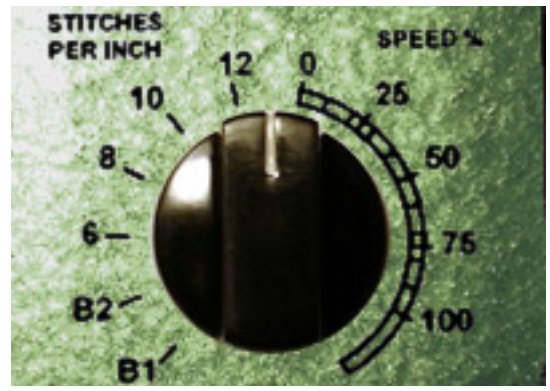
2. Loosen the setscrew holding the plastic plug in the lower pulley. Hold the shaft of the sensor by tweezers or pliers, trying to keep the red FAIL light on during the next step.

3. Turn the rear handwheel counter clockwise until the third mark on the needlebar is aligned while the needle is going down. When this position is reached and the red FAIL light is on, the adjustment is completed, tighten the setscrew.

4. Replace the cover on the needle position sensor.

UP/DOWN POSITION ADJUSTMENT

1. Turn the SELECTOR DIAL to the 12 o'clock position.



2. Push and hold down  . A needle positioning step (up or down) will be made.

   To differentiate between the "up" and "down" positions a beep will sound when the needle is supposed to be at the "up" position.

1. Check the up or down position of the needle.

When adjusting the "up" position, the take-up lever should be at this position to release the thread from the hook.

When adjusting the "down" position, the needle should stop at its lowest position.

1. If the up(down) position is correct, release  , and go to Step 1 to check the other position.

2. If the up(down) position is not acceptable, turn on the yellow DOWN light if the rear handwheel needs to be turned clockwise, turn off the light if the rear handwheel needs to be turned counter clockwise to reach the desired up (down) position.

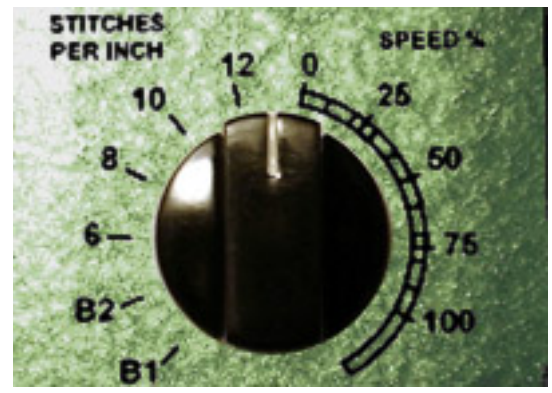
3. While still holding  down hit  . A beep will indicate that the new position was stored in the computer's memory.

4. Release  and repeat the procedure until the desired needle positions are reached.

Note that in some cases excessive overrun and occasional double stitching may occur during the up/down position adjustment. This may be due to unnecessary high needle positioner speed. In such cases a repeated needle positioner speed adjustment is necessary to eliminate the effect.

NEEDLE RETURN POSITION ADJUSTMENT
Does not apply to Needle Positioner

1. With the SELECTOR DIAL still at the 12 o'clock position push and hold down  . A fast single stitch will be made.
2. Check the needle return position.



The needle should return to the top with the take-up lever at the depicted position.

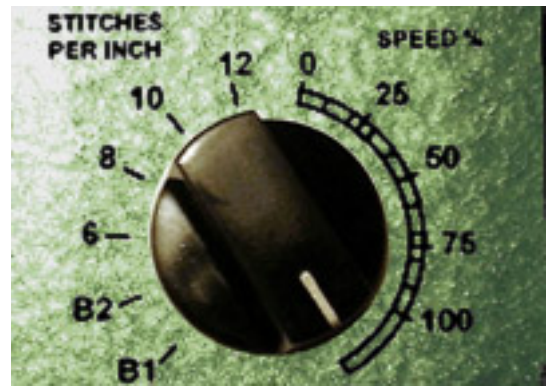
1. If the needle return position is correct, release  , the adjustment is completed.
2. If the position is not acceptable, turn on the yellow DOWN light if the rear handwheel needs to be turned clockwise, turn off the light if the rear handwheel needs to be turned counter clockwise to reach the desired needle return position.
3. While still holding  down hit  . A beep will indicate that the new position was stored in the computer's memory.
4. Release  and repeat the procedure until the desired needle return position is reached.

Note that in some cases double stitching may occur during the needle return position adjustment. This may indicate that the sensor is out of alignment. In such cases a repeated

sensor alignment is necessary to eliminate the effect.

PRECISION NEEDLE RETURN POSITION ADJUSTMENT
Does not apply to Needle Positioner

1. Turn the SELECTOR DIAL to its maximum (100%) position.
2. Push and hold down  . A reduced speed (precision) single stitch will be made.
3. Check the needle return position.



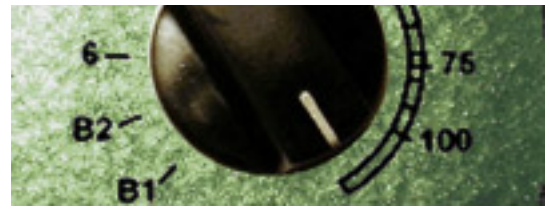
The needle should return to the top with the take-up lever at the depicted position.

1. If the needle return position is correct, release  , the adjustment is completed.
2. If the position is not acceptable, turn on the yellow DOWN light if the rear handwheel needs to be turned clockwise, turn off the light if the rear handwheel needs to be turned counter clockwise to reach the desired needle return position.
3. While still holding  down hit  . A beep will indicate that the new position was stored in the computer's memory.
4. Release  and repeat the procedure until the desired needle return position is reached.

C. CONSTANT SPEED RANGE ADJUSTMENT

1. With the SELECTOR DIAL still at its maximum (100%) position push and hold down  . The motor will start

running continuously with the fastest constant speed.



1. Check the full speed range by turning the SELECTOR dial while holding  down.
   Note that  should be held down continuously during the whole procedure.

2. If the maximum speed needs adjustment, while still holding  down, turn on the yellow DOWN light if the speed needs to be decreased, turn it off if increasing is necessary.

3. While still holding  down hit  . A beep will indicate that the speed was increased/decreased. Repeat the procedure from Step 2 until the desired maximum speed is reached.

4. While still holding  down turn the SELECTOR DIAL to its minimum (B1) position. This is the slowest speed.

5. If the slowest speed needs adjustment, while still holding  down, turn on the yellow DOWN light if the speed needs to be decreased, turn it off if increasing is necessary.

6. While still holding  down hit  . A beep will indicate that the speed was increased/decreased. Repeat the procedure from Step 7 until the desired slowest speed is reached.

7. When both the slowest and maximum speed are acceptable release  to save the adjusted speed range in the computer's memory.

After the adjustments are made the power should be turned off and on again to start the unit in normal operating mode.

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