

CHECKING AND ADJUSTING THE TRANSMISSIVE SENSOR THRESHOLD LEVEL

The Citizen CLP8301 uses an optical sensor to detect the label gap to ensure accurate feeding of the labels. This can optionally be set to 'Black Mark' (for label stock which has a black mark on the reverse of the backing coincidental with the label gaps) or 'Transmissive' (for label stock without a black mark).

When using the Transmissive sensor, label feed problems, particularly throwing extra blank labels, can be caused by an incorrect setting of the Sensor Threshold Level, or if the upper and lower sensor elements become misaligned. The optimum setting for the Sensor Threshold is dependent upon the media in use and may need to be adjusted from time to time. To check, and if necessary adjust, this setting follow the instructions outlined below.

STEP 1 – CHECK THE SENSOR ALIGNMENT

ACTION	LCD DISPLAY	DESCRIPTION
Open the Print Head	N/A	Open the printer cover, lift ribbon assembly.
Open Sensor Arm	N/A	Release and raise the sensor arm, remove the label media.
Check Lower Sensor	N/A	Directly beneath the sensor arm is a moveable black sensor assembly. This has two markings, T for Transmissive and R for reflective. Check the position of the 'T' mark against the ruler (NB: Should not be central [0], but ideally 10mm either side of central).
Check Upper Sensor	N/A	Close the sensor arm. This too has a moveable sensor element with a small projection on one side. Adjust (if necessary) the position of the upper sensor element so that the projection corresponds to the same measurement on the ruler as the 'T' mark above.
IF the sensors were misaligned, replace the label stationery and try printing a label.		

If the sensors were properly aligned, or if realignment did not solve the problem, your will need to adjust the sensor threshold. Checking and adjusting the sensor threshold level is achieved using the button panel on the front lower left face of the printer. In the following instructions, press the button indicated in square brackets at each stage.

STEP 2 – CHECK THE TRANSMISSIVE VOLTAGE OF THE LABEL AND BACKING COMBINED

ACTION	LCD DISPLAY	DESCRIPTION
Position label under sensor	READY	Open the printer cover, lift ribbon assembly and sensor arm – ensure a blank (ie. unprinted) portion of a label is beneath the sensor head. Close sensor arm and ribbon assembly.
Press [MODE]	*SYSTEM SETUP	Printer enters Configuration mode – If display does not show SYSTEM SETUP , press [UP] until that setting is reached.
Press [SELECT]	MEDIA SENSOR	Printer enters System Setup Menu.
Press [UP]...	SENSOR MONITOR	Press [UP] until SENSOR MONITOR appears on the LCD Display.
Press [SELECT]	MONITOR ?.?V	Printer enters Sensor Monitor mode. The LCD panel displays the light sensitivity reading from the sensor. Make a note of the voltage reading (label and backing). Leave printer in Sensor Monitor mode whilst proceeding to next step.



Setting the Transmissive Sensor

STEP 3 – CHECK THE TRANSMISSIVE VOLTAGE OF THE BACKING ALONE

ACTION	LCD DISPLAY	DESCRIPTION
Position exposed backing expose under sensor	MONITOR ?.?V	Lift ribbon assembly and sensor arm – peel off a label from the backing so that a portion of backing alone is beneath the sensor head. Close the sensor arm and ribbon assembly. The LCD panel now displays the light sensitivity voltage for the backing only. Make a note of the new reading. <ul style="list-style-type: none"> • Voltage = 0.0 – The stationery you are using has a non-opaque backing which is not suitable for use with the transmissive sensor or the sensor unit is mis-aligned or the sensor unit has failed – Contact Hibiscus PLC. • Voltage < 1.0 - The stationery you are using has an opacity level which is below the threshold for efficient operation of the transmissive sensor or the sensor unit is failing – Contact Hibiscus PLC.
Press [EXIT]	SENSOR MONITOR	Leave printer in configuration mode whilst proceeding to next step.

STEP 4 – CHECK AND ADJUST THE SENSOR THRESHOLD LEVEL

ACTION	LCD DISPLAY	DESCRIPTION
Press [UP]	SENSOR LEVEL	Press [UP] until SENSOR LEVEL appears on LCD display.
Press [SELECT]	LEVEL ?.?V	Read current sensor Threshold Level from LCD display. Compare the Threshold Level voltage to the previously taken Monitor voltage settings. For best operation the Threshold Level should be set mid way between the two. Eg. If the monitored voltage for label and backing = 1.0V and for backing only = 2.0V then optimum Threshold Level = 1.5V. If set correctly, press [EXIT] else use the [UP] or [DOWN] buttons to adjust the Threshold Level to the optimum setting, then press [SELECT].
	SENSOR LEVEL	Exits to Sensor Level.
Press [EXIT]	*SYSTEM SETUP	Exits to System Setup.

STEP 5 – SAVE NEW SETTINGS AND EXIT

ACTION	LCD DISPLAY	DESCRIPTION
Press [DOWN]	*SAVE SETTINGS	Press [DOWN] until SAVE SETTINGS appears on LCD display.
Press [SELECT]	SAVE YES/NO	Printer requests confirmation before saving settings. Initially NO is selected.
Press [UP]	SAVE YES/NO	Select YES.
Press [SELECT]	SETTINGS SAVED!	Modified printer settings are saved.



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Press [EXIT]	*SAVE SETTINGS	Exits to main menu.
Press [EXIT]	READY	Printer exits configuration mode.
Open the print head assembly and adjust your label media to a normal starting position.		

The printer sensor Threshold Level has now been adjusted. Pressing 'Feed' should accurately advance the media one label at a time.

Try sending a run of labels to ensure proper operation.

If you are still encountering problems you may need to recalibrate the sensor (see next page).



TO RE-CALIBRATE THE SENSOR

ACTION	LCD DISPLAY	DESCRIPTION
Remove a label from the backing	READY	Open the printer cover, lift ribbon assembly and sensor arm. Remove a label completely from the backing. Close sensor arm and print head assembly ensuring only exposed backing is beneath the sensor head.
Press [MODE]	*SYSTEM SETUP	Printer enters Configuration mode
Press [SELECT]	MEDIA SENSOR	Printer enters System Setup Menu.
Press [UP]	AUTOCAL MODE	Press UP repeatedly until AutoCal Mode appears on the LCD Display.
Press [SELECT]	CAL. YES/NO	Printer requests confirmation before commencing calibration. Initially NO is selected.
Press [UP]	SAVE YES/NO	Select YES .
Press [SELECT]	CAL. END	Printer autocalibrates (there will be a motor noise and some movement of the backing as the calibration is performed).
Press [EXIT]	AUTOCAL MODE	Exit autocal mode.
Press [EXIT]	READY	Printer exits configuration mode.

Now reset the Transmissive Sensor level as before.

If problems still persist, please call Hibiscus IT Support on 0113 2424272 for further advice.