



Zebra Technologies Corporation

Black Mark Sensor Option Kit Installation Instructions

This kit includes the parts and documentation necessary to install the black mark sensor into 105SL, 105Se and 160 S-series printers. Read these instructions thoroughly before attempting to install this kit.

NOTE: Black mark sensor operation requires a ZPL enable command for 160 S printers.

NOTE: There are two configurations of 105SL printer: Printers with middle four configuration numbers of 0XXX and 1XXX have separate DC and AC power supplies. Printers with middle four configuration numbers of 2XXX and 3XXX have an integrated AC/DC power supply assembly. Refer to the configuration number on the back of your 105SL printer to determine which version you have.

NOTE: Refer to Figure 1 for S-series printers, Figure 2 for 105SL printers with configuration numbers 10500-0XXX-XXXX and 10500-1XXX-XXXX, or Figure 3 for 105SL printers with configuration numbers 10500-2XXX-XXXX and 10500-3XXX-XXXX.

Reference Materials

- 38452L S-series Maintenance Manual
- 31460L S-series User's Guide
- 11342LB 105SL User's Guide
- 32056L 105SL Maintenance Manual

Tools Required

#2 Phillips screwdriver, SAE Allen wrench set, SAE nut driver set

Parts List

Table 1. Black Mark Sensor Kit Parts

√	PART NUMBER	DESCRIPTION
	N/A	Black mark sensor (also known as reflective media sensor)
	Q06020	Tie wrap, qty. 3
	30392-004*	Screw, socket head cap (Allen) 6-32 x 0.25, qty. 2
	N/A	Installation instructions
N/A – Not Available As Separate Service Item		

* Only available in quantities of 50 as part number HW30392-004.

Installation Instructions

1. At the rear of the printer, set power switch to the Off (O) position. Disconnect AC power cord and all data cables.
2. Remove and retain the Phillips screws and remove the electronics cover.

Black Mark Sensor Installation Instructions

3. If you are replacing a defective black mark sensor, remove and retain two Allen screws and the black mark sensor.
4. Position new black mark sensor to mounting location. Fasten sensor in position with two Allen screws provided in the kit.

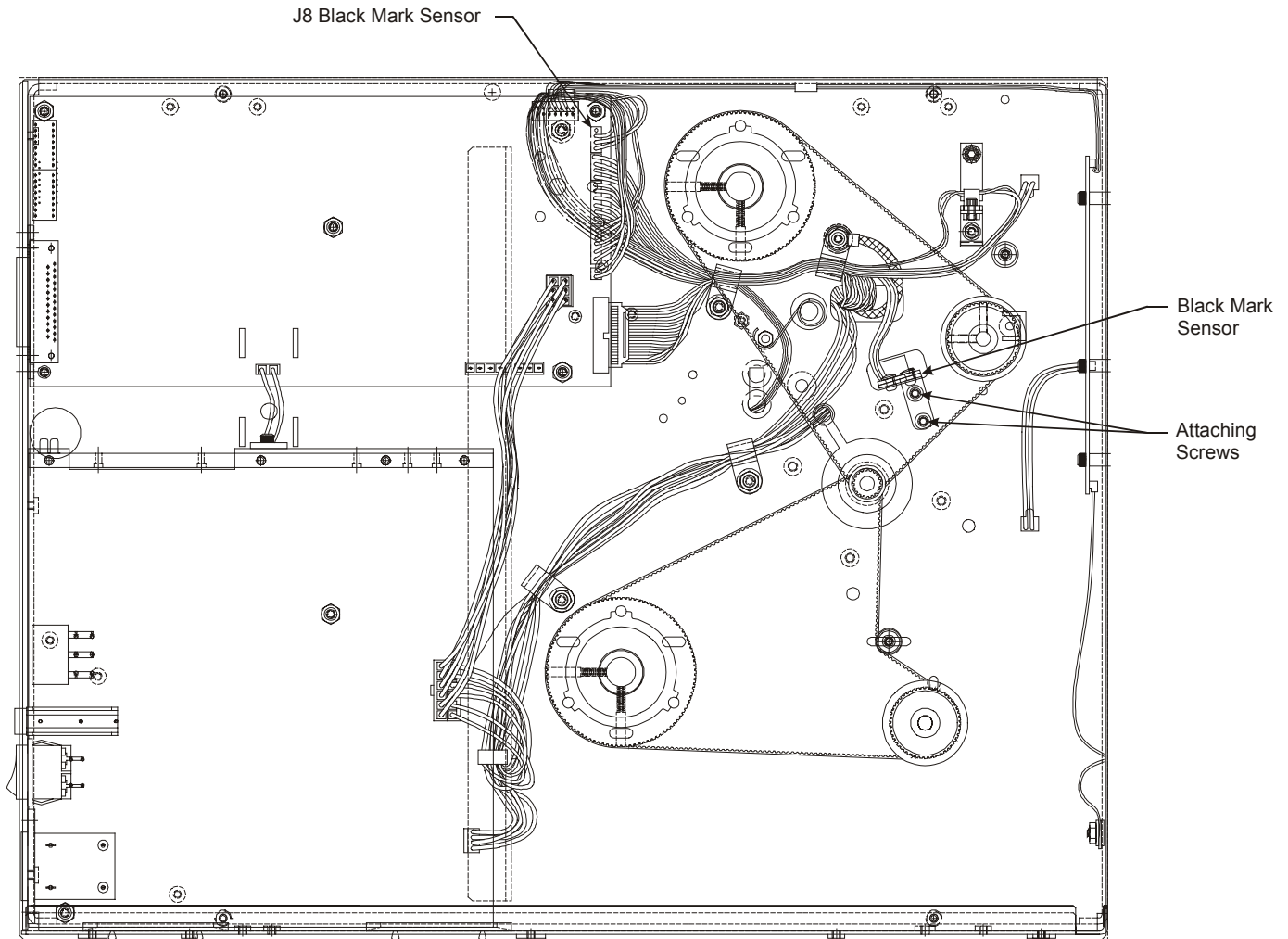


Figure 1. Black Mark Sensor Installation on S-series Printer

5. Route sensor electrical lead to the main logic board. Cut and replace plastic wire ties as necessary. Remove hex nuts holding flat white cable clamps as necessary. Route and secure the sensor electrical lead as neatly as possible to the main logic board. Secure flat white cable clamps with hex nuts and nut driver.
6. Plug sensor electrical lead into the correct connector on the main logic board as shown.
7. Reinstall the electronics cover and secure it with Phillips screws.
8. At the rear of the printer, reinstall all data cables and the AC power cord. Set power switch to the On (I) position.

Black Mark Sensor Installation Instructions

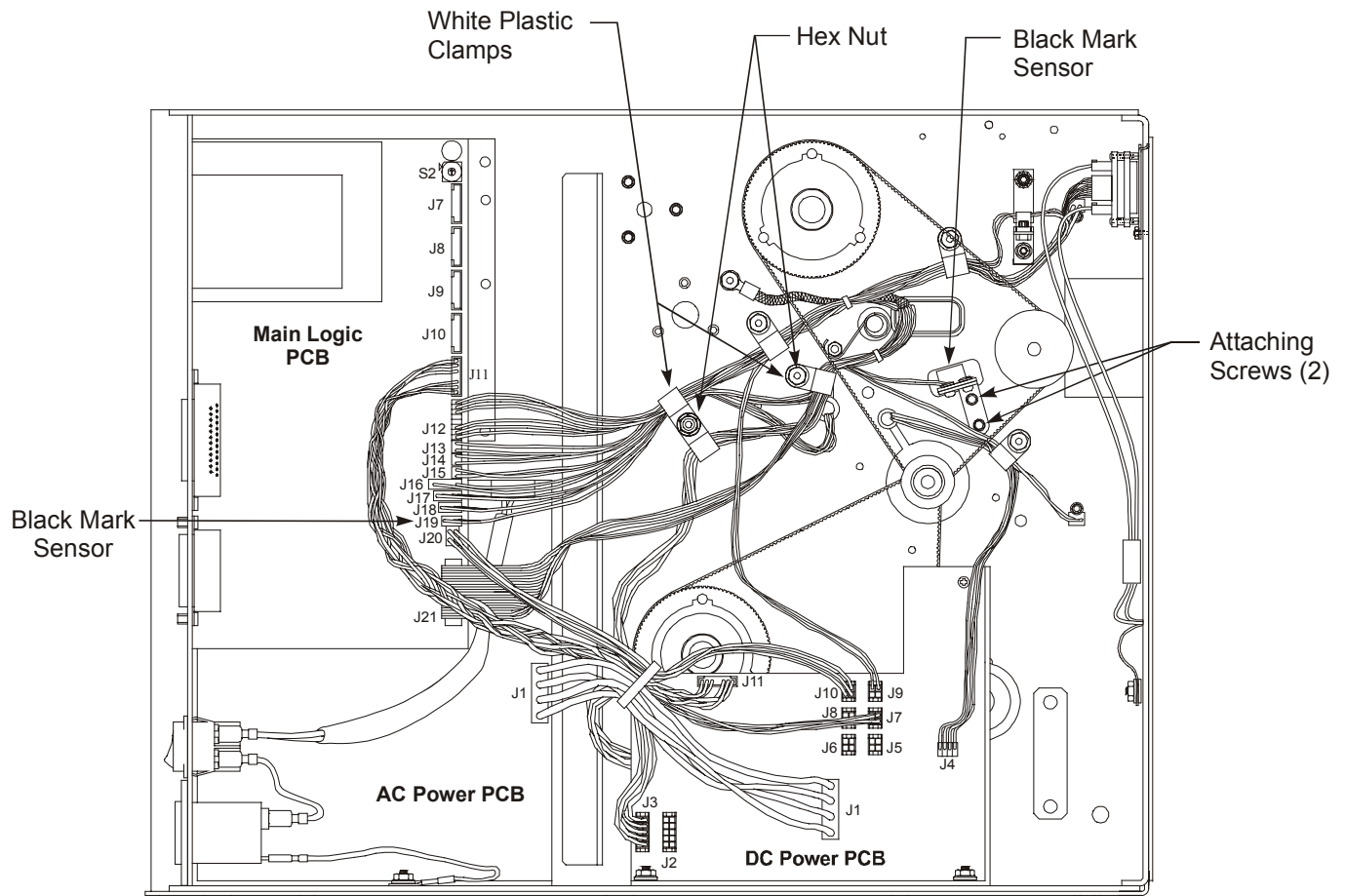


Figure 2. Sensor Lead Routing and Connection for 105SL Printers with configuration numbers 10500-0XXX-XXXX and 10500-1XXX-XXXX.

Enable Black Mark Sensor Operation through Front Panel Configuration for 105SL Printers

1. After the power up self test, enter printer configuration. Refer to your printer's User's Guide for specific printer information.
2. Press Next/Save until you get to Sensor Type. Press the (+) or (-) keys to select 'transmissive' or 'black mark' sensing mode. Select BLACK MARK sensing mode if you are printing on black mark media. If you are not ready to do that at this time, leave the printer set to the TRANSMISSIVE sensing mode.
3. Press SETUP/EXIT to save the new settings.

NOTE: Whenever you are printing on black mark media, you need to enter configuration and change sensing mode to BLACK MARK.

Use ZPL to Change 105 Se and 160 S Printers to Black Mark Sensor Operation

1. Using ZPL, send the following black mark sensor enable command to start printing on black mark media.
2. ZPL black mark enable command: `^XA^MNM^XZ^XA^JUS^XZ`

Black Mark Sensor Installation Instructions

Use Bank 2 Dip Switches to Override any ZPL II Command for 105Se & 160 S Printers

NOTE: You can manually override any ZPL II command or disable the override using Bank 2 Dip switches, as shown in the S-Series User's Guide and here below in Table 2.

Table 2. Dip Switch Positions for Override and Disable

Bank 2 Switch Number and Position			Media Mode
6	5	4	Black-mark Sensing Mode
R	R	L	
--	--	R	Override is disabled

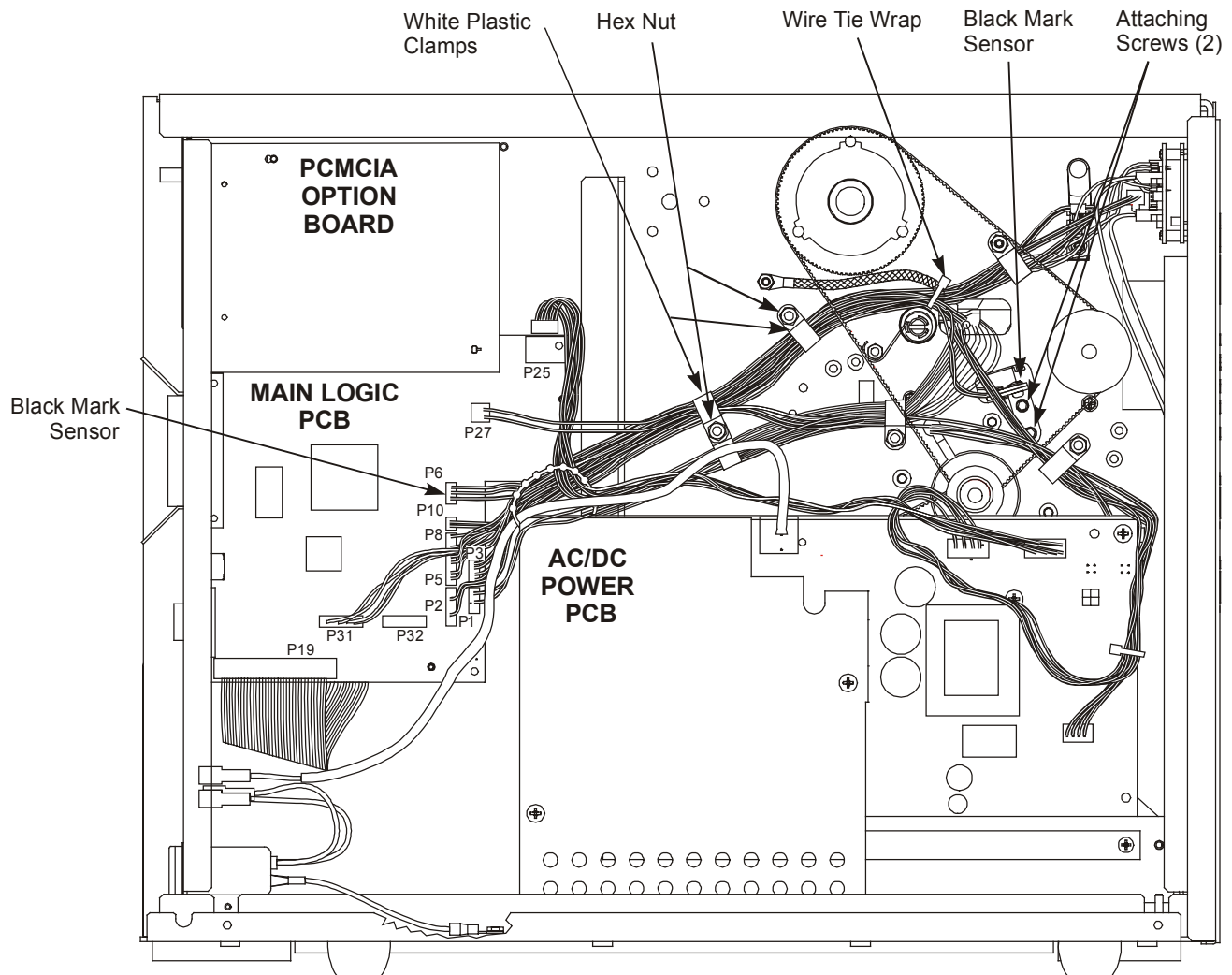


Figure 3. Sensor Lead Routing and Connection for 105SL Printers with configuration numbers 10500-2XXX-XXXX and 10500-3XXX-XXXX.