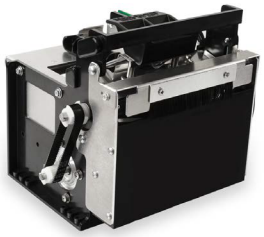
Lemur-C Manual

Lemur-C Ticket Printers Operator's Manual



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www.tls-bocasystems.com

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FCC NOTICE

NOTE: The equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's expense.

Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to insure compliance.

WARRANTY INFORMATION

BOCA warrants the equipment manufactured and sold by it to be free from defects in material and workmanship under normal use and service for a specified period of time. Parts damaged by negligence or misuse (bad ticket stock, improper operating conditions, etc.) are excluded from this warranty. Warranties for printers are 1 year from date of shipment. (NOTE: The print head is a consumable part and is warranted for 90 days.) Spare parts carry a 90 day warranty. Tickets are warranted, under proper storage conditions, for a period of 3 years. All warranty work is to be performed either by BOCA or by an authorized BOCA service center. Shipping charges to the repair center are the customer's responsibility. BOCA will pay for the equipment's return via ground service.

Please go to the link below if you have any reported issues with your new BOCA printer.
www.bocasystems.com/onlinesupportform.html

Equipment damaged in shipping should be reported immediately both to BOCA and to the shipper.

EXTENDED WARRANTY PLAN - BOCA offers extended warranty plans for all printer models. These plans cover all parts and labor. All labor is to be performed at the BOCA facility. Equipment damaged by misuse or negligence, including damage to print heads caused by defective ticket stock, is excluded from this extended warranty. The customer, at its option, may request BOCA to ship individual parts to expedite simple repair procedures. In certain cases where the customer is unable to wait for the normal repair cycle, BOCA will ship an exchange printer within one business day after notification by the customer. All freight charges are the responsibility of the customer.

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1.0 Introduction

The Lemur-C printer is a direct thermal ticket printer that may be purchased with optional integrated cutting mechanism. This manual will provide the user with general information regarding printer set-up, configuration and troubleshooting. Please read the important safety information section before installation is conducted. Review the programming guide for additional details.

2.0 Unpacking the Printer

The printer is shipped in a ruggedized container. **Please save packing material for future use.** Remove the printer and accessories from the box and inspect for obvious damage. If damage is noticed, please report it immediately to BOCA.
Email: cathy@bocasystems.com Tel: (561) 998-9600 Fax: (561) 998-9609

The following items should be in the box:

a) Ticket Printer
b) 24VDC power supply
c) AC cord
b) Hopper (if applicable)
d) Interface cable (optional)
e) Mounting Plate (optional)

Shown with optional hopper

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3.0 Important Safety Information

WARNING: The appearance of this symbol indicates the proximity of an exposed high voltage area. Please follow all directions carefully for your personal safety. You must read the following safety information carefully before working on the printer.

As a safety precaution, all service to the printer should be done by qualified persons with power off and the AC cord unplugged from the printer. Following any procedure requiring the removal of covers and/or doors, please verify that they have been properly attached and fastened prior to operating the printer.

WARNING: "Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains."

WARNING: Power Cord Set: This must be approved for the country where it is used:

U.S.A. and Canada

- The cord set must be UL-approved and CSA certified.
- The minimum specification for the flexible cord is:
- No. 18 AWG
- Type SV or SJ
- 3-conductor
- The cord set must have a rated current capacity of at least 10A.
- The attachment plug must be an earth-grounding type with a NEMA 5-15P (15A, 125V) or NEMA 6-15P (15A, 250V) configuration.

United Kingdom only

- The supply plug must comply with BS1363 (3-pin 13 amp) and be fitted with a 5A fuse which complies with BS1362.
- The mains cord must be <HAR> or <BASEC> marked and be of type H03VVF3GO.75 (minimum).

Europe only:

- The supply plug must comply with CEE 7/7 (“SCHUKO”).
- The mains cord must be <HAR> or <BASEC> marked and be of type H03VVF3GO.75 (minimum).

Denmark: The supply plug must comply with section 107-2-D1, standard DK2-1a or DK2-5a.

Switzerland: The supply plug must comply with SEV/ASE 1011.

WARNING: The appliance coupler (the connector to the unit and not the wall plug) must have a configuration for mating with an EN60320/IEC320 appliance inlet.

WARNING: The socket outlet must be near to the unit and easily accessible.

WARNING: France and Peru only:
This unit cannot be powered from IT† supplies. If your supplies are of IT type, this unit must be powered by 230V (2P+T) via an isolation transformer ratio 1:1, with the secondary connection point labelled Neutral, connected directly to earth (ground).

WARNING: RJ-45 Ports. These are shielded RJ-45 data sockets. They cannot be used as standard traditional telephone sockets, or to connect the unit to a traditional PBX or public telephone network. Only connect RJ-45 data connectors. Either shielded or unshielded data cables with shielded or unshielded jacks can be connected to these data sockets.

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4.0 Installation

The Lemur series printer was designed to be mounted either on a desktop or shelf (horizontal model) or vertically in a counter top (see Appendix A for installation of vertical printers).

Prior to site preparation and installation, the printer should be powered up and run in the self-test mode.

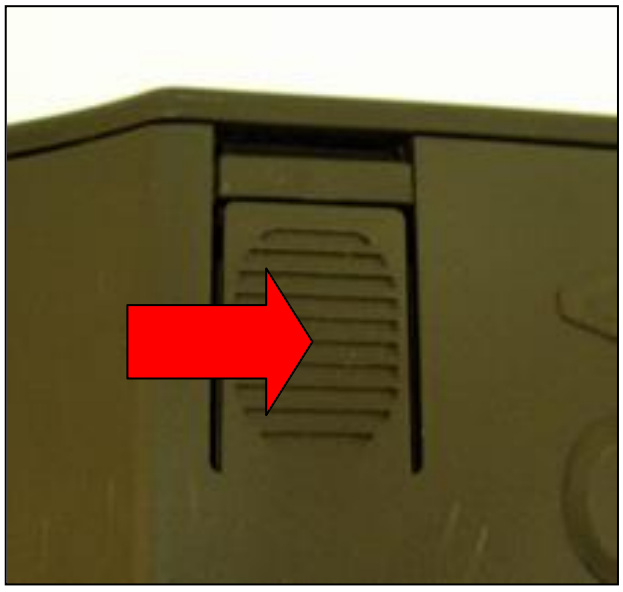
- Lay the printer flat on a counter top.
- Attach the AC cord into the 24VDC power supply and plug the other end into the round DC in port of the printer.
- Install ticket hopper (if applicable) to catch the tickets. Lemur printer without a cutter won't have a ticket hopper.
- Turn power on. If the printer has an optional cutter then you will hear the cutter motor cycle.
- Wait six seconds after power up. Begin loading tickets through the entrance slot with a smooth motion until the printer automatically positions the ticket. See section 5.0 Ticket Load Procedure.

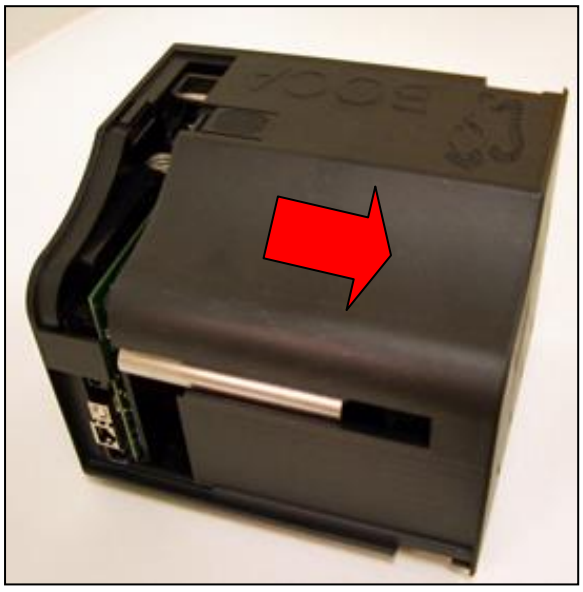
NOTE: You want to make sure that the black timing mark is in the correct location before loading the tickets into the paper path. See www.bocasystems.com/tickets_specs9.html for black mark layout specs.

- After the ticket is automatically positioned (the green READY led will be illuminated), press the center TEST button located on the control panel to print a test ticket. The next page shows sample self test ticket printouts.
- Verify that the printer properly works with your system by issuing a ticket through your computer system. You may also use out customer based program to test the printer independently of your ticketing system (see Appendix C)

You may now install the printer in its permanent location. Adequate room should be provided behind the printer for the smooth feeding of ticket stock. Please do not prevent the ticket hopper (horizontal models) from operating by touching tickets during the printing cycle.

Lemur cover removal – The cover may be removed by depressing the cover lock tab that is located on top of the cover. Slide the cover off.





Above sample was printed on a 2” x 5.5” concert size ticket.

Above sample was printed on a 3.25” x 2” cinema size ticket.

Your printout may vary depending on printer configuration and ticket stock used.

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5.0 Ticket Load Procedure

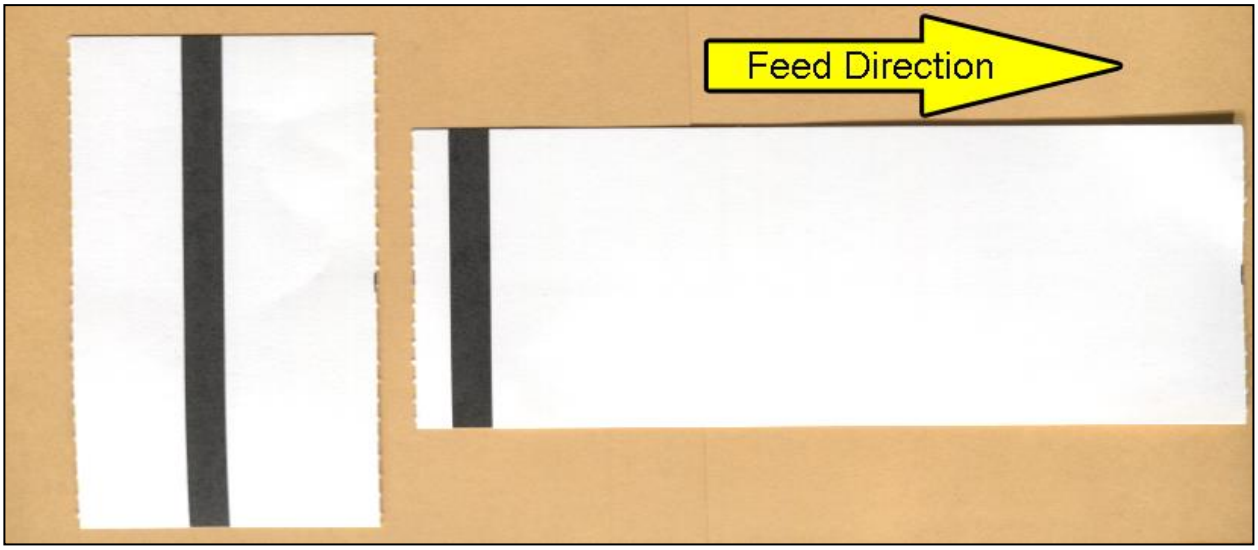
1. Turn the printer on and wait five seconds. The red CHECK PAPER led will be illuminated. If your printer has a cutter they you will hear it cycle during this time.

2. Begin loading the tickets through the entrance slot with a smooth motion until the ticket stock comes to a stop (at this point the stock is between the thermal head and platen). Keep pressure against the stock and the printer will automatically feed the ticket stock.

If you have any ticket load issues then make sure the paper guild slider bar is properly adjusted (see 8.1.4 Ticket Width Adjustment).

Adjustable (ADJW)

Two typical ticket formats and feed directions are shown below. The black timing mark must be facing the opto sensor.



When loading 5.50” long ticket stock the black timing mark should be towards the rear of the ticket (the last part that goes into the printer).When loading 2.0”” long cinema ticket stock the black timing mark should be furthest away from to the leading edge of the ticket (the first part that goes into the printer).

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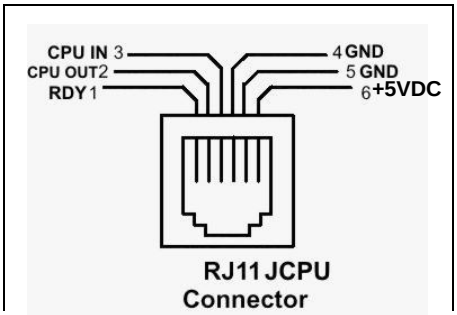
6.0 Standard Interface Pinouts

RJ12 Serial Connection



TYPICAL DB9 to RJ12 PIN CONNECTIONS

9 pin host	BOCA RJ12	
2	2	Transmit
3	3	Receive
5	4	GND
6	1	RDY
8	6	CTS

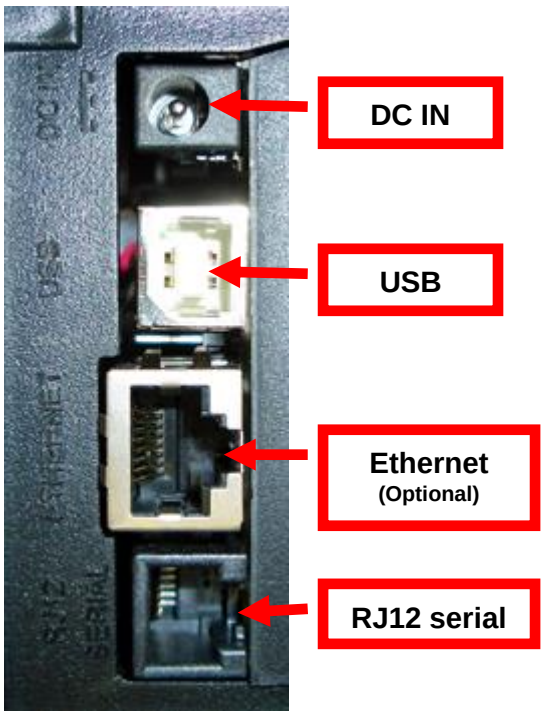
USB USB 2.0 compliant devices.

ETHERNET (Optional) is a standard RJ45 Ethernet cable connection.

WI-FI (Optional) is compatible with 802.11b/g Wi-Fi router and supports security settings WEP/WPA/WPA-2.

BLUETOOTH (Optional) may be ordered as Classic or Low Energy (LE).

CASH DRAWER PORT – (Optional) may be ordered with RJ12 serial port modified to operate a cash drawer.



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7.0 Thermal Paper - Theory & Specification

Refer to the BOCA Systems website at www.bocasystems.com, THERMAL TICKETS section for the most current paper specifications.

The print head's life expectancy is composed of both a mechanical and an electrical component. Both of these factors are strongly influenced by the quality of the thermal paper used.

MECHANICAL
The print head has a theoretical rating of 60 kilometers. This number is based upon the assumption that the head will be used with a good quality, top coated thermal paper. Uncoated and poorly top coated thermal papers are abrasive to the print head and have been found to wear through the head after less than one kilometer.

Other factors which may contribute to premature mechanical wear are the use of non-thermal inks and stray metallic particles stuck in ticket perforations. Certain inks colors such as opaque white (which contains titanium dioxide) are also highly abrasive.

Unfortunately, there are no available devices for quantitatively measuring the abrasiveness of a given ticket. Fortunately, we have developed a slightly subjective, but effective method of weeding out overly abrasive ticket stock.

ELECTRICAL
Each heat element, dot, on the print head has a theoretical life expectancy of 100 million activations. This is based on the assumption that each activation will cause the dot temperature to approach the dot's maximum recommended temperature. Running at lower temperatures will increase the theoretical life expectancy, while slight temperature increases will seriously (exponentially) degrade the head life.

The thermal paper can affect the electrical head life in two ways. Insensitive, slow papers will typically encourage the user to increase the voltage to darken the printed image. This will directly increase the head temperature resulting in reduced head life. Additionally, the higher temperatures will frequently cause the ink to peel off the ticket and deposit onto the print head. The ink debris will disrupt the normal transfer of heat from the head to the paper. This further increases the head temperature above the desired level. The use of non-thermal inks and/or non-top coated papers also will cause the ink to release and deposit on the print head.

SPECIFICATION
Based upon the above technical information, BOCA has always tried to encourage our customers to use the proper thermal papers to maximize the life of their print heads. BOCA provides an extensive series of papers which meet the above criteria for low abrasion and high sensitivity. We have also tested and approved a number of Ricoh thermal papers which meet our criteria. While we have not had the opportunity to test other manufacturers' thermal papers, we feel confident that other papers manufactured with the above goals in mind should be acceptable for use in our printers. The following list of papers have been approved by BOCA.

200 dpi usage
BOCA T4, T5, T7, LCS and SKI10

200 and 300 dpi usage
BOCA HS7, M7, HS5, M10, SKI14

Please note that the 300 dpi papers may be used on 200 dpi printers. In fact, doing so will allow the user to decrease the head energy thereby increasing the electrical life of the head. DO NOT use 300 dpi heads with 200 dpi paper.

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8.0 Maintenance and Adjustments

Your ticket printer is solidly constructed and has been designed for high volume use. It requires minimal care to provide maximum service.

WARNING: The appearance of this symbol indicates the proximity of an exposed high voltage area. Please follow all directions carefully for your personal safety. You must read the following safety information carefully before working on the printer.

This section provides an overview of printer maintenance, including part alignments, adjustment and replacement.

For discussion purposes, the printer consists of three major modules or assemblies:

- Paper guide and print head assembly
- Cutter assembly
- Logic board assembly

As a safety precaution, all service to the printer should be done by qualified persons with power off and the AC cord unplugged from the printer. Following any procedure requiring the removal of covers and/or doors, please verify that they have been properly attached and fastened prior to operating the printer.

8.1 Paper Guide and Print Head Assembly

The principal function of this assembly is to guide the ticket stock to the thermal print head where thermal printing takes place. Additionally, this assembly houses the drive platen and ticket positioning sensors. If necessary, the total assembly may be removed from the unit. All replacements and adjustments of the components on this assembly may be done without removing the total assembly. The most common adjustments and replacements regarding this assembly follow:

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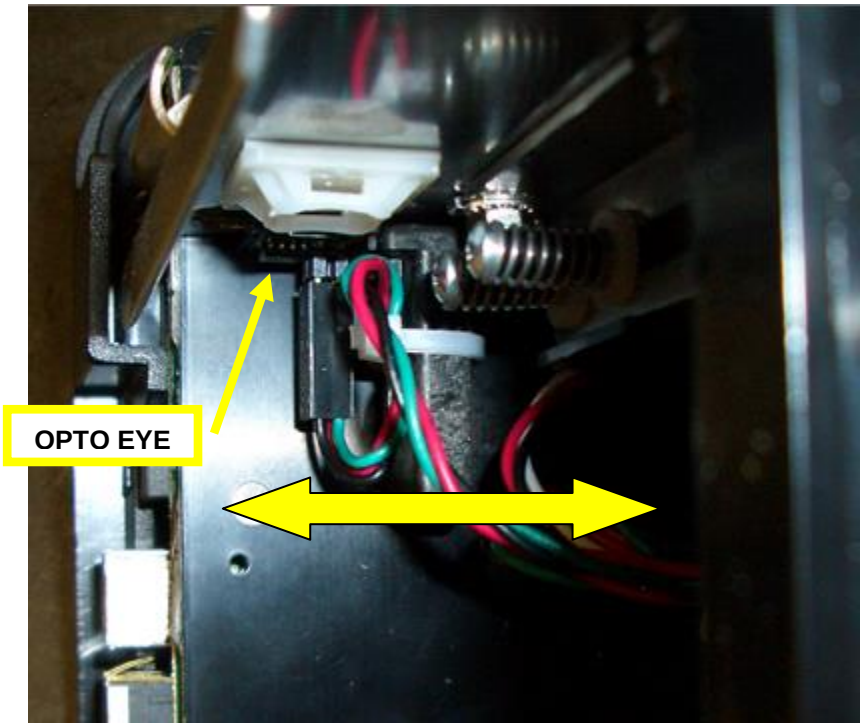
8.1.1 Cut or Tear SQ Opto

There is one optical sensor (opto) mounted on an adjustable plastic bracket. The opto controls the cut or tear position. Removal or adjustment of the opto should be done without removing the bracket from the paper guide. The opto position is factory set and adjustment should normally not be necessary.



Note: Before making any opto adjustments make sure your ticket stock was manufactured to proper ticket specifications.

To adjust the cut or tear position, physically adjust the opto mounting bracket forward or backwards to achieve the desired cut or tear location. On a Lemur with auto cut the cut position should be a 1/16”-1/8” away from the ticket perforation. On a Lemur without auto cut the ticket perforation should line up with the edge of the cabinet or top plate.

If you are not able to get the desired cut position, make sure your ticket stock was manufactured to proper specifications.

Once a year the opto eye should be blown off with air. This interval will vary depending upon the environment and the quality of the ticket stock.

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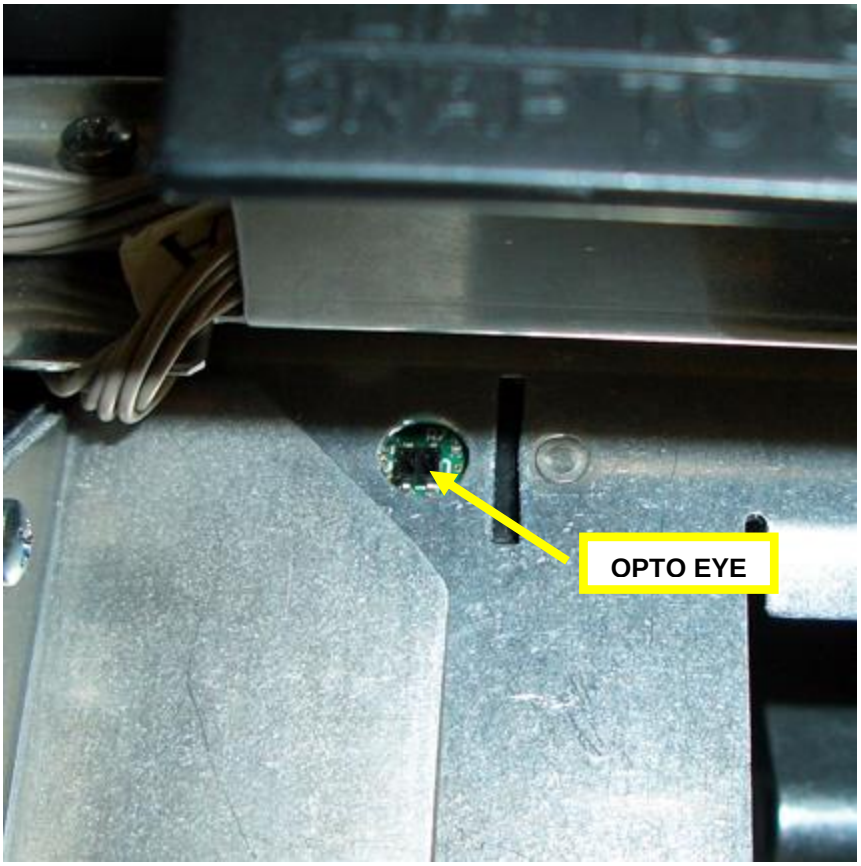
8.1.2 Load SQ Opto

The load SQ opto is responsible for letting the printer know when it has paper stock loaded in the printer.

Once a year the opto eye should be blown off with air. This interval will vary depending upon the environment and the quality of the ticket stock.



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8.1.3 Thermal Print Head

The print head should be cleaned periodically to prevent debris from building up on the print element. The required cleaning interval varies greatly depending on the quality of the ticket stock and the amount of dust entering the print area. Excessive dirt build up on the print head will result in reduced quality. Continuing to run the print head in a dirty condition will reduce its life expectancy, as it is unable to diffuse its heat properly.

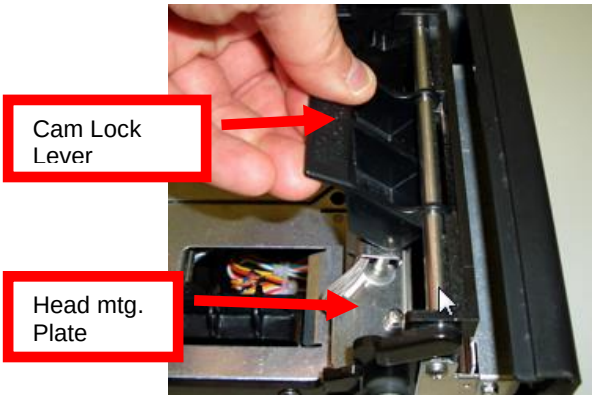
The follow needs to be done with the printer powered off and unplugged from the AC source.

The thermal print head can be removed for cleaning or replacement, as follows:

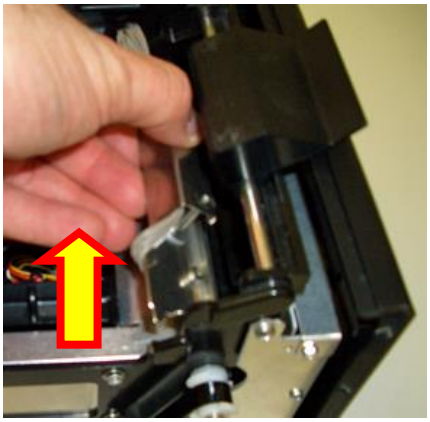
1. Make sure power is off and the AC cord is disconnected from the printer.

2. **DO <u>NOT</u> UNPLUG CABLE FROM PRINT HEAD.**

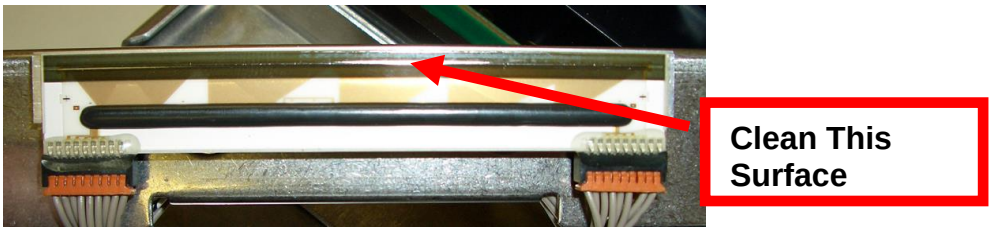
3. Lift up on the cam lock assembly (located above the head mounting plate) to remove pressure from the thermal head. Position the cam lock lever as far forward as possible.



4. Lift up on the head mounting plate/thermal head to remove.



5. Clean the thermal print head surface (the side that makes contact with the paper) with isopropyl alcohol.



6. Install the head mounting plate/thermal head by reversing the above procedures.

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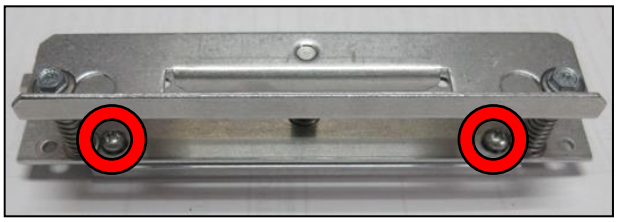
8.1.4 Thermal Print Head Replacement

The below review how to replace the thermal print head in your printer, if needed.

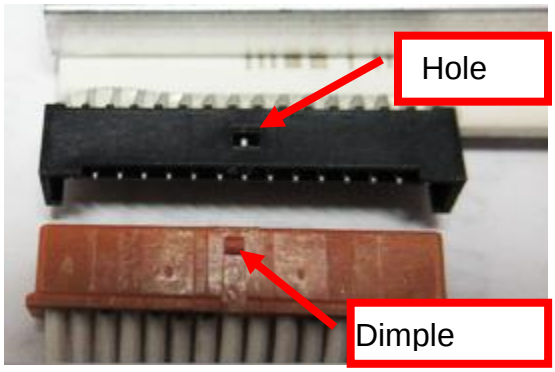
The follow needs to be done with the printer powered off and unplugged from the AC source.

1. Remove the print head mounting plate from the printer as shown in section 8.1.3 Thermal Print Head.

2. Once the head plate has been removed; loosen the two Philip head screws until the thermal print head disengages from the head plate. Take care not to lose lock and flat washers.



3. Gently unplug the cable from the old print head and plug it into the new print head. If your print head has two cables then this should be done one cable at a time so not to mix them up. The cables are keyed (see examples below). The keyed position must be lined up while plugging the cable into the print head. **You should not have to use excessive force to do this**



4. Install the print head back onto the print head mounting plate.

5. Install the head mounting plate/ thermal head back into the printer.

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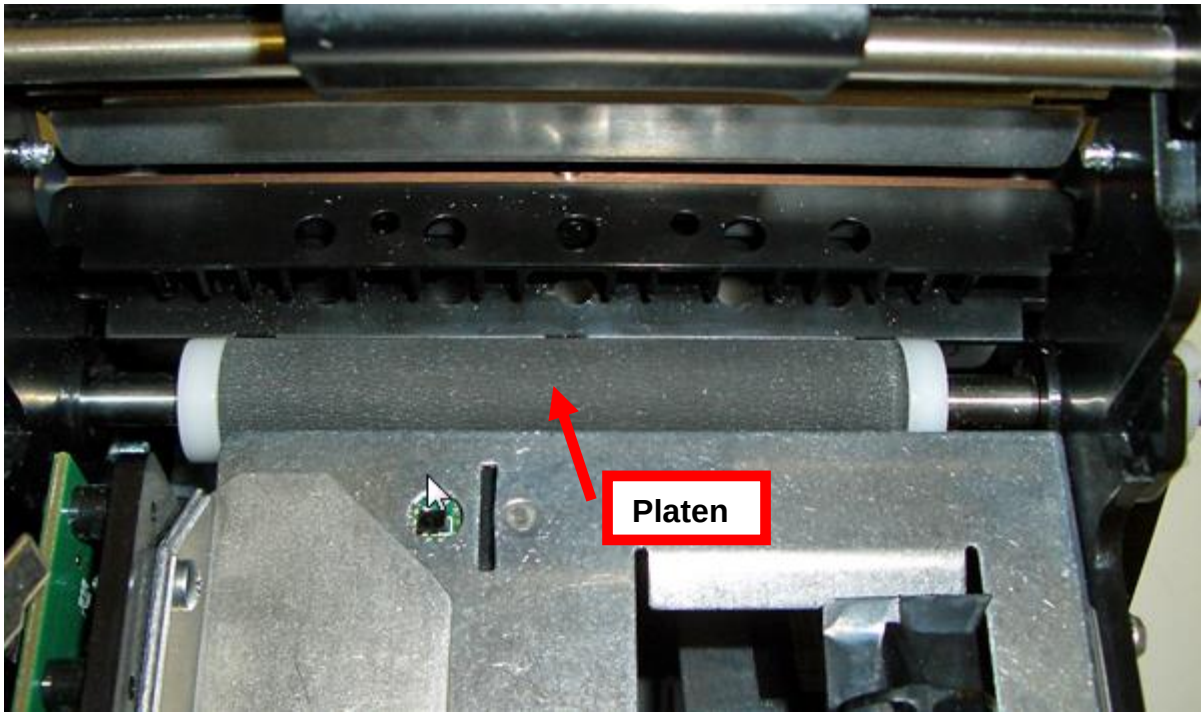
8.1.5 Platen (Rubber Driver Roller)

The Platen (rubber drive roller) should be cleaned once a year to prevent paper dust from building up on the roller. (NOTE: The platen may require more frequent cleaning in dusty environments or when using inferior ticket stock.)

1. Make sure power is off and the AC cord is disconnected from the printer
2. Unlock the cam lock lever and remove head mounting block/ plate. (Refer to section 8.1.3 Thermal Print Head).
3. Apply a small amount of Isopropyl alcohol onto a paper towel to clean the rubber roller.
4. Clean only the part of the rubber roller where the ticket stock makes contact with.
5. Rotate the rubber roller clockwise a little and repeat step 4; continue in the same manner for one full revolution of the rubber roller.
6. Install the head mounting block/ plate and lock the cam lock lever back in place. Printer in now ready for normal operation.



(Color of platen may vary from above photo)

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8.1.6 Cut SQ Opto Mounted on the Cutter Assembly

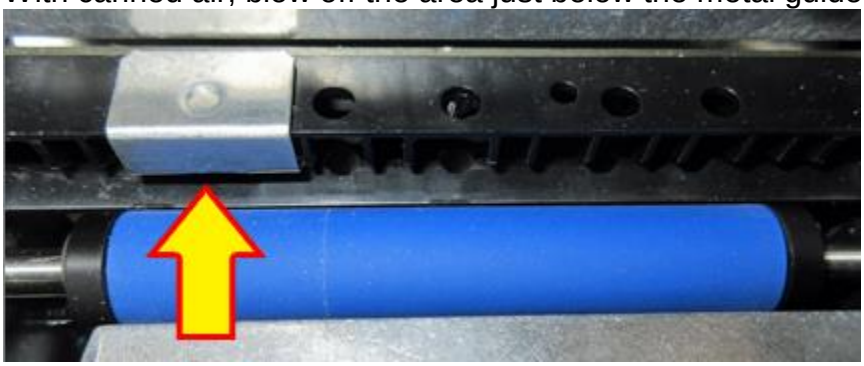
Your printer may have been configured with the cut optical sensor (opto) mounted on the cutter assembly. The serial number tag will show **CUT - #** under Separation (# = a value of 1 – 5). The opto detects the black timing mark on the back of the ticket stock.

This sensor will need to be cleaned around every 10,000 tickets to ensure reliable operation of the printer.

The following needs to be done with the printer powered off and unplugged from the AC source.

1. Unlock the cam lock lever and remove head mounting block/ plate. (Refer to section 8.1.3 Thermal Print Head).

2. With canned air, blow off the area just below the metal guide (see yellow arrow).



(location and color of platen may vary from above photo)

3. Install the head mounting plate and lock the cam lock lever back in place. Printer is now ready for normal operation.

To adjust the cut position, the CUT1 Count value may be changed by sending a software command to the printer (See Appendix D). The cut position should be 1/16”-1/8” away from the ticket perforation.

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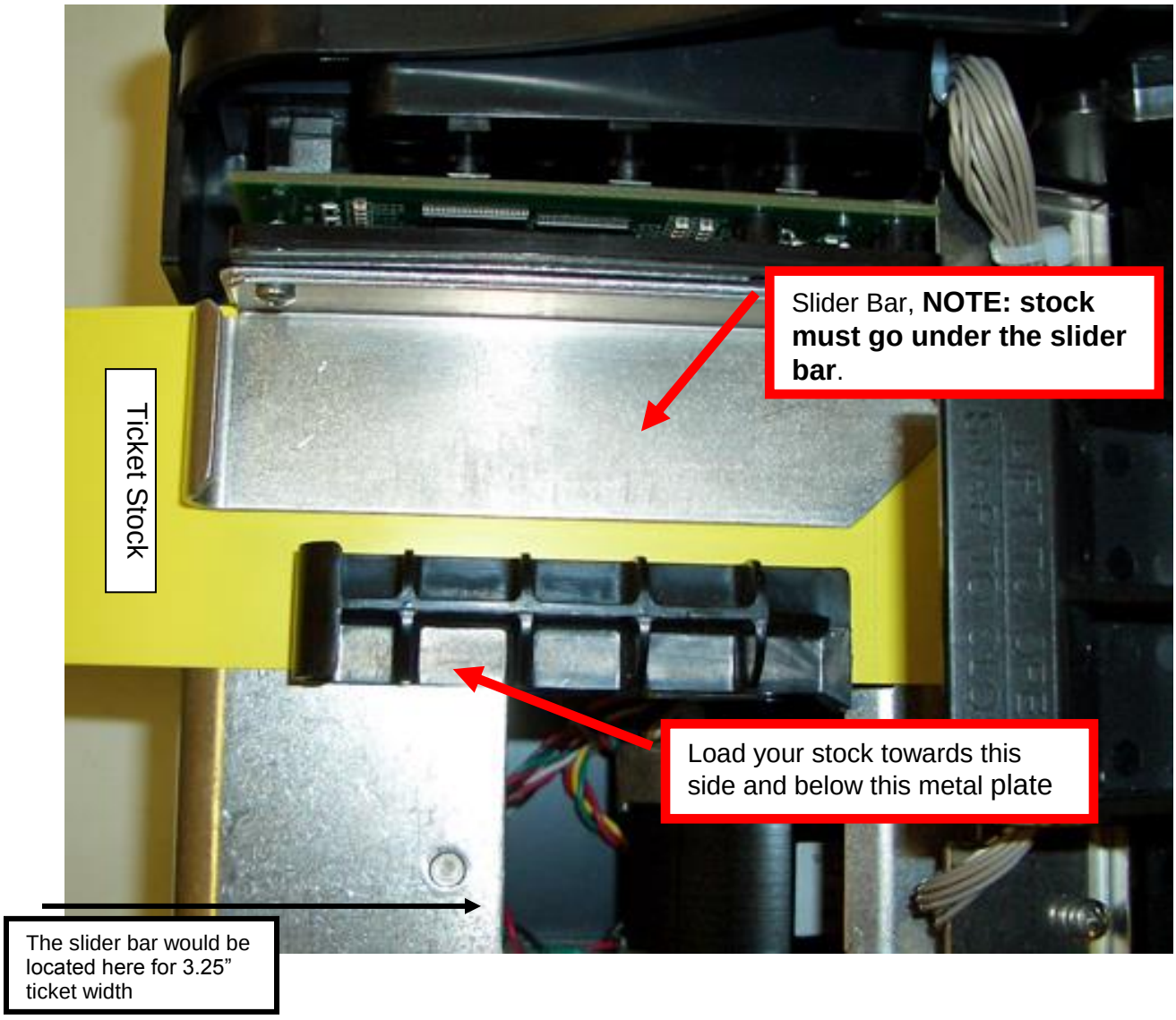
8.1.7 Ticket Width Adjustment

To adjust the paper path for use with a different ticket width, adjust the slider bar to the fully open position. Insert your ticket stock into the paper guide. Adjust the slider bar down to the proper ticket width, making sure the bar is not too tight against the ticket. The ticket should move freely in the paper guide.



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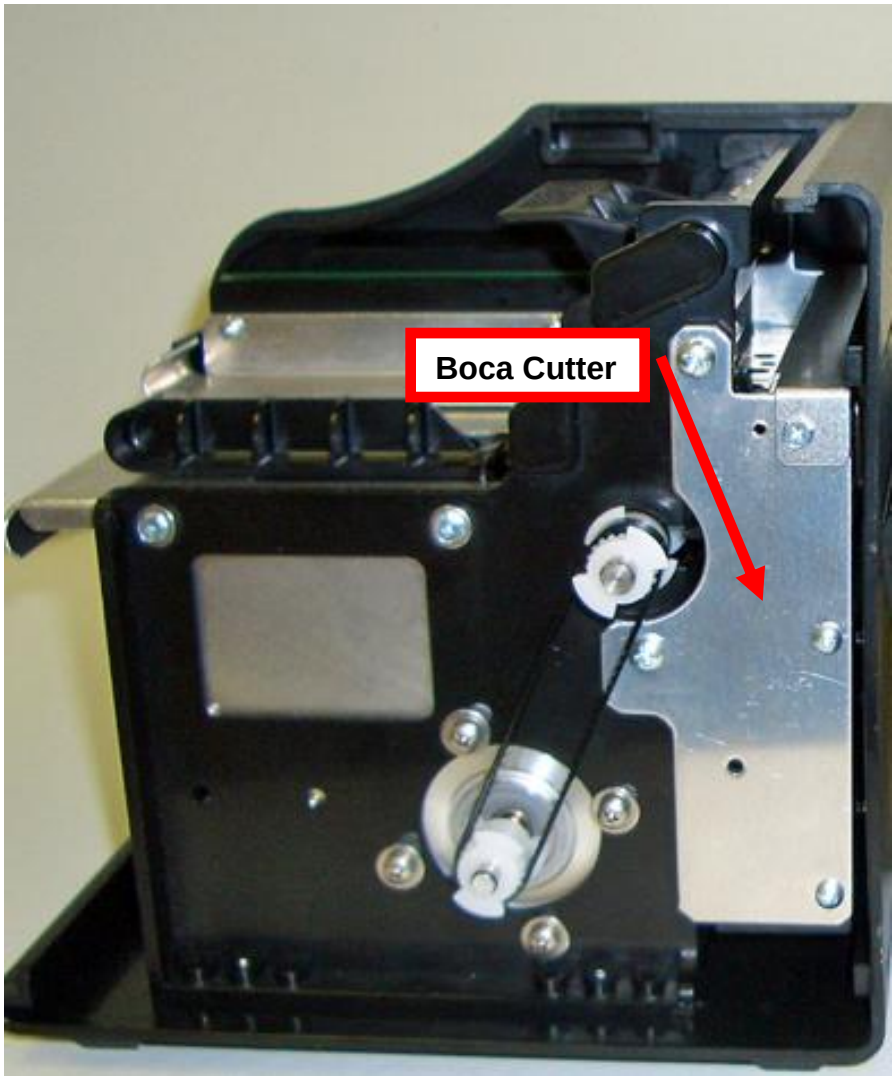
8.2 Cutter Assembly

The optional BOCA cutter system is a fully integrated cutter knife mechanism powered by a stepper motor. The cutter requires no adjustments and is rated for approximately 750,000 cuts. Please be aware of the following:

Wait five seconds before feeding ticket stock into the printer after power up. During this time the cutter knife will move up and down. If ticket stock is fed into the printer before five seconds, a ticket jam could occur.

The cutter area should be blown out with air periodically to prevent debris from building up inside the cutter area. The required cleaning interval varies greatly depending on the quality of the ticket stock and the amount of paper dust entering the cutter area.

If the printer will be used with ticket stock that has a thickness greater than .008" then the cutter speed needs to be changed to SLOW. Please contact BOCA for documentation to make this change. If the cutter speed is not changed to SLOW, then the printer will not work reliably with said stock.



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9.0 General Cleaning

The interior of the printer should be cleaned whenever there is a visible accumulation of dust. Use a small vacuum for cleaning. Be careful not to jar any of the printer's parts loose.

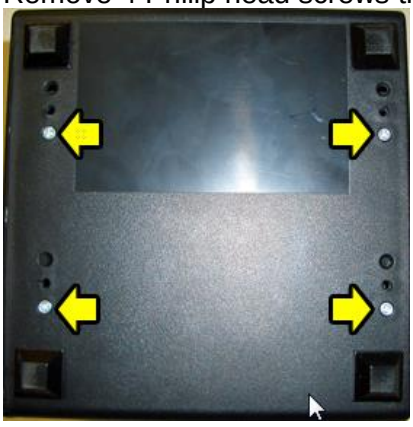
10.0 Logic Board

The printed circuit boards used in this product have been manufactured using surface mount technology. These printed circuit boards cannot be effectively repaired in the field and should be returned to the manufacturer if repair is required.

Warning: ALL SERVICE SHOULD BE DONE WITH POWER OFF AND THE DC POWER SUPPLY UNPLUGGED FROM THE PRINTER.

10.1.1 Logic Board (Removal)

1. Gain access to the logic board. This is normally done by removing the electronics cover or rear access panel.
    a. Remove 4 Philip head screws that are located on the bottom of the printer.



2. Side the print module assembly out.
3. Denote where all the cables are plugged into the logic board.
4. Unplug connectors connected to the main logic board.
5. Remove the three Philip head screws that secure the logic board onto the print module.
6. Remove board.

10.1.2 Logic Board (Installation)

1. Installed the logic board into the printer.
2. Install the three Philip head screws that hold the logic board onto the print module and tighten.
3. Attach connectors going to the main logic board.
4. Install the print module back into the enclosure. Take care to make sure the wires are not being pinched.

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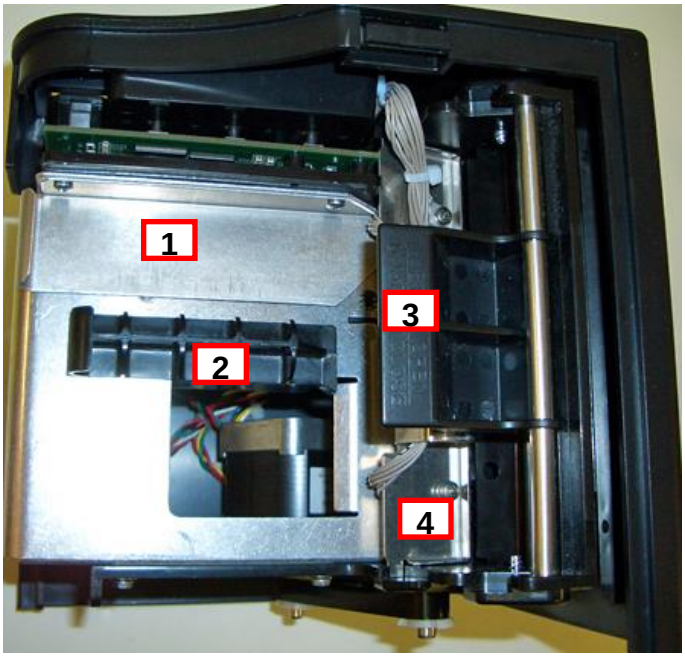
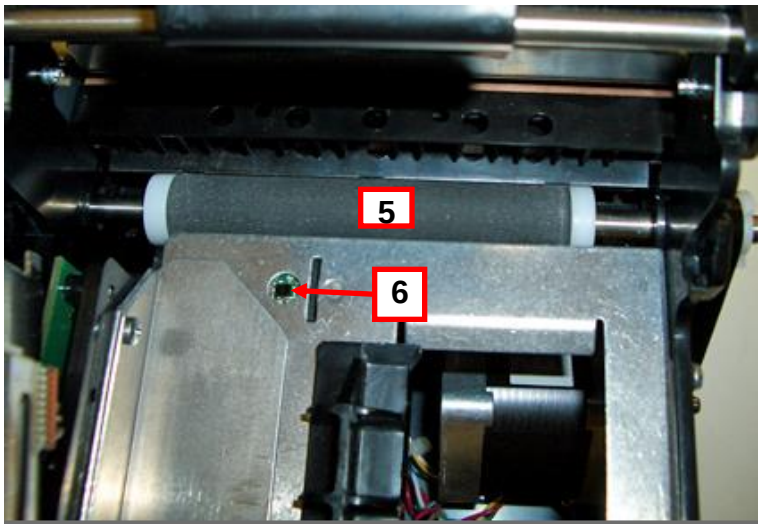
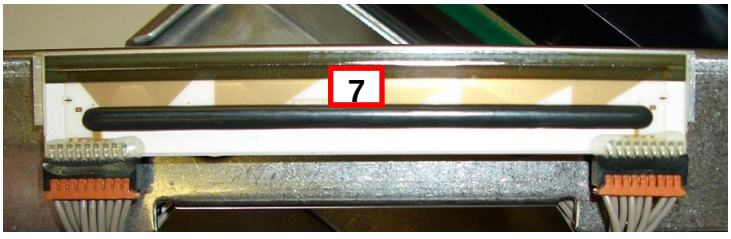
11.0 Spare Parts List

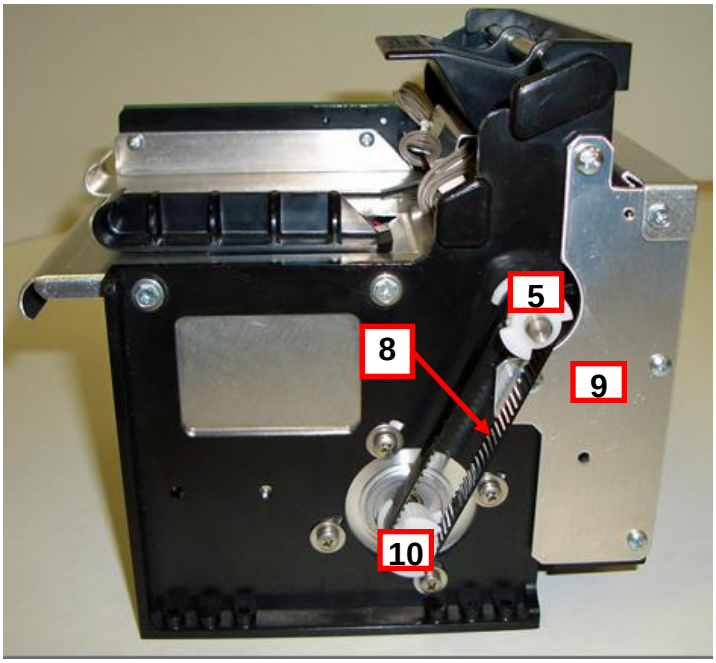
#	Part Number	Description
1	423524C-1	Upper Rail Only (cutter)
1*	423524-C-NC	Upper Rail Only (non-cutter)
2	423802-W	Slider bar assembly for ADJW
3	423236P	Take Out Head Cam Lock
4	423496-6	Head Mounting Plate 2C
5	423760-LC-200	Platen complete for 200dpi
6	SQ LOAD	Opto Detector Ticket load
7	200C3	Print Head for Lemur-R & 2C printers only
8	P50-1017	Drive Belt, 98T (for 200dpi)
9	423473C	Mounting plate, BC5 cutter
10	424011	Stepper Motor with 20T pulley
11	423480C	Upper exit deflector only (Lemur-C)
11A	423480C-C	Upper exit deflector with brush (Lemur-C)
12	422718W	Anti-Static Brush
13	424008	Cutter Assembly (BC5) No mounting plates
14	SQ OPTO	Opto Detector cut or tear
15	LC46-E	Main Logic Board (Ethernet option)
15*	LC46	Main Logic Board (Standard)
16	423192	Ground Strap
17	424010	Cable, Print Head 2C
18	423938	DC Harness, cutter
18*	423938-NC	DC Harness, no cutter
19	420880C	Base
20	420881C	Cover
21	424009	Power Supply 24VDC
22	423825-4x6	Hopper, (4” x 6”) Plastic
*	P19-1000	Cable, AC cord 110VAC (US)
*	423855	Cable, AC cord 220VAC (European)
*	423856	Cable, AC cord 220VAC (UK)
*	423863	Cable, AC cord 220VAC (Australia)
*	423855	Cable, AC cord 220VAC (European)
*	423765	Cable External, serial DB9 TO RJ12
*	423947	Cable External, serial DB25 to RJ12
*	423846	Cable External, USB
*	423825-4x6	Hopper, (4” x 6”) Plastic
*	423829	Mylar only, Vlemur
*	423635	Rubber Feet
*	421421C-P	Top Plate, vertical Lemur (8.70” x 9.64”) Plastic cabinet Lemur

*** Customer dependent and not shown in photos**





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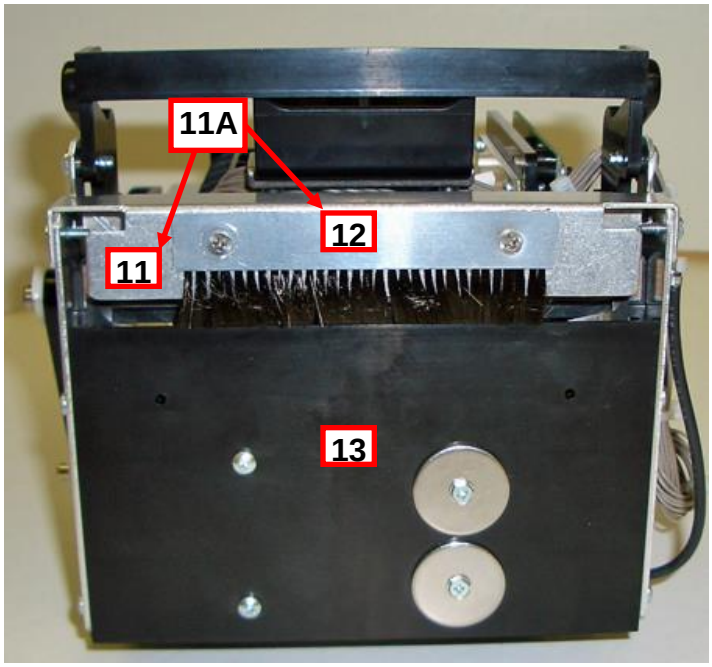
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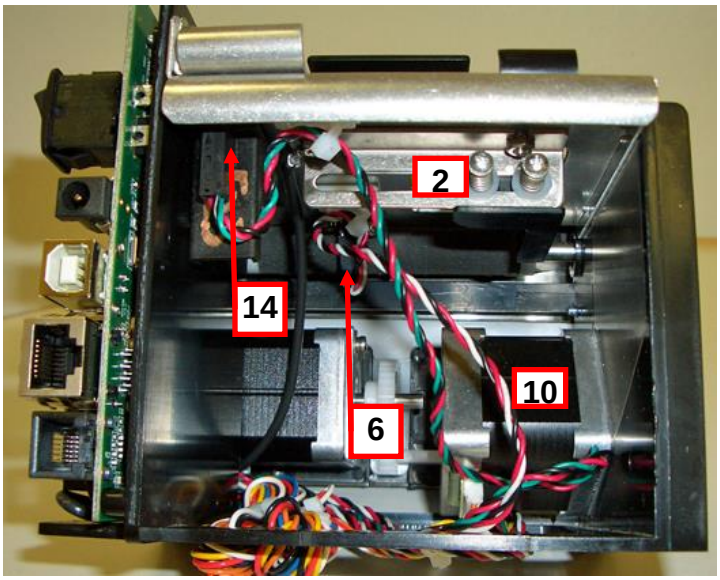
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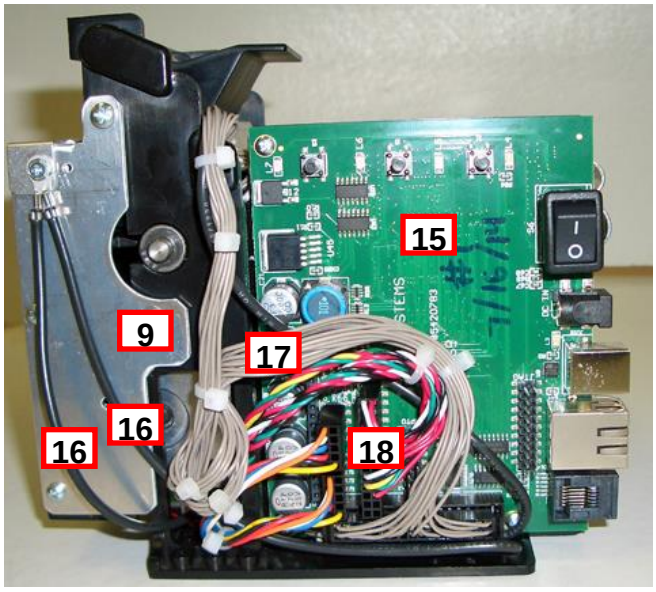
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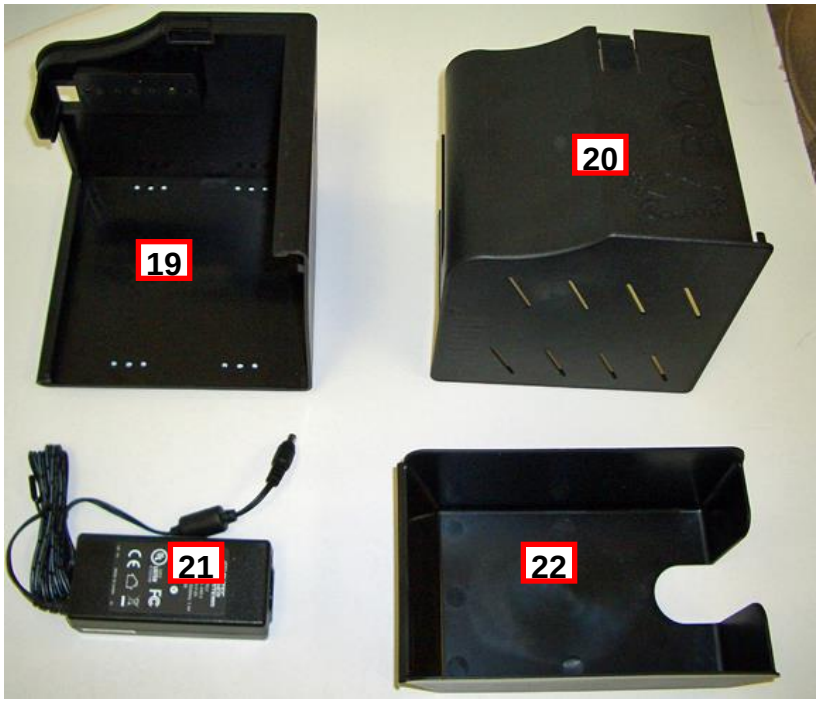
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12.0 Troubleshooting Guide

This is a simplified troubleshooting guide listing some of the typical problems. It is not intended to provide technical details or repair methods, but can serve as a guide to fault isolation in the field. **As a safety precaution, all service to the printer should be done by qualified persons with power off and the AC cord unplugged from the printer**. **Following any procedure requiring the removal of covers and/or doors, please verify that they have been properly attached and fastened prior to operating the printer.** If you need additional help, please visit the link below
www.bocasystems.com/onlinesupportform.html

1. NO OPERATION, LED'S DON'T LIGHT UP UPON POWER UP
   a. Power the printer off and wait 30 seconds then power it back on.
   b. Check the power cord for proper installation at both ends.
   c. Check that there is power at the AC outlet.
   d. Swap out power pack.
   e. Contact your system provider or BOCA for further assistance.

2. POWER IS ON BUT NO OPERATION
   a. Make sure the stock is being loaded properly into the printer. Consult section 5.0 Ticket Load Procedure.
   b. Clean the SQ load opto. Consult section 8.1.2 Load SQ Opto
   b. If cutter knife (if so equipped) does not go up and down after power up, See # 6.
   c. With the printer powered off, unplug the thermal head and turn on the printer. If printer works then replace the thermal head.
   d. Contact your system provider or BOCA for further assistance.

3. POWER IS ON BUT TICKET WILL NOT LOAD
   a. See # 2
   b. Make sure the print head/cam lock assembly is fully locked in the closed position. Consult section 8.1.3 Thermal Print Head .
   c. Check that the ticket stock is being loaded correctly. Consult Installation section.
   d. Contact your system provider or BOCA for further assistance.

4. ERRATIC CUT POSITION
   a. Check for defective ticket stock. Is the black mark unevenly spaced apart or light in color? Is the ticket too wide for the paper path?
   b. Make sure the paper guild slider bar is properly adjusted (see 8.1.7 Ticket Width Adjustment).
   c. Clean off opto eyes (see 8.1.1 Cut or Tear SQ Opto) with air. If printer has opto eye mounting on cutter assembly then see section 8.1.6 .
   d. Check that the platen is clean. Consult section 8.1.5 Platen (Rubber Drive Roller) .
   e. Replace ticket cut opto.
   f. Contact your system provider or BOCA for further assistance.

5. ERRACTIC PRINT POSITION
   a. See # 4

6. CUTTER KNIFE DOES NOT MOVE (if equipped)
   a. Check for blockage in the cutter area.
   c. Default printer settings. With the printer powered off hold down the TEST button and then power up the printer. Keep the TEST button held down for ten seconds and release.
   c. Contact your system provider or BOCA for further assistance.

7. POOR PRINT OUT (light print out)
   a. Try a different stack of ticket stock.
   b. Make sure the print head/cam lock assembly if fully locked in the closed position.
   c. Clean print head. Consult section 8.1.3 Thermal Print Head.
   d. Adjust print intensity setting via software command. (see Appendix D)
   e. Replace thermal head.
   f. Contact your system provider or BOCA for further assistance.

8. POOR PRINT OUT (white voids in print out)
   a. Clean print head. Consult section 8.1.3 Thermal Print Head.
   b. Replace thermal head. Consult section 8.1.4 Thermal Print Head Replacement.
   c. Contact your system provider or BOCA for further assistance.

9. NO PRINT OUT
   a. Try a different stack of ticket stock.
   b. Check head cable for electrical connection at both ends
   c. Check to make sure head cable is plugged in properly into the thermal head.
   d. Replace the thermal head. Consult section 8.1.4 Thermal Print Head Replacement.
   e. Contact your system provider or BOCA for further assistance.

10. PRINTER SKIPS TICKETS WHILE PRINTING
   a. Check position and quality of black mark on the ticket stock.
   b. Make sure the paper guild slider bar is properly adjusted (see 8.1.7 Ticket Width Adjustment).
   c. Clean off opto eye (see 8.1.1 Cut or Tear SQ Opto) with air.
   d. Check that the platen is clean. Consult 8.1.5 Platen (Rubber Drive Roller section.
   e. Replace ticket cut opto.
   f. Contact your system provider or BOCA for further assistance.

11. PRINTER SKIPS TICKETS AND DIES
   a. See # 10.

12. TICKET JAM ENTERING THE CUTTER AREA
   a. Make sure the entrance to the cutter area is not blocked.
   b Make sure the paper guild slider bar is properly adjusted (see 8.1.7 Ticket Width Adjustment).
   b. Contact your system provider or BOCA for further assistance.

13. WI-FI WILL NOT CONNECT
   a. Make sure you are connecting to Wi-Fi router that supports 802.11b devices. The router also needs to support 1 and 2 MBps data rates.
   b On initial setup have the printer as close as possible to the Wi-Fi router.
   b Check to make sure you have the correct security values for the Wi-Fi router you are trying to connect to.
   b. If you have multiple routers change the channel setting to 1, 6 or 11. Multiple routers using the same channel will cause connection and drop single issues.

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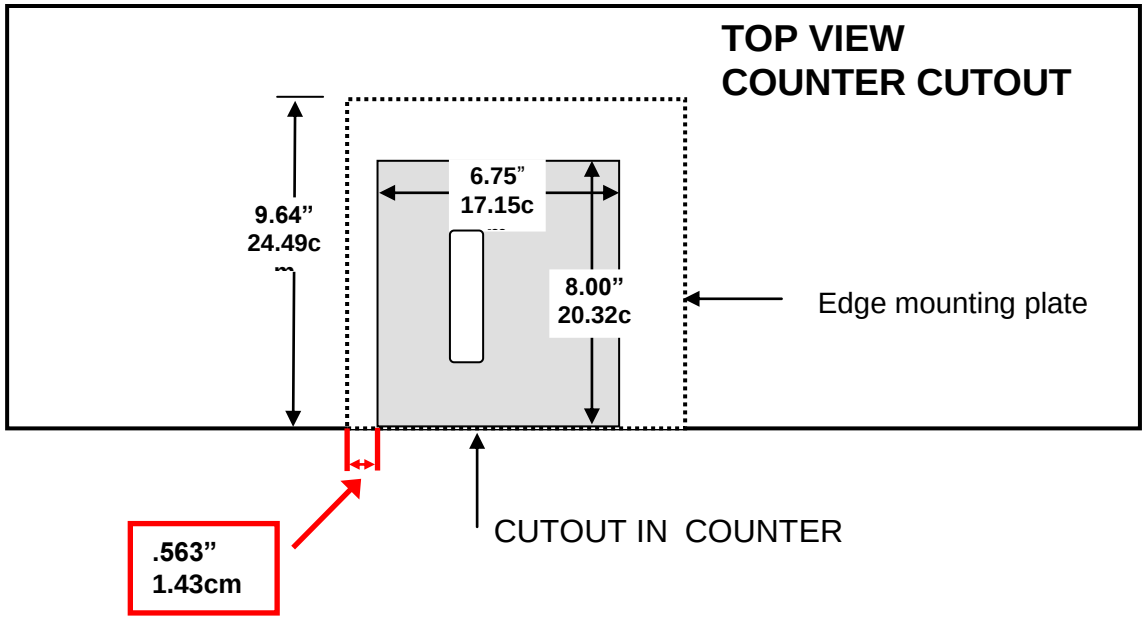
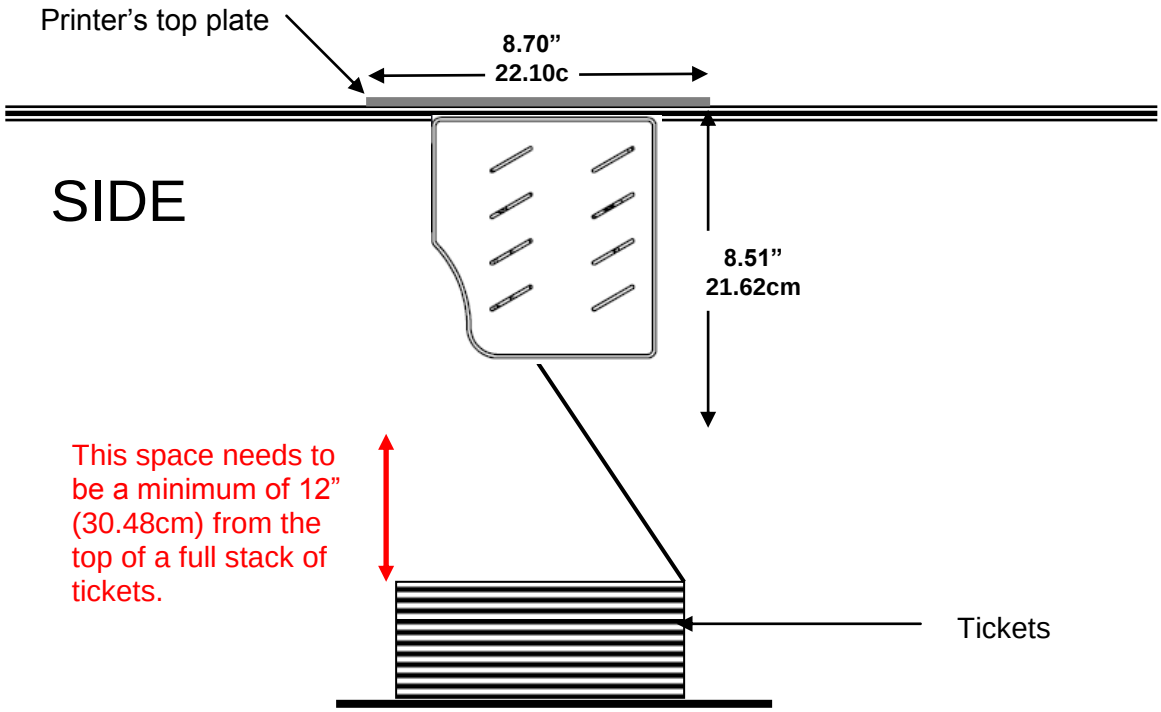
APPENDIX A - VERTICAL PRINTER INSTALLATION

Prepare the counter top by cutting a rectangular hole in accordance with the dimensions specified for your printer model. **NOTE: The table or counter top must be able to support at least four times the weight of the printer.**





- Attach the top plate to the printer using only the supplied mounting hardware.
- Insert the printer with the top plate attached into the countertop cutout.
- Attach the power cord and the interface cable to the printer.
- Turn the power switch to the ON position.
- The printer is now ready for ticket stock to be loaded.

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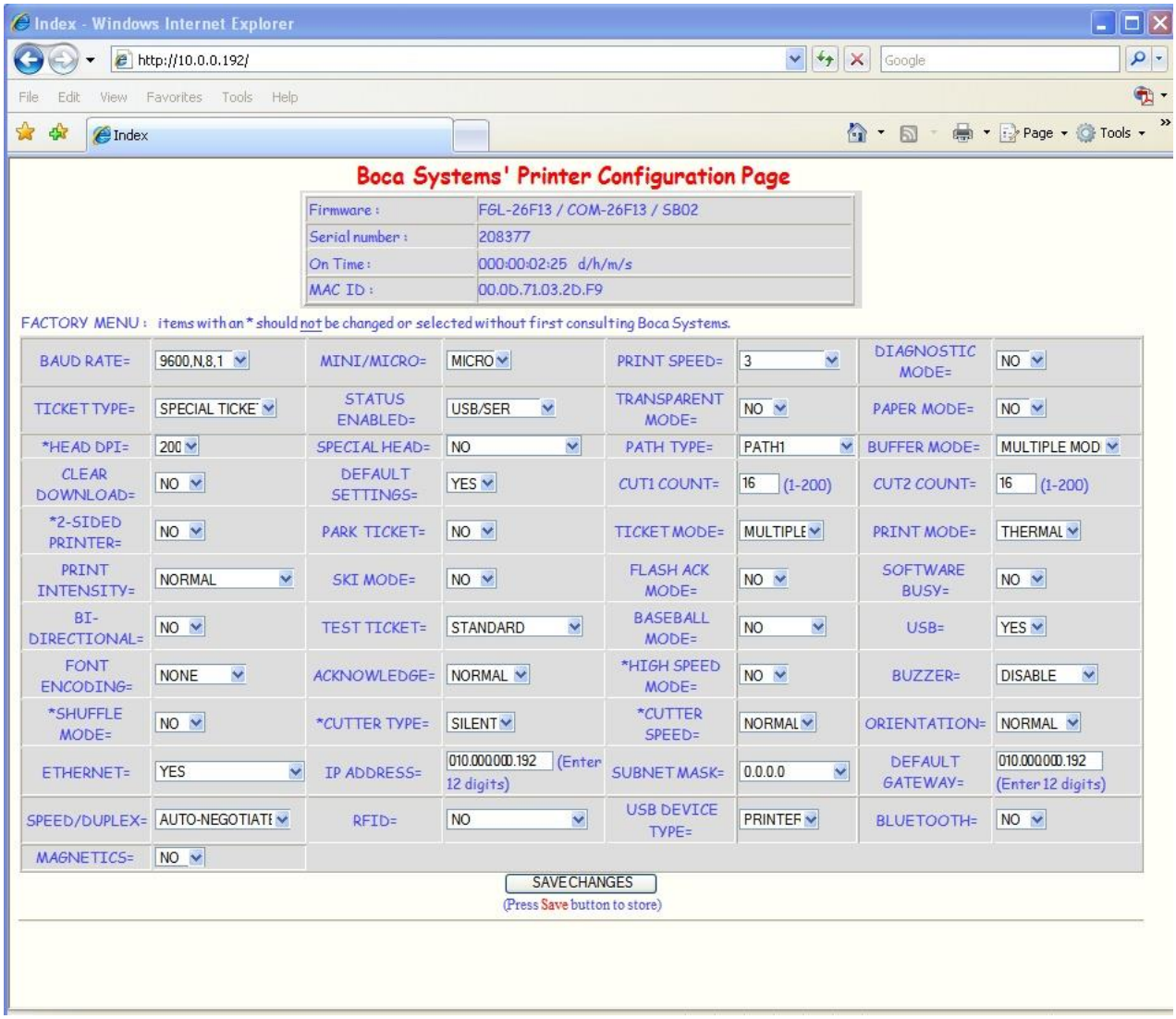
APPENDIX B –ETHERNET PARAMETERS

General
Each Boca Ethernet Printer is assigned a unique MAC address based in part on the printer's serial number. All Boca printers are factory configured in DHCP enabled mode. (Exceptions may be made by special request.) If the printer is unable to get a dynamic IP address from the customer's network in the allotted time period (about one minute), it will default to the 10.0.0.192 address. You can select a different fixed IP address either via a Web Browser (see below) or the printer's control panel if your printer has an optional LCD display.

ETHERNET – Quick Installation Guide

- Connect the printer to your network (the IP address will be automatically assigned by your DHCP server)
- Load tickets into the printer
- Wait one minute to allow assignment of IP address
- Print a test ticket to identify the printer's IP address
- Ping the printer
- Open your web browser and type the printer's IP address to review its configuration page (see below image).
- If you are going to set a static IP address then you will need to change the ETHERNET setting to YES.
- If you experience any problems, please refer to the Ethernet section of our FGL Programming Guide.



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APPENDIX C – INTERFACE TESTING A LEMUR

Boca Systems, Inc. has developed a Windows based program that allows customers to communicate from a host computer to the printer over any interface (parallel, serial, USB, Ethernet) and print drivers too. The below program link is found on our website under the "TECH SUPPORT/ REPAIRS" section. For Apple/ Mac based systems see APPLE/ MAC BASED SYSTEM.

WINDOWS BASED SYSTEM

www.bocasystems.com/documents/configure_boca.exe

To use this program you will need to download the executable file to your Windows based host computer and run it. If your system doesn't already have Microsoft .NET Framework 4 installed then allow it to be installed when prompted. Follow the instructions on the pop up windows to install the program.

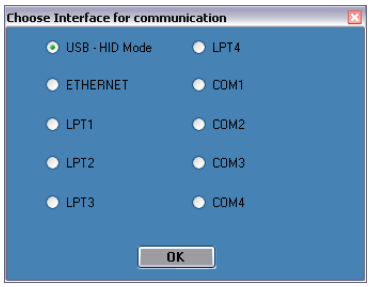
The following steps will guide you through using this program once it has been installed on your host computer.

1. Hook the BOCA printer to the host computer that you have the Configure program loaded onto. Make sure that the printer has stock loaded and it ready to go. A printer is ready to print when it is able to print out a self test ticket by depressing the TEST button. If you are not able to get a self test ticket then see section Installation to make sure you have the printer properly setup.

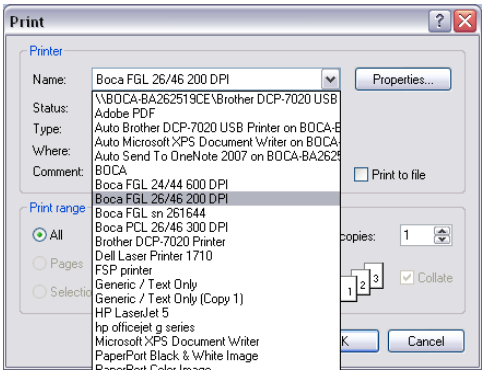
2. On your Window's desktop click on the START icon and then click on PROGRAMS to see all your computer's programs.

3. Find "Boca Systems" and click on Boca Configure and Test. Once the program is running, click on the "Select A Printer" drop-down arrow and you have to choices.
   Printer Interface - if your connecting through a Parallel, Serial, Ethernet or USB-HID mode (go to step# 4)
   Print Driver - if you're connecting via a print driver (go to step # 5).

4. Once the program is running, click on the "Select A Printer" drop-down arrow and choose "Printer Interface". You will want to choose the interface connection that you have the BOCA printer hooked up to then click the OK button. Go to step #6.
   If you are connecting via the Ethernet port then in the IP Address box type in the printer's current IP address. The printer's current IP address is printed on the self-test ticket (when the test button is pressed). When tying in the address don't include the leading zeros (If IP=189.010.000.002 then type in 189.10.0.2). Click on the Connect button.



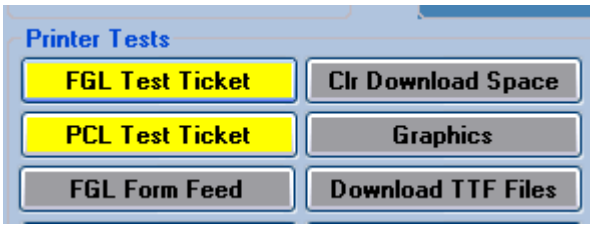
5. Once the program is running, click on the "Select A Printer" drop-down arrow and choose Printer Driver. You will want to choose the driver you are using for the BOCA printer. Once the driver is chosen



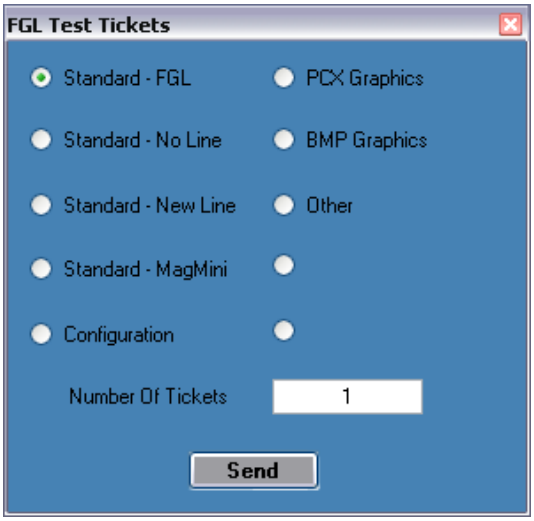
Your selection of drivers will vary from what is shown in above image

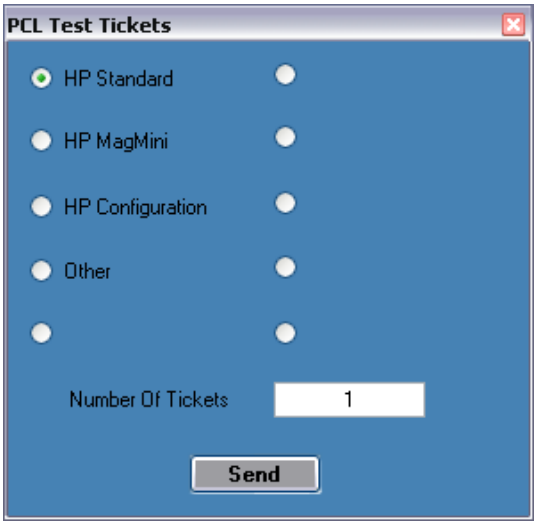
click the OK button.

6. If your printer has FGL firmware then click on the yellow “FGL Test Ticket” button or if your printer has HP firmware then clicks on the yellow “PCL Test Ticket” button.



7. Once the Test Ticket selection box comes up, click on the OK button to print out a ticket.





8. You may also print more than one ticket by changing the number of tickets you want to printer. See page 44 for sample printouts.

APPLE/ MAC BASED SYSTEM

Boca Systems, Inc. has developed two programs that allow customer to the printer. One operates over USB/HID & Ethernet interfaces and the other if a print driver is used. The below programs are found on our website under the "TECH SUPPORT/ REPAIRS" section.

For Mac use without printer driver (www.bocasystems.com/documents/boca_customer_mac.zip) customer program is used with **USB/HID & Ethernet interfaces**.
For Mac use with printer drivers (www.bocasystems.com/documents/boca_customer_driver_mac.zip) customer program is used with **print drivers or USB connection**.

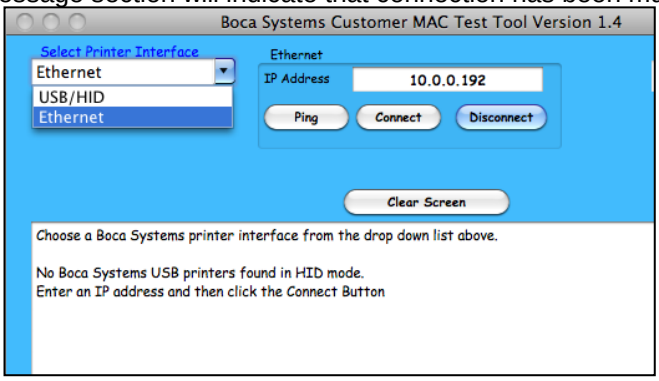
You may download load the program that fits your needs. To use these programs you will need to download the zip file to your Apple/Mac based host computer. The following steps will guide you through using these programs once they have been installed on your host computer.

1. Hook the BOCA printer to the host computer that you have the Customer program loaded onto. Make sure that the printer has stock loaded and it ready to go. A printer is ready to print when it is able to print out a self test ticket by depressing the TEST button. If you are not able to get a self test ticket, refer to the user's manual to make sure you have the printer properly setup.

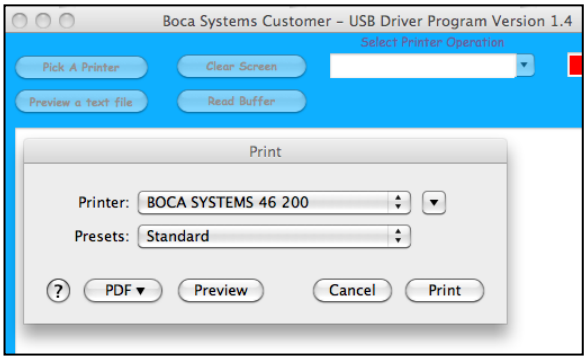
2. Go to your download folder and you will see the customer program you chose. Click on this folder to expand it to see all the files.

3. You will need to click on the appropriate application file to run the program.
   customer_mac for the USB/HID & Ethernet based program.
   cust_driver_mac for the print driver based . Proceed to step #5

4. Once the Customer MAC Test Tool is running, click on the "Select Printer Interface" drop-down arrow. You will want to choose the interface connection that you have the BOCA printer hooked up to then go to step #6.
   If you are connecting via the Ethernet port then in the IP Address box type in the printer's current IP address. The printer's current IP address is printed on the self-test ticket (when the test button is pressed). When tying in the address don't include the leading zeros (If IP=189.010.000.002 then type in 189.10.0.2). Click on the Connect button. The Message section will indicate that connection has been made. Go to step #6

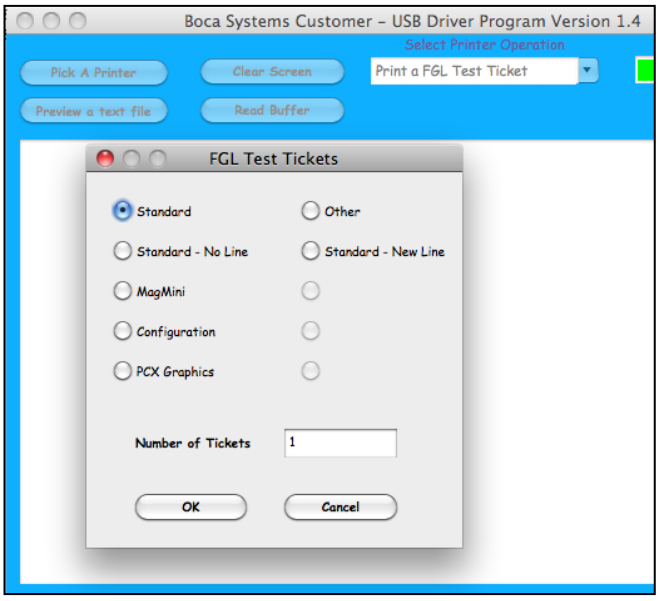


5. Once the Customer USB Drivers program is running, click on the "Pick A Printer" button. You will want to choose the driver you're using for the BOCA printer.

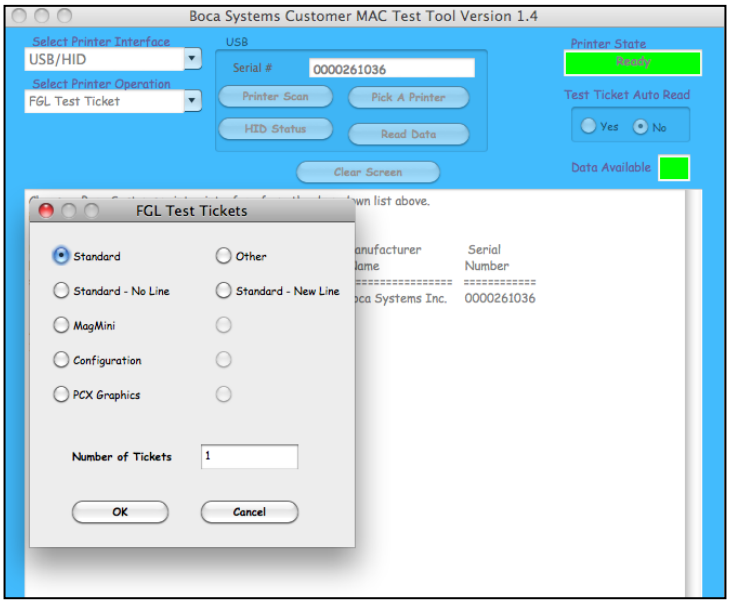


Your selection of drivers will vary from what is shown in above image

6. Now click on the “Select Printer Operation” drop-down arrow and chose “Print a FGL Test Ticket”. If your printer had HP firmware then chooses “PCL Test Ticket”.



Driver program



Without Driver program

7. You may also print more than one ticket by changing the number of tickets you want to printer. See next page for sample printouts.

Above sample FGL ticket was printed on a 2” x 5.5” (concert) ticket using an ADJW-2 200dpi FGL printer

Above sample FGL ticket was printed on a 3.25” x 8” (receipt) ticket using an ADJW-3.25” 200dpi FGL printer

Your sample printout may vary due to ticket width and length.

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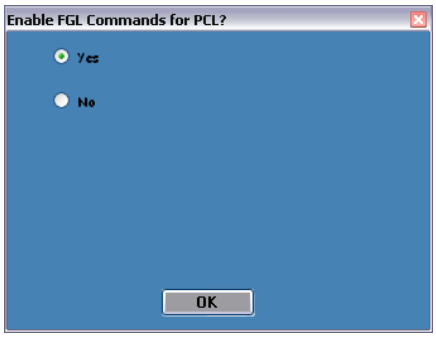
APPENDIX D – DOWNLOADING SOFTWARE COMMANDS

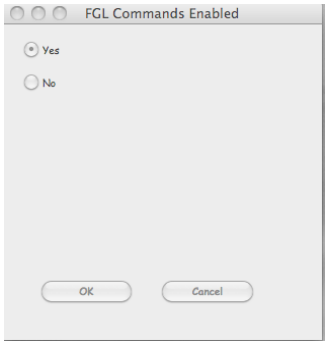
For those Lemurs model printers without LCD display the menu setting changes may be done by utilizing the software commands listed below. This is best done using our configure and test program for Windows (see Appendix F) or *our customer program for MAC (see* APPLE/ MAC BASED SYSTEM*)*.

If needed, the printer may be defaulted back to it's originally factory settings as follows. With the printer powered off hold down the TEST button and then power up the printer. Keep the TEST button held down for 10 seconds and release (the printer will reset at this time).

Once you have your interface or driver selected then clicks on the "Enable FGL for PCL" button. *For the MAC customer program under the Select Printer Operation choose "Enable FGL Commands (HP)".* Click on the Yes Click the Yes button and then the OK button.

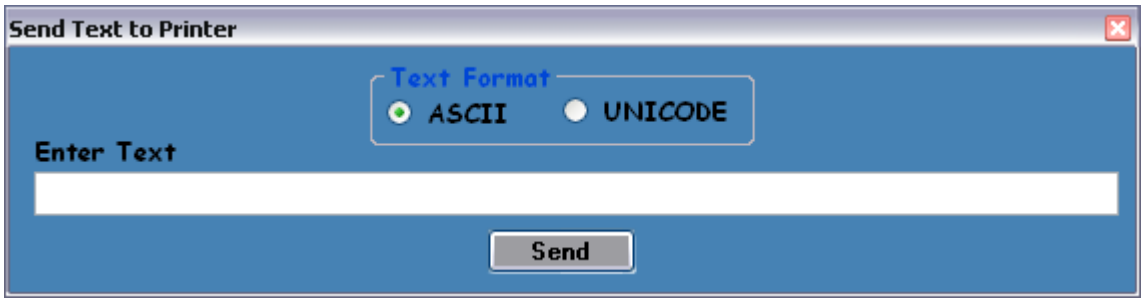


Window



MAC

Click on the "Send Text" button. *For the MAC customer program under the Select Printer Operation choose "Send Text Commands".* Once the Text Data box comes up you type the text command in the Data input box. Then click on the OK button and the text data will be sent to the printer.



You may click on the HELP button at any time to open up the help window.

The CONFIGURATION TEST TICKET SUPPLEMENT section of the FGL programming guide shows all of the commands necessary to access the operator control panel functions.

For a printer that has the cut opto located on the cutter assembly only (See section , the below software command changes the cut position. The # value range is from (0 to 35) and the printer will reset up receipt of the command. A value of 16 is the default value.

<caa#>

Click here to return to > Table of Contents

APPENDIX E– CONFIGURE WI-FI CONNECTION

To use the wireless capabilities of a printer equipped with the optional 802.11b wireless interface (Wi-Fi), it will first be necessary to setup the printer with information and security settings that match the settings of the IEEE 802.11b compatible wireless server/router you are connecting to. Printer purchased after April-2014 is able to support IEEE 802.11g compatible wireless server/router.

Our Wi-Fi printer is designed to work with a wireless router.

To initially configure the wireless settings it will be necessary to connect to the printer via the Parallel, RJ12, USB or Ethernet (if so equipped) interface using a Windows or MAC based system.

This may be done using our Configure and Test program for Windows or Customer program for MAC (see Appendix F). The printing of a ticket via this program will confirm it is communicating with the printer.

To use the wireless capabilities in FGL and PCL 26/46 model printers equipped with a wireless interface, it will first be necessary to setup the printer with information and security settings that match the wireless settings of the local wireless server/router. To configure the printer with the correct security settings, it is necessary to acquire these settings directly from the wireless server/router or see your network administrator. Also to initially configure the wireless settings it will be required to temporarily connect a cable between the printer and the host computer.

We recommend that the Wi-Fi be configured by either your system administrator or IT support staff.

The below steps walk you through the Wi-Fi setup in the Infrastructure mode. **The Wi-Fi router must be configured to support an IEEE 802.11b Wi-Fi device**. **Printers manufactured after April 2014 are able to support an IEEE 802.11g Wi-Fi device.**

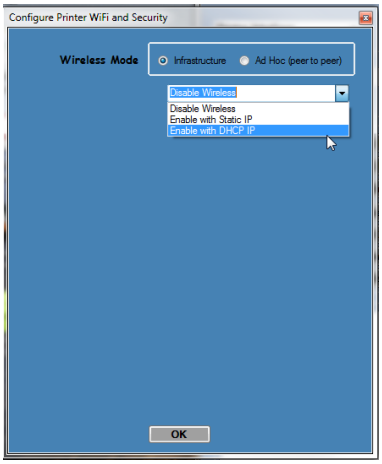
1. The printer will need to be connected to the host computer via a cable (parallel, serial, USB or optional Ethernet if your printer has it. For initial install the printer must be as close as possible to the Wi-Fi router itself. This will ensure maximum single strength. Once you have confirmed the Wi-Fi is operational, the printer may be moved to its desired location.

2. You will want to confirm you are able to print a ticket using our Configure and Test program for Windows or Customer program for MAC (see Appendix F). The printing of a ticket via this program will confirm it is communicating with the printer.

3. Click on the Setup **Wi-Fi** button.

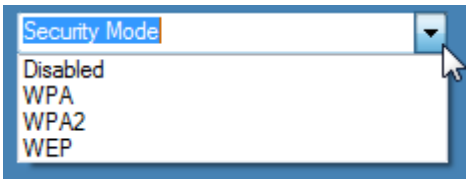
4. When the Configure Printer Wi-Fi and Security menu comes up you have a few choices.
   a. **Wireless Mode** – Infrastructure (using a Wi-Fi network router) or Ad Hoc (peer to peer).

   b. **Disable Wireless** – You would choose this if you wanted to disable the Wi-Fi
   Enable with Static IP – This would be for networks that require a static IP address.
   Enable with DHCP IP - Automatically attempts to get an IP address from Local Server (this is the most common one and the one we will be using for the rest of the steps).

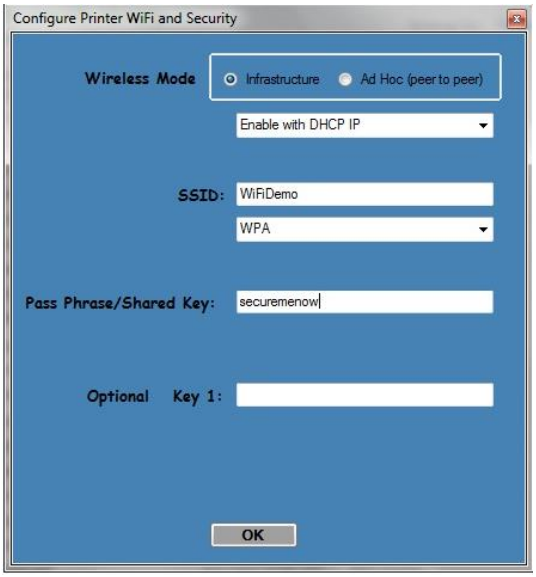


5. You will need to enter the **SSID value**. The Service Set Identifier is a 1 to 32 byte string. This normally would be the name of the Wi-Fi router you are connection to.

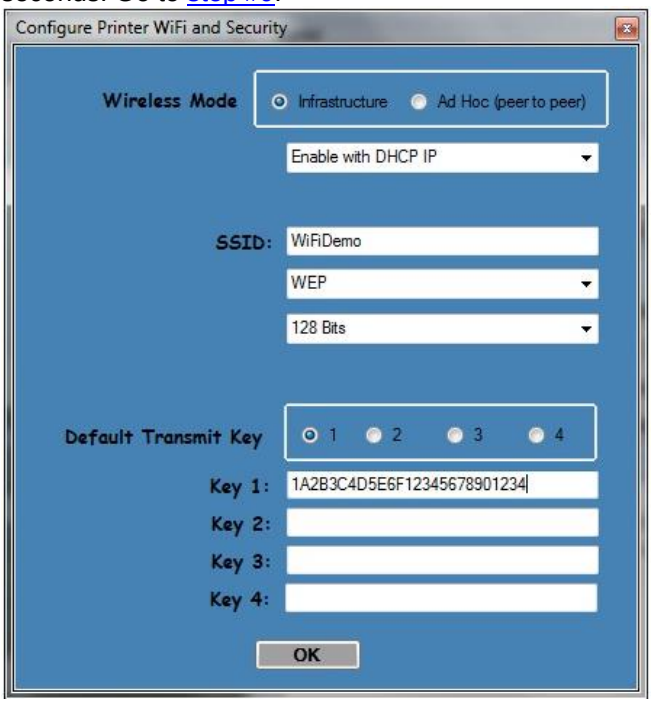
6. Security Mode: you will need to choose the security mode that is appropriate for your WiFi router.
Disable – Allows the user to communicate through the wireless network without any security encryption involved.
WPA – Go to Step 7
WPA2 – Go to Step 7
WEP – Go to Step 8



7. **WPA** and **WPA2** Personal Security Mode – Allows the user to communicate through the network using WPA or WPA2 Personal wireless encryption. When this security encryption mode is chosen it will be required to enter the "WPA Shared Key" for the local wireless network. Some networks also enforce the use of an optional key value. The optional prompt field is provided for those networks. Finally click on OK to have these values transmitted to the printer (through the cable). The printer will reset and upon re-initialization it will establish wireless communication with the local network. The handshaking involved in establishing wireless communication can take up to 30 seconds. Go to step #9.



8. **WEP** Security Mode – Allows the user to communicate through the network using WEP wireless encryption. With WEP one can select 64 bit or 128 bit encryption. When the security encryption mode is chosen it will be required to enter the "Pass Phrase" for the local wireless network. Some networks also enforce the use of a default transmit key. If needed select one, else leave it set to "1". Next the four security key values will have to be entered to match those of the local network. Finally click on **OK** to have these values transmitted to the printer (through the cable). The printer will reset and upon re-initialization it will establish wireless communication with the local network. The handshaking involved in establishing wireless communication can take up to 30 seconds. Go to step #9.



9. The printer will reset. Depending on your operating system, this rest may happen less than 60 seconds or as long as 5 minutes. Upon re-initialization it will establish wireless communication with the local network. Depending on your network, a connection can be established in less than 60 seconds or as long as 5 minutes. If it fails then see item #13 on the Troubleshooting Guide.

10. Press the TEST button to print out a self-test ticket. This ticket will show the IP address that was acquired by the printer. You may use the configuration and test program to test this interface connection. You would run the program like you are connecting to an Ethernet printer and enter in the IP address that is shown on the self-test ticket.

Please go to the link below if you need assistance in configuring your Wi-Fi connection.
www.bocasystems.com/onlinesupportform.html

If your printer has an options Ethernet port then this port will be disable while the printer is in Wi-Fi mode. The printer is not able to run both Ethernet and Wi-Fi at the same time. If you need to go back to using the Ethernet port then the Wi-Fi needs to be disable. This may be done by repeating the above procedure but at step # 4 choosing **Disable Wireless.**

Click here to return to > Table of Contents

APPENDIX F – WINDOWS USB DRIVER INSTALLATION GUIDE

Do not connect the printer to your computer's USB port until advised to.

Please contact your software provider to confirm if the use of our driver is required for their ticketing software. We recommend that the print driver is installed by either your system administrator or IT support staff.

These print drivers are intended to be installed on Windows PC platforms X86, AMD64 or IA64. This includes Windows 7, 8.1, 10 and Server 2012 R2.

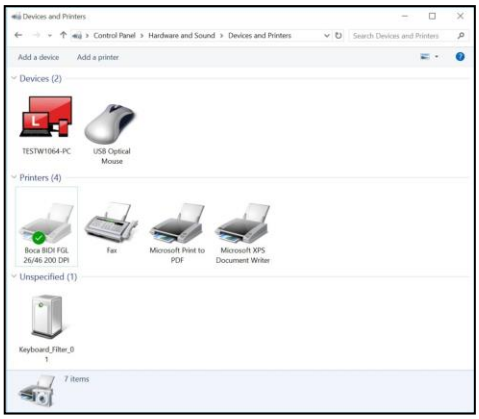
To properly install the Boca Systems printer drivers, version 4.0.0.0, follow the steps outlined below. If you currently have another version of a BOCA print driver installed, start at step #1 to uninstall it first. If this is the first time installing the BOCA driver onto the host computer then start at step #4.

On the host computer you are installing the drivers on you will want to make sure you have the following:

- Administrate privileges as most Windows systems require this do download drivers.
- Access to the internet as the host computer will need to gain access to the Microsoft website to download the necessary drivers.

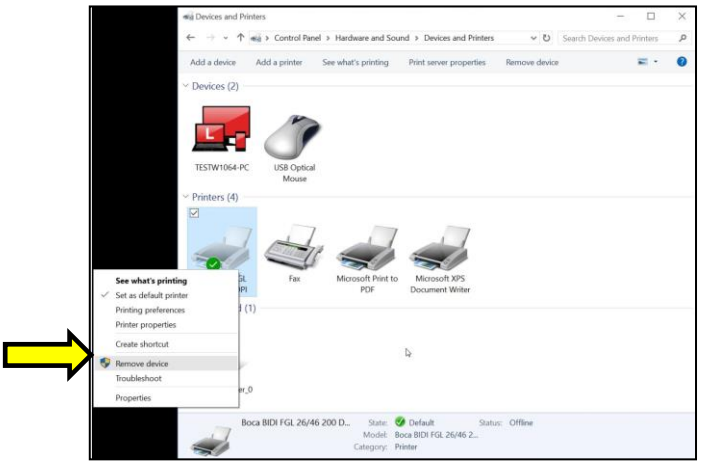
1. Turn off the BOCA printer.

2. Go to the Devices and Printers window. In the below image there is one BOCA driver currently



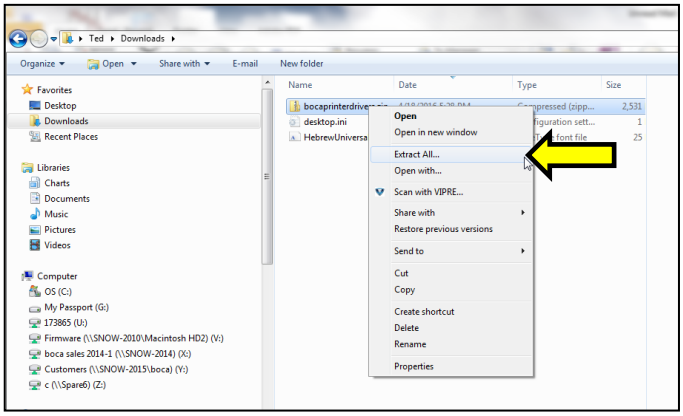
installed via its default name.

3. Right click on the driver icon and then click on "Remove Devices". You will be prompted with "Are You Sure", select Yes. If there is more than one BOCA print driver icon then repeat this step until all are removed.

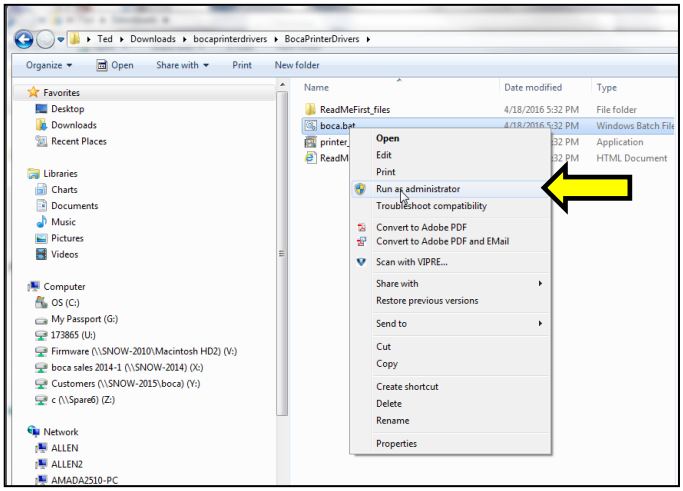


4. Click on the link below to download the zip file to your host computer. You will be prompted if you want to Open, Save or Save as. Click on **Save as** and save the file to your hard drive. You will need to denote what file folder you saved the file to.
www.bocasystems.com/bocaprinterdrivers.zip

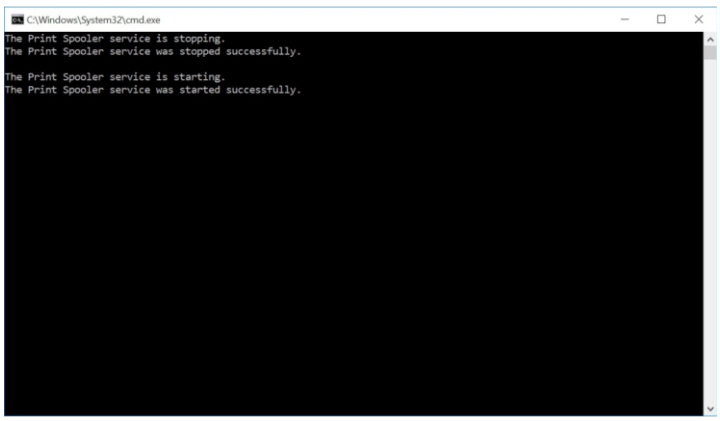
5. Go to the file folder you saved the zip file to and right click on bocaprinterdrivers.zip. Click on Extract All… It will ask you to select a Destination and Extract Files, click on the Extract button.



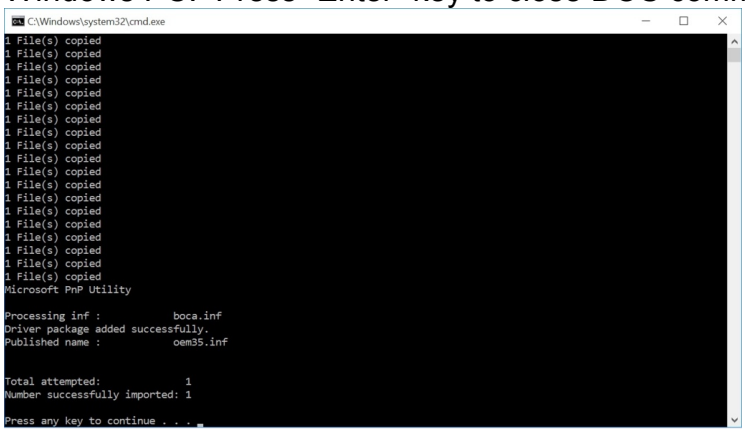
6. The file folder that was extracted will automatically pop up. Double click on the BocaPrintDrivers folder to open it up. Right click on boca.bat and click on Run as administrator.



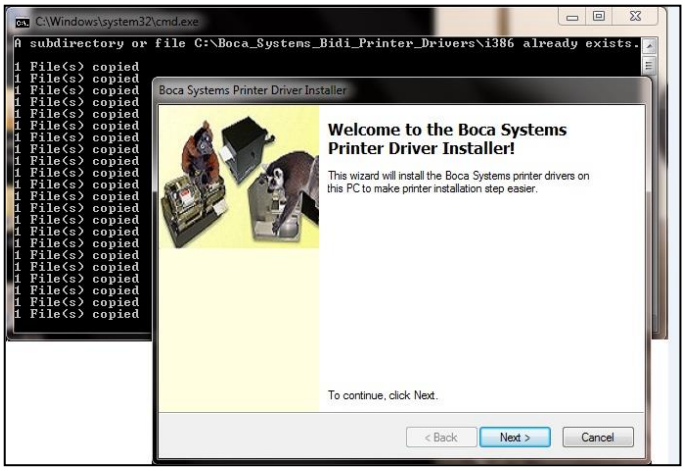
7. You will see two DOS command windows open. The first will be looking for an older version of ddkfglmon.dll file to delete so it may be replaced with new ones once the complete install process is done. The spooler will be stopped while the file is being deleted and will restart. If the PC does not have this file, a message will be displayed “File not found”. This is nothing to worry about as said file did not reside on the PC.



8. The second DOS command window will open to install the printer files as shown below. Notice the message “Driver Package added successfully”. This is how it is displayed on a 64 bit Windows PC. Press “Enter” key to close DOS command windows.



On a 32 bit Windows PC it will look more like the below. Click the “Next” button and “Finish”



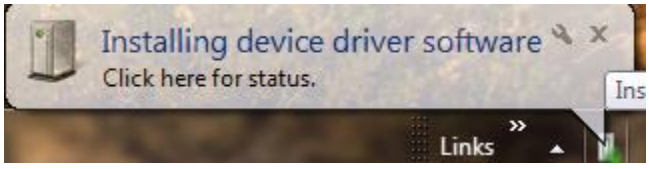
button when prompted to complete the install of the driver package onto the PC.

NOTE: IF INSTALLING ON WINDOWS 8 OR 10 GO TO PAGE 43.

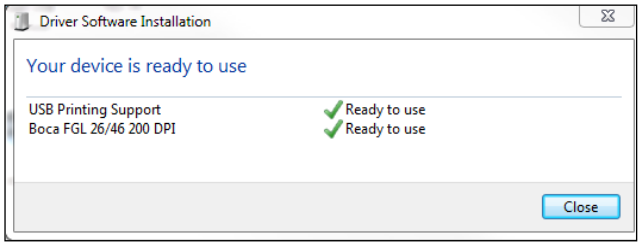
The below steps are for Windows 7 operating system only.

1. Connect the USB cable to the host computer and power on the printer. If you are connecting to the printer via Ethernet or Wi-Fi then skip to step # 4.

2. Depending on your system, a notice box similar to the following picture should appear. Click on the **Click here for status.** This will enable to see the status of the driver software installation.



3. The correct USB Printing Support and drivers will automatically install. The image below is of a 200dpi driver being installed on a Windows 7 system. The driver name will vary due to the printer’s DPI and logic board level. Go to Page 41.

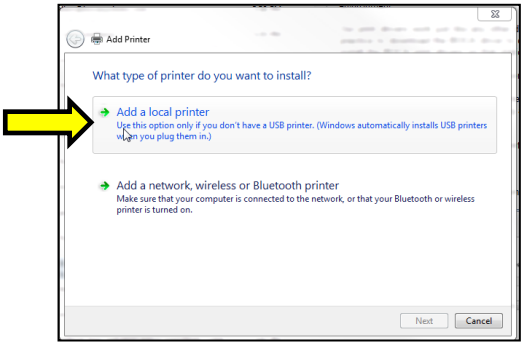


STEPS 4 THROUGH 15 ARE FOR ETHERNET OR WI-FI CONNECTION ONLY

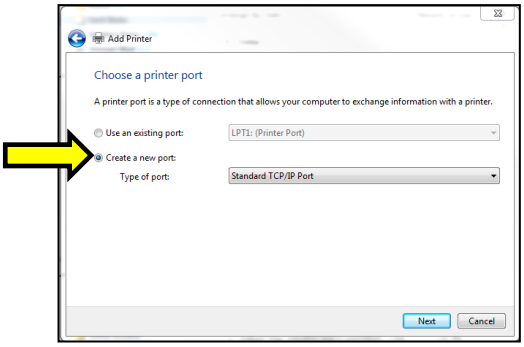
4. The self-test ticket that is printed when the printer's TEST button is pressed will show the IP address that the printer has.

5. Open up the "Devices and Printer" Menu.

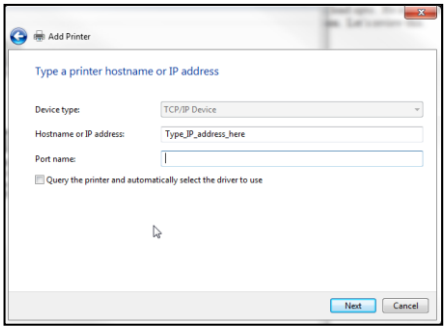
6. Click on "Add a Printer". When Add Printer Wizard show up, click on the Next button. Click on "Add a local printer".



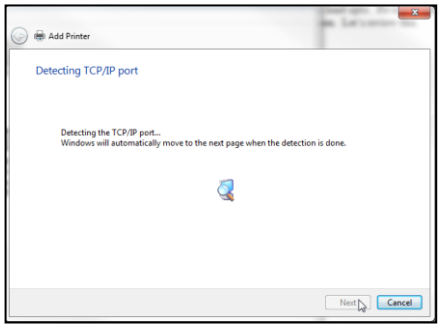
7. When the printer port menu comes up. Click on "Create a new port:" choose "Standard TCP/IP Port". Click on the Next button.



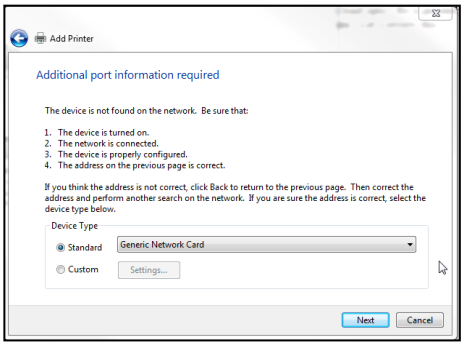
8. Type in the IP address that is shown on the self-test ticket in the "Hostname or IP address:" field. When typing in the address don't include the leading zeroes (If IP=189.010.000.002 then type in 189.10.0.2). You also have the option of typing in a specific Port name or leave as the IP address. Click on the Next button.



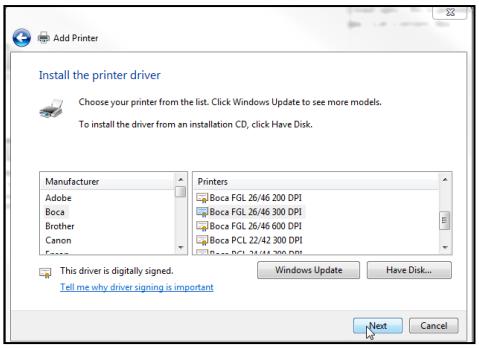
The below screen may be seen (no action is needed). It may take a few minutes for the system to move on to the next screen. This will vary depending on system and Network speeds.



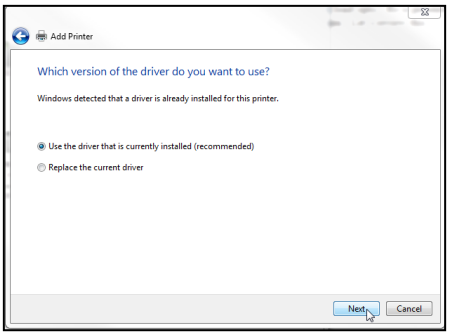
9. When the Additional Port information menu comes up click on the Next button.



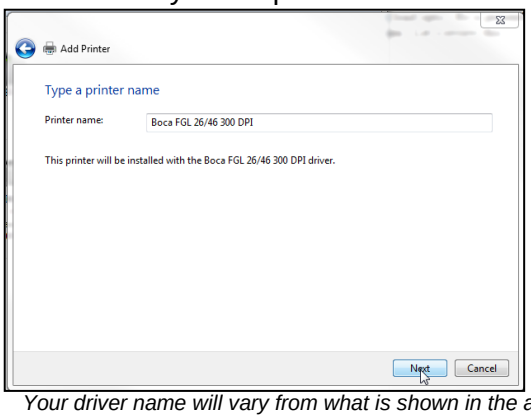
10. When the Install print driver menu comes up: Under Manufacturer select “Boca”. Under Printers select the driver that matches your printer’s protocol (FGL or PCL) and DPI. Click on the Next button.



11. When the version driver menu comes up click on the Next button.

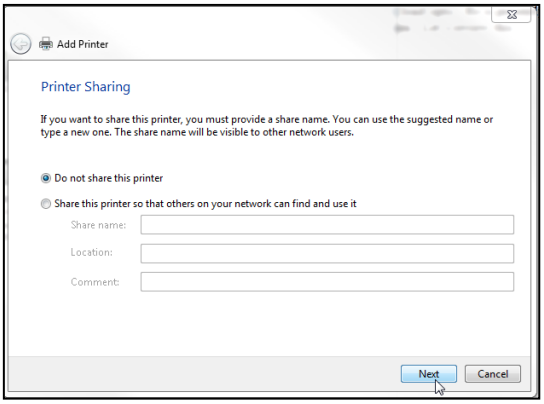


12. When the printer name menu comes up you may keep the default name or type in a different name. We recommend you keep the default name. Click on the Next button.

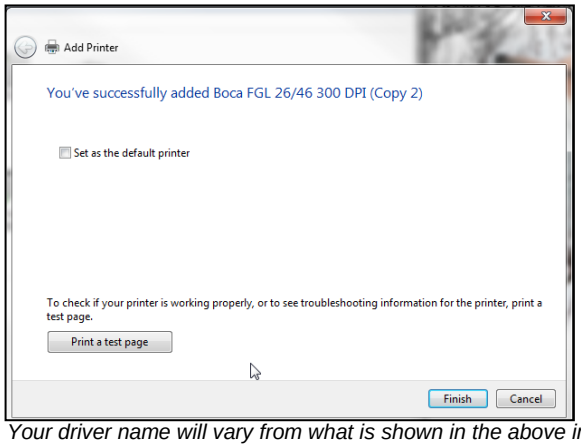


Your driver name will vary from what is shown in the above image

13. When the Printer Sharing menu comes up you may choose to share this printer or not. Click on the Next button.



14. On the last menu you have the option to choose if you want to make the BOCA your default printer. **Do not click on Print a test page.** Click on the Finish button.



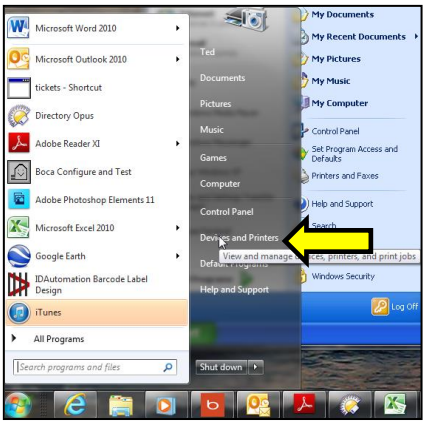
Your driver name will vary from what is shown in the above image

15. The next page reviews how to print a windows test page to confirm the driver is communicating with the printer.

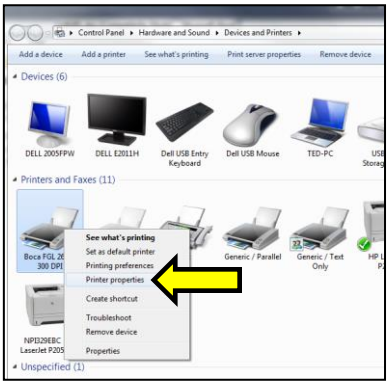
Windows 7 Test Page

The following will guide you through doing a Windows test page to confirm the driver is communicating with the printer. You will want to make sure the printer has stock loaded and is able to print a self-test ticket when the TEST button is pressed. The printing of this ticket confirms that the printer is working properly mechanically. If the printer is not able to print a self-test ticket, then consult the "4.0 Installation section of the user manual (www.bocasystems.com/documents/lemur_manual.pdf).

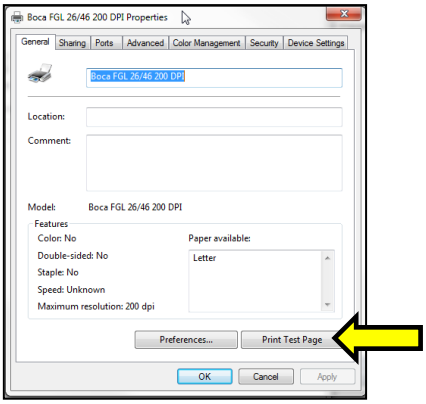
1. Go to the **Devices and Printers** page.



2. When the Devices and Printers page comes up, right-click on the BOCA driver that is being used. When the drop down window pops up, left click on **Printer properties**. *Your selection of driver will vary from what is shown in the below images.*

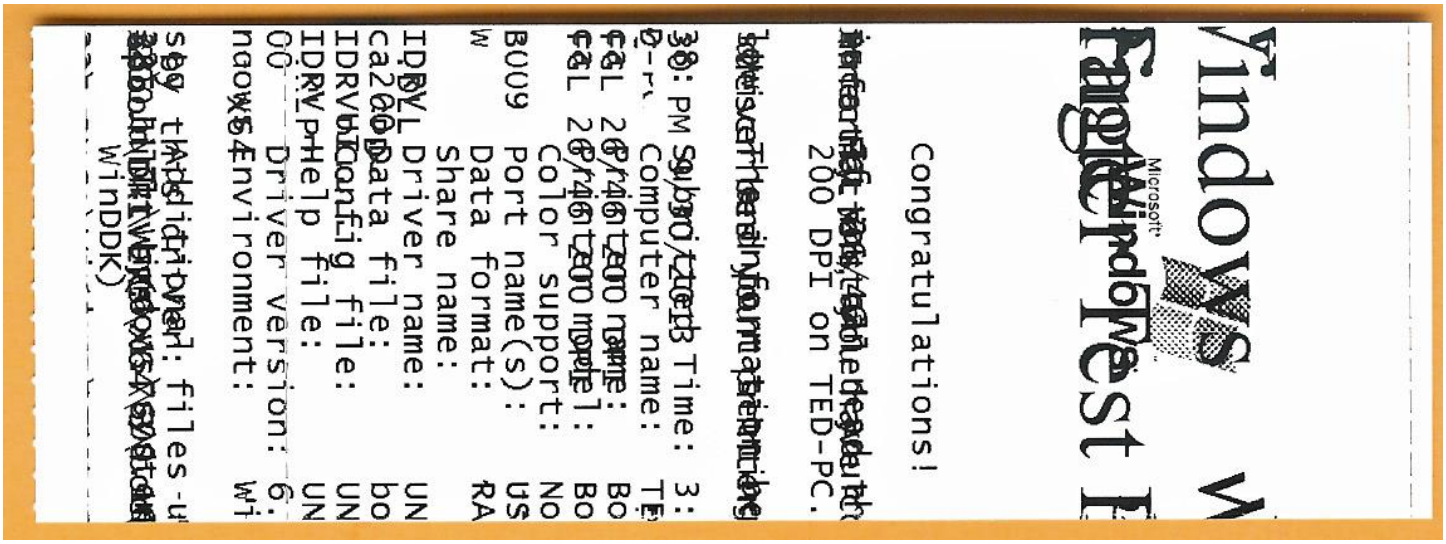


3. Once the driver's properties menu comes up click on the **Print Test Page** button. *Your drive properties will vary from what is shown in the below.*

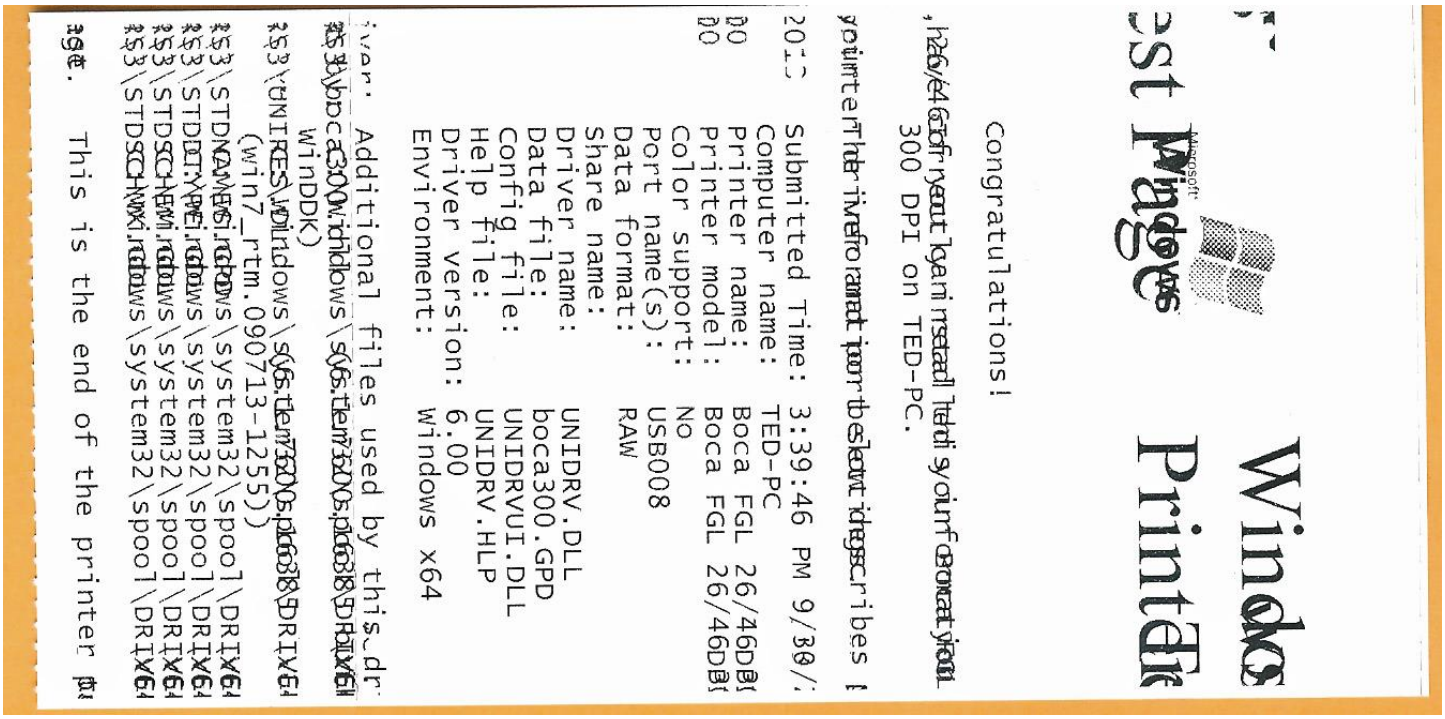


4. The printer should proceed with printing out a Windows Test page. The printing of this ticket confirms the print driver is communicating with the printer.

Below are some samples printouts for reference only and your test page may look different.



Above is from a 200DPI FGL printer with 2” x 5.5” stock



Above is from a 300DPI FGL printer with 3.25” x 6.5” stock

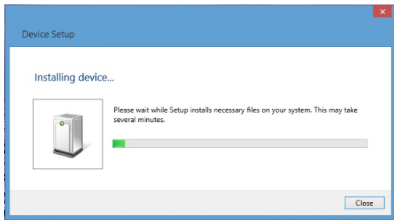
If you were not able to install the BOCA print driver using the above steps, please take a screenshot of the “printers and drivers” dialog and attach it to the support form located at www.bocasystems.com/onlinesupportform.html

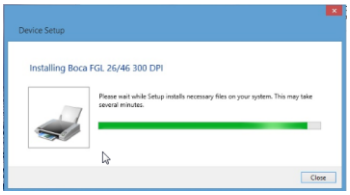
Do not connect the printer to your computer's USB port until advised to.

1. Connect the USB cable to the host computer and power on the printer. If you are connecting to the printer via Ethernet or Wi-Fi then skip to step # 4.

2. Depending on your system, a notice box similar to the below picture may appear. Click on the **Click here for status** (for Windows 7) or the icon (for Windows 8 or 10)**.** This will enable to see the status of the driver software installation.

3. The correct USB Printing Support and drivers will automatically install. The image below is of a 300dpi driver being installed. The driver name may vary due to the printer's DPI and logic board level. Go to page 47 to print a Windows test page.

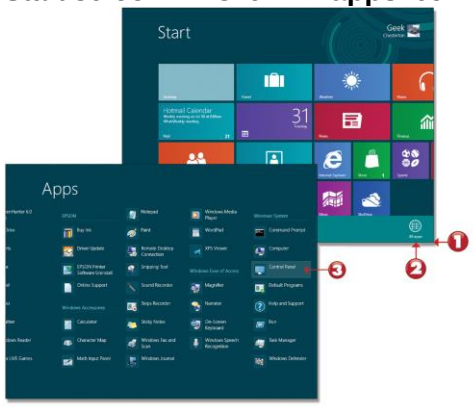




STEPS 4 THROUGH 13 ARE FOR ETHRENT OR WI-FI CONNECTION ONLY.

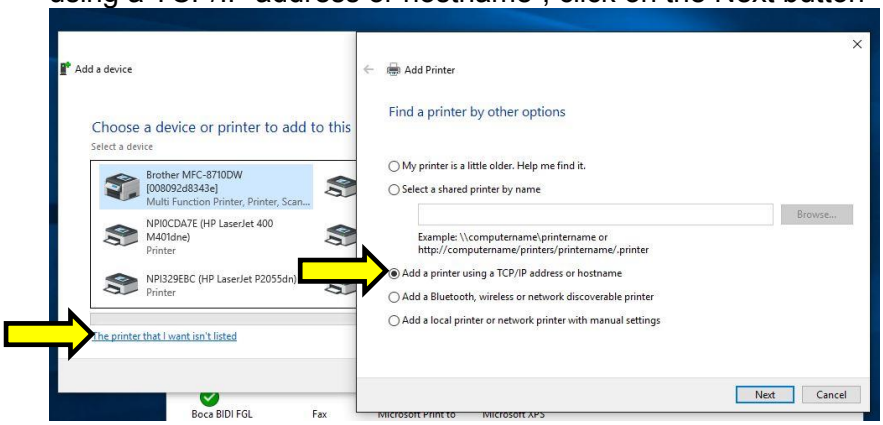
4. The self-test ticket that is printed when the printer's TEST button is pressed will show the IP address that the printer has.

5. Below is one of many ways to get to the devices and printers menu. **1**- Right-click the bottom corner of the Start screen. **2**- Click **All apps** icon. **3** – Click **Control Panel**.

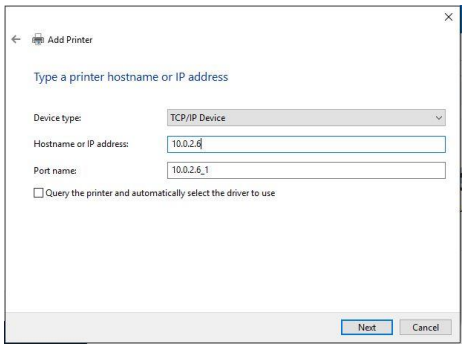


6. When the Control Panel menu comes up, click on **View devices and printers** located under Hardware and Sound.

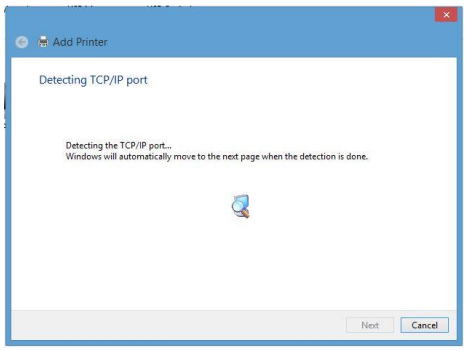
7. Open up the “Devices and Printer” Menu. Click on “Add a Printer” to run the install wizard. Click on “The Printer I want isn’t listed”. When the find a printer by other option menu comes up. Click on “Add a printer using a TCP/IP address or hostname”, click on the Next button



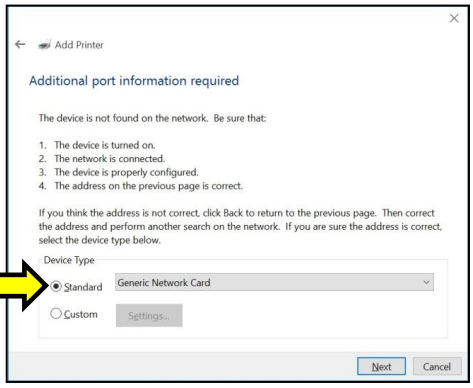
8. Type in the IP address that is shown on the self-test ticket in the “Hostname or IP address:” field. When typing in the address don’t include the leading zeroes (If IP=189.010.000.002 then type in 189.10.0.2). You also have the option of typing in a specific Port name or leave as the IP address. Uncheck the “Query the printer and…….” Box, click on the Next button.



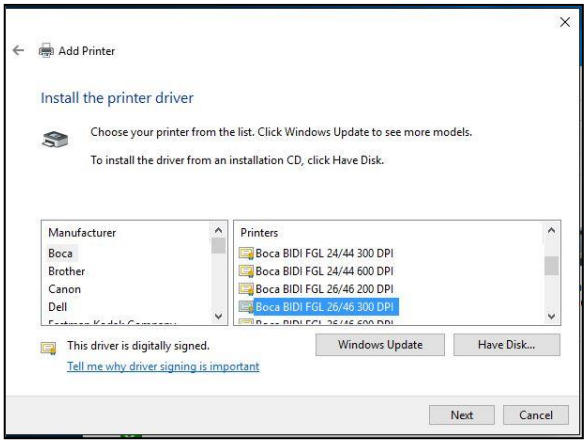
9. The below screen will be displayed (no action is needed). It may take a few minutes for the system to move on to the next screen. This will vary depending on system and Network speeds.



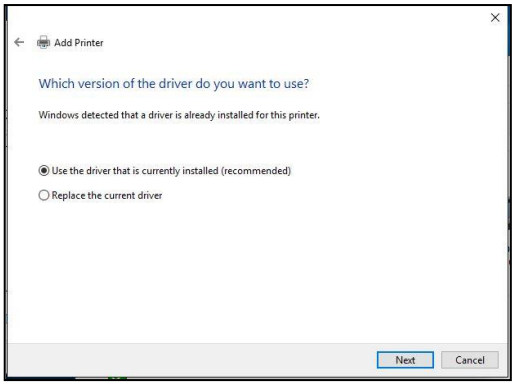
10. The host computer will move forward with detecting the IP address. Once detected the below menu will come up. Select standard network card and click next.



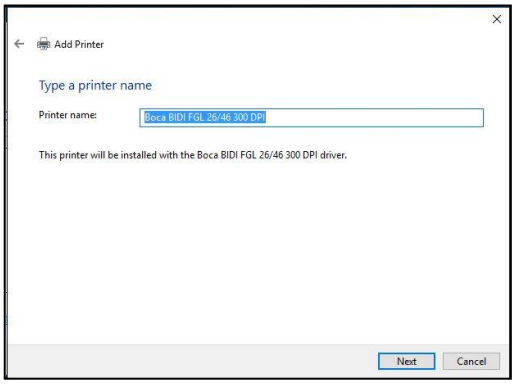
11. When the Install the print driver menu comes up select “Boca” under and the appropriate driver for your printer. Once done click on the next button.



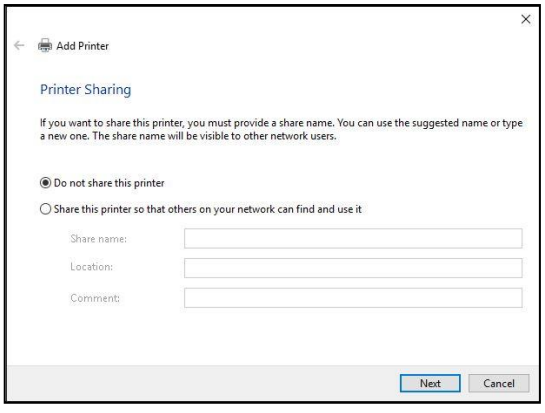
12. When the below menu comes up click on next.



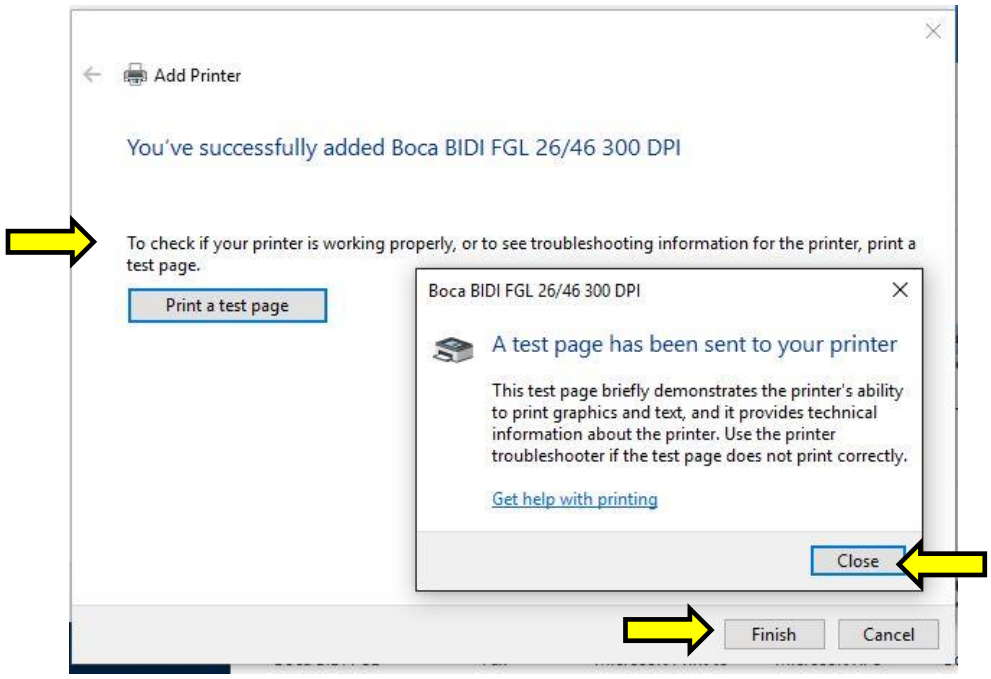
13. When the below menu comes up click on next. *Your name may vary from what is shown below.*



14. At this menu screen you have the option to share or not share the printer. Click on the next button.



15. On the last page click on the “Print a test page” button and a windows test page should be printed by the printer. This indicates the driver is communicating with the printer. Click on the Close button and then the Finish button. Page 48 shows typical printout.

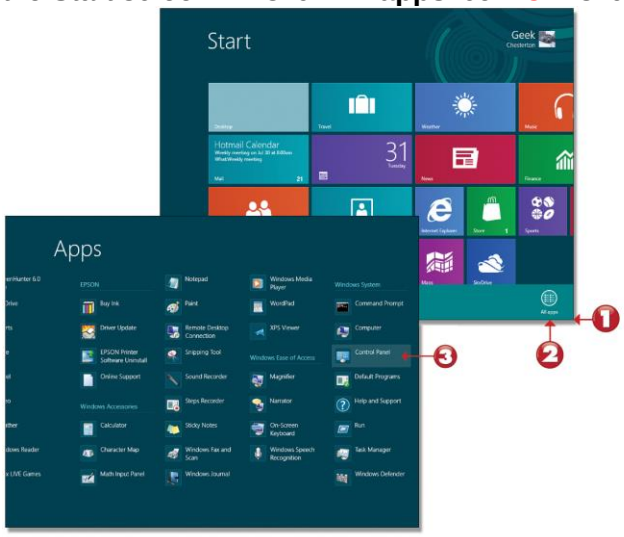


Your driver name may vary from what is shown above

Windows 8 or 10 Test Page

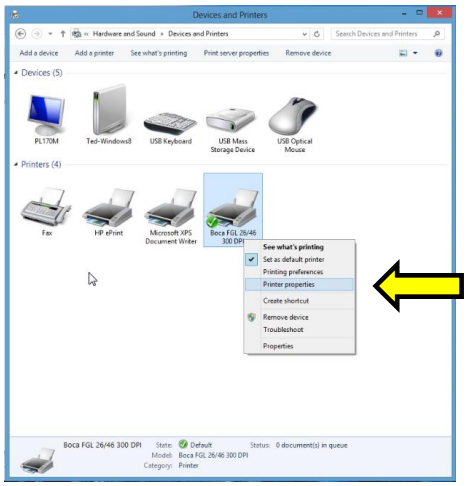
The following will guide you through doing a Windows test page to confirm the driver is communicating with the printer. You will want to make sure the printer has stock loaded and is able to print a self-test ticket when the TEST button is pressed. The printing of this ticket confirms that the printer is working properly mechanically. If the printer is not able to print a self-test ticket, then consult the "4.0 Installation section of the user manual (www.bocasystems.com/documents/lemur_manual.pdf).

16. Below is one of many ways to get to the devices and printers menu. **1**- Right-click the bottom corner of the Start screen. **2**- Click **All apps** icon. **3** – Click **Control Panel**.

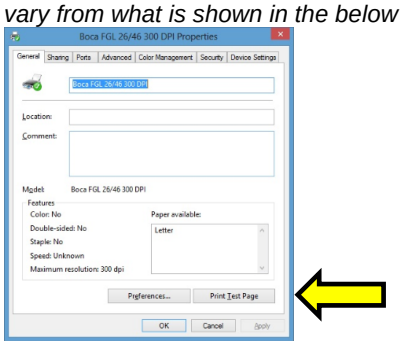


17. When the Control Panel menu comes up, click on **View devices and printers** located under Hardware and Sound.

18. When the Devices and Printers page comes up, right-click on the BOCA driver that is being used. When the drop down window pops up, click on **Printer properties**. *Your selection of driver will vary from what is shown in the below images.*

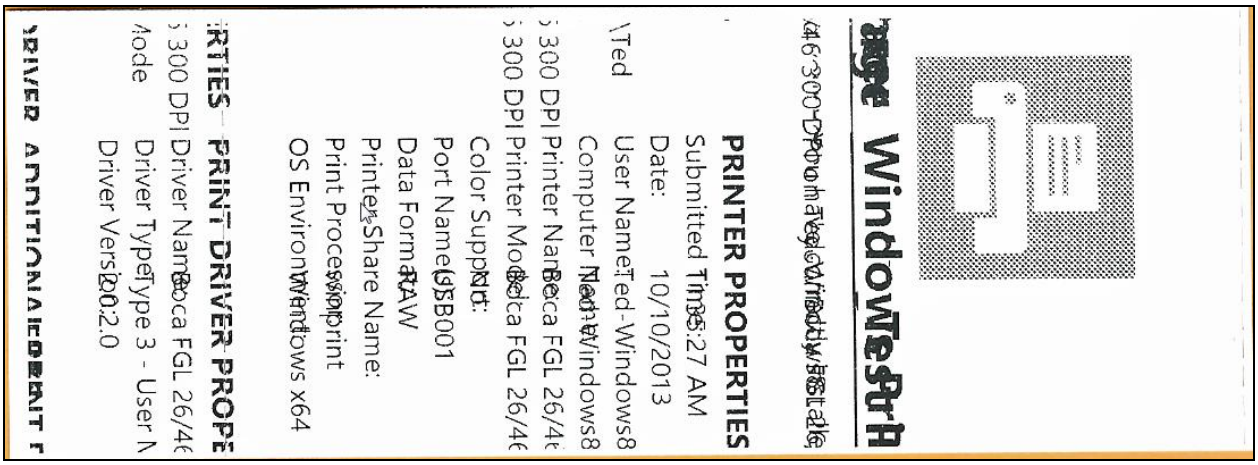


19. Once the driver's properties menu comes up click on the **Print Test Page** button. *Your drive properties may vary from what is shown in the below images.*

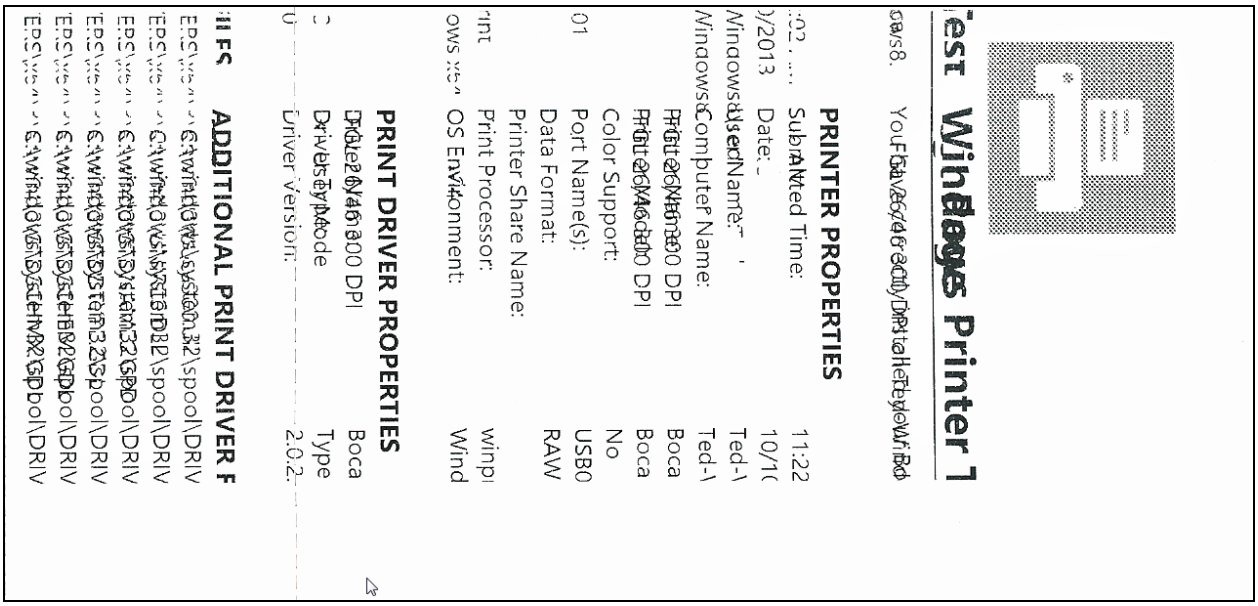


20. The printer should proceed with printing out a Windows Test page. The printing of this ticket confirms the print driver is communicating with the printer.

Below are some samples printouts for reference only and your test page may look different.



Above is from a 200DPI FGL printer with 2" x 5.5" stock



Above is from a 300DPI FGL printer with 3.25" x 6.5" stock

If you were not able to install the BOCA print driver using the above steps, please take a screenshot of the "printers and drivers" dialog and attach it to the support form located at www.bocasystems.com/onlinesupportform.html

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APPENDIX G – MAC DRIVER INSTALLATION GUIDE

Do not connect the printer to your computer's USB port until step #13

Please contact your software provider to confirm if the use of our driver is required for their ticketing software. We recommend that the print driver is installed by either your system administrator or IT support staff. If you previously connected the printer or tried to install the print driver, take a screenshot of the "printers and drivers" dialog and attach it to the support form located at www.bocasystems.com/onlinesupportform.html.

NOTE: You must have full Administrative Privileges in order to download and install drivers.

1. The BOCA MAC print drivers are designed only for FGL protocol printers. They will not work with PCL protocol printers. The self-test ticket that is printed when the TEST button is pressed will indicate the printer's protocol. **FGL** = FGL protocol and **HP** = PCL protocol

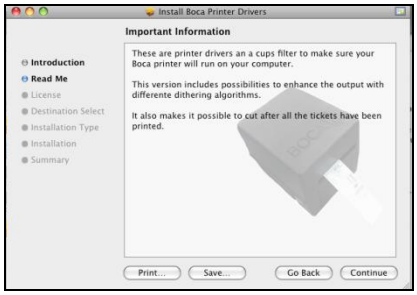
2. Click on the link below MAC drive link.

boca_driver (mountain lion compatible)
boca_driver (maverick , yosemite & el capitan compatible)

3. Click on the below ICON when it shows up on your taskbar. Then click on **boca_mountainlion.pkg** (is mountain lion link was chosen or **Boca Printer Drivers Signed.pkg** (if mavericks link was chosen)..

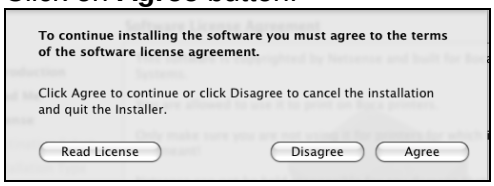
4. Click on the **Continue** button.

5. Click on the **Continue** button.

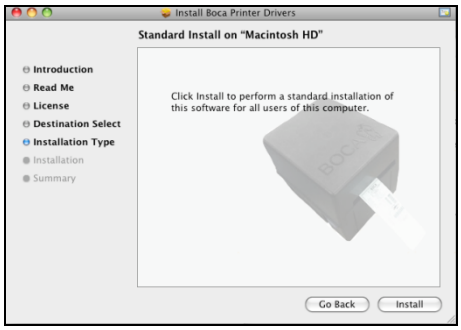


6. Click on **Continue** button.

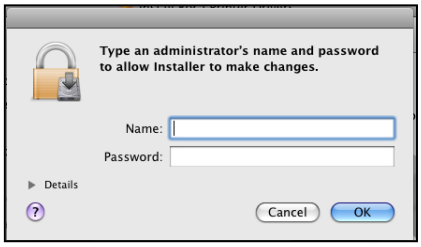
7. Click on **Agree** button.



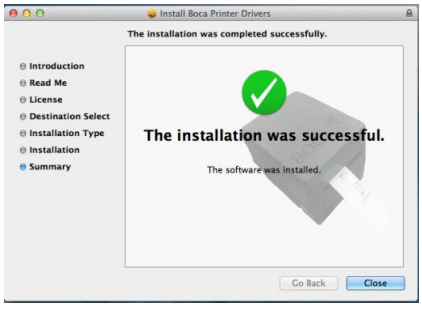
8. Click on **Install** button.



9. If your system is administrator password protected then the below dialog box will appear. Enter in the appropriate Name and Password, click on **OK** button.



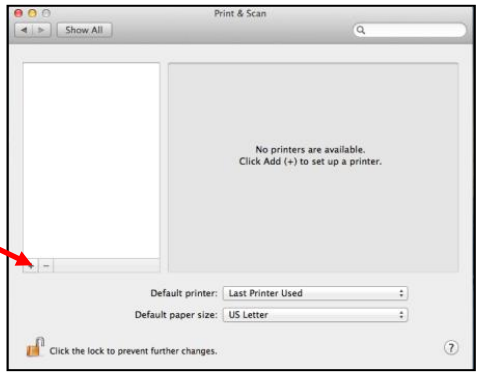
10. Click on the **Close** button.



11. Click on the **System Preferences** icon that is located on your taskbar.

12. Click on **Print & Scan** icon.

+ BUTTON

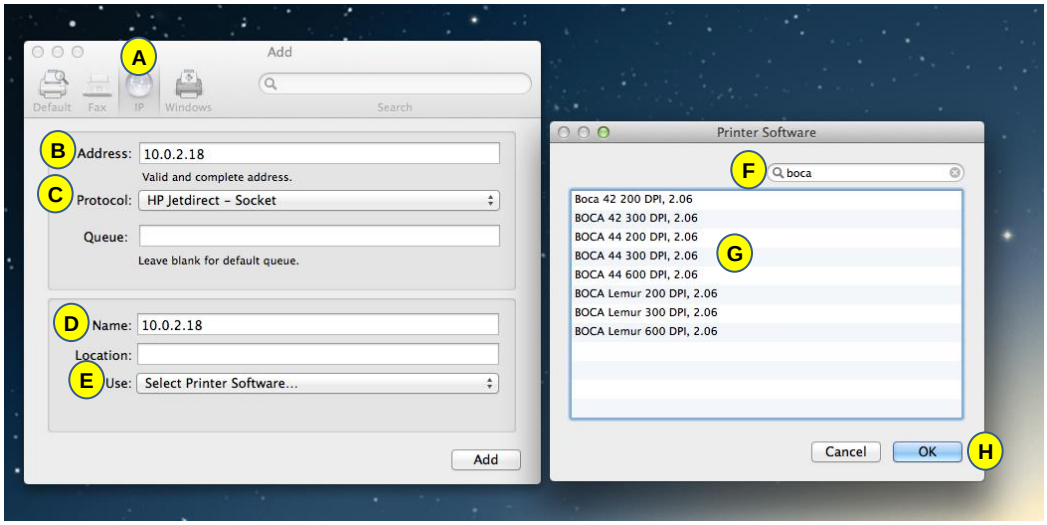


13. Connect the USB cable to the host computer; power on the printer; and go to step 20. If you are not connecting to the printer via a USB cable but via an IP address (Ethernet or Wi-Fi), go to the next step.

14. The IP address of the printer is found on the self-test ticket that is printed when the TEST button is pressed.

15. Click on the **+** button in the Printer & Scan menu that was shown in step #11 to manually add a printer.

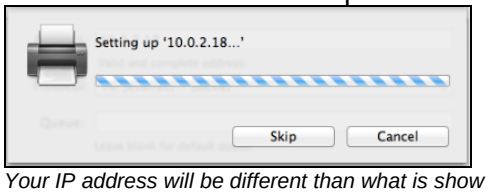
16. When the add printer menu comes up, do the following.
    a. Click on the **IP** icon.
    b. **Address:** type in the IP address that is shown on the self-test ticket.
    c. **Protocol:** choose **HP Jetdirect-Socket**
    d. **Name:** you may keep the default name or change it.
    e. **Use:** choose **Select Printer Software….**
    f. In the Printer Software menu type **boca** in the search area.
    g. Choose the driver that matches your printer. The serial number tag will indicate Software (42, 44 or 46) and DPI (200, 300 or 600).
    h. Click on the **OK** button



Your IP address will be different than what is show in the above image.

17. Click on **Add** icon.

18. The below box will show up while the driver is being installed, no action is needed.

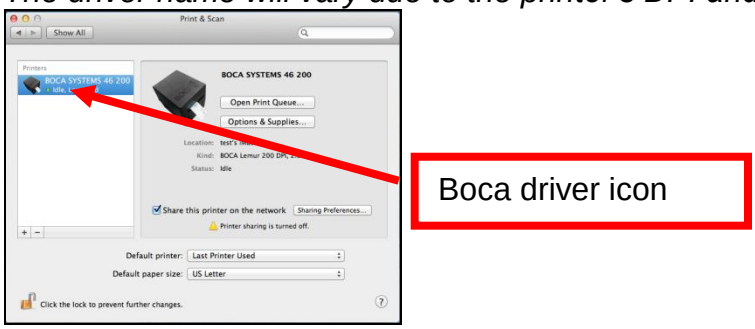


Your IP address will be different than what is show in the above image.

19. Under **Output Quality:** choose **Supercell**. Click on the **OK** button.
The driver will finish installing, Go to step 20.

Your IP address will be different than what is show in the above image.

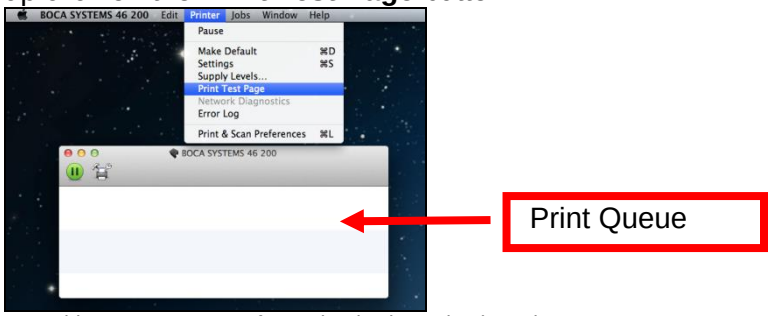
20. The correct print driver would have automatically installed if connected via a USB cable. If manually installed, the name entered in step 16 will show up. The image below is of a 200dpi driver.
The driver name will vary due to the printer's DPI and software level.



Your selection of drivers may vary from what is shown in above image

The following will guide you through doing a Windows test page to confirm the driver is communicating with the printer. You will want to make sure the printer has stock loaded and is able to print a self-test ticket when the TEST button is pressed. The printing of this ticket confirms that the printer is working properly mechanically. If the printer is not able to print a self-test ticket, then consult the "4.0 Installation section of the user manual (www.bocasystems.com/documents/lemur_manual.pdf).

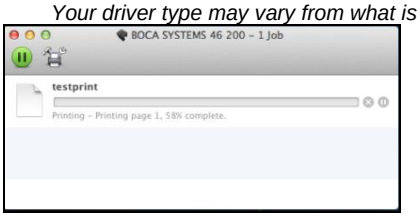
21. Double Click on the BOCA print driver icon to open up the print queue. On the very top of the desktop screen clink on the **Printer** and then click on **Print Test Page**. Once the driver's properties menu comes up click on the **Print Test Page** button.



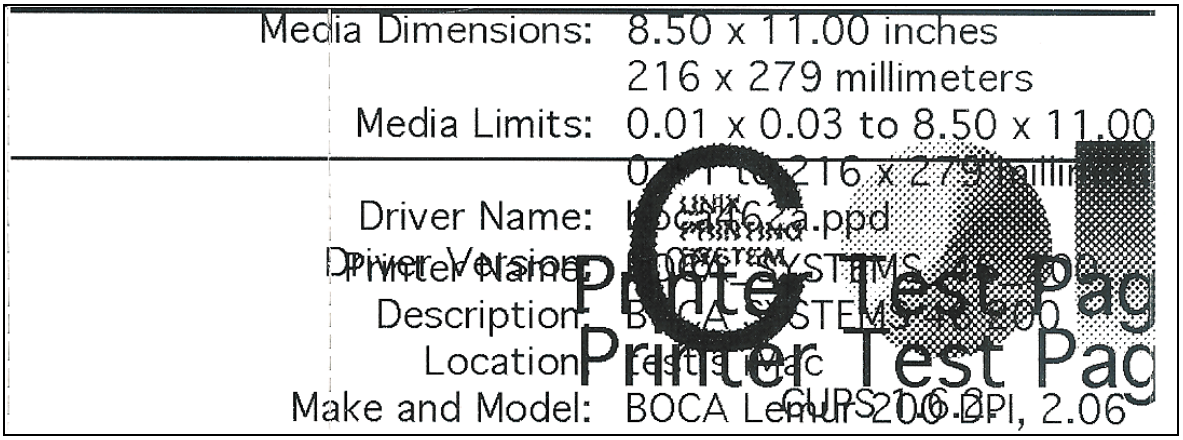
Your driver type may vary from what is shown in above image

22. The below box may show up on your screen prior to the printing of the Test page. The printing of this ticket confirms the print driver is communicating with the printer.

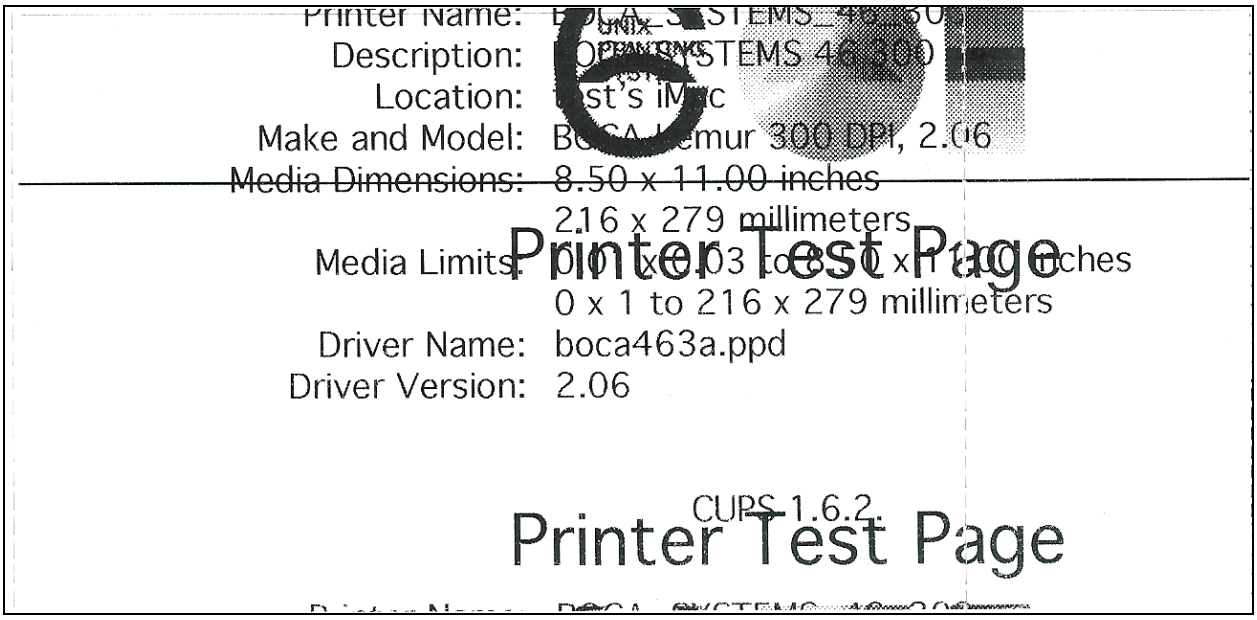
Your driver type may vary from what is shown in above image



Below are some samples printouts for reference only and your test page may look different.



Above is from a 200DPI FGL printer with 2” x 5.5” stock



Above is from a 300DPI FGL printer with 3.25” x 6.5” stock

If you were not able to install the BOCA print driver using the above steps, please take a screenshot of the “printers and drivers” dialog and attach it to the support form located at www.bocasystems.com/onlinesupportform.html

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APPENDIX H – SERVICE PLANS

For enhanced warranty coverage or out of warranty printer, we offer two types of service plans.

GOLD SERVICE

- Printer repair at BOCA facility (3 business day turnaround)
- Replace defective parts (ship within one business day) – customer must return defective parts
- Free printer and parts return via UPS ground service (other delivery options to be billed to the customer)

PLATINUM SERVICE

- Printer repair at BOCA facility (3 day business day turnaround)
- Replace defective parts (ship within one business day) – customer must return defective parts
- Free printer and parts return via UPS ground service (other delivery options to be billed to the customer)
- Replacement printer provided within one business day, if requested. (This service will become available one week after the platinum plan begins.)

The following items are not covered by the service plans:

- **Preventative Maintenance** – the customer is responsible to provide a reasonable level of preventative maintenance as described in section 9 of this manual.
- **Negligence** – parts damaged by misuse or negligence, including damage due to defective ticket stock, is not covered
- **Pre-existing conditions** - all printers must be in good working order prior to entering the plan. The customer will be invoiced for any parts and repair work needed on printers which were defective prior to the start of the maintenance plan. BOCA reserves the right to make this determination unilaterally.
- **Incoming Shipments** – the customer is responsible for shipping charges to BOCA.

Please visit the link below for the latest pricing on our service plans.
www.bocasystems.com/serviceplans.html

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APPENDIX I – TECHNICAL SUPPORT

Please go to the link below if you require technical support with your BOCA printer. There is no fee for initial email support.

www.bocasystems.com/onlinesupportform.html

PHONE / EMAIL SUPPORT - BOCA provides free technical support via email for all printers under warranty or service contracts. (Phone support may be provided for covered printers at BOCA's sole discretion as needed.) Email support for non-warranty/non-contract printers is billable at $100.00 per incident. However, BOCA may (at its sole discretion) choose to waive this fee for customers in good standing. Phone support for non-warranty/non-contract printers will be billed at a rate of $100.00/hour for Level 1 support and $200.00/hour for Level 2 support. Billing time will be rounded up to the nearest hour. A valid credit card number is required for phone support payments.

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