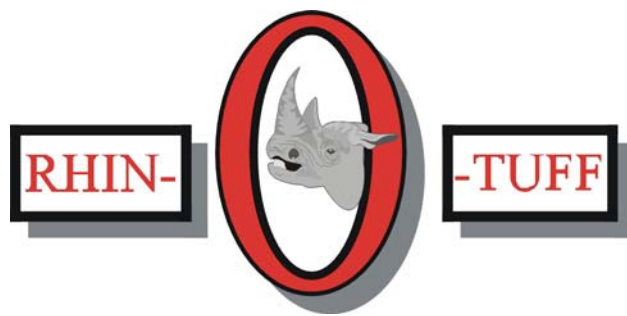


RAF-11 Operator's Training Manual

Issue 2

Performance Design Inc.
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RAF-11 Operators Training Manual

Issue 2

The RAF-11 is an attachment for the HD-7000 or HD-6500 manual punch. This attachment houses all of the necessary components to transform the manual punch into an automatic punch machine. Format specifications are 11" x 8-1/2" (A4) down to 8-1/2" x 5-1/2" (A5) punching on the long side. It will also punch mixed stock including tabs and up to 110lb cover material.

The RAF-11 will greatly increase productivity by punching more than 25,000 sheets of 20lb (80gsm) bond copy paper per hour. The punch rate average is 30 cycles per minute with an adjustable paper pick from 8-15 sheets of 20lb bond copy paper. It is suggested that the training video is viewed before reading this manual. ***This manual contains very important safety information and should be read!*** It also contains a more in depth look into setup procedures.

The automatic punch has a Quick Setup labeling system 1-8 located next to the various adjustments. These are very useful reminders regarding setup procedures. There is also a Quick Punching Guide label located on the front panel of the machine. This guide walks an operator through the process of loading paper to starting the punching cycle.

For HD-6500 retrofit users: make sure you obtain the HD-6500 supplemental manual. The supplemental manual contains additional information regarding your machine.



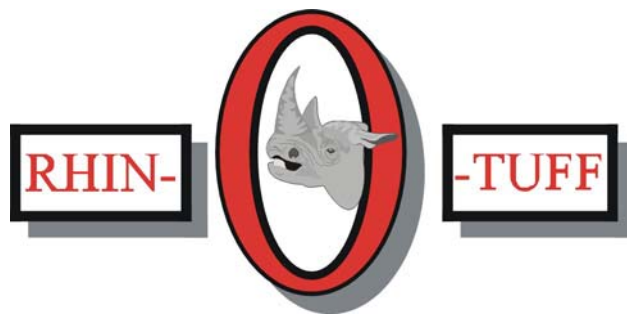
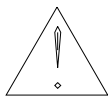


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1) Important Safety Notice!



Make sure you read this section very carefully! Learn to recognize this **Safety Alert Symbol**. The RAF-11 & Manual punch has been designed to provide a very high level of protection to an operator. Follow the guidelines below while installing, operating and maintaining your machine.

- Plug both machines into an outlet that provides a 15-amp service that is protected at the customer's circuit box.
- Always replace fuses or circuit breakers with the correct amperage and type.
- If the machine cycles erratically, call dealer immediately for service.
- Never bypass Safety devices.
- Turn both power switches off before removing a die or performing maintenance.

2) Placing the RAF-11 in the proper location:

A technician should have already installed the RAF-11 on either the workstation or a suitable table. If not, follow the below procedure.

Place the RAF-11 on the optional workstation table. Facing the back of the RAF-11, center the foot assembly to the center of the paper waste cutout while lining the front edge of the foot assembly with the edge of the slot. Place the bottomless paper waste drawer into the manual punch section. Install the chute into the slot of the table. If the workstation table has not been purchased from your dealer, make sure the RAF-11 is placed on a sturdy table. Facing the operator display panel, line up the right side of the machine flush with the end of the table. The paper reception tray when mounted, hangs below the RAF11. Set aside some room for the books that have to be punched and also some room for the books that had already been punched.

3) Providing power to the machine:

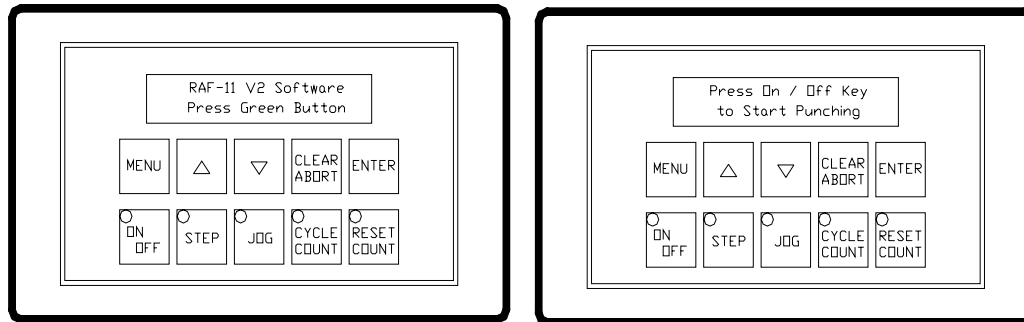
Plug one end of the RAF-11's power cord into the back of the machine. Also plug the Manual Punch's power cord in under the label plate of the RAF-11. The other end of both power cords plug into the wall outlet. Install the foot pedal plug into the receptacle, which is located on the back of the RAF-11. This foot pedal is only used in the manual feed mode of the RAF-11.

4) Turning on the RAF-11 & Manual punch:

When working with the RAF-11, keep in mind that there are two separate machines that make up the automatic punch. Each machine has its own on / off switch and power inlet.

- The power switch for the manual punch is located through the opening in the right pivot plate on the right side of the RAF-11. Push the rocker switch on, so it is either illuminated or in the "I" position depending on the model. Also push the rocker switch to the "I" position on the RAF-11. This switch is located at the back of the RAF-11.

- The operator interface should now be illuminated on the RAF-11 and the manual punch should be ready to cycle. Operators interface will read, **“Press Green Button”**.
- Press the large green start button adjacent to the operator display to start the motors. The display now reads, **“Press On / Off Key to Start Punching”**.



- The red emergency stop button is used to turn off the machine when not in use or if for any other reason, the RAF-11 needs to be shut down instantly. The large red and green push buttons adjacent to the operator display are not used to start and stop the punching cycle. **Always push the Red Emergency Stop button when the RAF-11 is not being used!**

5) Die Installation:

The die is installed at the rear lower portion of the RAF-11 (manual punch section). (Label # 1)

- **HD 7000:**
Unlock both quick-change die handles.



- From the left side of the machine, slide the die into the opening. The die will eventually come to rest against the stop screw located on the die handle. Lock both quick-change die handles. **The manual punch portion of the automatic will not operate unless quick-change die handles are in the locked position.**

- Make sure no paper chips are in the die area when installing the die. This will result in the die not being seated properly that can cause the holes on the paper to be out of alignment from side to side. A can of compressed air works well to clear paper chips.

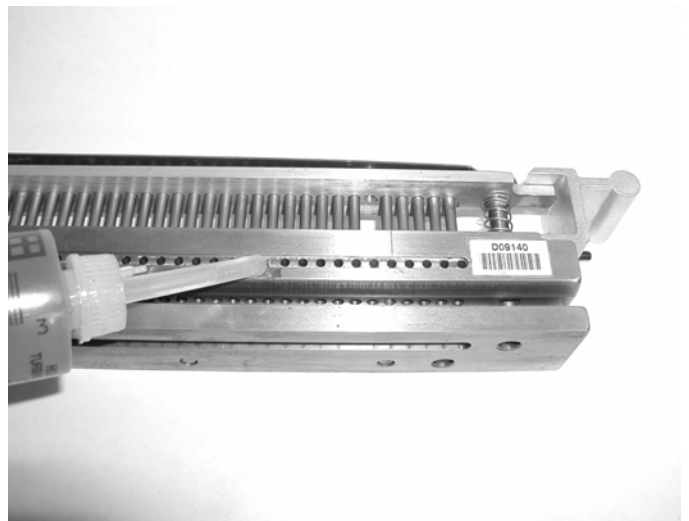
- **HD 6500:**

For die installation on a HD 6500, go to the back of the machine and slide the die into the opening. Remove the paper waste drawer to gain access to the die mounting holes. Use two allen screws to secure the die in place. A 5/16" allen key is needed to tighten both screws. (See HD-6500 supplemental manual)



- **Die Maintenance:**

Using the oil provided with the machine, squeeze the plastic bottle over the oil slot that runs the entire length of the die. Try not to oil the die too much. **After oiling, always punch some scrap paper to remove excess oil.**



➤ **Punch Pin Removal:**

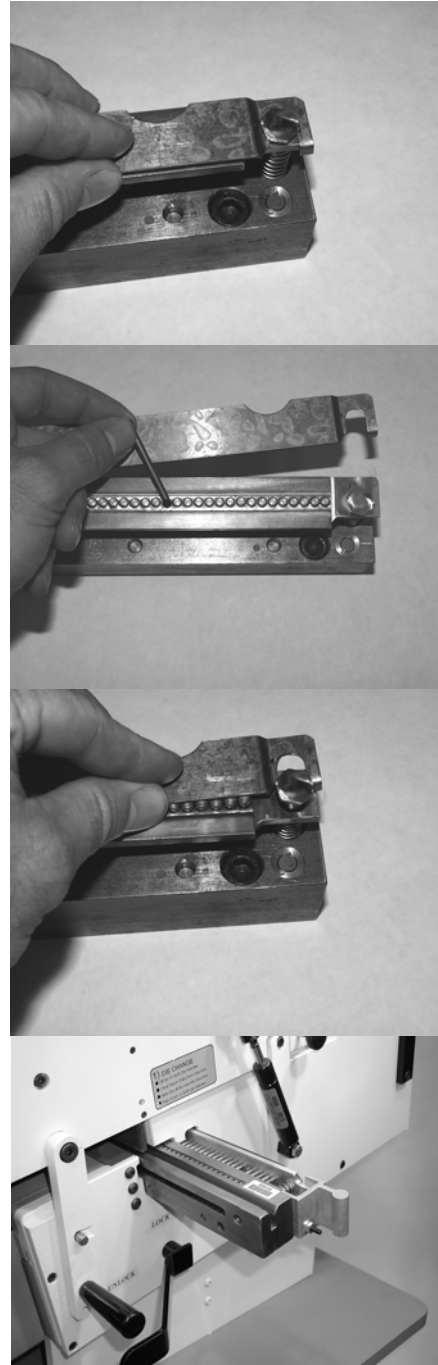
It is sometimes necessary to remove punch pins from a die to avoid clipping the edge of the paper.

Step 1. Remove the top pin retainer by pushing down first, and then pulling away from bottom pin retainer to expose the punch pins.

Step 2. Remove desired punch pins.

Step 3. Place the edge of the top pin retainer along punch pins and press down while pulling the pin retainer back to original position.

Step 4. Install the die into machine as described in previous section.

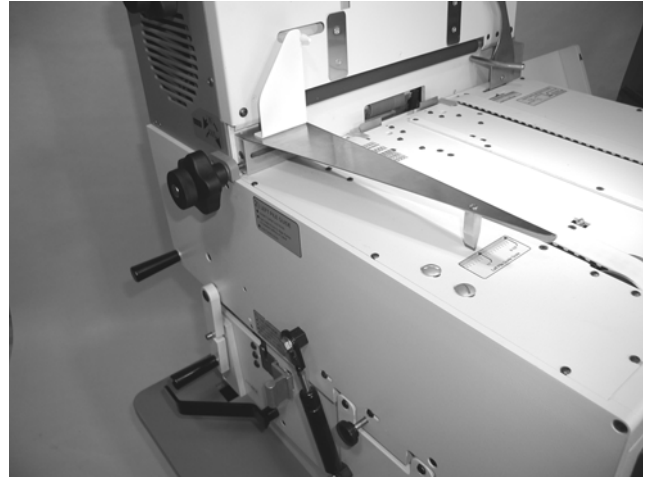


6) Adjustment of Paper Guides:

The RAF-11 has a paper jogging system that must be set to the size of the paper to be punched. Format specifications are: 11" x 8-1/2" (A4) down to 8-1/2" x 5-1/2" (A5) punching on the long edge. Some heavy cover materials, acetate and folded covers may have to be punched using the manual feed mode. See the manual feed mode section for more information. (See HD-6500 supplemental manual for more details)

The example below is for 11" x 8-1/2" format punching on the 11" side. **Use the "Normal Run Mode" for this size.**

- **Left Pile Guide:** Locate the left pile guide adjustment knob on the left side of the machine and loosen the center lock knob. Turn the outer knob so the left pile guide moves the pointer towards the 11" mark located on the paper size-indicating label. Retighten the center lock knob. **(Label # 2)**
- **Lateral Jogger:** Locate the lateral jogger adjustment knob on the right side of the machine and loosen the center lock knob. Turn the outer knob so the Lateral Jogger Assembly Pointer lines up with the 11" mark located on the paper size-indicating label. Retighten the center lock knob. **(Label # 3)**
- **Top Jogger:** Locate the top jogger adjustment knob on the upper right side of the machine and loosen the center lock knob. Turn the large adjustment knob so the pointer is at the top of the 8-1/2" range located on the paper size-indicating label. Retighten the center lock knob. Depending on which die is installed in the machine, some fine adjustments may be necessary within the range so the top jogger paddles touch the top of the paper. If the holes are not being punched parallel to the edge of the sheet, move the top jogger down until better results are obtained. See "**Joggers Set" Mode** for additional information. **(Label # 4)**



- **Top Sheet Guide:** The top sheet guide is there to stop any sheets from being pushed up when the paper stabber is entering pile. This should be set at 1/16" above the paper. **(Label # 5)**

- **Alignment Check:** Use some scrap paper to check the alignment of the holes. Use the jog key to punch one set of sheets. Depending on operator preference, some hole patterns may need additional lateral adjustments.

To do this, simply move the paper pile to the left or the right.



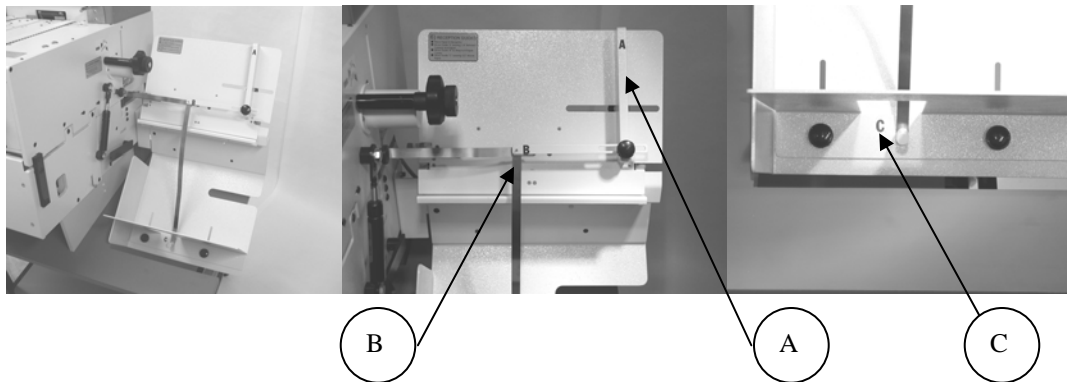
7) Format Change to odd Sizes: Set the RAF-11 in the “Double Jog Mode” for sizes less than 9” on the punched edge.

Changing the RAF-11's format size from 11" x 8-1/2" to any other size.

- Take a sheet of paper from the job that is to be punched and fold it in half. Place the folded edge at the center of the weight plate guide strip.
- Place the paper to be punched on pile feed belts using the sheet folded in half as a guide.
- Locate the Left Pile Guide **(Label # 2)** assembly adjustment knob located on the lower left side of the machine and loosen the center lock knob. Turn the large adjustment knob so the left pile guide assembly moves the edge of the guide so it is just touching the side of the paper pile. Retighten the center lock knob.
- Locate the lateral jogger **(Label # 3)** adjustment knob on the lower right side of machine and loosen the center lock knob. Turn the large adjustment knob so the lateral jogger pointer lines up with the edge of the paper to be punched. Retighten the center lock knob.
- Locate the top jogger **(Label # 4)** adjustment knob on the upper right side of the machine and loosen the center lock knob. Turn the large adjustment knob so the pointer lines up with the mark located on the paper size-indicating label. The pointer should line up with the size that was measured on the sheet to be punched. Retighten the center lock nut. (Depending on which die is installed in the machine, some fine adjustments may be necessary so top jogger paddles touch the top of the paper. See **“Joggers Set” Mode** for additional information) Adjust the top sheet guide 1/16" above the paper. **(Label # 5)**
- Use some scrap paper to check the alignment of the holes located on the paper. Depending on operator preference, some hole patterns may need additional lateral adjustments. To do this, simply move the paper pile to the left or the right.

8) Reception Tray:

Follow the below steps to set the reception tray guides. **(Label #6)**

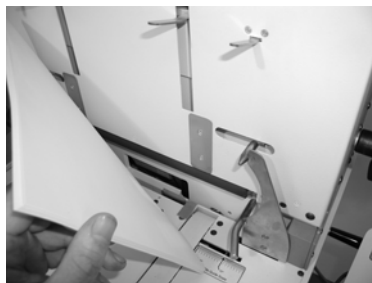


- The reception tray is the final step in the punching cycle. There is a sensor located in the reception that will shut the punch off if the reception is either full of paper or if there is a paper jam.
- There are three guides that will have to be set.
- Place a sheet of paper of the size to be punched on the paper shelf. Slide the paper over until it rests against the left fixed guide. Move **guide "A"** so there is a $\frac{1}{4}$ " space between the paper and adjustable guide "A".
- Place spring steel **strap "B"** at the center of the paper.
- Place **guide "C"** leaving $\frac{1}{2}$ " between the paper and the back of the reception tray.

After the punching process is complete, the punched paper may need to be placed in a vibrating jogger if further alignment is necessary. This will improve the binding process.

9) Loading Paper:

The paper is stacked vertically on the two pile feed belts. Follow the procedure below for proper placement of paper. **(Label #7)**



- To load paper, place 2"-4" of paper at a time on the belts. Place the bottom edge of the paper on the belts and slide the paper towards the two paper stops located directly in front of the paper feed slot. Make sure the paper is not placed on top or in front of the paper feed slot.
- Push the paper to the vertical position.

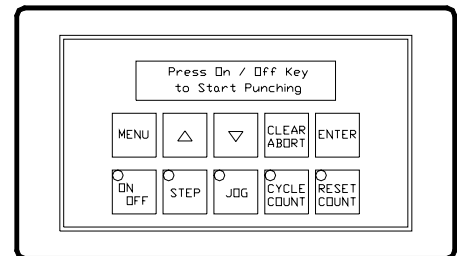


- Move the stack to the left against the left pile guide.
- Continue loading paper until the feeder is full. It will hold 10" of paper when fully loaded.
- Place the weight plate on the belts while lining the groove on the weight plate to the guide strip on the machine.

10) Key Pad:

The keypad and display are used to control the punching cycle and the various modes of the RAF-11. The RAF-11 will shut down automatically when all of the paper is cleared from the feeder after several cycles. It will also shut down if the reception tray is full, or if there has been a jam in the paper feed slot or reception tray. **(Label #8)**

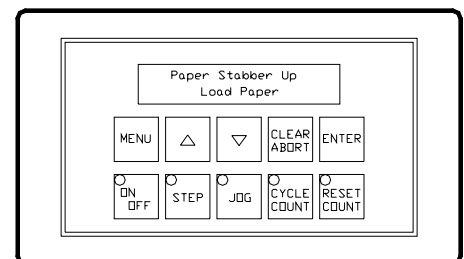
- **On / Off Key:** To start or stop the punching cycle, press the on / off key once to start the punching cycle and once to stop the punching cycle.



Never use the red emergency stop button to stop the punching cycle. This can cause a set of sheets not to be properly punched. **If the paper stabber is up after the emergency stop button has been pressed, press the arrow down key to bring the paper stabber to its normal run position. The RAF-11 cannot cycle unless the paper stabber is down. Also clear any paper out of machine if necessary.**

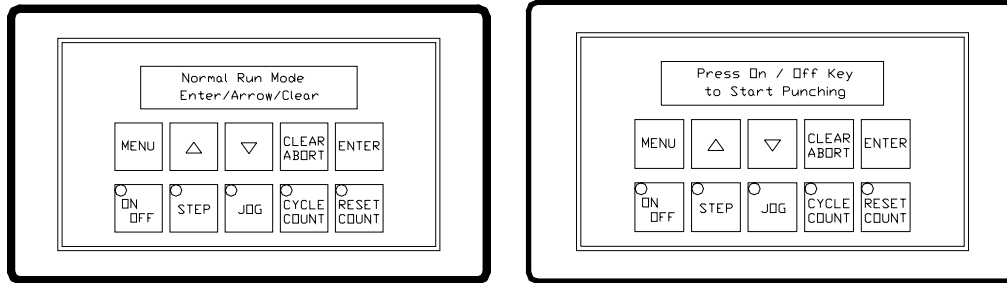
- **Jog Key:** The jog key is used to check the alignment of holes on the sheets. Pressing this key once will punch only one set of sheets. This set of sheets can be inspected for hole accuracy. If necessary, additional adjustments to the joggers can be made at this point in time. (Pile feed belts do not move when in this mode)
- **Cycle Count key:** The cycle count key, when pressed, will display the number of sets that has passed by the count sensor. This is only an approximate count. Multiply the number on the counter by the number of sheets in a set. The counter can be reset by pressing the **reset count key** and the **enter key** at the same time.

- **Up / Down Arrow keys:** The **up arrow** and **down arrow keys** are used to position the paper stabber. They are also used while in the menu mode. Press the up arrow key to bring the paper stabber to its up position. Some operators may find it easier to load paper in this position.



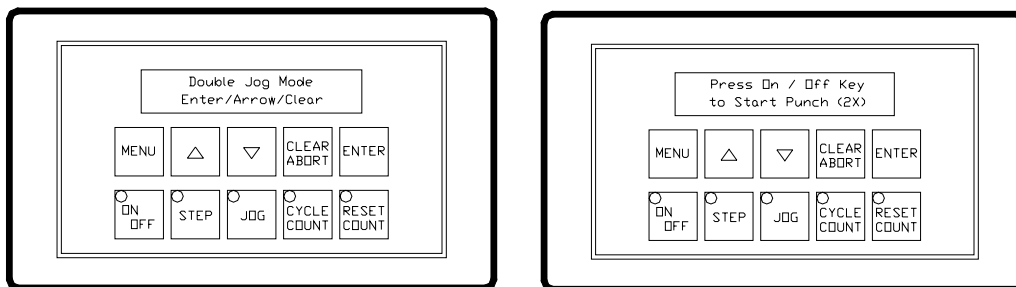
➤ **Normal Run Mode:**

The normal run mode should be used for the majority of the 11" x 8-1/2" work to be punched. This mode will automatically be set when turning the main power switch on at the back of the machine. If the RAF-11 has been previously set to a different mode, you can simply reenter the normal run mode by using the keypad. Using the arrow key, scroll up or down until the display reads: "**Normal Run Mode**". Pressing the enter key will set this to the current mode.



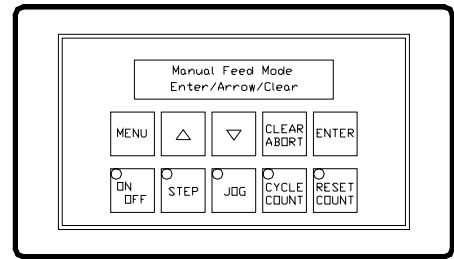
➤ **Double Jog Mode:**

The double jog mode should be used when punching 8-1/2" x 5-1/2" paper or if you are experiencing trouble with punch quality. When in this mode, the lateral jogger moves twice each cycle to ensure the paper is properly seated in the die. To access the double jog mode press the arrow up or down key until the display reads: "**Double Jog Mode**". Pressing the enter key will set this to the current mode and also change the display. A 2X will appear at the lower right hand corner of the operator display to indicate you are in the double jog mode. If the main power switch is turned off at the rear of the machine or when leaving the manual feed mode, the RAF-11 will default into the normal run mode.



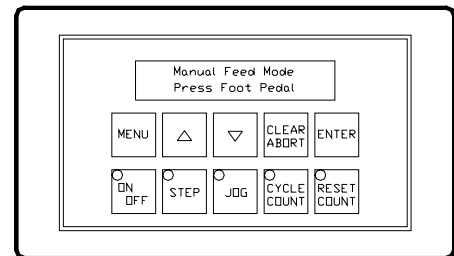
- **Manual Feed Mode:** The **manual feed mode** is used for punching materials that are difficult to feed or cannot be punched in the automatic mode. These include acetate, wrap around covers and heavy cover material. Make sure the foot pedal is plugged into receptacle located at the back of the RAF-11.

To place the machine in the manual feed mode press the menu key first, and then the arrow up or the arrow down key until the display reads: “**Manual Feed Mode**”. Pressing the enter key will set this to the current mode. The display will now read “**Press Foot Pedal**”.



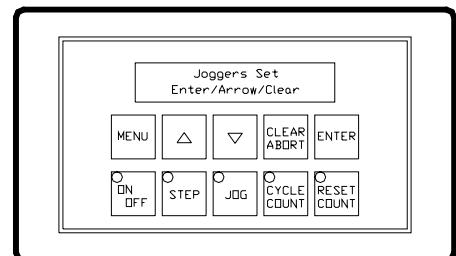
Place one or two covers at a time down into the paper feed slot and let go. Press the foot pedal once to activate the cycle. The covers will jog, punch and exit the normal way into the reception tray.

All of the adjustments for the various guides are the same when using this mode. When finished with this mode, waiting five minutes or pressing the clear key will ready the machine for the normal run cycle mode.



- **Jogger Set Mode:** For better accuracy when setting the jogging system, a jogger set mode has been provided which allows the joggers to remain out while making these adjustments.

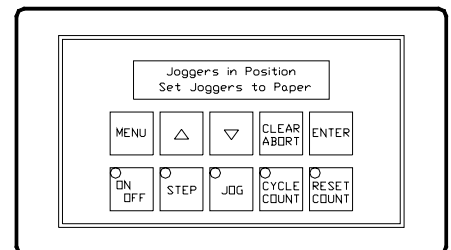
To place the machine in the joggers set mode press the menu key first, and then the arrow up or the arrow down key until the display reads: “**Joggers Set**”. Pressing the enter key will set this to the current mode. The display will now read “**Joggers in Position**”.



Place a sheet paper or preferably a single cover of the size to be punched into the paper feed slot. The material has to be placed into the paper feed slot only after the enter key has been pressed and the display reads “**Joggers in Position**”.

You only have about 30 seconds to place the paper into the paper feed slot before the lateral and top joggers activate.

After several seconds you will hear the joggers activate and capture the sheet both on the side and top.



Look through the opening of the paper exit slot on the right side of the RAF-11. You will be able to see the sheets through the opening. Fine adjustments on both the top and side joggers can be made while in this mode.

When setting the side jogger, adjust the jogger so it just starts to buckle the sheet of paper and then back it off until the sheets are relaxed. Repeat the process for the top jogger.

There is a self-resetting timer that provides about 1-1/2" minutes to set the joggers. If you run out of time while setting these joggers, repeat the menu process. You do not have to reload the paper back through the paper feed slot.

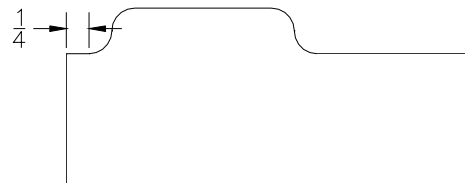
- **Keypad review:** Pressing the clear key will take you out of every mode and ready the machine to cycle. The arrow down key will return the paper stabber to the normal run position. The RAF-11 will not cycle with the paper stabber up.

Operators do not use all modes. There are five options to choose from when in the menu mode. Only the manual feed mode and jogger set mode are used. The other three are for maintenance issues only.

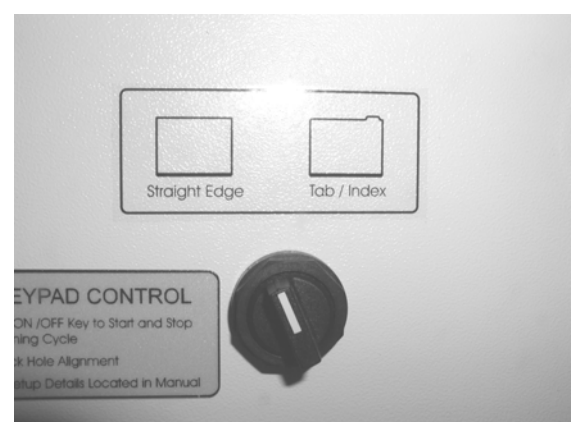
11) Tabs:

Tabs can be punched on the RAF-11 while collated into the contents of the job. Only 11" and A4 size tabs can be punched.

To punch tabs, turn the tab selector switch from the straight edge punching position to the tab / index punching position. This switch is located on the front of the machine. Make sure the top sheet guide (**Label # 5**) is adjusted all the way up. The outside top sheet guides will prevent the sheets from moving up when tabs are present. These are the only adjustments necessary to punch tabs. Make sure the tabs have at least a 1/4" flat next to the tab, for the jogger paddle to rest against. (See HD-6500 supplemental manual for more details)

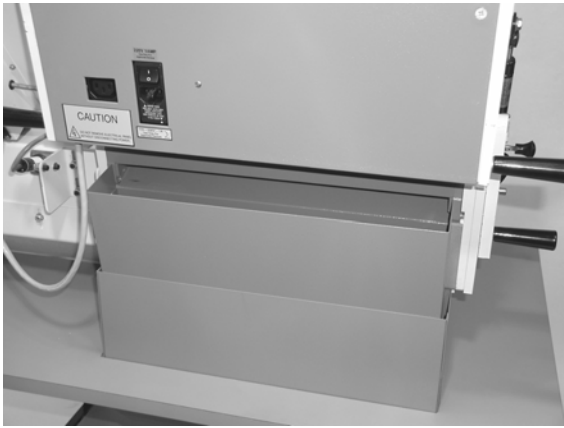


Always return the tab selector switch back to straight edge punching when finished punching tabs.

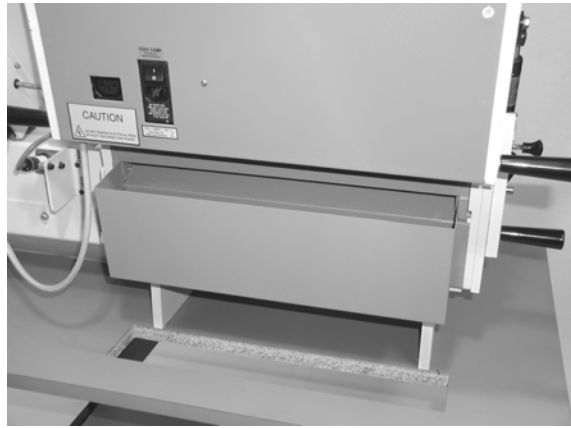


12) Paper Waste:

There are two systems in use for the removal of paper waste. One is to use the large commercial chip drawer and the other is the paper waste chute located on the RAF-11 workstation table.



Paper Waste Chute



Commercial Chip Drawer

- **Paper Waste Chute:** The workstation table provides a chute for the chips to fall into from the RAF-11. Place an empty box directly under the chute and the chips will be guided into the box.
- **Commercial Chip Drawer:** The paper waste drawer is located at the back of the machine. From the back of the machine, pull the drawer out towards you and discard the paper waste. Reinstall the drawer by lining up the heads of the screw, located on both sides of the drawer, to the slots in the machine and pushing it all the way in until it stops. It will drop down a slight amount when in the correct position.

13) Clearing Paper Jams:

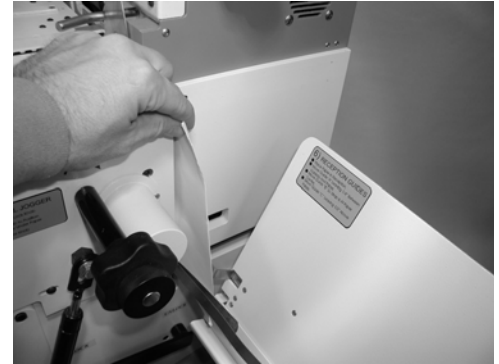


Turn both power switches off before removing paper jam! There are three ways to clear a paper jam. It is possible to remove the paper from the top paper feed slot, the side paper exit slot or raising the RAF-11 from the manual punch.

- In most cases, the paper can be cleared from either the paper feed slot or the paper exit slot.
- If the paper cannot be cleared by these two methods, then the RAF-11 should be raised to clear the jam.



- You will need to go to the back of the machine to be able to access the jam. To raise the RAF-11 from the manual punch, loosen the knob located on the right side while standing at the back of the machine. Pull the unlocking handle away from the locking pin. The RAF-11 section will pivot up exposing the paper feed path.



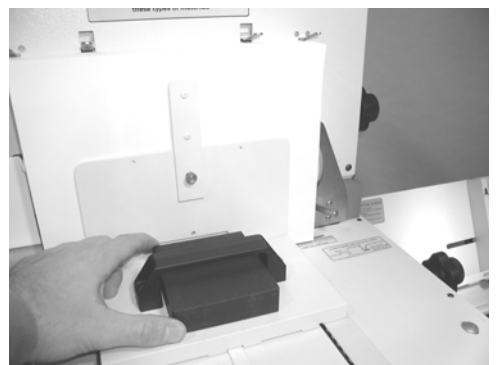
- Clear the paper jam from the die area and paper feed slot. Push the RAF-11 down and move the locking handle towards locking pin. Retighten the locking knob.



14) Preparing the Job:

The preparation of the job before punching is very important. Use these guidelines before punching.

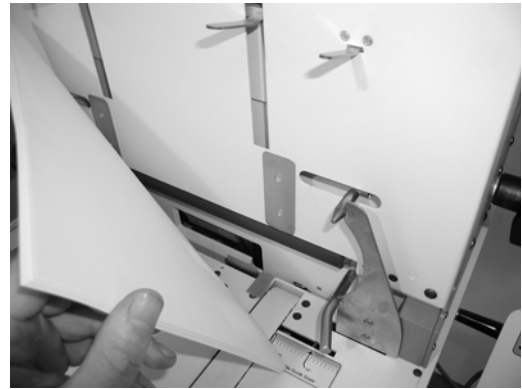
- Always fan sheets before loading. This reduces the static charge and allows the sheets to separate from each other.
- Notice the direction of curl on the paper. Placing the curled edge towards the front of the machine will keep the edge of the curl from catching the edge of the paper feed slot.
- Paper curl can also decrease the amount of sheets that make up a set. Use the extra weight for the weight plate to help flatten the pile in front of the paper stabber.
- If the job has to sit a while before punching, place a flat board or a ream of paper on the pile to keep the paper from curling.
- Toner buildup on one side of a sheet can add thickness only on one side of the pile of paper. If this is noticed, load only 2" –4" of paper at a time.



15) Quick Punching Guide:

Assuming both machines are turned on with all joggers and guides set, use the below procedure to punch paper.

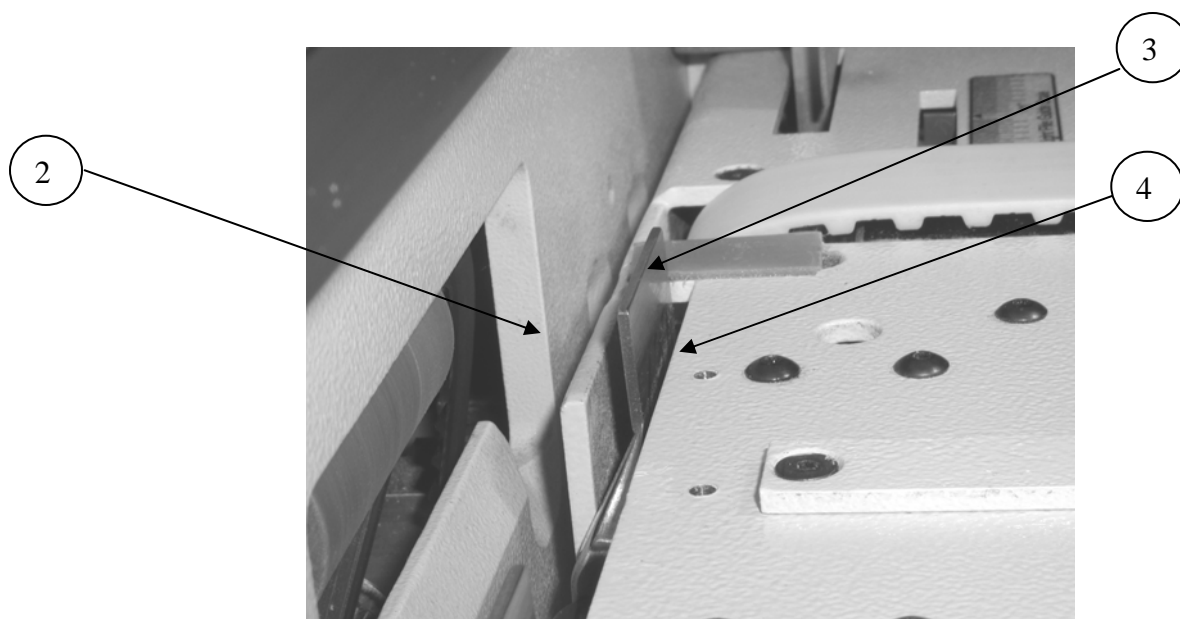
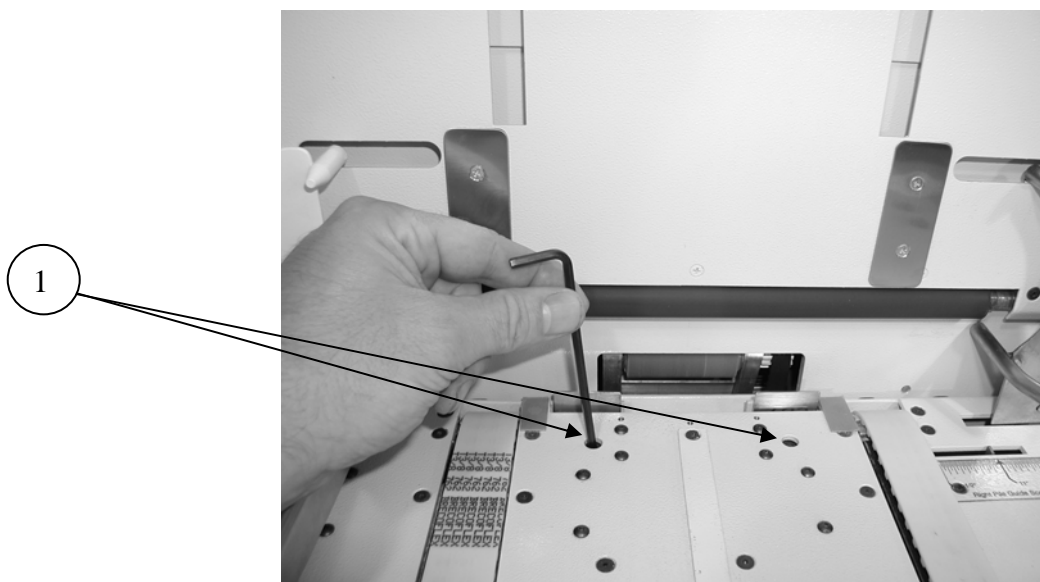
- Press the **Green Start Button**.
- Place the paper to be punched on the belts making sure the front edge of the paper does not fall into the **Paper Feed Slot**.
- Move the paper pile to the left so all of the sheets are touching the **Left Pile Guide**.
- Place the **Weight Plate** behind the paper pile.
- Press the **Jog Key** located on the keypad to check the alignment of the punched sheets. If the holes are misaligned, use the **Setup labels** 1-8 located next to the various adjustments on the RAF-11. These are very useful reminders in the setup process.
- Press the **On / Off Key** on the keypad to start the punching cycle.
- Press the **On / Off Key** again to stop the punching cycle.



Only use the *Red Stop Button* to turn the machine off when a jam occurs or when shutting down the machine when not in use!

16) Adjustment of Paper Stop:

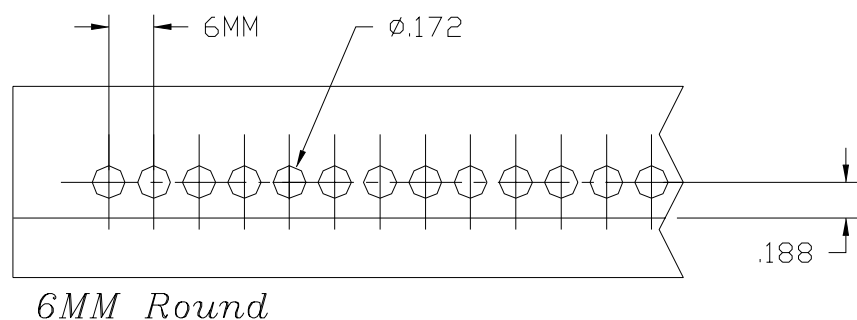
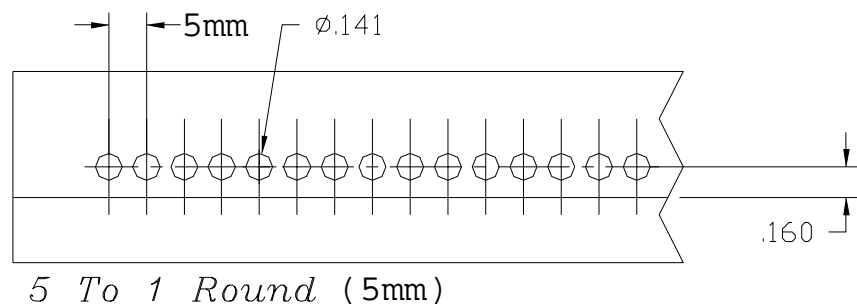
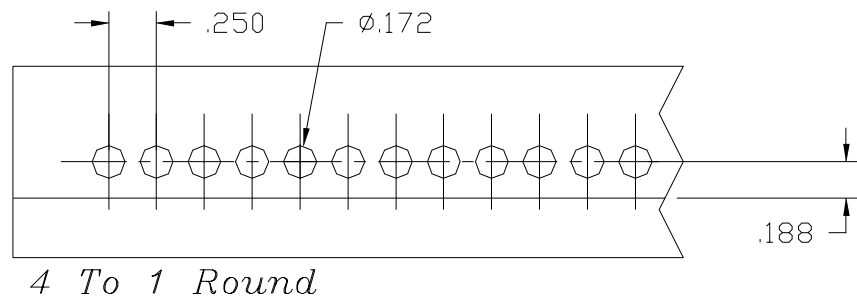
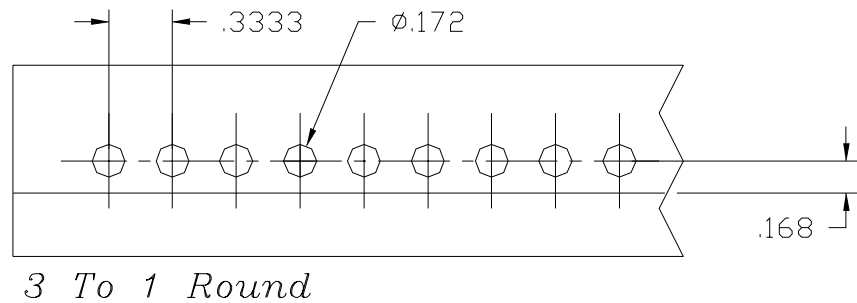
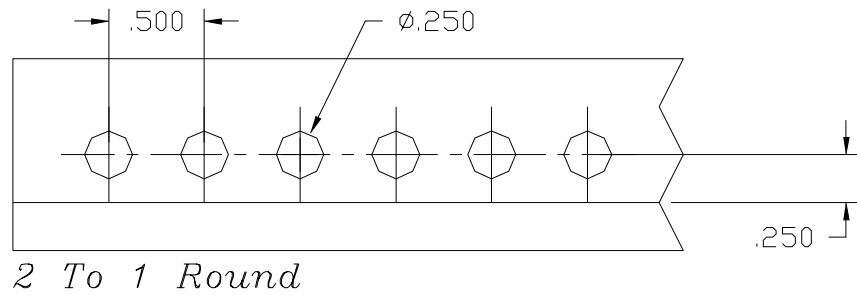
The paper stop is factory set to punch 10-13 sheets at a time, however it can be adjusted to allow more or less sheets to be punched. It may be necessary to punch fewer sheets when feeding heavily curled material. Loosen both **screws (1)** with a **9/64" allen key**. Move the paper stop forward towards the **front plate (2)** for more sheets and back for fewer sheets. Keep the **paper stop (3)** parallel with the **paper stop opening (4)** before tightening in place.



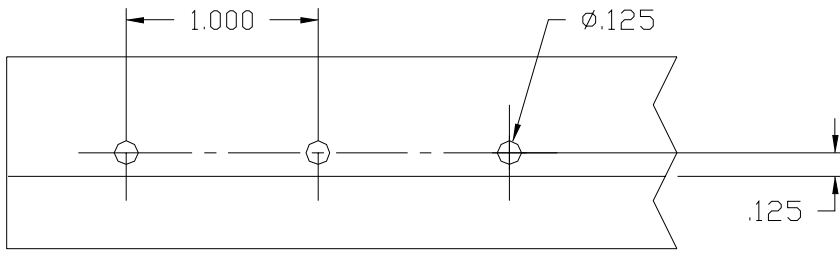
17) Die list:

This is a list of the most common dies manufactured by Performance Design. Special dies are available. Ask your dealer for more information.

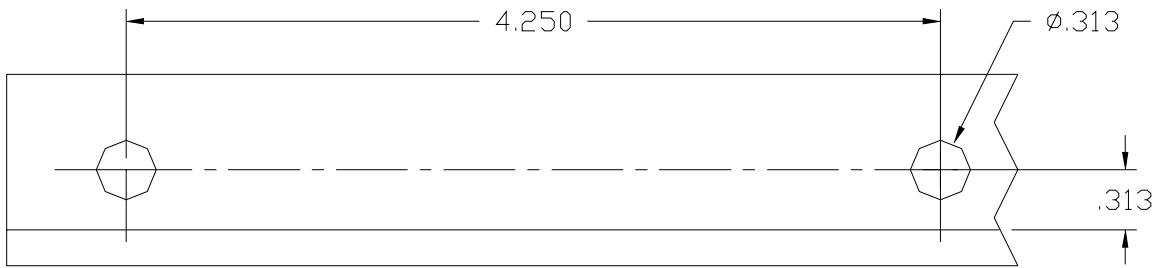
Drawings are to scale.



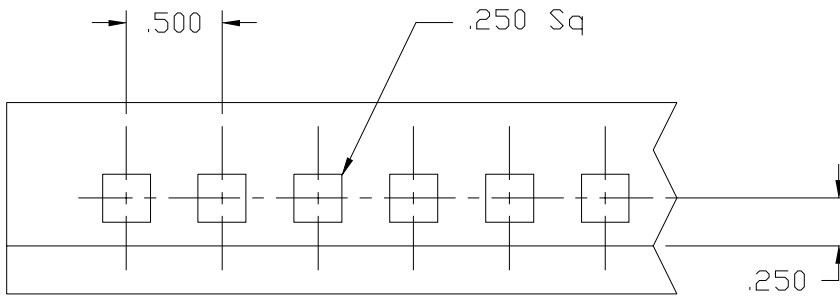
Drawings Are To Scale



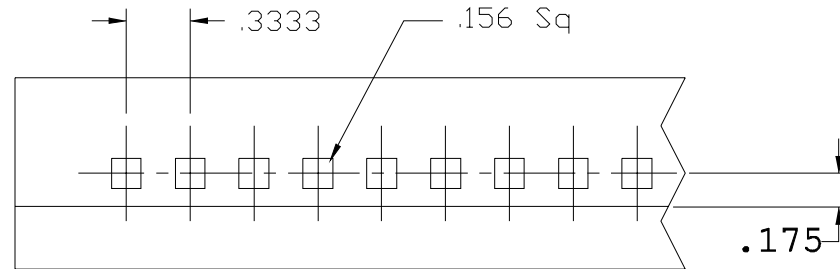
Velobind® Velobind is a registered trademark of GNC



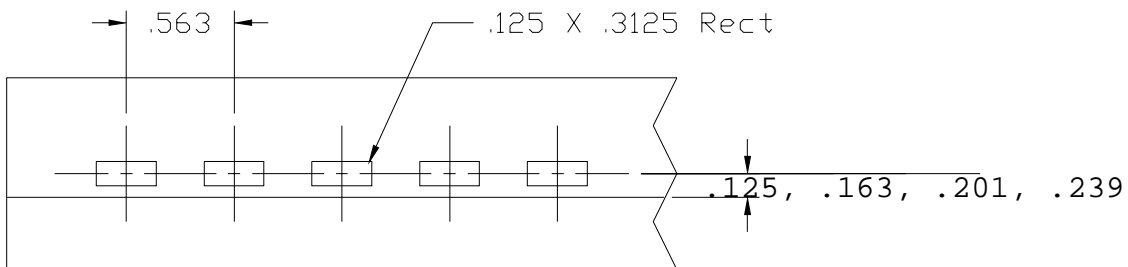
3 Hole X 5/16



2 To 1 Square



3 To 1 Square



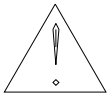
Comb

17) Troubleshooting Guide:

The following troubleshooting guide will help locate the type of action to be carried out for most setup problems. When experiencing paper-handling problems, always try to punch non-copied 20lb bond (80gsm) copy paper. If this feeds without any problems, jump to the section about paper curl. If your problems cannot be solved with this guide, call your dealer for service.

Symptom	Cause	Action
Operator display not illuminated.	1) Isolator switch in off position. 2) RAF-11 not plugged into socket. 3) Blown fuse.	1) Push isolator switch to the "I" position. 2) Check both ends of power cord. 3) Check fuse 1 & 2. (Fuse 1 located inside power entry module)
Machine will not cycle when On/Off switch key is pressed. (Display illuminated)	1) Start button has not been pressed. 2) Paper stabber up. 3) Menu mode activated. 4) Paper jam. 5) Reception full.	1) Press green start button. 2) Press arrow down key. 3) Press clear on keypad to exit menu mode. 4) Remove jam and press clear on keypad. 5) Empty reception and press clear on keypad.
RAF-11 running but no holes in paper. Manual punch section may not be working.	1) Machine is off. 2) Machine not plugged in. 3) Die handles not in locked position. 4) RAF-11 link cable not plugged into manual punch. 5) Top cover switch. (Manual punch) 6) Circuit breaker switch off or tripped. (On/Off Switch is circuit breaker)	1) Check power switch. 2) Check both ends of power cord. 3) Make sure both die handles are locked. 4) Make sure RAF-11 link cable is attached to manual punch. 5) Close top cover. 6) Check circuit breaker switch. (Switch machine off, and then back on)
Die does not go into machine.	1) Pin retainer interference. 2) Punch stopped in mid cycle. 3) Pins not flush with pin retainer.	1) Make sure pin retainer enters slot in pusher bar. 2) Check circuit breaker and restart machine. 3) Make sure that all the pins are flush against pin retainer.
Paper falls off paper shelf as exiting into reception tray.	1) Adjust spring steel paper guide.	1) Move guide closer to paper.
Paper does not fall into reception tray or back sheet stays behind.	1) Adjust guide B. 2) Static problem.	1) Guide B is too close to paper causing friction. 2) Wax back of reception tray or use antistatic spray.
Holes misaligned laterally. (Not centered on sheet)	1) Check left pile guide & lateral jogger adjustments. 2) Paper dust and chips behind die. 3) RAF-11 lock knob loose. (Used to prevent RAF-11 from moving laterally)	1) Adjust guides to capture paper. Move pointer to marks on indicating label. 2) Remove die and clear paper dust so die seats properly. 3) Tighten lock knob.

Symptom	Cause	Action
Holes not parallel to edge of sheet.	<ol style="list-style-type: none"> 1) Check top jogger. 2) For format sizes less than 11". 3) Check die handle. 	<ol style="list-style-type: none"> 1) Move top jogger to touch top of sheet. Use jogger set mode for fine adjustment. (Do not over adjust). 2) Make sure tab selector switch is placed in the straight punching position. 3) Die handle not locked in position causing die to be out of alignment.
Tabs not jogging. (Holes out of alignment)	<ol style="list-style-type: none"> 1) Check tab selector switch. 2) Wrong type tab. 	<ol style="list-style-type: none"> 1) Make sure tab selector switch is set to tab/index position. 2) Tab must have at least a ¼" flat for jogger paddle to rest against.
Paper jams when feeding into paper feed slot.	<ol style="list-style-type: none"> 1) Uneven pile. 2) Edge of paper curled. 3) Acetate or heavy cover material collated into paper. 4) Paper feed roller glazed. 	<ol style="list-style-type: none"> 1) Make sure pile is stacked evenly both top and sides. 2) Turn pile around. (Try to keep paper flat before punching. Use a ream of paper on top of pile before punching). 3) Punch acetate and heavy cover material in the manual feed mode. 4) Clean roller with #203 Sprayway rubber cleaner or equivalent.
When punching, number of sheets varies.	<ol style="list-style-type: none"> 1) This is normal. May happen more often when machine is fully loaded with paper. 	<ol style="list-style-type: none"> 1) Push on weight plate when this happens. This will help stand pile up straight, which will increase the amount of sheets dropped into paper feed slot. Use extra weight.
Not enough sheets being punched.	<ol style="list-style-type: none"> 1) Edge of paper curled away from paper stops. 2) Normally set between 10-13 sheets. (20lb bond copy paper (80 gsm). 	<ol style="list-style-type: none"> 1) Turn pile around so curled edge is towards paper stops. Use extra weight. 2) Adjust paper stops forward to increase amount of sheets.



Only qualified personnel should attempt to work on this equipment.

18) Fuse Selection Chart:

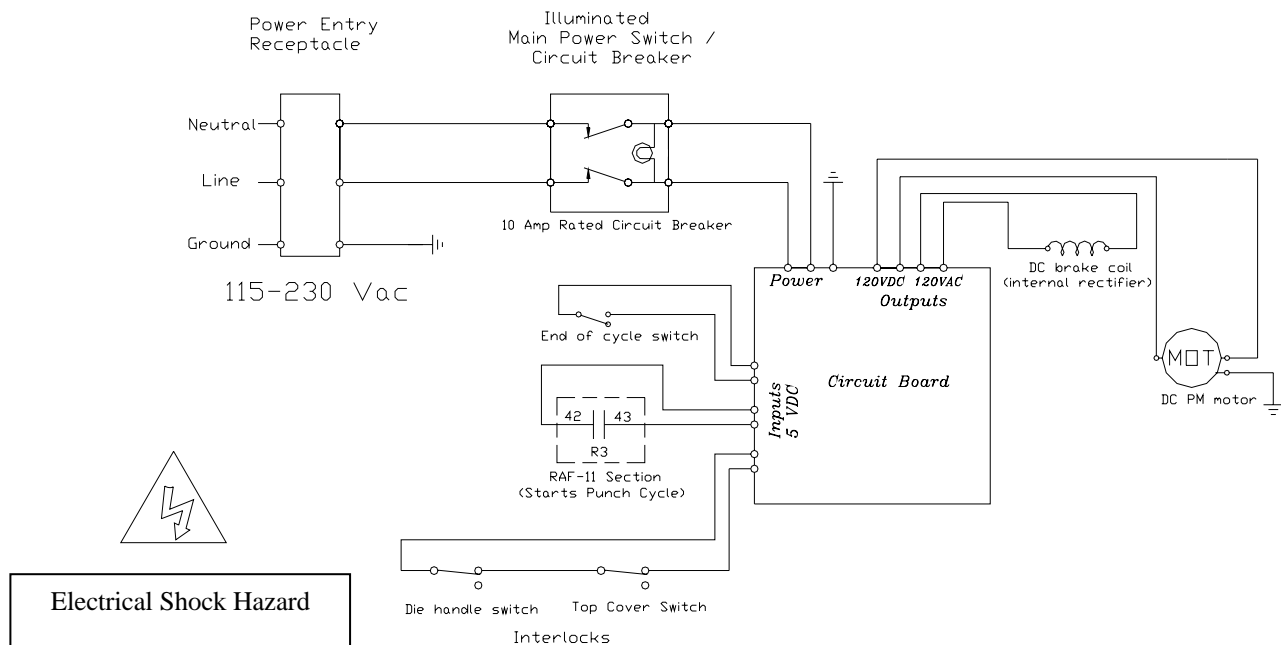
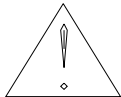
The following chart will help guide you to the correct fuse. Always replace fuse with the same type and rating. All fuses are rated for 250V.

Fuse Selection Chart

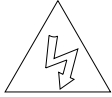
Fuse / Circuit Breaker	Branch Circuit	Type
Circuit Breaker Fuse	Punch control board 115vac model Punch control board 230vac model	10 amp / Push off to reset 6.3 amp GDC
Fuse 1	Main line fuses controlling all of RAF-11	10 Amp AGC (2 fuses located inside power entry module)
Fuse 2	PLC	0.5A Fast Acting
Fuse 3	Motor 1 (Controls pile feed and stabber movements)	6 Amp ABC Series
Fuse 4	Motor 2 (Controls paper feed roller)	6 Amp ABC Series
Fuse 5	Motor 3 (Controls paper exit belt)	2 Amp ABC Series
Fuse 6	Low Voltage Transformer (Controls all solenoids, clutches and relays)	2 Amp MDL time delay

HD 7000 & HD 6500 UL Electrical Schematic (115 – 230 volt AC Circuit Board Model)

Note: The HD 6500 does not use the Die handle switch.



RAF-11 Electrical Schematic (115 volt AC Model)



Electrical Shock Hazard

