Digital Knight Auto-Release "Pop-Up" Assembly Instructions
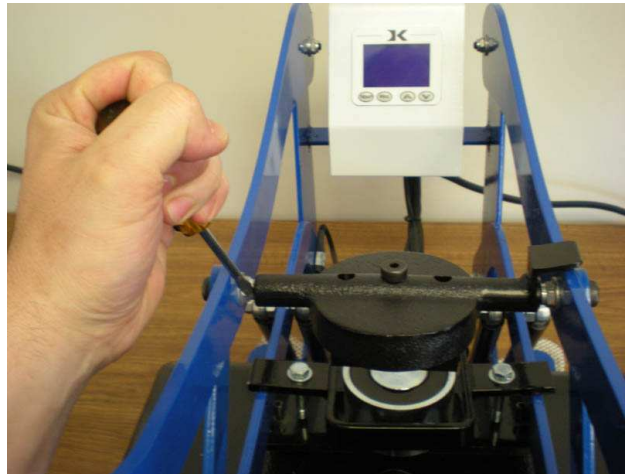
The Digital Knight Auto-Release "Pop-Up" upgrade can be added to any DK20 or DK16 clamshell press with the most recent Dual-Shock framework. If your DK16 or DK20 has a handle bar that curves forward in front of the heat platen, this framework will easily accommodate the Auto-Release Pop-Up Upgrade. Read through the entire instructions before attempting installation.

STEP 1 - Add Top Pressing Bracket

Snap/pry in the top pressing bracket.

Using a flathead screwdriver, pry the top bracket into position between the upper pivot bolts in the handle arm. Put one end in first, then slightly stretch the handle outward with the screwdriver to SNAP-IN the other end of the bracket.
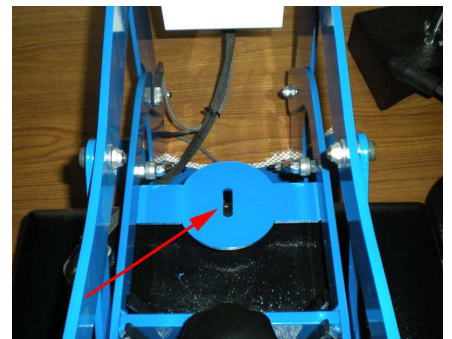
For newer models, you MUST LOOSEN and REMOVE one side bolt to take the bracket off.

STEP 2 - Attach Magnet Assembly

Attach magnet to blue crossbar.

For the DK16 place all spacer washers & circular pads in-between the magnet and blue crossbar. For the DK20 spacers are generally not required. Screw the magnet to the blue crossbar tightly once it is centered front-to-back under the top bracket above it.

STEP 3 Attach Wire Connections

Connect the wires to the white control box.

Route the wire harness to smoothly follow the other wires back to the control box. Use wire ties to tie it to the other wire harnesses only after everything has been connected and tested.

Open the back panel to the white control box. Pass the electromagnet wires through the silver strain relief hole in the back panel, where the heat platen and timer wires go through.

Remove the original Black wire that leads from the On/Off switch to the control panel. Replace that black wire with the one included in the kit.

The black wire that is merged with the main black wire plugs into J13 on the circuit board.

(NOTE: If an auxiliary beeper is used on J13 and J14, it must be uninstalled. It can not be used with the Auto-Popup feature)

Remove the original White wire that leads from the On/Off switch to the control panel. Replace it with the white wire at the end of the electromagnet's wire harness. This white wire is merged with the White wire from the electromagnet.

Plug the other Black wire from the electromagnet to J14.

STEP 3 Attach Wire Connections *(Continued)*

Attach the Green wire from the electromagnet to one of the bolts coming through the bottom of the control panel. Remove the nut, place the green wire's ring connector over the bolt, and tighten the nut over it.

TO SUM THINGS UP ON WIRING: Basically, to follow the path: Starting at the Black power wire from the On/Off switch, it should lead to HOT on the circuit board, where it then jumps over to J13. From J14, another Black wire goes out to the electromagnet, and returns via a White wire. That White wire merges with the White wire plugged into to NEUT on the circuit board. That White wire then leads from NEUT back to the On/Off Switch, where we started from.

STEP 4 Install Dual Gas Shocks

Add the longer holding studs and additional gas shock to each side.

Open the press. Unscrew the nuts holding the gas shocks on. Remove both gas shocks by lifting up on OR pulling down slightly on the handle until the gas shock can slide off freely.

Unscrew the nuts holding the threaded studs in place and remove the original threaded studs from the blue frame. Remove ALL 4 original threaded studs that the gas shocks mount to.

Screw the new Longer Threaded Studs into the blue frame. Tighten them in place with original and supplied hex nuts (do not use the lock nuts here). The new threaded studs should extend out both sides of the blue frame now.

Put the original and new gas shocks back on the frame. Make sure the SILVER RODS of the gas shocks are FACE DOWN. Use the original and supplied nylon lock nuts to hold the gas shocks on. **Do NOT tighten the nuts against the gas shocks.** The gas shocks must pivot freely and loosely and not be held or pushed against tightly by the lock nuts.

STEP 4 Install Dual Gas Shocks *(Continued)*

If the additional gas shocks have different pressures than the originals, they must be evenly balanced. Make sure ONE SHOCK OF EACH PRESSURE RATING is on the left and right sides. For example, one 30# & 80# on the left, and one 30# & 80# on the right.

STEP 5 Update Controller Settings

Change factory programming settings to work with upgrade

1. Turn the press off. Hold down the TEMP & PRG keys together, at the same time, firmly.
2. Turn the press on. Keep holding the TEMP & PRG keys until "OFS" or "FIRMWARE" displays on the screen. Let go of the keys. Start over if OFS or FIRMWARE is not displayed.
3. Press the PRG key once. AUH or AUX should display up top. Press the Up or Down arrow key until "tInE" or "TIME" displays on the bottom.
4. Press PRG 7 times, or until the screen goes into the standard operating mode.

*** Using Your New Auto-Release "POP-UP" Press ***

Tips on setting proper pressure and using the Auto-Release Feature

Set the pressure knob so that the clamping is firm, but not too heavy. If the pressure is too heavy the electromagnet will not hold. The top pressing bracket should be fully flattened out and compressed against the electromagnet.

The "**Hover**" feature is included on the top pressing bracket. This allows you to press the handle Lightly, letting only the hover bar stick to the magnet. This will result in NO Pressure on the table, only curing heat.

The timer must be set for a value other than 00. The timer must be set for at least 5 seconds.

The Electromagnet will only operate while the TIMING indicator only displays on the screen. If TIMING & DONE are displayed, the electromagnet will be de-energized and will not work until the press is fully opened and the timer is reset.

The timing cycle can be interrupted manually. A firm pull by the operator on the handle will release the magnetic assist clamping, and the press will open and reset. Switching the machine Off then On quickly will also release the electromagnet.