

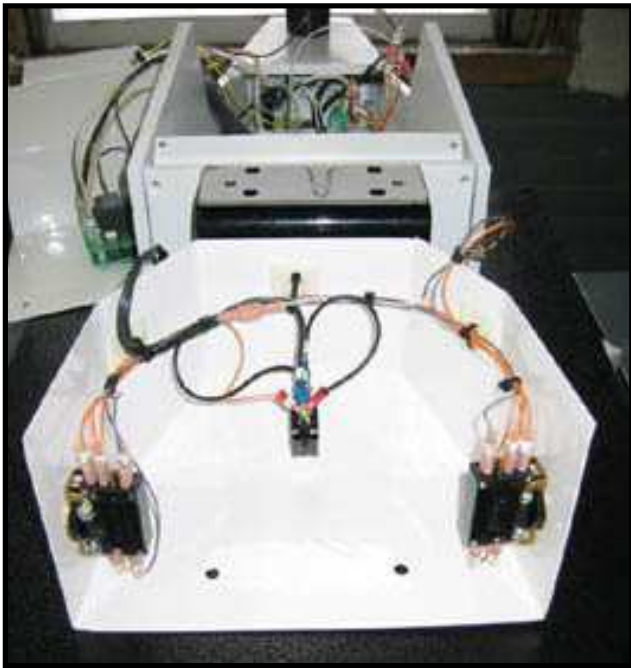
Installation Instructions

ELV-ATDSP120 ANTI TIE-DOWN FULL E-STOP UPGRADE 120V

The following installation instructions replace the existing front hood with a **new front activation hood**, a new **power wire harness** to the power board, and a new **anti tie-down time delay relay** to the DK20SP press. Please review the instructions once before replacing and installing components.

1. Turn off power, unplug power cord to press.
2. Remove the swing handle that is on top of the front hood.
3. Open up the digital control panel and set to one side.
4. Remove the following wires:
 - a. From the rear pivot post of the machine, there is a black safety switch box with wires travelling up into the head from the back. There are (2) 20ga White, (1) 20ga Red & (1) 20ga Yellow wires. Measure 8" from the entry point into the head and cut all 4 wires. Strip and crimp PINK MALE connectors all wires, mark both white wires "L2", mark the red wire "18", mark the Yellow wire "17".
 - b. From the air valve under the base of the press there is a 2 wire gray cable entering into the back of the head. Cut and strip & crimp PINK MALE connectors to both wires, mark the white wire "L2", mark the black wire "19".
 - c. Remove & discard the black and white wire that connects the on/off switch to the circuit board.
5. Remove the front activation hood. All wires leading into the top control head should be disconnected or cut and the hood should be able to be removed and set aside. THE CUSTOMER MUST RETURN THE ORIGINAL FRONT HOOD TO THE GEO KNIGHT CO FACTORY.

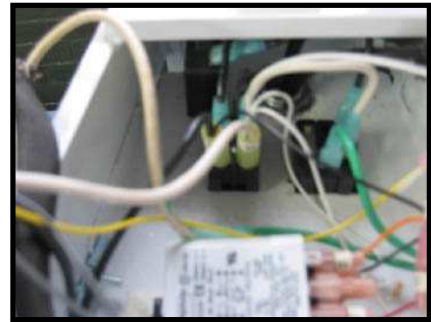




6. Place the new **front activation hood** on its back as shown.
7. Pass the right 20ga wires through the bottom right hole of the front of the control head of the machine, as shown.
8. Pass the left 16ga black wires through the bottom left hole of the front of the control head of the machine, as shown.
9. Once the wires are passed through into the control head of the machine, crimp on the connectors supplied that are attached inside the front hood. The terminals supplied are labeled to correspond to each wire. They should be in a plastic bag taped in the front activation hood.
10. The following wire connections from the front activation hood are to be made once the power wire harness and anti tie-down relay are installed:

<u>Black (13)</u>	Connect to Black (13)14g coming from power circuit board
<u>Black (L1)</u>	Connect to On/Off switch, opposite black (L1) from circuit breaker behind
<u>White (L2)</u>	Connect to one of the (L2) 20ga white wires coming from On/Off switch.
<u>Grey (15)</u>	Connect to Grey (15) from anti tie-down timer relay
<u>Orange (15)</u>	Connect to Orange (15) from anti tie-down timer relay
<u>Grey (16)</u>	Connect to Grey (16) from circuit board / power wire harness

11. Connect the **power wire harness** to the control board and to its respective connections. The power wire harness is the set of wires with multiple plugs & merges sent with the kit. The end of the harness with ALL FEMALE connectors connects to the power circuit board as follows:



Black (13)14g Connect to “HOT” tab on circuit board.
Discard original wire.

White (L2) Connect to lower “NEUT” tab on circuit board. Discard original wire.

Black (13)20g Connect to “J13” on circuit board.
Discard original wire.

Black (19)20g Connect to “J14” on circuit board.
Discard original wire.

Black 6-pos Connect the 6-position plug to the same location on the top of the circuit board as the original one is located. Make sure all 6 gold pins enter all 6 holes in the black connector. Discard original connector.



The end of the wire harness with more connections, mixed male & female plugs, connect as follows:

White (L2) This main cluster connection plugs into the On/Off switch

White (L2) Connect one of these Pink Female plugs to the “B” position on the anti tie-down relay

White (L2) Connect one of these Pink Female plugs to the White (L2) 20g coming from the safety stop circuit wires (1 red, 1 yellow, 2 white) coming from the back post black box of the machine.

White (L2) Connect this Pink Male plug to the White (L2) coming from the front activation hood.

Black (13)14g Connect this Blue Male to the Black (13) coming from the front activation hood.

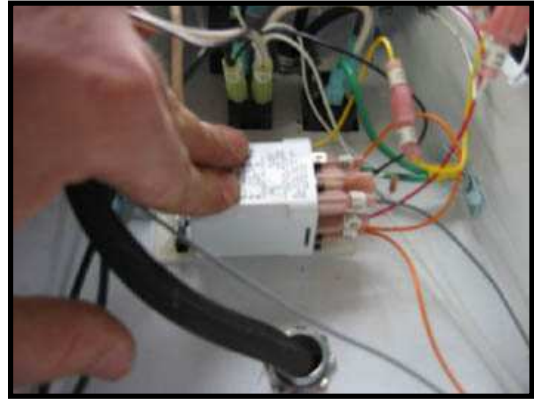
Black (13)20g Connect this Red Male to the “9” position on the anti tie-down relay

Black (19) Connect this Pink Male to the Black (19) wire out of the gray cable air valve coming from under the press

Grey (16) Connect this Pink Male to the Grey (16) wire from the front activation hood

Yellow (17) Connect this Pink Female to the Yellow (17) coming from the safety stop circuit wires (1 red, 1 yellow, 2 white) coming from the back post black box of the machine

12. Peel and stick the **anti tie-down time delay relay** to the bottom panel of the inside of the head of the machine. It should be about 1” to 2” forward from the On/Off switch.



13. Connect the following wire connections:

Orange (15) Connect to Orange (15) from the front activation hood
Grey (15) Connect to Grey (15) from the front activation hood
Red (18) Connect this wire from the safety stop circuit wires coming from the back post black box of the machine to POSITION “7” on the ant tie-down relay
White (L2) Connect this wire out of the gray cable air valve coming from under the press to the remaining White (L2) from the safety stop circuit wires coming from the back post black box of the machine

14. Check all connections. Use wire ties and wire tie stick-on mounts to cleanly route wires and keep them clear of obstacles and components.
15. Carefully reposition and refasten the control panel, checking that all wires are plugged into control board.
16. Carefully reposition and refasten the front activate hood, screwing the handle back on.

Functions & Features of new circuit upgrade:

- **Emergency Stop Switch cuts power to entire press**
- **Re-engaging E-Stop switch restarts press, timer cycle is reset**
- **Anti Tie-Down circuit does not allow pressing one button only for 2 seconds**
- **Both activation buttons must be pressed together within 2 seconds**
- **If only one button is pressed longer than 2 seconds, anti tie-down relay disables press**
- **Press must be powered Off and then On with On/Off switch to reset anti tie-down safety circuit.**