

DISABLING AUTODOWN
MOST STACKERS & CORRSTACKS (see exception at end)

GEO. M. MARTIN CO.
Serving the Corrugated
Industry – Since 1929
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NOTE: Removing Autodown is NOT a safe substitution for installing the Geo. M. Martin LCS Safety System.

These procedures are provided to reduce the likelihood of an accident while waiting for the installation of the LCS Safety System.

The following features included in the LCS are NOT provided by simply removing the Autodown feature:

1. Without the LCS, the operator is only required to initiate the downward motion of the Stacker; once this motion begins, the operator could easily release the button and still move into the hazard area while the stacking deck is moving down. With the LCS-Manual system, the operator must hold the Deck Down Enabled button for the entire duration of the downward motion. With the LCS-Light Guard system, the light guard perimeter will stop the downward motion should the operator break the perimeter.
2. Without the LCS, the accumulator is not inhibited from cycling automatically AND is under pressure which can be released when a jam is cleared manually. With the LCS, the same mechanisms that limit the downward motion of the stacking also limit the motion of the accumulator and relieve the pressure inside the cylinders of the accumulator.
3. Without the LCS, the Auto Down Button on some of the older RDC Stackers and almost all CorrStacks is mounted directly on the end of the deck in close proximity to the hazard area. This allows the operator to activate the downward motion while in the hazard area.

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4. Without the LCS on the stackers that do have the boom mounted controls, there is no BOOM IN POSITION sensor or OPERATOR IN POSITION sensor to make sure that A) the boom is in a position that gives the operator a view of the hazard area and B) the operator is standing in front of the boom at a safe distance from the hazard area.
5. Without the LCS, most RDC Stackers with a PLC control system have a feature known as EZ-Down, which can unexpectedly pause and then continue the lowering of the stacking deck once initiated by the operator.
6. Without the LCS, there is no redundancy in either the hydraulics or the electrical system. The basic Stacker has only a single valve holding up the Stacker with a single electrical connection. Should either item fail, it is possible for the stacking deck to lower itself without warning. This is distinct from the LCS system, in which a pair of dedicated valves (one on each cylinder) and a parallel electrical system keep the stacker in the up position.
7. Without the LCS there is no self-testing. When the LCS is first powered on, the machine requires the operator to go through about 30 seconds of self-testing procedures to make sure that all the key features of the LCS are fully functional. On a stacker with AutoDown disabled, there is no way to detect that a valve is defective until it actually fails and the deck comes down - potentially on the operator.

Technical Note: The sequence logic of the stackers is fairly complicated and major modifications are difficult without going to the full LCS solution. The process of removing Autodown essentially prevents the operator from being able to enable the Auto Down option, which is a standard feature on most stackers.

Most stackers will use the first item listed below, since the Auto/Hand selector is a physical switch. However, the Corrstack with touch control screens uses the touch screen to select Auto/Hand and thus requires a different procedure.

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PROCEDURE: DISABLING AUTODOWN

PLEASE READ BEFORE BEGINNING THIS MODIFICATION

Notice – This procedure is Not Applicable to Programmable Corrstacks with touch screen-based control systems. If you have a Corrstack, see note 1 at the end of this document to correctly identify your Corrstack.

Notice – Only a skilled electrician, authorized by the employer, should carry out this modification.

Caution - The machine must be in a Zero Energy State before beginning the modification. Perform the Lock-Out-Tag-Out procedures specified by the employer for this machine.

The intent of this document is to guide the employer through the process of disconnecting the Autodown function on their MARTIN stacker. We define “Autodown” as a function of the stacker in which it automatically lowers after a load change. When Autodown is disabled, the stacker will still lower as it did before; the only difference is that the Autodown push button must be pressed and held in for the deck to move.

Step 1. Begin by locating the Down-Hand/Auto selector switch on the main control console of the stacker. Figure 1 shows an example of the selector switch and label.



Figure 1. Down - Hand or Auto Selector Switch

Step 2. To locate the Down-Hand/Auto switch, figure 2 will help you to identify your Martin Stacker. An arrow is used to point to the switch’s typical location.



~ Rotary Die Cut Stacker ~



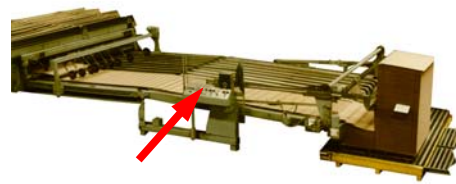
~ Rotary Die Cut Stacker ~



~ Rotary Die Cut Stacker ~



~ Press Stacker ~



~ CorrStack ~

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Figure 2. The arrow points to the Down-Hand/Auto selector switch located on operator's console

- Step 3. Follow your plant's Lock-Out-Tag-Out procedure. Open the main control console and check each wire running to the Down-Hand/Auto Selector Switch for identification markings. If you cannot find any markings, identify each wire so that they can be reconnected in the future. The switch closure would signal AUTO, so disconnect and insulate each wire. The switch can be moved or marked as non-functional. The operator can now no longer select AUTO mode.
- Step 4. Restore power to the stacker and perform the following tests to make sure the stacker will not lower automatically after a load change. First, start the stacker and make sure the green indicator lamp on the Autodown switch is not on. Next, ask the operator to begin stacking product, and wait for the stacker to reach the load change height. At this point, if the stacker has an accumulator you will see it extend; on stackers with slats, the slats will be raised. Both signify that the stacker is ready to discharge the finished load. Once the finished load had been discharged, the stacker should wait for the operator to press the Autodown push button. If the stacker does begin to lower without pressing the Autodown push button, repeat steps 3 and 4. If after repeating steps 3 and 4 the stacker still continues to lower automatically, consult Martin Field Services for Technical Support.
- Step 5. Instruct and train the operators on the change to the system, making sure to point out the safety concerns described on the first two pages of this document.

Note 1 This procedure is **Not Applicable** to Programmable Corrstacks with touch screen-based control systems. To determine if you have this version of Corrstack, see the picture in figure 3, which shows the main operator's control console and touch screen. If this picture matches your machine, refer to document Doc_000371.pdf for the correct procedures on disabling Autodown. This document can be downloaded from our website: go to



Figure 3. Programmable Corrstack with Touch Screen

<http://www.geomartin.com/safety/noautodown.htm>