

Hardware Hinges Slides Kanban System Standard Operating Procedure

1.0 Objective & Scope

The objective of this procedure is to establish a standardized two-bin Kanban system for managing inventory of hardware hinges and slides. This system ensures continuous availability of these critical components on the production floor, eliminates stockouts, reduces excess inventory, and maintains a minimum of 99% inventory accuracy. The scope covers all hinges and slides used in assembly operations, from receipt at the warehouse to consumption at the point of use.

This SOP applies to the Inventory Clerk, Material Handler, Production Supervisor, and Purchasing Agent. The Inventory Clerk is responsible for maintaining Kanban card accuracy and signal integrity. The Material Handler is responsible for replenishing bins. The Production Supervisor ensures the system is followed on the floor. The Purchasing Agent triggers reorders based on Kanban signals.

2.0 Required Systems, Tools & Materials

- SupplyGrid WMS with Kanban module (or equivalent inventory management system)
- Two-bin Kanban racks or shelving units (dedicated per SKU)
- Laminated Kanban cards (one per bin, with part number, description, bin location, reorder point, and supplier info)
- Barcode scanner (Zebra or equivalent) with wireless connectivity
- Handheld mobile computer or tablet with SupplyGrid app
- Permanent markers and label printer for bin labels
- Standardized bin containers (e.g., 18" x 12" x 6" plastic bins) with clear labels
- Clipboard with Kanban signal log sheet (paper backup)
- Forklift or pallet jack for moving bulk hardware pallets

3.0 Safety & Handling Precautions

- Wear steel-toed safety boots and high-visibility vest at all times in the warehouse and production floor.
- Use cut-resistant gloves when handling metal hinges and slides to prevent lacerations.
- Ensure all bins are stacked securely on racks; do not exceed weight capacity of shelving (typically 500 lbs per shelf).
- When using a forklift to move pallets of hardware, ensure the load is balanced and the forks are fully inserted.
- Keep aisles clear of empty bins and debris to prevent trip hazards.
- Use proper lifting technique (bend knees, keep back straight) when manually moving bins weighing over 15 kg.

4.0 Step-by-Step Procedure

1. Verify that each SKU of hinges and slides has two dedicated bins on the Kanban rack. Label each bin with the part number, description, bin location, and reorder point quantity.
2. Place one Kanban card in each bin. The card must show: part number, description, supplier, reorder point (minimum quantity), and the bin location of the reserve stock.

3. Fill both bins to the predetermined maximum quantity (e.g., 100 units per bin) for each SKU. Record the initial quantity in the SupplyGrid system.
4. Production workers draw hardware from the front bin only. When the front bin is empty, they remove the Kanban card and place it in the designated signal box or scan it with the barcode scanner to trigger replenishment.
5. The Material Handler checks the signal box or system alerts at least once per shift. For each signal, retrieve the Kanban card and go to the reserve stock location (back bin or warehouse rack).
6. Scan the reserve bin barcode and the Kanban card using the SupplyGrid mobile app. The system will automatically decrement the reserve inventory and create a replenishment task for the front bin.
7. Move the full reserve bin to the front position on the Kanban rack. Place the empty bin at the back (reserve) position. Insert the Kanban card into the new front bin.
8. The Material Handler then takes the empty bin to the warehouse and refills it from bulk stock. Scan the bin label and the bulk pallet barcode to update inventory in SupplyGrid.
9. If the bulk stock for a SKU falls below the reorder point (as defined in the system), the Purchasing Agent is automatically notified via SupplyGrid to place a purchase order with the supplier.
10. At the end of each shift, the Inventory Clerk performs a visual audit of the Kanban rack. Verify that no bin is empty without a signal card in the box. Reconcile any discrepancies immediately.

5.0 Verification & Discrepancy Reporting

1. At the start of each week, the Inventory Clerk performs a 100% physical count of all hinges and slides in the Kanban system. Compare the physical count to the system quantity in SupplyGrid.
2. If the physical count differs from the system count by more than 2% (or more than 5 units, whichever is greater), flag the SKU for investigation. Do not adjust the system count until the root cause is identified.
3. For any discrepancy, complete a Discrepancy Report form (paper or digital) including: SKU, expected quantity, actual quantity, variance, and any observed issues (e.g., missing Kanban card, damaged bin, mislabeled part).
4. Escalate the Discrepancy Report to the Inventory Manager within 24 hours. The Inventory Manager will investigate potential causes such as theft, misplacement, scanning errors, or supplier over/under shipment.
5. If damaged hinges or slides are found (e.g., bent hinges, cracked slides), immediately remove them from the Kanban bin and place them in a designated quarantine area with a red 'Quarantine' tag. Record the damage in SupplyGrid and notify the Quality Supervisor.
6. After the root cause is resolved and the system count is corrected, update the Kanban card reorder point if necessary. Document the change in the Kanban log and communicate to all relevant team members.

Regulatory Disclaimer: This document is a generic operational template provided for educational purposes. The end-user assumes all liability for reviewing, adapting, and validating all step sequences and material handling protocols against local shop capabilities.