

Field Service Vehicle Inventory and Min-Max Restock Procedure

1.0 Objective & Scope

The objective of this procedure is to ensure that field service vehicles are stocked with the correct quantities of parts and consumables to meet service demands while minimizing excess inventory and carrying costs. This SOP applies to all field service technicians, inventory clerks, and warehouse personnel responsible for vehicle replenishment. The goal is to maintain a 98% fill rate for service calls and reduce vehicle inventory discrepancies to less than 1% of total stock value.

This procedure covers the periodic inspection, counting, and restocking of field service vehicle inventory using a Min-Max replenishment model. It defines the responsibilities of the Inventory Clerk, Warehouse Lead, and Field Service Technician in maintaining accurate stock levels and ensuring that each vehicle carries only the items required for its designated service territory.

2.0 Required Systems, Tools & Materials

- SupplyGrid WMS or equivalent inventory management system with vehicle inventory module
- Mobile barcode scanner (Zebra TC21 or equivalent) with wireless connectivity
- Field service vehicle inventory checklist (printed or digital form)
- Min-Max replenishment report generated from the WMS
- Bin labels and location tags for vehicle compartments
- Picking cart or tote for transporting restock items
- Clipboard, pen, and adhesive labels for manual tagging if system is unavailable
- Personal protective equipment (PPE): steel-toed boots, high-visibility vest, safety glasses

3.0 Safety & Handling Precautions

- Wear high-visibility vest at all times when working near vehicle bays or warehouse aisles with moving equipment.
- Ensure vehicle is parked on level ground with engine off and parking brake engaged before accessing inventory compartments.
- Use proper lifting technique (bend knees, keep back straight) when handling boxes or parts weighing more than 15 kg.
- Do not climb on vehicle bumpers or tailgates to reach high compartments; use a step stool or ladder rated for the load.
- Be aware of sharp edges on vehicle compartments and wear cut-resistant gloves when handling metal parts or fasteners.
- Keep aisleways clear of loose items and ensure no tripping hazards exist around the vehicle during the restock process.

4.0 Step-by-Step Procedure

1. Log into the SupplyGrid WMS and navigate to the 'Vehicle Inventory' module. Select the specific field service vehicle assigned for restock using its unique vehicle ID or license plate number.
2. Generate the Min-Max replenishment report for the selected vehicle. The report will list all items currently stocked in the vehicle, their current on-hand quantity, the minimum threshold, and the maximum target quantity.

3. Physically inspect the vehicle and locate each inventory compartment. Open all bins, drawers, and storage areas to access the parts. Use the vehicle inventory checklist to verify that all compartments are accessible and free of debris.
4. Using the mobile barcode scanner, scan the bin location label for each compartment. Then scan each individual item barcode to record the physical count. If an item does not have a barcode, manually enter the SKU and quantity into the WMS.
5. Compare the physical count to the system quantity for each item. If the physical count matches the system count, mark the item as verified. If there is a discrepancy, record the actual quantity and flag the item for review.
6. For each item where the physical count is at or below the minimum threshold, add the item to the restock pick list. The quantity to pick is calculated as: (Maximum Quantity - Current Physical Quantity). Do not exceed the maximum quantity.
7. Print the restock pick list from the WMS or use the digital list on the scanner. Proceed to the warehouse picking area. For each item on the list, locate the bin location, scan the bin, scan the item, and pick the required quantity into the restock tote.
8. Return to the field service vehicle with the restock tote. For each item, scan the vehicle compartment bin location, then scan the item barcode, and enter the quantity being placed into the vehicle. Place the items neatly into the designated compartment, ensuring proper orientation and no overpacking.
9. After all restock items are placed, perform a final verification scan of each compartment to confirm that the system quantity matches the physical quantity. Close all compartment doors and latches securely.
10. In the WMS, finalize the vehicle inventory transaction. The system will update the on-hand quantities for the vehicle and reduce the warehouse inventory accordingly. Print a vehicle inventory summary label and affix it to the inside of the driver-side door or dashboard for quick reference.

5.0 Verification & Discrepancy Reporting

1. After completing the restock, run a 'Vehicle Inventory Accuracy Report' from the WMS. Compare the system-reported quantities to the physical counts recorded during the procedure. Any item with a variance greater than 2% or a single unit discrepancy for high-value items must be flagged.
2. If a discrepancy is found, immediately notify the Inventory Manager via the WMS discrepancy module or by email. Include the vehicle ID, item SKU, expected quantity, actual quantity, and any notes about the condition of the item or compartment.
3. For damaged or expired items found during the physical count, place the item in a clearly marked 'Quarantine' bin or bag and attach a red quarantine tag. Record the item details in the WMS under the 'Damaged/Expired' disposition. Do not return damaged items to the warehouse shelf.
4. If a technician reports a missing item that was not on the Min-Max list, the Inventory Clerk must investigate whether the item was consumed on a service call without being recorded. If so, update the WMS with the consumption transaction and adjust the Min-Max levels if the item is used frequently.
5. All discrepancy reports must be reviewed by the Warehouse Lead within 24 hours. The lead will determine if a cycle count of the warehouse bin location is required or if the Min-Max parameters need adjustment. Approved adjustments are entered into the WMS by the Inventory Manager.

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.