



DEFENSE
DISPENSE
A **GPREEVES** product

USER MANUAL

Fortress Hand Sanitizer Systems

For Dispensers Manufactured On or After July 29, 2020

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SAFETY

Upon applying the customer-supplied electrical energy source, and during operation, this equipment poses several safety hazards. Operators should exercise caution and be aware of the following hazards that may be present.



Energy Source Hazards

- **Electrical:** Electrical shock hazard is present with the 12 volt DC battery packs installed or power supply plugged into a wall outlet. ALWAYS remove the battery pack or unplug power supply cord BEFORE replacing the sanitizer supply!
- **Open Flame:** Do not use this equipment or store the sanitizer supply container next to an open flame. The sanitizer poses an explosion risk due to explosive vapors!
- **Static Electricity:** Minimize the occurrence of static electrical charges around this equipment that could ignite/spark the explosive vapors!

Fire and Explosion Hazards

- Improper grounding, poor ventilation, open flames or sparks can cause a hazardous condition and result in a fire or explosion and serious injury. Know the specific hazards of the fluid your are using.
- Ground the equipment properly. Refer to pertinent OSHA or similarly applicable grounding procedures.
- Do NOT smoke in the operation area. If there is any static sparking or if you feel an electric shock, unplug the equipment immediately.
- Do NOT use the equipment until you identify and correct the problem.
- Ensure adequate ventilation to avoid the buildup of flammable fumes from the sanitizer being used.
- Keep the area free of debris, including solvent, rags, and gasoline.

Operator Exposure Hazards

- Gel or liquid splashed in the eyes can cause injury. If gel or liquid is introduced into the eye, flush eyes immediately with generous amounts of water using an eye wash station or suitable equivalent.
- If inhaled, take person away from area immediately into fresh air source.
- If exposed to skin for extended timeframe, wash exposed area with warm soapy water!
- Wear eye protection and other pertinent PPE when operating this equipment.

Misuse of Equipment

Equipment misuse can cause equipment malfunction and may replacement of the dispenser.

- Read all labels on equipment before operating.
- Use this equipment only for its intended purpose. If you are not sure of proper operation, contact GP Reeves for more information.
- Do not alter or modify the equipment. Use only genuine approved parts and accessories.

GENERAL DESCRIPTION

The electric hand sanitizer dispensers include a touchless, motion activated sensor. These dispensers can be easily programmed to change the volume dispensed.

Some dispensers use a removable Milwaukee M12 lithium-ion compatible 12VDC (4 or 6 amperes) battery pack. Battery packs and chargers are available for purchase at <https://store.gpreeves.com/products/batteries>.

Some model dispensers come with a wall power supply and require a standard 120VAC (60Hz) outlet.



Figure 1. Dispenser Shown Mounted on Fortress™ Stand

SET-UP AND INSTALLATION

Select Equipment/System Location



The dispenser(s) with mount stand and the installed supply container should be located away from any electrostatic source and/or source of open flame due to the explosive nature of the sanitizer being dispensed. In addition, the sanitizer supply container should be kept away from any sources of open flame and temperatures above 100°F (37.77° C).

System Requirements – (Customer-Provided)

If using customer-supplied sanitizer, an ample supply to fill the container size is recommended.

Set-Up`

Note: If using sanitizer other than the GP Reeves purchased sanitizer, sanitizer dispense may be affected in both the sanitizer travel distance and the consistency of the dispensed volume.

Installation of Sanitizer Supply Container

Note: Only qualified personnel should perform the installation steps listed below.

- A. Slide the stand cover to the right to allow access to the sanitizer supply container. Note: It is not necessary to remove the stand cover; the cover should be slid only until the screw stop on the cover makes contact with the stand.

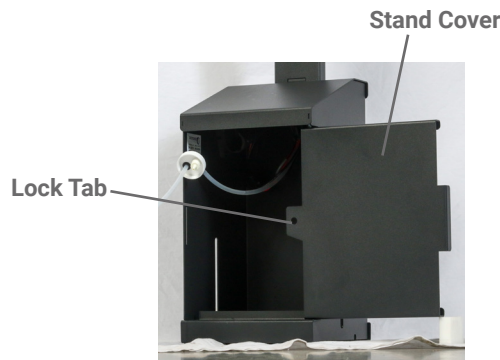


Figure 2

- B. Press in on both tabs on the side of the battery pack and pull the battery pack from the battery holder.

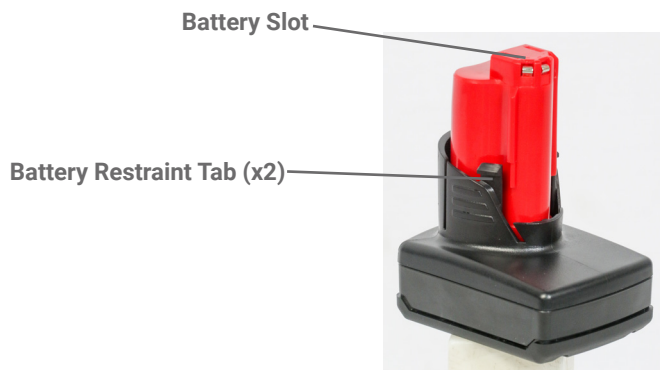


Figure 3

SET-UP AND INSTALLATION-CONT.

Installation of Sanitizer Supply Container-cont.

- C. Remove the existing cap from the sanitizer container.
- D. Place the container pickup tube with the installed check valve into the container and replace the container cap. Make sure that the arrow imprinted on the side of the check valve (See Figure 4) points away from the sanitizer container. To prevent backflow and possible leaking at the container pickup point, do **NOT operate the system without the check valve installed!**

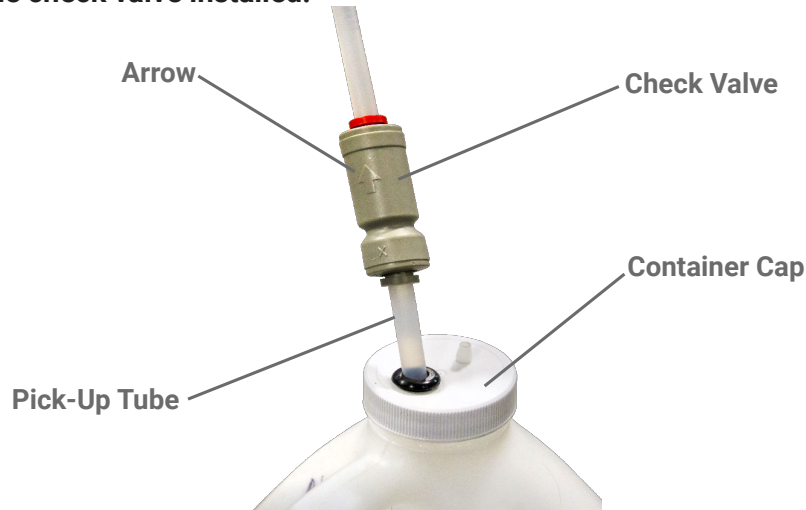


Figure 4

- E. Place the sanitizer supply container within the container holding area.
- F. With the dispenser system secure in place and the supply container connected;
- (Plug-In Style): Insert the wall power supply cord into a standard outlet (120VAC, 60 Hz) and connect to the dispenser (See Figure 5-1).



Figure 5-1

- (Battery Style): If not already connected, insert the provided battery power supply plug into the dispenser plug while aligning white mark on plug with white wire on dispenser plug. See Figure 5-2. Insert a charged M12 battery pack into the battery holder.



Figure 5-2

Battery Power Supply Plug - Align white mark with white wire on dispenser plug

- G. Slide the stand cover to the left while aligning the lock tab into the slot on stand frame. Install customer-provided lock (optional).
- H. Place hands beneath the photo eye sensor to initiate a dispense. Continue to initiate dispensing until the fluid lines are all fully primed (filled with sanitizer) and one receives a consistent, steady stream of sanitizer.

Priming the Pump

1. The LED will illuminate for 30 seconds upon power up signaling that the pump is in prime mode.
2. (Optional) Place a small cup/catch container beneath the dispense nozzle of dispenser to capture sanitizer.
3. Place and keep hand beneath hand presence sensor for at least 5 seconds to activate the pump priming function. The pump will draw sanitizer from the supply container until you remove your hand or 35 seconds has passed. When a steady stream is being dispensed, remove hand. The pump is now primed for continuous dispense unless there are air bubbles trapped in the line. If air bubbles are visible in the supply line, repeat this step.
4. (If applicable) Remove the small cup or catch container.
Note: Steps 2 through 4 may need to be performed after each replacement of the supply container.

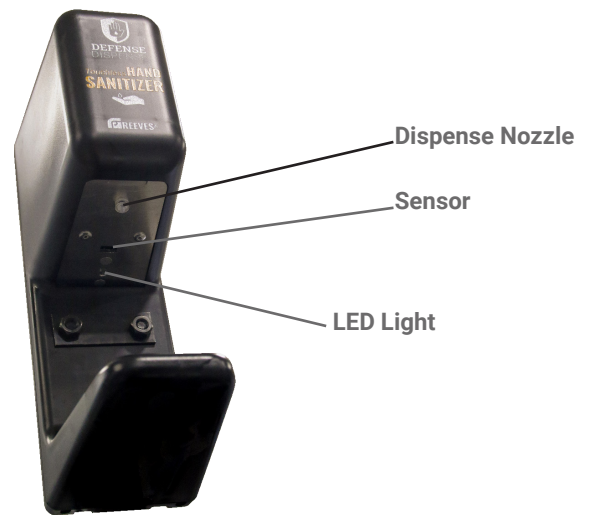


Figure 6

Setting the Dispense Volume

The dispenser can be programmed to dispense a varying amount of sanitizer. The dispense time factory default is 0.6 secs which dispenses about 0.5ml of sanitizer. As the dispense time is increased, the amount of sanitizer dispensed increases.

Note: If using sanitizer gel, actual volume dispensed may vary from one dispense cycle to the next due to air entrapped within the gel.

1. (Optional) Place small cup or catch container beneath the dispense nozzle to capture dispensed sanitizer.
2. The LED light will stay on for 30 seconds immediately following the pump prime mode. Within this 30 second window, block the sensor with your hand for at least 5 seconds to trigger the dispense time set mode; the LED will blink to signal that the dispense time set mode is active.
3. Place and then remove hand from beneath sensor to progressively increase the dispense time. Factory default dispense time is 0.6 seconds so the first pass of your hand beneath the sensor will increase dispense time to 0.7 sec, the next pass will increase it to 0.8 secs and so on. Once the maximum dispense time (0.9 seconds) is reached, the dispense time cycles back minimum dispense time of 0.3 seconds.

Note: Removing your hand and not placing beneath the sensor again for up to 30 seconds will "set" the volume for all future dispense cycles even after removing power from the unit.

MAINTENANCE AND CARE

Inspections

Table 1 lists the recommended items/area to be inspected at the listed interval.



DANGER: Unplug power supply cord BEFORE disconnecting components/fittings on this equipment!

Table 1. Inspection Items

Item	Action
Drip Tray	DAILY – Remove battery pack OR unplug unit before cleaning. Clean drip tray DAILY or WEEKLY depending on usage!
Photo Eye Sensor	MONTHLY – Remove battery pack OR unplug unit before cleaning. Clean exterior area of photo eye to prevent obstruction of detection area. Perform more frequently based on environment location. Use warm water and mild soap to clean; do NOT use abrasive cleanser!
Fittings/Tubing	MONTHLY – Unplug unit. Check fittings for security. Tighten as needed. Visually inspect supply tubing for damage/wear. Replace tubing as needed.

Fuse Replacement - Battery-Powered Units

If the dispenser will not work with a fully charged battery, the in-line fuse may require replacement as follows:

- A. Carefully pull on fuse holder cover and remove cover.
- B. Pull the old fuse from holder.
- C. Insert new fuse (blades first) into the holder and reinstall cover.

Battery-Powered Units - Care and Usage

1. **This battery was supplied with a partial charge. Completely charge the battery BEFORE use to ensure that full capacity is available.**
2. Charge battery only with the provided charger or manufacturer recommended charger.
3. Keep battery pack away from metal objects when not in use. These objects can contact battery and short the battery causing a possible fire or burns.
4. Under abusive conditions, the battery may begin to leak. If this occurs, handle battery ONLY while wearing protective gloves. Dispose of battery according to all local, state and governmental regulations.
5. Do NOT crush, drop or damage the battery. Do NOT use a battery that is obviously damaged as this may cause a fire or explosion.
6. Do NOT charge the battery in a wet environment as this may increase chance of electric shock.
7. Use only lithium-ion batteries rated for 12 VDC. Use of different voltage battery may damage the internal components of the dispenser.
8. The battery should only be charged within a temperature range of 41°F (5°C) to 104°F (40°C).

TROUBLESHOOTING

Table 2 below lists some common problems and recommended solutions/corrective actions. If you are still unable to correct a problem, please contact GP Reeves Inc.



DANGER: Remove the battery pack from the battery holder or unplug power supply cord BEFORE disassembling components OR disconnecting electrical leads on this equipment!

Table 2. Troubleshooting

Problem/Fault	Possible Cause	Solution
Pump operates; no dispense	Supply container empty	Unplug power supply cord and replace supply container.
	Dispense port obstructed	Clean/clear dispense port.
	Pump tubing deformed/worn	Replace pump inlet/outlet tubing. Repair instructions are available upon request.
	Pump is not primed	Place hands beneath photo eye several times to prime pump and dispense sanitizer.
No dispense; pump not operating	Battery Requires Replacement or is Not Installed (Battery Pack Units)	Replace/Recharge battery.
	Power Units - Unit is not plugged in	Plug power supply cord into standard outlet.
	Photo eye area obstructed	Clean/clear photo eye area using mild detergent and water.
	No photo eye red sensor light apparent; photo eye not functional	Replace photo eye sensor.
	Photo eye red sensor light apparent; pump does not operate	Replace unit or replace defective component. Repair Instructions are available upon request.
	Pump/motor controller (timer) not functional	Replace unit or replace defective component. Repair Instructions are available upon request.

RECOMMENDED SPARE PARTS

Table 3 lists the recommended spare parts for the Outpost sanitizer system. Please refer to this table when ordering replacement/spare parts. If you have questions concerning a specific application, please contact GP Reeves for assistance.

Table 3. Recommended Spare Parts

Part#	Description	Qty.Used Per Dispenser
HSD-V3.02-R	Dispenser Only	1
BP-4	Battery, 4 Amp	1
BP-6	Battery, 6 Amp	1
BH-M12	Battery Holder	1
BP-C	Battery Charger	1
HSS-120	120VAC to 12VDC Power Supply	1

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REVISIONS

Revision Number	Date Issued	Change
Original	08/05/2020	--
A	09/01/2020	Updates made on pages 2, 3, 6, 7, 8 and 10 to include additional information on battery-powered units.
B	09/23/2020	Design Updates