

# LEAK DETECTION USING A RECHARGEABLE UV FLASHLIGHT

53411, 53412, 53450, 53450-220,  
53450-C and 53450-220-C

## Safety Instructions for Charger and Battery Cartridge

1. **DO NOT** charge battery cartridge when temperature is **BELOW 10°C (50°F)** or **ABOVE 40°C (104°F)**. Keep charger vents **CLEAR**.
2. To prevent large current flow, overheating or possible burns:
  - **DO NOT touch terminals with conductive material.**
  - **Avoid storing batteries with metals.**
  - **DO NOT expose battery cartridge to water or rain.**
3. **DO NOT** incinerate the battery cartridge even if it is badly damaged or is completely worn out. The battery cartridge can explode in a fire.
4. An extension cord should **NOT** be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. **If extension must be used, make sure** the extension cord is properly wired and in good electrical condition, and the wire size is at least as large as the one specified in the table below:

Minimum AWG Size for Extension Cords for Battery Chargers				
Length of Cord (Feet)	25	50	100	150
AWG Size of Cord	18	18	18	16

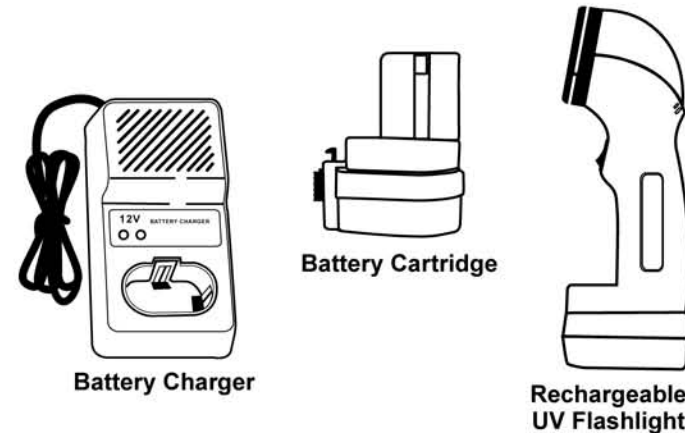
## Charging

Your new battery cartridge is not charged. You will need to charge it before use. Plug the battery charger into the proper AC voltage source. Insert the battery cartridge so that the plus and minus terminals correspond with the markings on the battery charger.

When the battery cartridge is inserted, the red charging light will go on and charging will begin. The red light will remain on during this process. When charging is completed, the green light will go on. Charging will take approximately 1 1/2 to 2 hrs. When finished, unplug the charger from the power source.

When you charge a new battery cartridge or a cartridge which has not been used for a long period of time, it may not accept a full charge. This is a normal condition and does not indicate a problem. You can recharge the battery cartridge fully after discharging it completely and recharging a couple of times.

If you wish to charge a second battery cartridge, allow 30 minutes between charging on the battery charger.



## Leak Detection Using a UV Lamp:

1. Turn Engine and A/C system on.
2. Allow dye to circulate throughout system.
3. Insert the battery cartridge into the UV Flashlight. (Make sure the battery is fully charged).
4. **WEAR PROTECTIVE GLASSES!!**
5. Do not use lamp near flammable materials, liquids or gases.
6. **Never use lamp for more than 3 minutes at a time.** Allow lamp to cool between uses, **3 MINUTES ON, 5 MINUTES OFF.** If used continuously, **you may damage glass lens.**
7. Turn lamp on. Search for a bright green/yellow glow where the system is leaking. Clean the area around leak after repair.