PA30 Series Quick Reference
Pre-Operational Inspection

Prior to each work shift:
1. Belt Mounted Blower Unit (with on board battery)
   a. Check that the unit is clean and undamaged.
   b. Inspect for deterioration, physical damage, and improper assembly.
   c. Ensure that the correct filters/cartridges for the appropriate contaminant are properly mounted on the
      blower unit. Screw the cartridges into the ports hand-tight.
   d. Consult the NIOSH approval label and your own in-plant safety professional if you have any
      questions as to the suitability and efficiency of the air-purifying element.

2. Battery Pack
   a. Check that the battery is not damaged
   b. Place the battery pack in the battery compartment on the blower by first engaging the tab on the pack
      under the lip on the edge of the compartment. Then close the latch. Place a second battery pack in
      the other compartment, if desired. If only one battery is used, install the PA3PC battery port cover over the unused port.

3. Hood with Suspension or Hard Hat, or Loose Fitting Facepiece
   a. The hood is constructed of either Tychem QC or Tychem SL. Depending on the model selected, it may be used with either a
      headband suspension or a hard hat. The loose fitting facepiece is constructed of Tychem QC and features an internal suspension
   b. All hoods and loose fitting facepieces are approved for use with the PA3BU Blower Unit.
   c. Inspect the hood for any physical damage.

Mounting the Breathing Tube on the Blower

1. Ensure that a gray rubber gasket is in place in the breathing tube coupler on the blower unit.
2. Screw one end of the breathing tube into the blower unit (hand tight is sufficient)
3. Ensure that the ON/OFF Switch is in the OFF position.
4. Ensure that neither the breathing tube nor the filter is blocked.
5. Switch on the blower.
6. If the Low Battery Alarm sounds at this time, the battery needs to be recharged.
7. See notes on previous page regarding properly charging the battery.

Checking Airflow with the Airflow Indicator

1. Take the free end of the breathing tube in one hand, hold it upright and place the Airflow Indicator into the end of the tube.
2. Ensure that the air outlet holes in the Airflow Indicator tube are not blocked.
3. Apply a light downward pressure to the Airflow Indicator to get a reasonable seal at the breathing tube end.
4. Two hands may be used if preferred, one to hold the breathing tube and one to hold the Airflow Indicator.
5. The position of the ball in the Airflow Indicator should be observed. If any part of the ball is below the PASS LINE on the Airflow
   Indicator, check for:
   a. Clogged or damaged air-purifying filter element.
   b. Low battery charge or battery malfunction.
   c. Blower malfunction.
6. If the ball is completely above the PASS LINE on the Airflow Indicator then the system is ready for use.
7. When the blower passes the flow test, it is ready to use.
8. Turn off the blower, remove the flow indicator and store the air flow indicator safely for future use.

Mounting and Replacing the Cartridges on the Blower Unit

1. Remove the air-purifying element from its packaging, and inspect for damage. If in doubt do not use.
2. Check that the air-purifying element has not exceeded its “use-by” date and that the connecting thread is in good condition.
3. Check that the air-purifying element is appropriate to the hazard. If in doubt consult your respirator program administrator or supervisor.
4. Check that the threads in the blower unit port are in good condition and clear of contaminant.
5. Check that the blower ports have the gray rubber gasket seals present.
6. Remove the air-purifying element seals.
7. Screw the air-purifying elements into the receptacles until hand tight.
8. When using the two PA3HE filter cartridges install the filter plug into one of the ports until hand tight.
Cartridge Change Schedules:

1. The useful life of a chemical cartridge for vapors and gases will vary with the concentration and nature of the contaminant, the breathing rate of the respirator wearer, and ambient temperature and humidity.

2. The Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.134 require that the employer must implement a change schedule when using Air-Purifying respirators for protection against gases and vapors, if there is no end-of-service-life indicator on the cartridges. The change schedule must be based on objective data that will ensure the cartridges are replaced before the end of their service life. Factors to consider include workplace conditions such as contaminant concentration, relative humidity, temperature, work activities, respirator use pattern (e.g., continuous or intermittent use), presence of other contaminants, potential for contaminant migration/desorption, health effects of the gas or vapor, and the presence of any warning properties. Contact Bullard for further information on change-out schedules.

3. High efficiency filter and gasket must be replaced when retained particles clog the filters and reduce air flow below acceptable levels, as indicated by testing with the Air Flow Indicator.

Donning the Blower and Respirator

1. Prepare to don the blower and hood in a safe, hazard-free area and do the following:

2. Check that the cartridges are properly mounted on the blower unit.

3. Prior to assembling the system, place the battery in the battery compartment on the back of the blower. One or two battery packs may be used.

4. Fit the blower and belt around the user’s waist. With the blower at the rear of the user, adjust the belt for a comfortable fit.

5. Remove the belt and blower.

6. Ensure that the cartridges used are suitable for the contaminant in question and are compatible with the blower unit.

7. For Hoods:
   a. Insert the PA1BT Breathing Tube 5” into the air entry sleeve at the rear of the hood being used.
   b. Install nylon clamp S18051 over air entry sleeve and breathing tube, inserting clamp locks through two holes in plastic anchor plate that is sewn into hood (RT Hoods Do Not have a plastic anchor plate).
   c. Engage clamp locks and squeeze together until tight.
   
   d. Attach the other end of the breathing tube to the blower unit by screwing adapters together.
   e. Remove any protective film covering the visor of the hood.
   f. Put on the belt and blower assembly and make any final adjustments to the belt as necessary, keeping the breathing tube and hood behind the head.
   g. Switch ON the blower.
   h. Place the hood on the head making any final adjustments to the fit as required at this time to ensure a comfortable and stable fit.

Initial Charging Procedure with Quick Charger

1. To ensure a full charge on a new battery pack, follow these important guidelines.

2. These guidelines also apply to battery packs have been in storage for extended periods of time.

3. For new battery packs or packs that have been in storage for extended periods of time, follow the directions below with “Routine Battery Charging with Quick Charger” and when the light begins to flash on the charger do the following:
   a. Remove the battery pack.
   b. Wait 15 seconds.
   c. Replace the battery pack in the charger nest.

4. The charger light will now remain on.

5. When the light begins flashing again remove the battery pack.

6. Wait 15 seconds.

7. Replace the battery pack in the nest again.

8. The charger light will now remain on.

9. When the charger light flashes a third time the battery is fully charged.

10. The charger light will flash a third time, indicating that the battery is fully charged.

11. This procedure should also be followed after periods of prolonged storage.

12. Without periodic charging, the nickel metal hydride batteries will lose up to 1% of their charge per day.

13. Allowing a battery to self-discharge during periods of prolonged storage will not damage the battery.

Routine Battery Charging with Quick Charger

1. A fully charged battery pack will power a blower unit to provide adequate air volume for the respirator hood for approximately 10 hours.

2. The battery pack is mounted inside the blower unit body and is not designed to be removed or replaced except by authorized service personnel.

3. The ON/OFF switch must be in the OFF position for re-charging.

4. If using a Quick Charger or Gang Charger, please see the instructions in “Initial Charging Procedure with Quick Charger” prior to charging the battery for the first time.

5. Also, follow this procedure following periods of extended storage.

6. To charge the battery pack, do the following:
   a. Open the cover on the charging port of the blower unit by turning the retaining collar counter-clockwise and pulling it off.
   b. Connect the lead from the battery charger to the charging port on the blower unit.
   c. Connect the battery charger to a 120-volt (AC) electrical outlet.
   d. The ON/OFF switch on the blower must be off.
   e. Charge the battery pack for 8 hours with quick charger.

7. While the battery is charging the light on the charger will remain on.