





ALWAYS READ AND FOLLOW ALL SAFETY/REGULATORY INFORMATION AND NOTIFICATIONS PROVIDED IN THE USER MANUAL.

#### **MAINTENANCE OVERVIEW**

Dry vacuum preventive maintenance is simple, clean and inexpensive. It can help ensure your system provides years of predictable performance.

#### KEY POINTS FOR TROUBLE-FREE OPERATION

- Follow the recommended PREVENTIVE MAINTENANCE SCHEDULE.
- Rinse vacuum lines daily with the recommended quantity of liquid.
- Keep vacuum pump clean and free of dirt.
- Keep area surrounding vacuum pump free of debris.
- Inspect air filters every 1,000 hours.
- Maintain a controlled ambient temperature between recommended levels.

#### **CLEANING INSTRUCTIONS**

- 1. Always disconnect the power from the equipment prior to cleaning.
- 2. Some parts/components on the vacuum unit get hot during operation; provide the equipment ample time to cool prior to cleaning.
- 3. All components can be safely wiped down with a damp cloth, wet with water.
- 4. Do not heavily wet electrical components.
- 5. Allow equipment to air dry or dry with clean, soft cloth.

### PREVENTIVE MAINTENANCE SCHEDULE

Follow the recommended schedule for a vacuum in a clean, dry environment. Any site other than specified will decrease maintenance time exponentially.

Clean Vacuum System Lines	Daily
Check Oil Drip Rate	First Week; every 6 Months or 1,000 Hours
Check Air Filters	Every 6 Months or 1,000 Hours
Check Oil Drip Rate, Check/Replace Air Filters, Change Oil, Check/Replace Oil Filter, Check V-belt Tension	Annually or every 2,000 Hours

#### CLEAN VACUUM SYSTEM LINES

- 1. Just before turning OFF (STANDBY) the vacuum each day, rinse lines first with hot water-approximately 1 quart through each high-volume line, and a few ounces through each saliva ejector line.
- 2. Aspirate a few ounces of non-foaming, deodorizing dental vacuum line cleaner (SlugBuster™ is highly recommended) through each vacuum line.

# CHECK OIL DRIP RATE

- 1. Start the vacuum and run for at least 10 minutes.
- 2. Look through the sight glass on the bottom of the drippers for drips of oil.
- 3. Count the number of drips of oil per minute in each site glass. Drip rate should be one to three
  - drops per minute at each dripper when the vacuum unit is thoroughly warmed up, the vacuum setting is 7" to 7.5" Hg, and ambient temperature is 70°F to 75°F.

DRIPPER

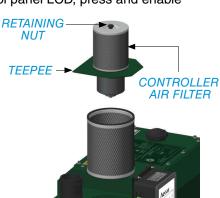
SITE

**GLASS** 

- 4. If drip rate does not meet specifications, refer to the USER SERVICE INFO section of the DRY VACUUM USER MANUAL; otherwise, continue to the next step.
- 5. Reset runtime\* for OIL DRIP RATE.
- On the Technical screen, press and disable MAINTENANCE MODE\*\*. Press NO on pop-up dialogue box.
- 7. On the Home screen, press *STANDBY* to turn the system back ON.

### CHECK AND REPLACE AIR FILTERS

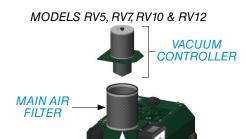
- 1. On the Technical screen of the control panel LCD, press and enable MAINTENANCE MODE\*\*.
- 2. To replace the CONTROLLER air filter (all models):
  - a. Remove the retaining nut from the top of the controller air filter.
  - b. Lift the controller air filter over the teepee and discard.
  - Inspect spud gasket for cracks.
  - Replace with new controller air filter.
  - Re-attach retaining nut.



# 3. To replace the MAIN air filter:

- a. Without removing any bolts or nuts, lift the vacuum controller off the vacuum pump.
- b. Remove main air filter:
  - Models RV5, RV7, RV10 and RV12 – Lift the main air filter straight out of the filtrols and discard.
  - Model RV4 Slide the main air filter to the access hole; lift filter out of the filtrols and discard.
- c. Replace with new main air filter.
- d. Place vacuum controller into filtrols.
- 4. Reset runtimes\* for CONTROLLER FILTER and MAIN AIR FILTER.
- 5. On the Technical screen, press and disable MAINTENANCE MODE\*\*. Press NO on pop-up dialogue box.
- 6. On the Home screen, press STANDBY to turn the system back ON.

# **MAINTENANCE CHART**



**FILTROLS** 



5

5

5 5

3

#### CHANGE OIL AND CHECK OIL FILTER ELEMENT



1. Operate the vacuum pump until the oil reservoir is warm to the touch.

- RUBBER PLUG

- On the Technical screen of the control panel LCD, press and enable MAINTENANCE MODE\*\*.
- 3. Drain used oil (use of gloves is recommended when handling used oil):
  - Place an empty oil container (6-quart minimum) under oil drain tube.
  - Remove rubber plug and open drain valve. When oil stops draining, close valve and replace rubber plug. If drained oil contains any water, contact dealer or Ramvac® Technical
- Support at 866-DTE-INFO. 4. Add fresh oil (Use only recommended oil, available through dealer or
- Ramvac):
  - Remove oil filler cap.
- Add oil; check oil fill level at sight glass and add or drain oil accordingly.
- Securely install oil filler cap.
- 5. Unscrew oil filter assembly and remove filter. If filter is clean, reinstall. If filter is dirty, replace. Reinstall oil filter assembly.
- Check oil drip rate.
- Reset runtimes\* for CHANGE OIL and OIL FILTER.
- On the Technical screen, press and disable MAINTENANCE MODE\*\*. Press NO on pop-up dialogue box.
- On the Home screen, press *STANDBY* to turn the system back ON.

# CHECK V-BELT

- On the Technical screen of the control panel LCD, press and enable MAINTENANCE MODE\*\*.
- 2. Access belt by removing belt guard.
- 3. Inspect belt for wear. Replace belt if frayed or cracked.
- 4. Measure belt tension using tension gauge or finger pressure test.
  - Model RV4: 50 lbs using tension gauge or 1/4" deflection with 4 lbs finger pressure.
  - Models RV5, RV7, RV10 and RV12: 70 lbs using tension gauge or 1/4" deflection with 4 lbs finger pressure.
- 5. If belt tension is changed, make sure pulley alignment is checked. See DRY VACUUM BELT REPLACEMENT PART INSTRUCTIONS document (PN 7565-081 or 7565-082) for complete instructions.
- 6. Reset runtime\* for BELT.
- On the Technical screen, press and disable MAINTENANCE MODE\*\*. Press NO on pop-up dialogue box.
- 8. On the Home screen, press *STANDBY* to turn the system back ON.

## \*To reset runtimes:

the system to ON mode. Press STANDBY on the Home screen to turn the system back ON.

On the Technical screen of the control panel LCD, while in MAINTENANCE MODE\*\*, press SERVICE >.

On the Service screen, press the service item to reset (MAIN AIR FILTER, CONTROLLER FILTER, OIL DRIP RATE, OIL CHANGE, OIL FILTER, or BELT). On the service item screen, press REPLACE. Press OK on the pop-up dialogue box. Current and remaining runtime(s) for the chosen service item will be reset.

<sup>\*\*</sup>Turning ON maintenance mode disables remote switching and puts the system in standby mode. Turning OFF maintenance mode enables remote switching, but does not return

