



Cleaning Instructions

- 1 Always keep solar panels clean to maximize power generation.
- 2 Always keep sign boards clean to maximize visibility.
- 3 Clean Lexan (face of the screen) panels using dishwashing liquid and water.
- 4 Ensure that the control console remains accessible at all times and prevent dirt ingress into the controller.
- 5 Only use low pressure water to clean dirt and grime from the MVMS display and control cabinet. High pressure water can be used with caution on the trailer chassis.

Do not use window cleaner or solvents to clean Lexan panels.

Cleaning the Ver-Mac MVMS Lexan Screens

Removing paint or other materials

Fresh paint may be removed by rubbing lightly with a cleaning material such as isopropyl alcohol or VM-P grade Naptha. The sheet should be washed immediately with a mild soap or detergent in warm water and rinsed thoroughly with clean water. Grease and glazing compound may be similarly be removed from the surface with the above mentioned cleaning materials. Weathered paint may be lifted off the sheet with masking tape. Razor blades or other sharp scraping tools should never be used.

Cleaning

Kleenmaster Brillianize may be used. (Also see Novus). Products such as abrasive or highly alkaline clears, acetone, carbon tetrachloride, bensene or leaded gasoline should not be used and the sheet should not be cleaned in hot sun or at high temperatures.

Maintenance Instructions

Daily Maintenance

- 1 Visually check the state of the solar panels regularly. If solar panel are damaged it will affect their ability to charge batteries and the MVMS may eventually go flat and switch off.
- 2 Visually check the state of the sign boards regularly to ensure that display can be seen by motorists
- 3 Check tyres are fully inflated and that all trailer tail lights are functioning.



Maintenance Instructions Cont.

Routine Maintenance

- 1 Check for water or dust accumulation and /or infiltration inside of the Control Console.
- 2 Check the state of your batteries. Ensure that water levels are correct and there are tight and clean connections.
- 3 Charge low batteries as soon as possible otherwise batteries will deteriorate and will not be able to hold their charge.

Quarterly Maintenance

- 1 Check water levels of batteries - if low add distilled water.
- 2 Ensure that the solar panels are clean and clear of dirt and/or snow.
- 3 Ensure Trailer has current Registration and Warrant of Fitness.

Maintenance

- 1 Check water level of batteries
- 2 Check operation of solar panels
- 3 Check battery voltage
- 4 Use built in tests to check that all electronic boards are operating (test pattern)
- 5 Check hydraulic fluid in hydraulic pump (for trailers with hydraulic lift).
- 6 Check brake fluid in brake system

Storage Maintenance

General

- 1 Ensure that batteries are fully charged
- 2 Check battery acid density. It is the only realistic way of knowing the proper battery charge level. Fully charged battery density is 1.260.
- 3 Ensure that solar panels are functional.
- 4 In cases of extreme cold weather in southern regions battery acid may freeze if the charge level is too low.
- 5 Check and ensure that battery terminals are tight to prevent poor connections. Vibrations while towing are often strong and repetitive and cause loose connections.

Outdoor Storage

- 1 Keep solar panels clean and clear throughout the winter months to lower chance of damage to panels and increase charge. Tilting Solar Panels to 45° and facing North will also increase solar voltage and charge batteries faster.

Indoor Storage

- 1 If the trailer is stored in a heated building in the spring check that the batteries are fully charged.
- 2 If the trailer is stored in a non-heated building it is strongly recommended that a trickle charge be connected to the battery bank to prevent batteries from freezing.
- 3 If the trailer is stored indoors ensure system power switch is in the off position.

AUCKLAND

8 Hotunui Drive
Mt Wellington
PO Box 14111
Panmure, Auckland
Phone 09 259 2600
Fax 09 259 2610

WELLINGTON

26 Cashew Street
Grenada North
PO Box 13351
Johnsonville, Wellington
Phone 04 232 3774
Fax 04 232 3776

CHRISTCHURCH

14A Hillview Road
Phillipstown
PO Box 10036
Phillipstown, Christchurch
Phone 03 366 0512
Fax 03 366 0515

INVERCARGILL

200 Bond Street
Invercargill
PO Box 313
Invercargill
Phone 03 211-0300
Fax 03 214 1711

