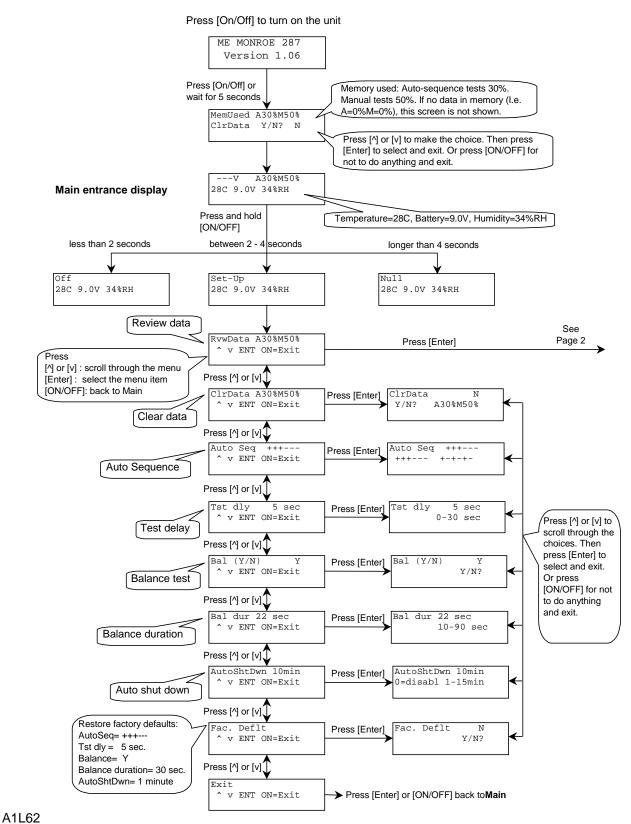
Supplementary Manual for Model 287 Ionizer Performance Analyzer

287-1/100A V1.07 P/N 0345006 020106

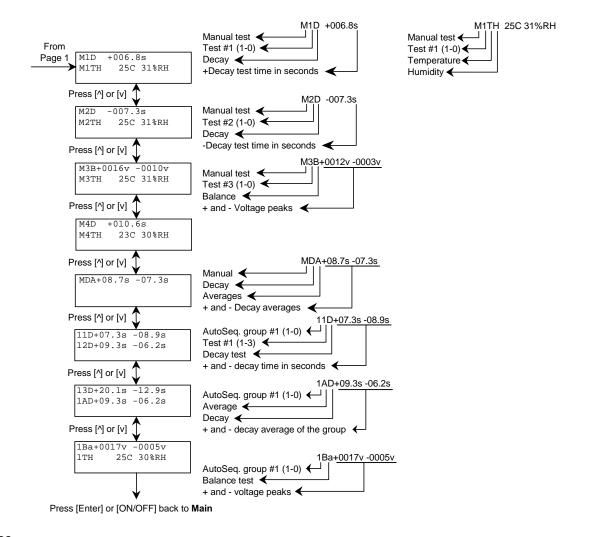




IPA 287 Display and Operational Chart



..._-



M1X62

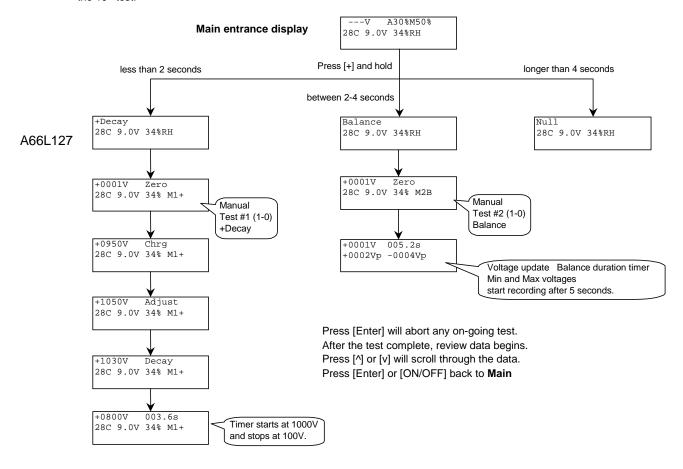
Manual Plus Decay Test (press [^] button less than 2 seconds)

The 287 unit will Zero for 4 seconds, Charge to over +1050V, Adjust to +1050V for about 3 seconds, then Decay. The decay timer starts at +1000V and stops at +100V.

Manual Balance Test (press and hold [^] or [v] button for 2-4 seconds)

The 287 will Zero for 4 seconds, then Balance for the time duration. Start recording Min and Max voltage levels after 5 seconds.

Up to 10 Manual test results can be stored in memory. They are named M1 thru M0 where M0 is the $10^{\rm th}$ test.

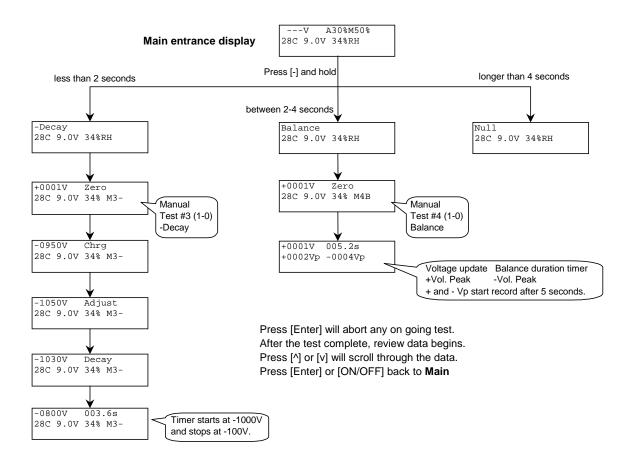


Manual Minus Decay Test (press [v] button less than 2 seconds)

The 287 unit will Zero for 4 seconds, Charge to over -1050V, Adjust to -1050V for about 3 seconds, then Decay. The decay timer starts at -1000V and stops at -100V.

Manual Balance Test (press and hold [^] or [v] button for 2-4 seconds)

The 287 will Zero for 4 seconds, then Balance for the time duration. Start recording Voltage peaks after 5 seconds.



M66X127

Auto Sequence GroupTest (press [AUTO] button less than 2 seconds)

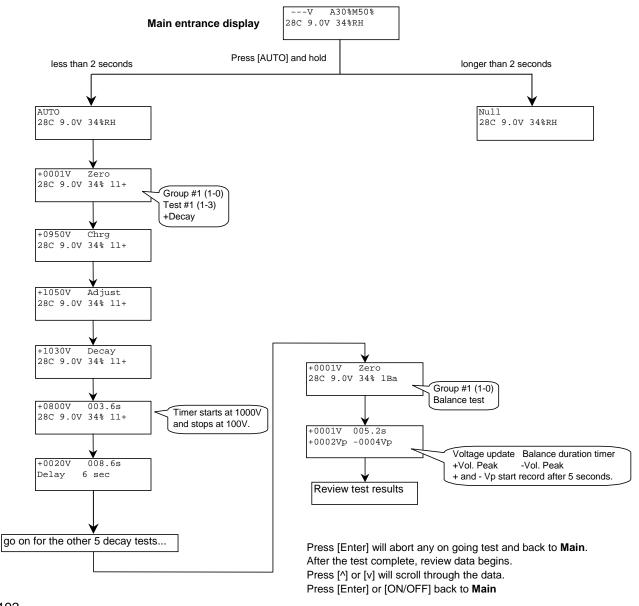
The 287 unit will perform up to 10 groups of automatic test sequences and store the results in memory. Groups are named 1 thru 0 where 0 is the 10th. Each group has 3 +decay, 3 -decay, and an optional balance test. The sequence can be set in the Set-Up Menu.

Decay test: Zero for 4 seconds, Charge to over +/-1050V, Adjust to +/-1050V for about 3 seconds, then Decay. The decay timer starts at +/-1000V and stops at +/-100V.

Balance Test: Zero for 4 seconds, then Balance for the time duration. Start recording Voltage peaks after 5 seconds.

The delay time between the tests can be set in the Set-Up Menu.

Auto Sequence Test



A131L192

Error Messages	What to do
Battery Low 7.5V Off in 5 sec.	Change the battery.
V A30%M50% 28C 9.0V Er%RH	Humidity is out of 10% - 90% range or sensor failure. If sensor failure, contact factory for repair.
+0750V Chrg >= 60s	High Voltage charging has taken more than 60 seconds and has not yet reached at least 1050 volts. Make sure nothing is contacting the charge plate and the standoffs underneath are clean.
+1200V Adjust >= 60s	High Voltage has taken more than 60 seconds adjusting to 1050 volts. Make sure no source is contacting the charge plate to prevent adjustment. Check your ionizer for extreme imbalance.
+1020V Decay >= 200s	Voltage Decay for more than 200 seconds. Check your ionizer.
EEProm Fail	Contact factory.

M131X180