

Decoder Error Troubleshooting Chart



Weathermatic Tech Support
888-484-3776 option 1

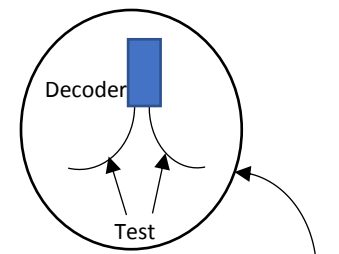
Does the SLMDM show a Fault Code (table below)?

No – Issue is not decoder related

Yes –
 (1) Disconnect the two-wire path
 (2) Program a spare decoder for the suspect zone
 (3) Connect decoder to spare valve and wire to controller
 (4) Turn on zone
 (5) Does the valve operate?

No – Controller is bad. Call Weathermatic tech support

Yes – Issue is in the decoder or wire path. Test with milliamp clamp meter.
 Watch:
<https://youtu.be/yX>



Test suspect decoder - Test each wire on the suspect decoder.
 Does the milliamps change by ~0.6 milliamps?

Yes – Decoder is good. Test wire path.

No – Decoder is bad. Replace decoder. (Code D1)

Fault Code	Description
E1	No decoder found
E2	Two-wire overcurrent
E3	Open circuit at solenoid
E4	Short circuit at solenoid
E5	Decoder communication error

Tools You Will Need
 (1) Spare SmartWire Decoder
 (1) Spare 24VAC valve or solenoid
 (1) Milliamp clamp meter with True RMS
 Spare SmartWire splace kits

Test wire path –
 Multiply the number of decoders on suspect wire leg by 0.6. This is the total which should be measured at the controller
 Reconnect the two-wire path
 Starting at the controller, measure milliamps one each wire separately.
 Is the total correct?

No – Continue down the wire path.
 Test millamps on each side of every splice.
 For each successive splice along wire path, total milliamps should drop by ~0.6.
 Keep moving through wire path until the total milliamps is correct.
 Once correct total is achieved, replace previous splice or wire section. (Code D2)

Yes – Restart troubleshooter

Important Notes:
 If the controller is blowing its fuse, DO NOT install larger fuse. To test two-wire path, disconnect the wire from the controller and use an external 12VDC battery to power the two-wire path in order to troubleshoot.

In the case where ALL decoders show short circuit to ground, check the resistance using an Ohm meter across the red and green or black and green wires of each SLGDT surge arrestor. Likely result of a lightning strike will show physical damage to the unit and/or ~0 Ohms resistance.

