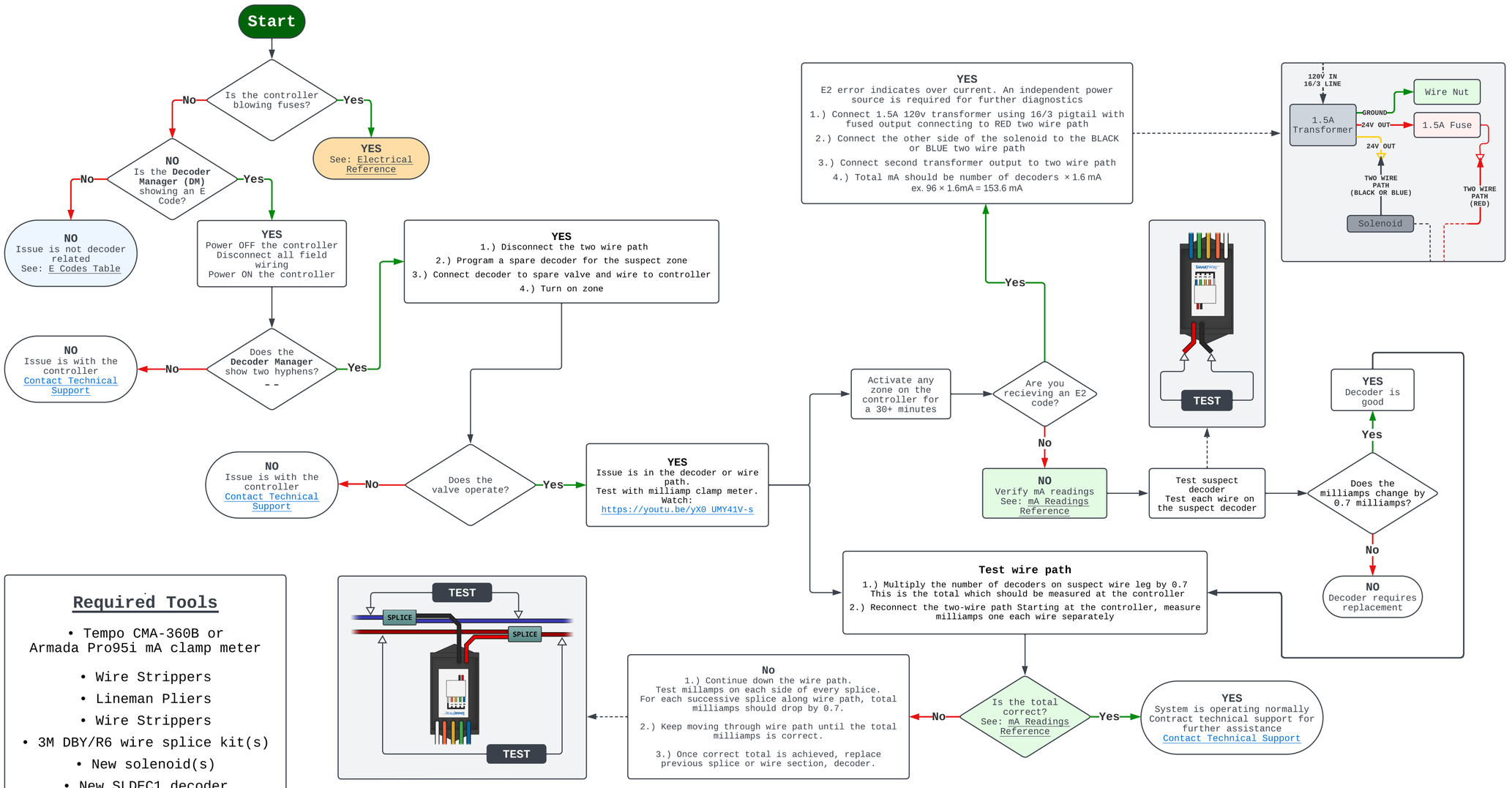
SmartWire Two Wire Troubleshooting Chart



Required Tools

- Tempo CMA-360B or Armada Pro95i mA clamp meter
- Wire Strippers
- Lineman Pliers
- Wire Strippers
- 3M DBY/R6 wire splice kit(s)
- New solenoid(s)
- New SLDEC1 decoder
- 1.5A 120v transformer with 16/3 pigtail

E Codes Table

E Code	Explanation
E1	No decoder found
E2	Two wire over current
E3	Open circuit at solenoid
E4	Short circuit at solenoid
E5	Decoder communicaiton error
E6	High temperature shutdown
E7	Decoder programming error

mA Readings Reference

To calculate mA draw

1.) Multiple number of idle decoders by 0.7 mA
2.) If an zone is active, add 35 mA
3.) If the system has an active master valve, add 35 mA

Measure from RED or BLACK wires connected to controller

NOTE:
mA draw is **per decoder**, not per zone

Example System Master valve installed, 96 zones installed, 1 active	
95 × Idle decoder	0.7mA × 95 idle decoders = 66.5 mA
1 × Active zone valve	35mA × 1 valve
1 × Active MV1	35mA × 1 valve
Total	136.5 mA

Type	Power Draw
Idle decoder	0.7 mA
Active master valve	35 mA
Active zone valve	35 mA

Electrical Reference

If the controller is blowing its fuse, DO NOT install a larger fuse. Disconnect the two wire path program a spare decoder for the suspect zone and connect decoder and spare valve to controller to verify proper controller operation.

In the case where ALL decoders show short circuit, 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.

Note that the acceptable AC voltage on the TW path will range from 32-38VAC. If it is less than 32VAC, power is being lost. If it is over 38VAC, there is too much power coming into the controller.

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