

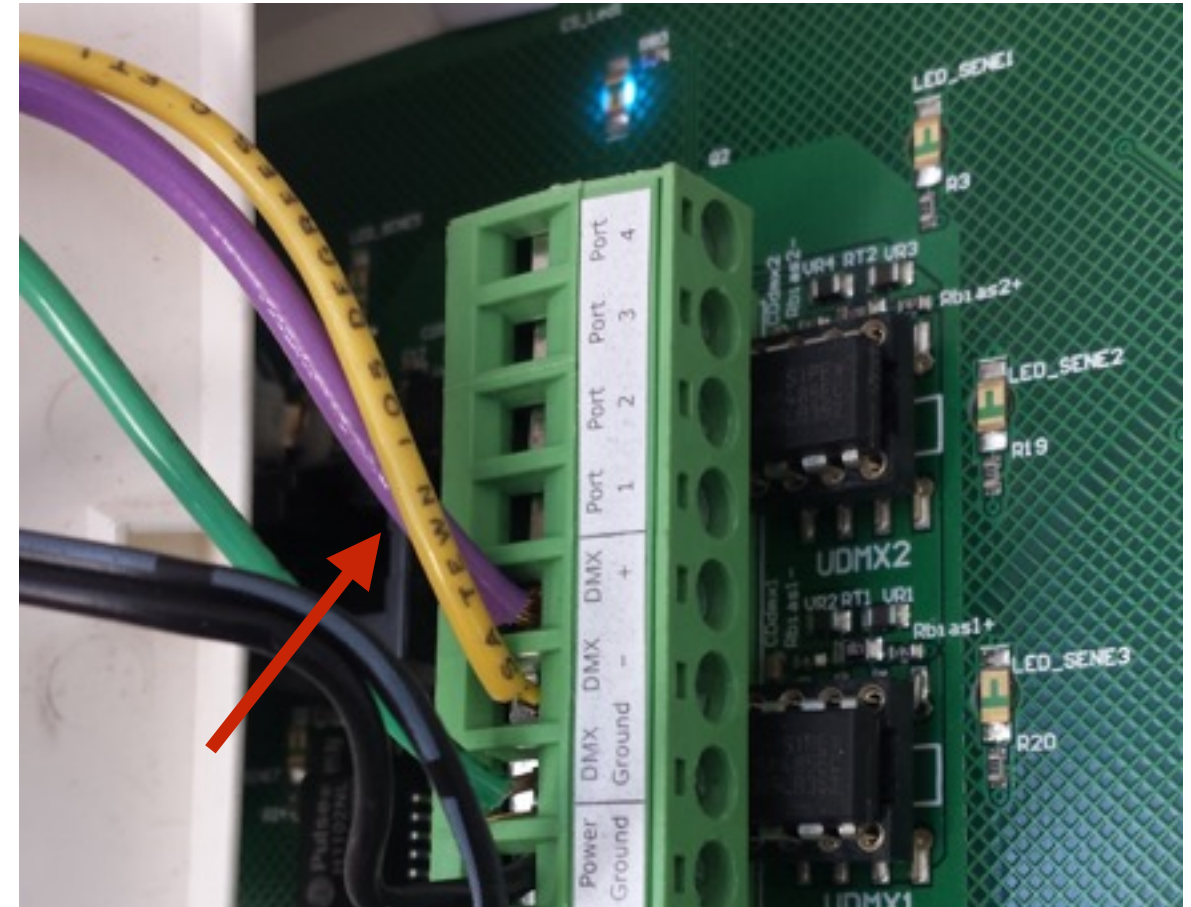
# Past SS2 DMX Issues

## Issue:

- DMX Wiring between controller and splitter - non-compatible wire type with USITT DMX512/A Standard
- Unknown termination location between 14/3 power cable and supplied Northwire DataCell 18/2 data cable coming into splitter enclosure

## Solution:

- Replaced with type: Northwire DataCell 18/2 Data Cable

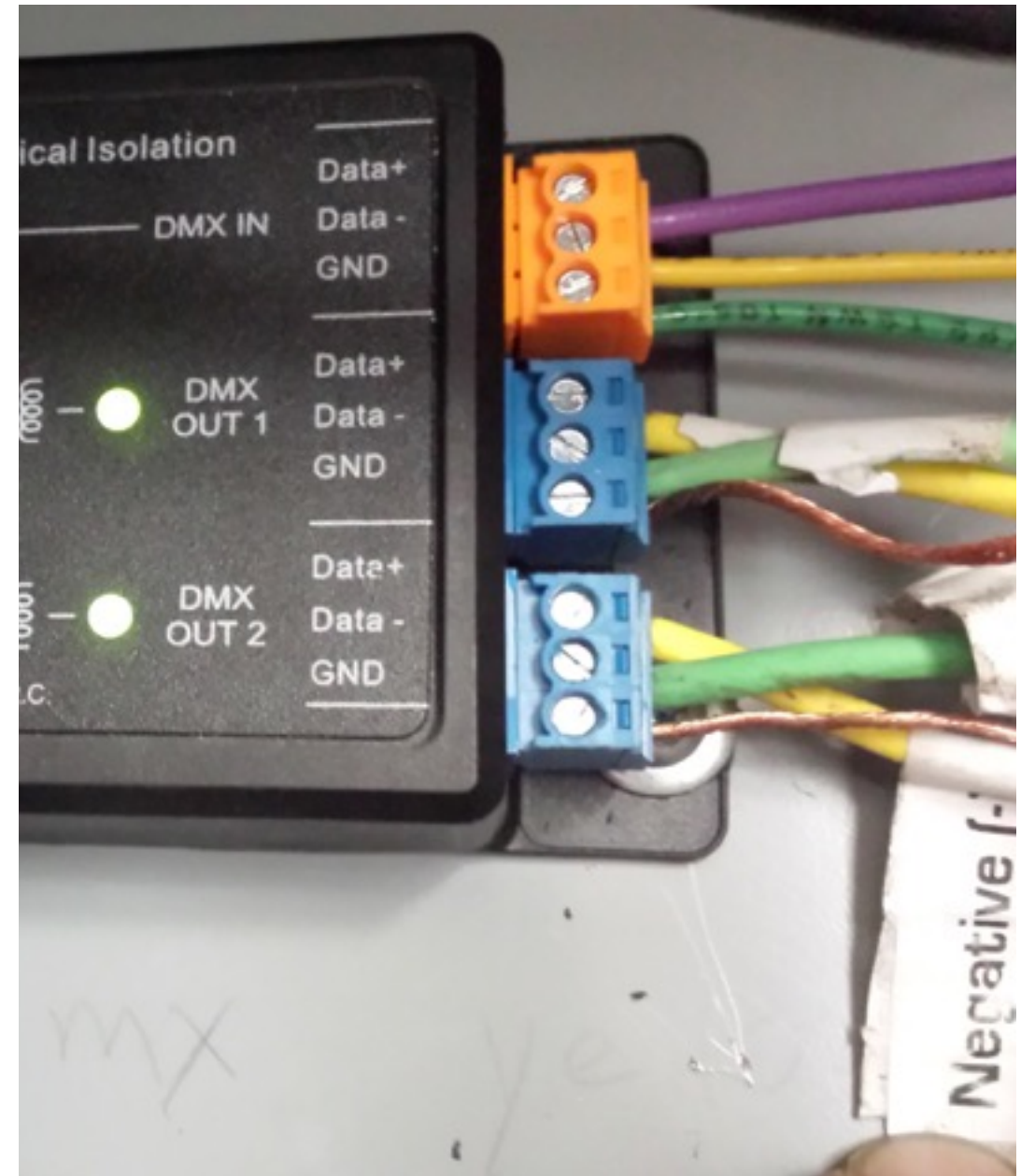


## Issue:

- Initial DMX output wiring has wrong polarity (green +, yellow -)

## Solution:

- Removed excess cable and properly terminated DMX output wiring





## Issue:

- Noted fixture would not respond to any set DMX address. Would output in "Slave Mode" starting on DMX address 1.

## Recommended Solution:

- Fixture was removed from DMX run
- Replace fixture and re-address to 13.





## Issue:

- DMX terminating resistor assembly - complete installation

## Recommended Solution:

- Fill with silicone for waterproofing and heat shrink assembly.

# Should more issues arise:

## Recommendation:

- Relocate controller to “chase” room. We believe that area has high levels of EMI from surrounding electrical infrastructure

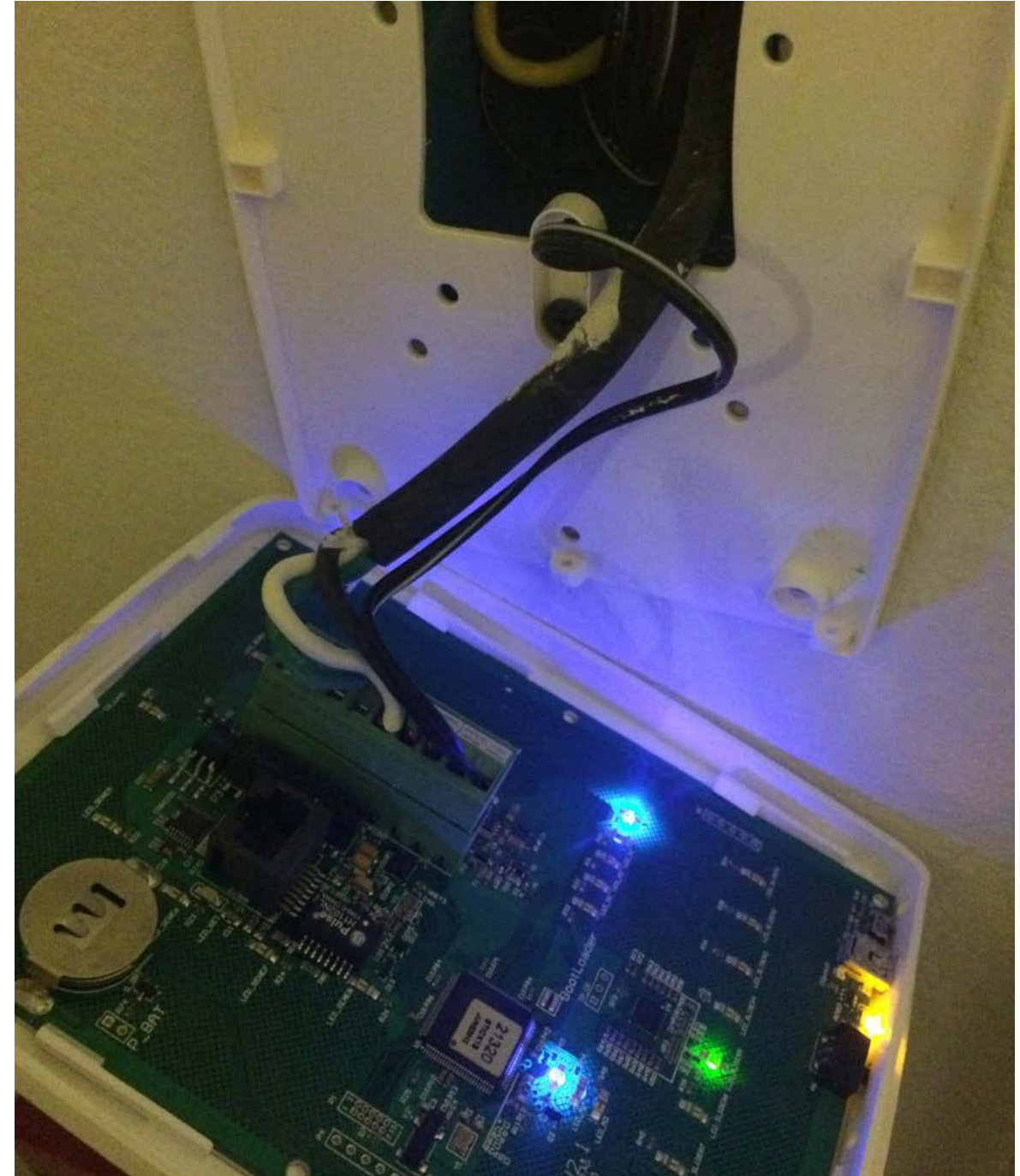


## Issue:

- Controller DMX output wiring is 14/3 power cable which is not DMX compatible

## Recommended Solution:

- Replace entire run with DMX compatible 120 ohm cable. Cat5e or better is a suitable alternative if inside metallic conduit. Color pinout would be as such:
  - White/Orange -> Data -
  - Orange -> Data +
  - Brown -> Data Ground



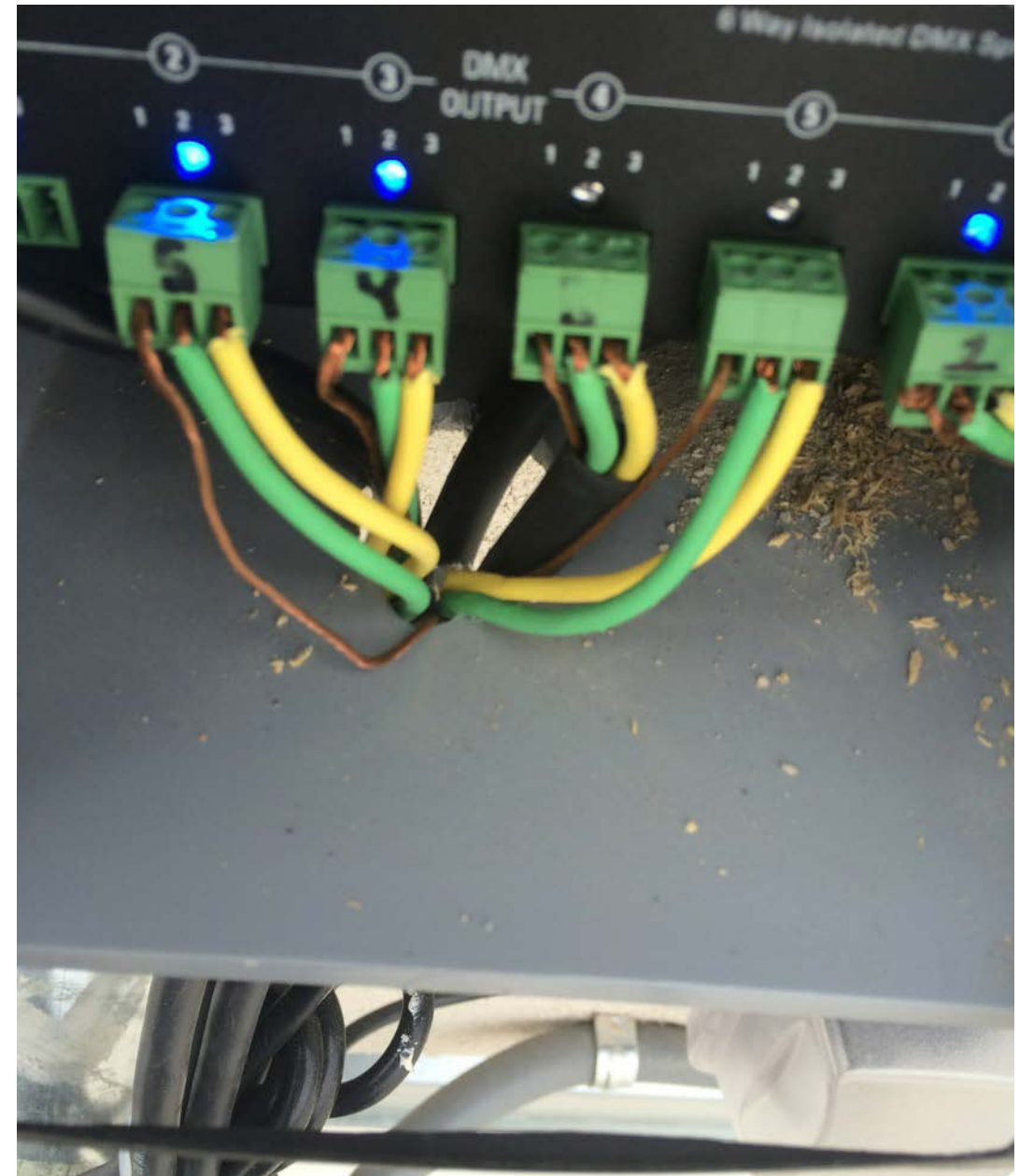


## Issue:

- Splitter enclosure has large hole in bottom where wires loosely feed into enclosure, possible moisture intrusion
- No cable strain relief, all weight of cables below are supported by Phoenix connectors
- Exposed copper shield wire and exposed copper in Phoenix connectors

## Recommended Solution:

- Replace enclosure with NEMA 4 rated enclosure
- Assuming individual cable runs, use water tight 1/2" cable grommet for each cable individually. Otherwise, run through conduit
- Use heat shrink for copper shield wires
- Ensure no copper wire is exposed when wiring into Phoenix connector

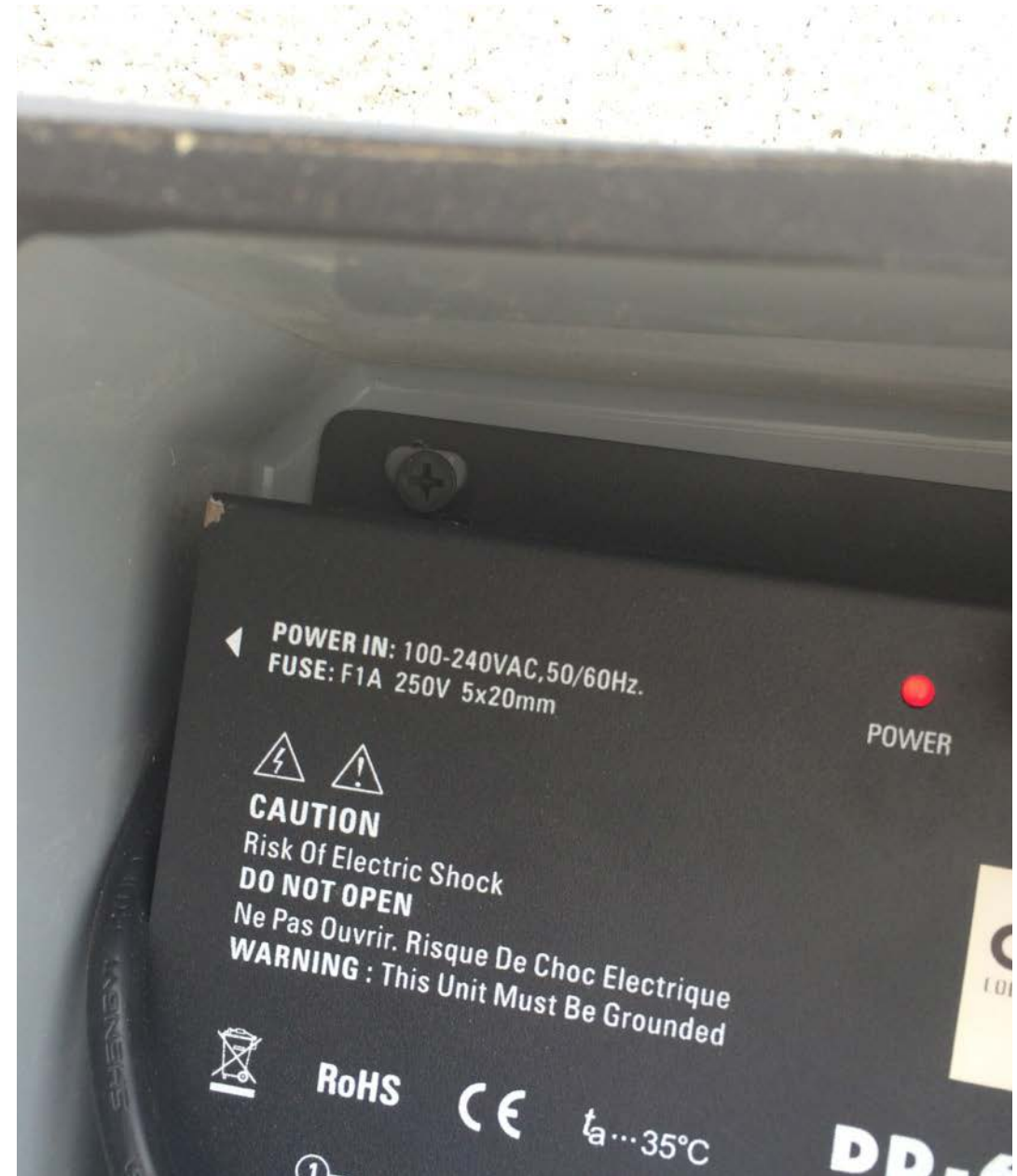


## Issue:

- Splitter mounted with drywall screws which penetrate through rear of enclosure

## Recommended Solution:

- Mount with alternative method to ensure moisture cannot enter enclosure

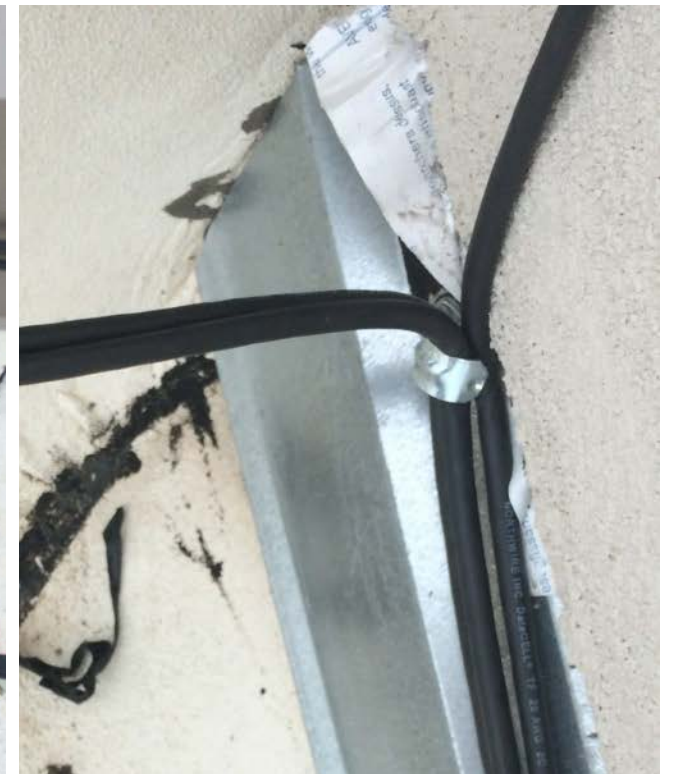


## Issue:

- Cable running along roof to right side is not fastened to structure
- Cable running along roof to left side is held too tightly against metal clamps. In the long term, cable jacket may become compromised or conductors could break

## Recommended Solution:

- Run all cabling in suitable sized conduit. With shielded wire such as the supplied Northwire DataCell 18/2, pvc would be acceptable. Should wire be switched out to Cat5e or better, EMT is recommended to aid in noise rejection and shielding
- Use clamps in parallel along wire run to avoid sharp 90° turns. Conduit preferred as it will have diameter bends.





## Issue:

- Metal single gang boxes on right side towers only and do not have adequate waterproofing nor cable grommets
- Two towers on left didn't have boxes and had electrical taped terminations.
- No service loop in case of termination failure

## Recommended Solution:

- Use 1/2" weather proof cable fittings to ensure water tight connection
- All terminations should be enclosed in a water tight enclosure

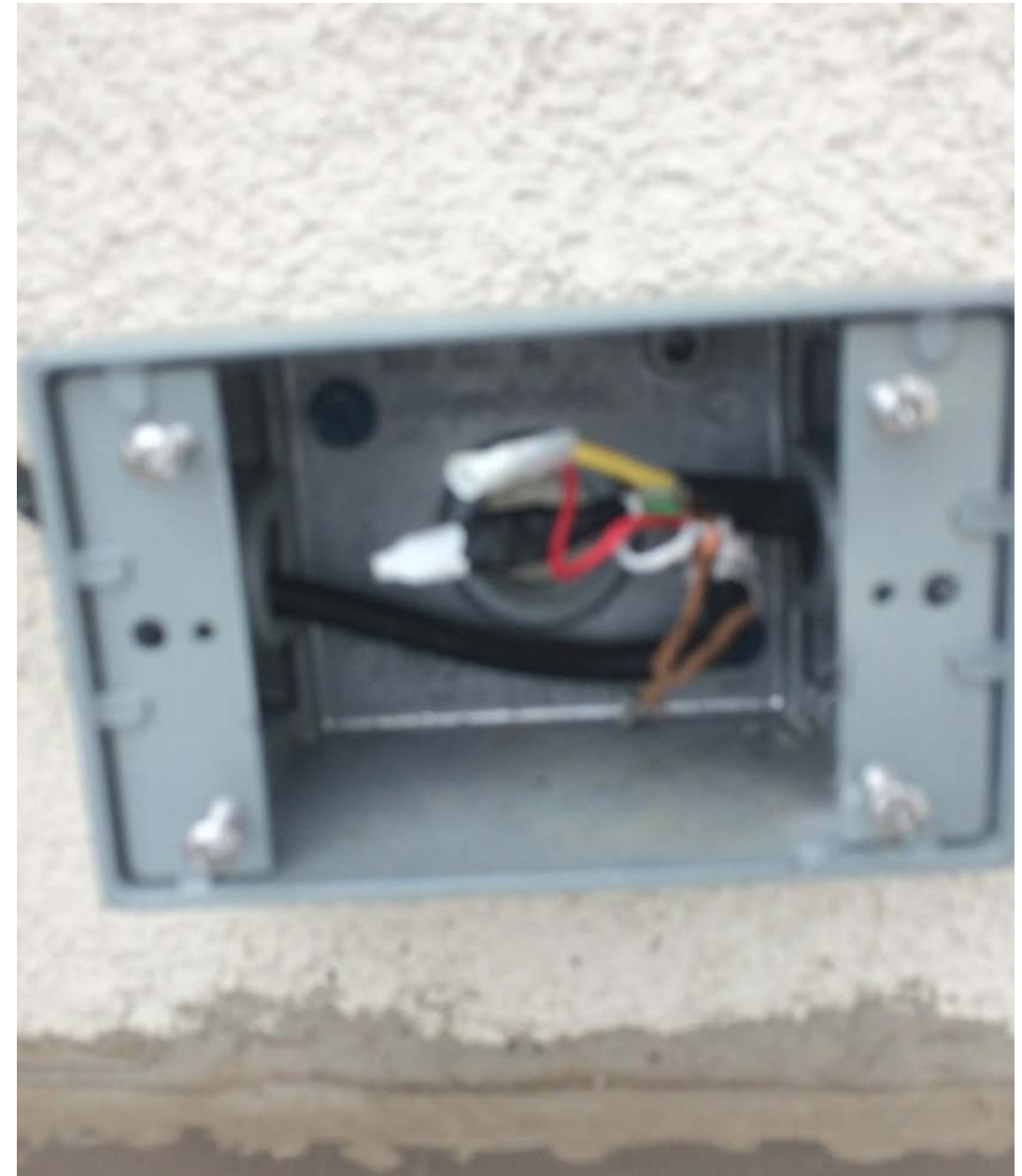


## Issue:

- Terminations used non-water tight crimp connectors
- Exposed copper shield wire
- Not enough cable to re-do termination

## Recommended Solution:

- Solder wires together and use heat shrink over terminations or use gel filled connectors
- Heat shrink copper shield wires
- Include approximately 6" of length of wire as service loop



## Issue:

- Some fixture runs looked to have more than 8 fixtures per power lead

## Recommended Solution:

- Ensure that there are no more than 8 fixtures per fixture power lead

