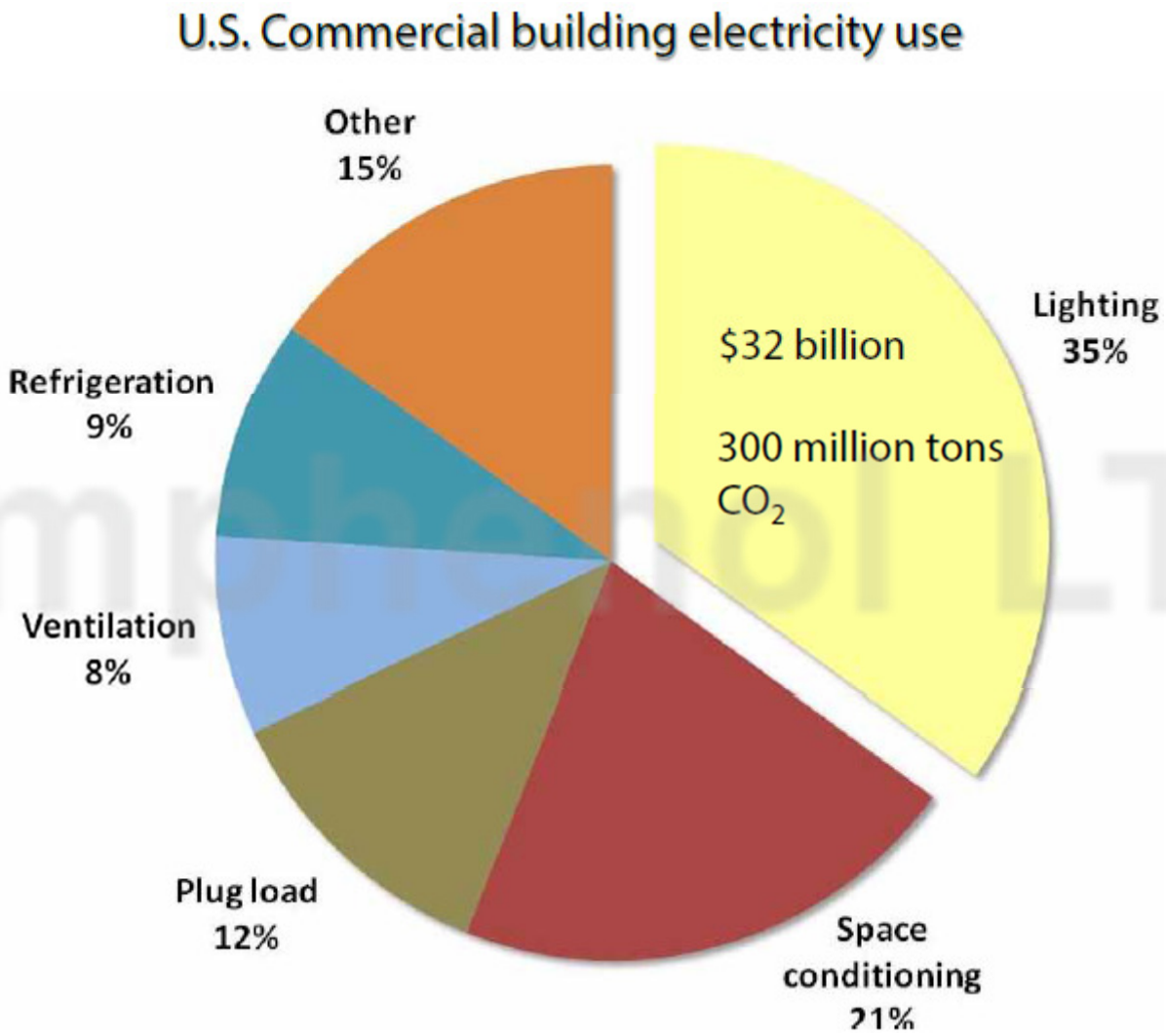
Intelligent Pre-Cabling Solution (IPCS)

By ALTW LED LOB

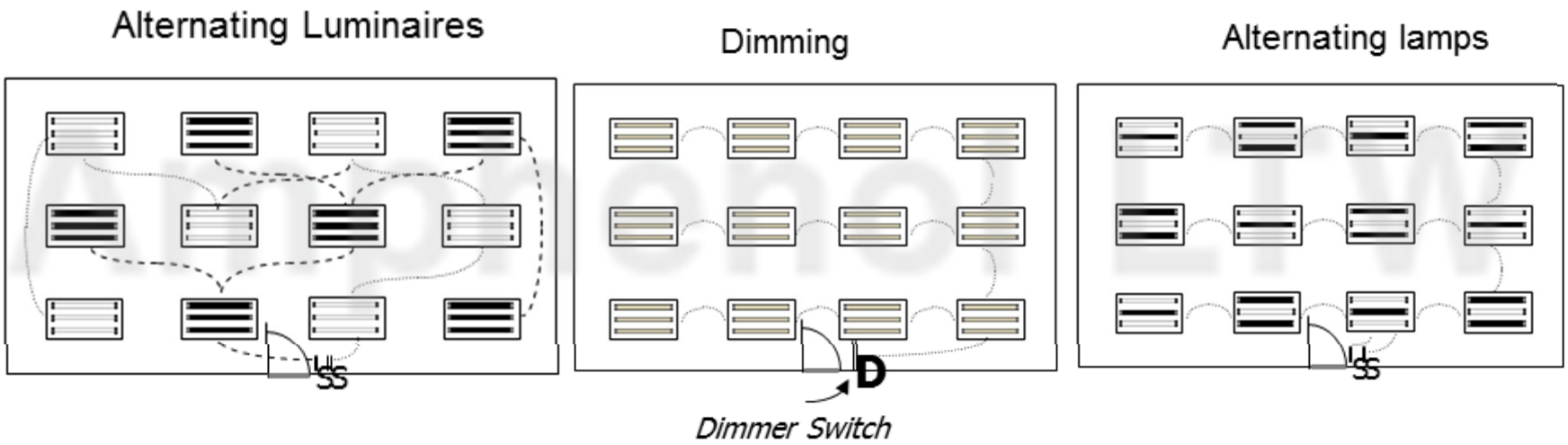
The Need For IPCS

The Need for IPCS | Why Lighting?



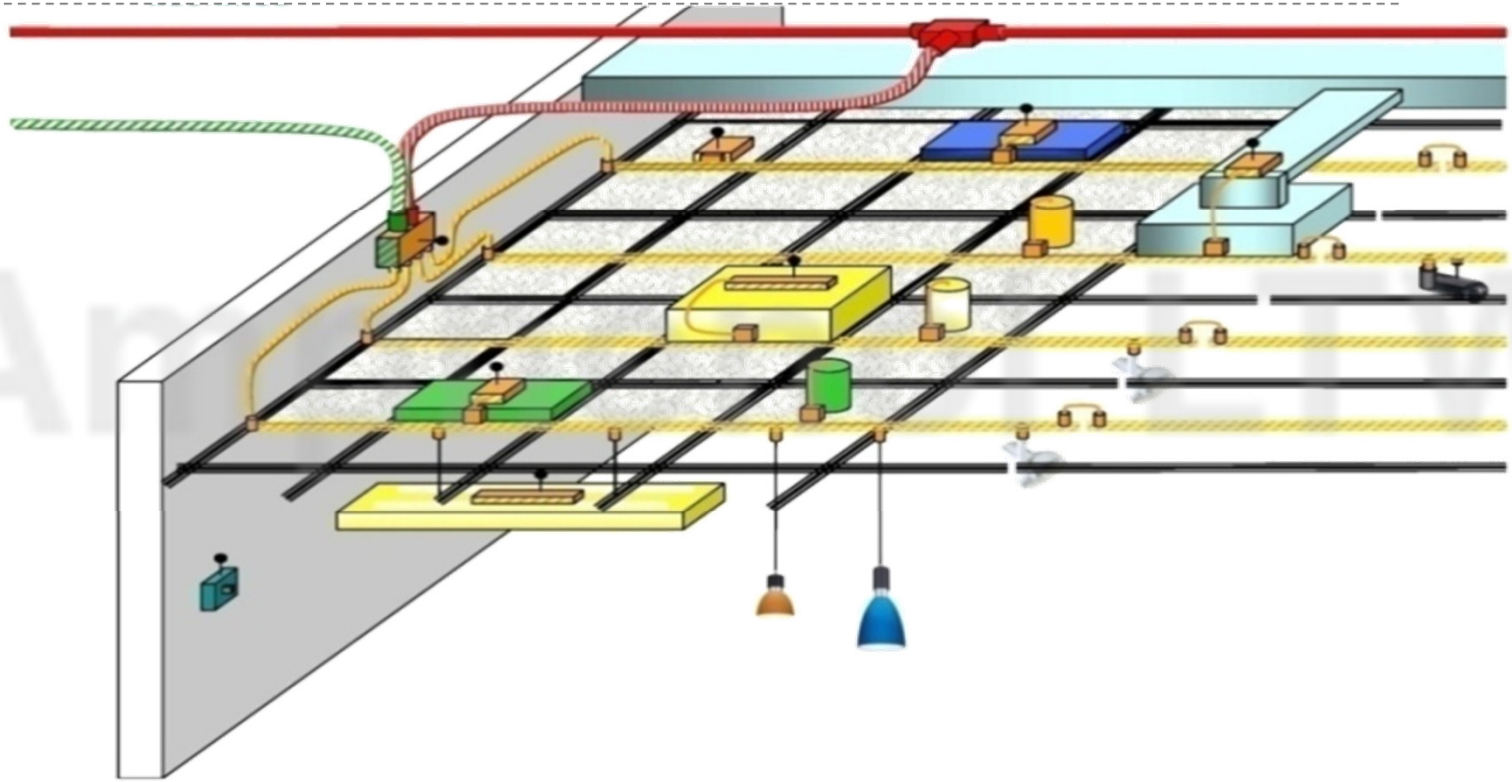
The Need for IPCS | Light Reduction Control Options

- To allow the occupant to reduce the connected lighting by at least 50% and in a reasonably uniform illumination pattern
- Controlling all lamps or luminaires
- Dual switching of alternate rows of luminaires, alternate luminaires or lamps
- Switching middle lamp luminaires independently from the outer lamps
- Each luminaire or each lamp

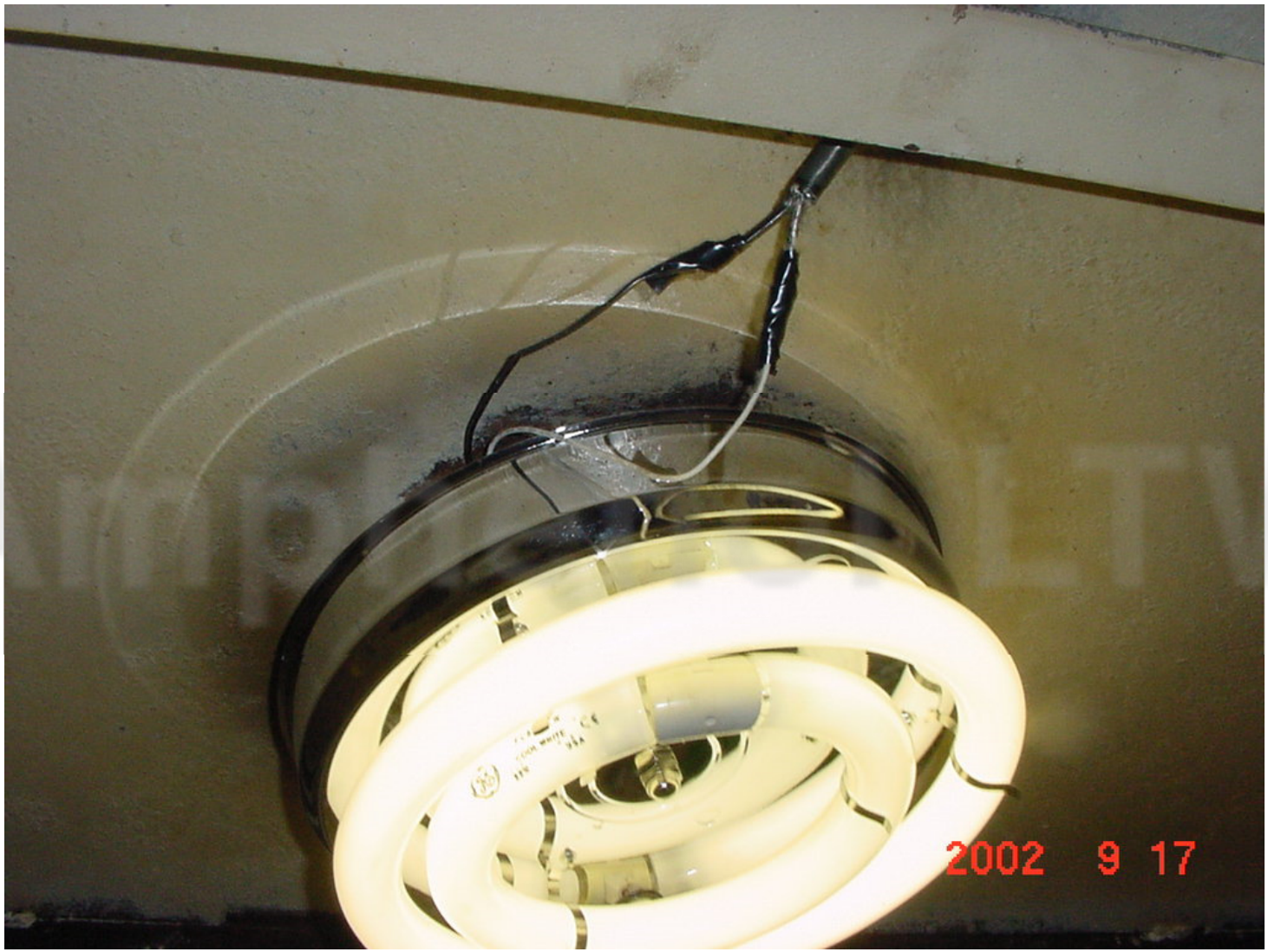


The Need of IPCS | Goals and Concept

- Distributes safe, low voltage DC power to lighting fixtures, sensors and other electrical devices
- Offers the ability to repurpose and reconfigure without rewiring
- Plug and play modularity
- Enables direct use of on-site renewable energy (like wind & solar)
- Helps accelerate use of LED lighting (Renewables and LED's are also DC-based)

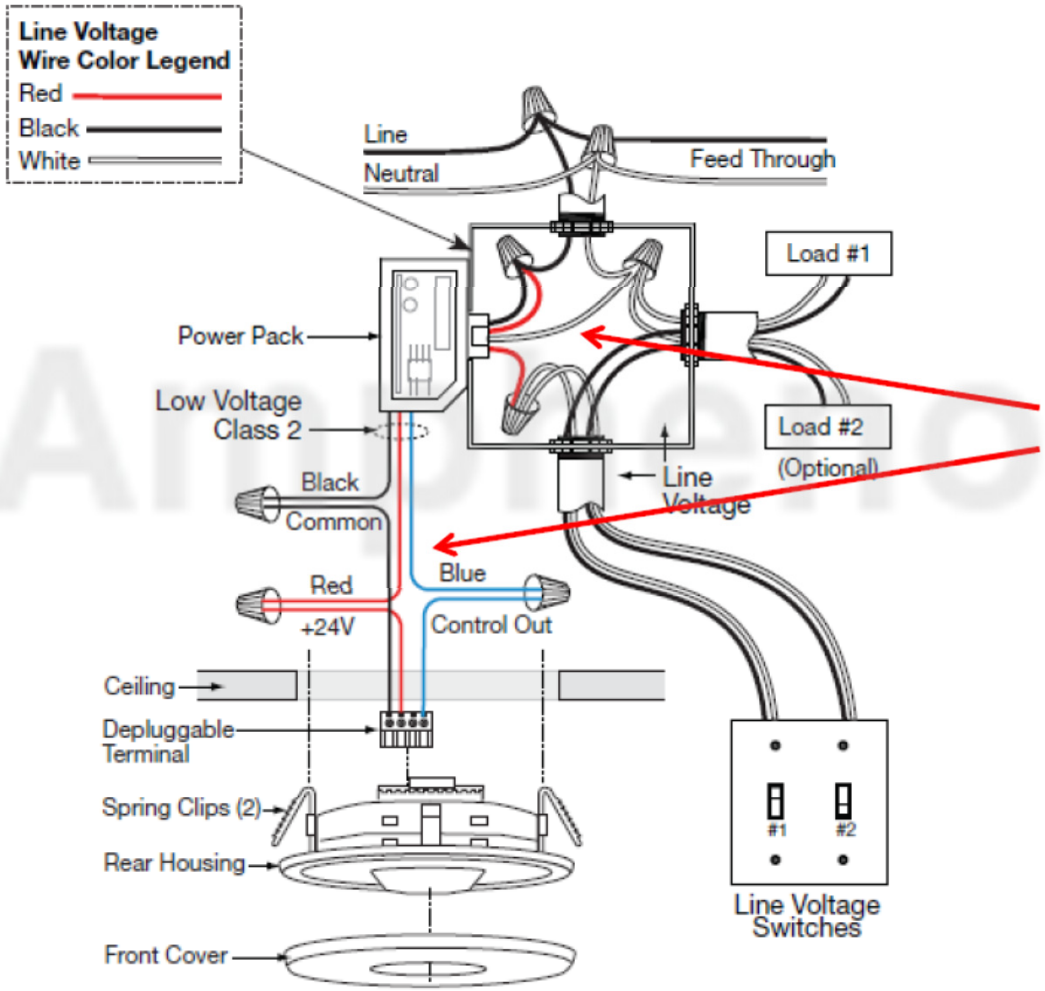


The Need for IPCS | Eliminate Bad and Unsafe Wiring



The Need for IPCS | Existing Buildings Are Messy

The Need for IPCS | Eliminate Increasing Wiring in New Controls



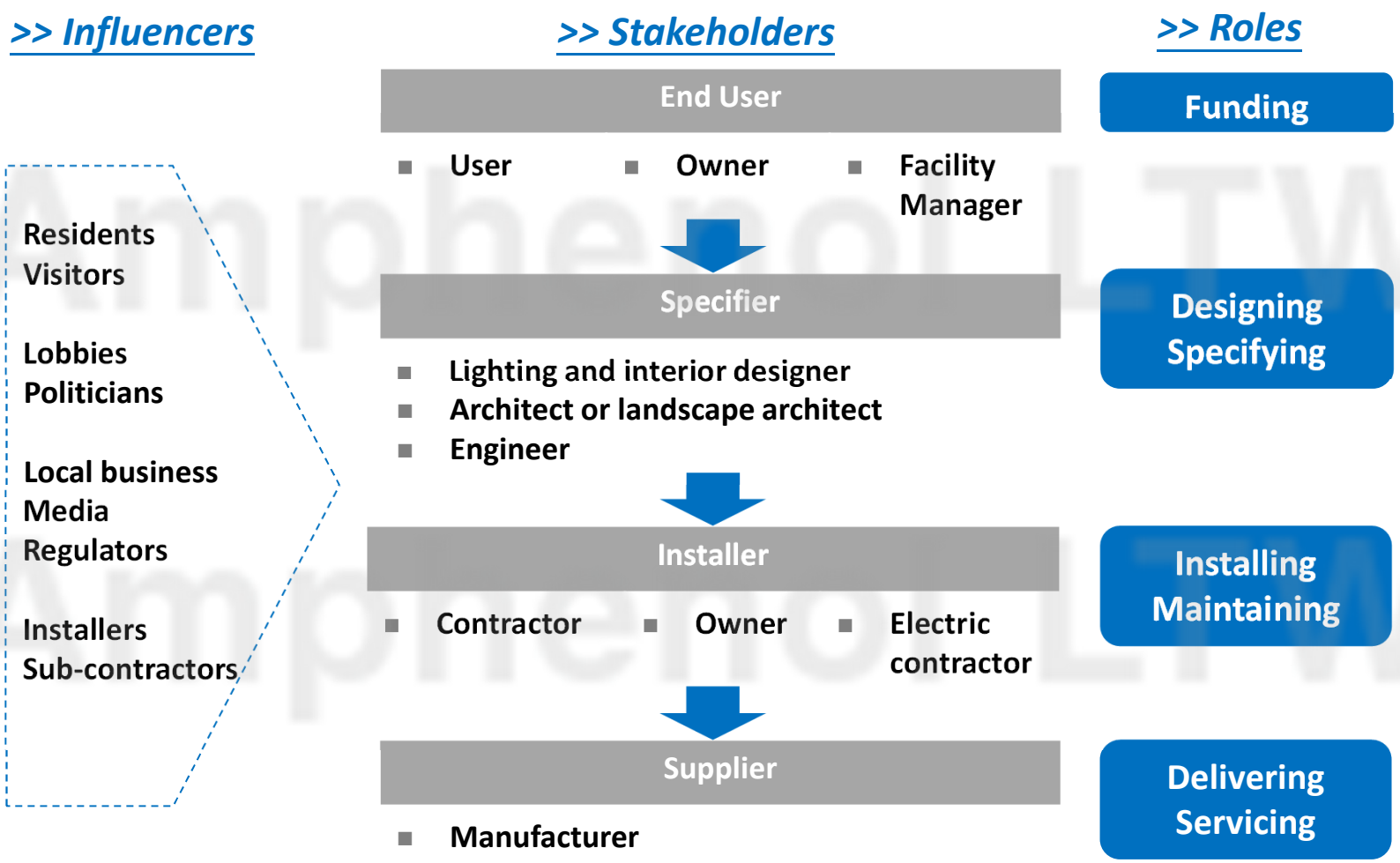
Wired controls: the more advanced the control, the more wires need to be connected

Source: WattStopper CI-305 Installation Manual

The Need for IPCS | Trends in Mandatory and Voluntary Codes

- Codes & standards are updating frequently and getting much stricter
- Lighting retrofits will trigger an update of the space to the latest energy code
- Lighting requirements are moving toward
  - Dimmable lighting everywhere
  - Control of lighting that was previously considered “okay” to leave completely uncontrolled during and after business hours
  - Different control strategies for different parts of the building
  - Demand responsive lighting systems
- Dramatic cost reductions as LED lighting technology matures
- LEDs are made to be dimmed
- Combining LEDs with dimmable controls plus simple electric cabling provides long-term energy savings and maintenance improvements

The Need for IPCS | All Can Benefit From It



Simple Topology
but
Limitless Possibilities

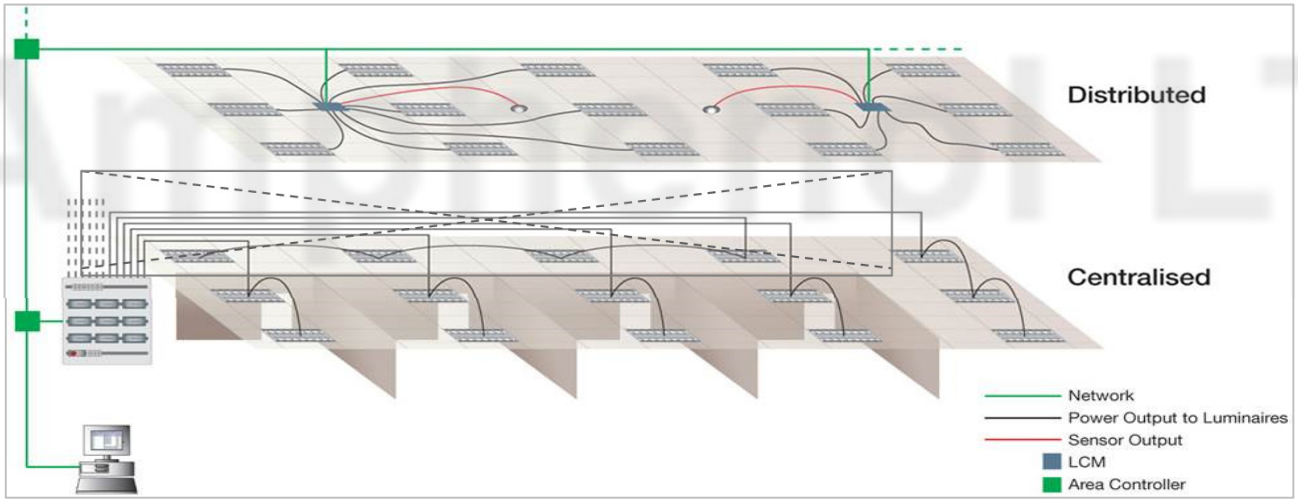
IPCS | Simple Topology but Limitless Possibilities

For Power, Data or Hybrid Applications

- Huge savings in installation time and cost
- Safe and protected
- Configurable as per request
- Beneficial to worker's safety and health
- Indoor or outdoor applications
- Flexible for power, data and hybrid applications
- Suitable for any connectors, cables, conduits and pipes, etc.

IPCS | Simple Topology but Limitless Possibilities

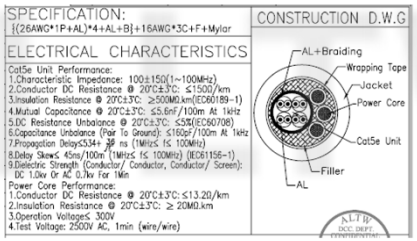
>> Innovation multi-topologies and multi-modal ready



By using ALTW's IPCS….

- Topologies: Centralized, distributed / Ceiling / Floor / Underground
- Multi mode / Hybrid lines
- Power / Hybrid / AV / Ethernet
- Coding

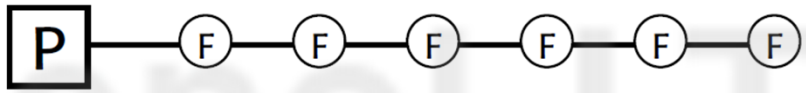
  - A color scheme simplifies installation: white for power, green for telecom, red for alarm, blue for data, and orange for control cables.



IPCS | Simple Topology but Limitless Possibilities

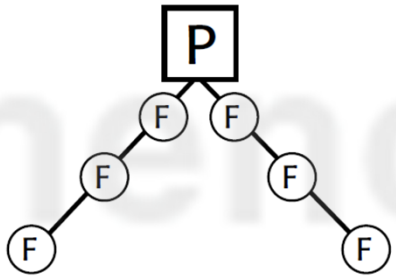
>> Series Installation (Daisy Chain)

- Most common



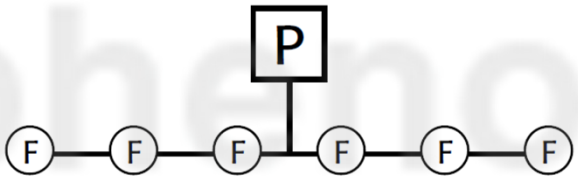
>> Split the Load

- Run up to the recommended maximum distance in two or more directions from the power supply



>> Tee Method

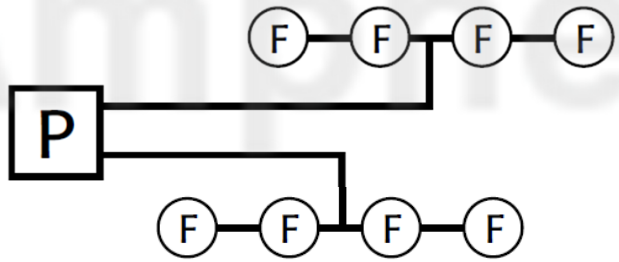
- Allows more even distribution of power to the center of a run



IPCS | Simple Topology but Limitless Possibilities

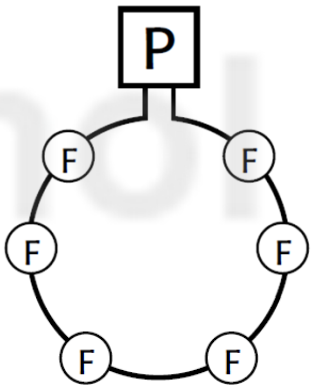
>> Split Tee

- Allows relative uniform distribution of power to both legs



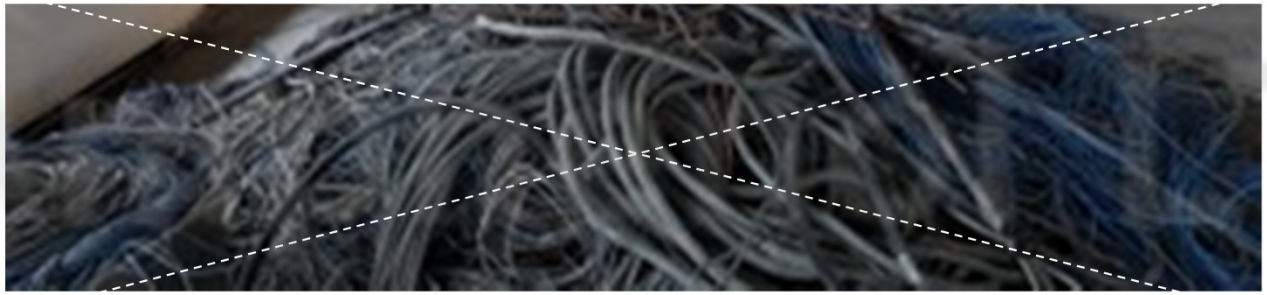
>> Loop Installation

- Allows for relative uniform light output



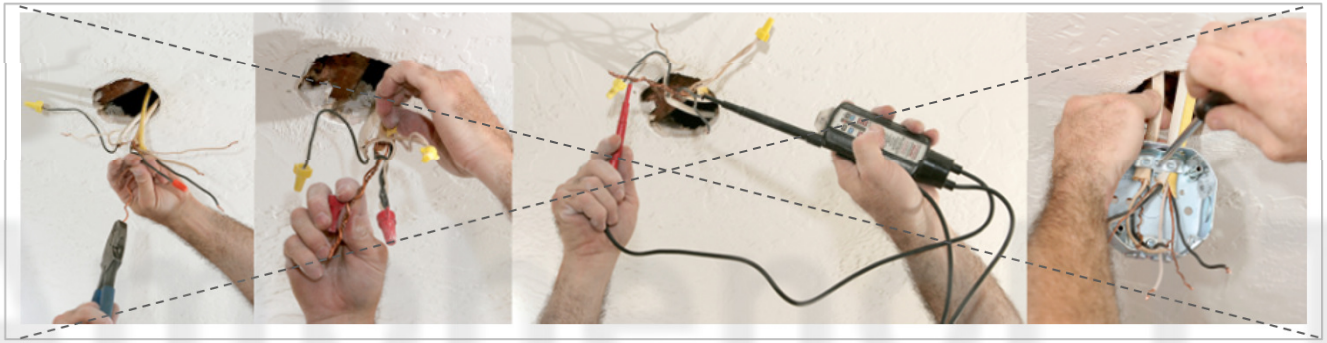
IPCS | Simple Topology but Limitless Possibilities

>> Safety & Aesthetics



- Strong protection against mechanical Damage
- Prevent dangerous electrical work
- Typical faults: short circuits, faulty earth wires, weak points in the insulation and faulty appliances

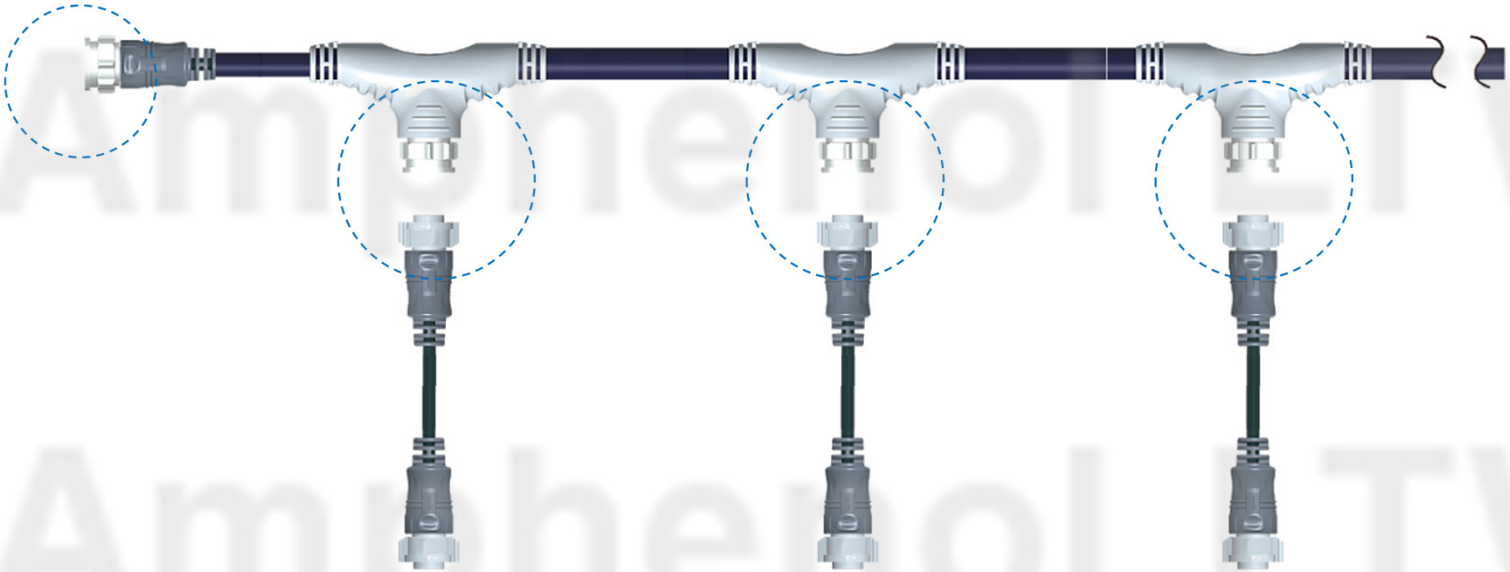
>> Save your labor cost largely



- Fast installation: pre-assembled systems, convenient reels, and smart packaging

IPCS | Simple Topology but Limitless Possibilities

For Large variety of customization



- Various connectors, X-Lok series, Circular series, power series, M sensor series..tec.
- Over-molding type from Y/T shape, double ended to curly cable harnesses
- Accommodates variable pitches / one cable with as many tees as requested

Power connector

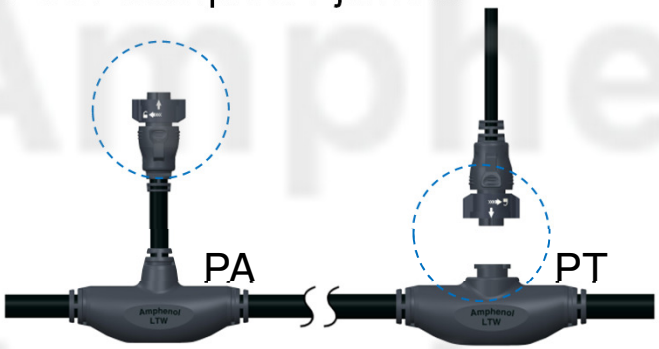
Sensor connector

X-Lok connector

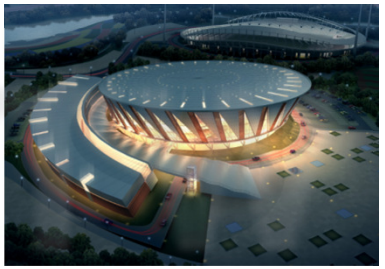
Circular connector

IPCS | For Outdoor Applications

>> Recommended
IPCS / waterproof T-junction



- Trunk cable with receptacle types (PT) / Trunk cable with over-molded cable types (PA) types available
- Black color
- Accessories:
  - Plastic & metal conduit
  - Plastic & metal tube
- Packing
  - Delivered on reel or spool
  - Easy to store, easy to unroll
- IP6X protection for various harsh environment
- Customization solution upon request



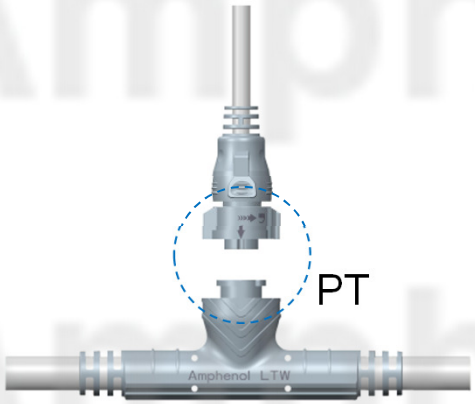
Application:
- Architecture Lighting

Bridge l Façade l Monument
- Outdoor Display

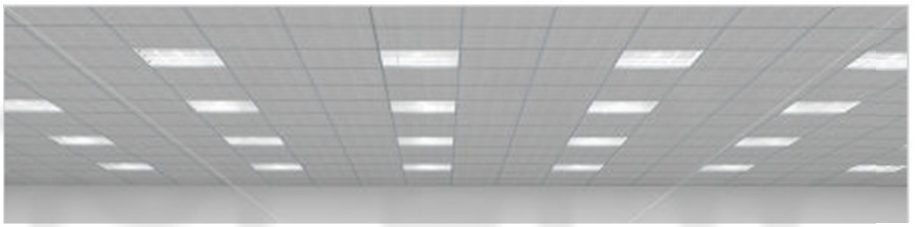
Entertainment l Advertisement
- Street Lighting / Tunnel Lighting
- Horticulture / Greenhouses

IPCS | For Indoor Applications

>> Recommended
IPCS / non-waterproof T-junction



- Trunk cable with receptacle types (PT) available
- White color
- Accessories:
  - Plastic & metal conduit
  - Plastic & metal tube
- Packing
  - Delivered on reel or spool
  - Easy to store, easy to unroll
- Customization solution upon request



Application:

- General Lighting
  Office I Hospitality I Retails I Assembly Line I Industrial Warehouse I Parking Garages

IPCS | Limitless Possibilities

IPCS | Benefits

- ✓ Simplified Design
- ✓ Increased Flexibility
- ✓ Maintenance Free
- ✓ Factory Fully Tested
- ✓ Minimize Labor Cost
- ✓ Eliminate Wastage
- ✓ Reduce Site Testing
- ✓ Accelerate Project and Program

Your Reliable Partner for Waterproof Products

Contact Us

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