



PROJECT:

PHONE (573) 882-1133

FAX (573) 882-1175

Date:

Automatic Transfer Switch Construction Checklist

| | |
|-----------|--|
| Project: | |
| Date: | |
| Building: | |
| Location: | |

Submittal / Approvals

Submittal. The above equipment and systems integral to them are complete and ready for functional testing. The checklist items are complete and have been checked off only by parties having direct knowledge of the event, as marked below, respective to each responsible contractor. This construction checklist is submitted for approval, subject to an attached list of outstanding items yet to be completed. A Statement of Correction will be submitted upon completion of any outstanding areas. None of the outstanding items preclude safe and reliable functional tests being performed. ☐ **List attached.**

| | | | |
|-----------------------|------|---------------------|------|
| | | | |
| Electrical Contractor | Date | Controls Contractor | Date |
| | | | |
| Other Party: | Date | General Contractor | Date |

Construction checklist items are to be completed as part of startup & initial checkout, preparatory to performing test procedures.

- This checklist does not take the place of the manufacturer's recommended checkout and startup procedures or report.
- If this form is not used for documenting, one of similar rigor shall be used.
- Contractors assigned responsibility for sections of the checklist shall be responsible to see that checklist items by their subcontractors are completed and checked off.

Approvals. This filled-out checklist has been reviewed. Its completion is approved with the exceptions noted below.

| | | | |
|-------------------------|------|------------------------|------|
| | | | |
| Commissioning Authority | Date | Owner's Representative | Date |



Construction Management

University of Missouri-Columbia

Planning, Design & Construction Campus Facilities

117 General Services Building
Columbia, MO 65211-3200

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| Panel Information | | | |
|--------------------|--|------------------------|---------------------|
| Panel Tag | | Panel Location | |
| System / Equip | | 208-120 or 480-277 | Normal or Emergency |
| Manufacturer | | Model Number | |
| Serial Number | | Short Circuit Capacity | |
| Volts/Phase Rating | | Amperage Rating | |
| Service Area | | | |
| Comments: | | | |

| Associated Checklists | | | |
|-----------------------|--------------------------|--------|--------------------------|
| Emergency Generator | <input type="checkbox"/> | Panels | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | | <input type="checkbox"/> |
| Comments: | | | |

| Requested documentation submitted | Rec'd | Comments |
|--|--------------------------|----------|
| Manufacturer's cut sheets | <input type="checkbox"/> | |
| Installation and startup manual and plan | <input type="checkbox"/> | |
| O&M manuals | <input type="checkbox"/> | |
| Factory test results | <input type="checkbox"/> | |
| Sequences and control strategies | <input type="checkbox"/> | |
| Warranty Certificate | <input type="checkbox"/> | |
| Comments: | | |

| Distribution Panel Enclosure/Cabinetry | | |
|---|--------------------------|---------|
| Check if Acceptable; Provide comment if unacceptable | NA | Comment |
| Equipment installed per manufacturer's instructions and specifications | <input type="checkbox"/> | |
| Equipment installed agrees with shop drawings and specifications | <input type="checkbox"/> | |
| Verify mounting, location and clearances are per plans and specifications | <input type="checkbox"/> | |



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| | | | |
|---|--------------------------|--------------------------|--|
| Inspect for physical, electrical and mechanical condition of equipment and cabinet. No damage evident | <input type="checkbox"/> | <input type="checkbox"/> | |
| Inspect panels and doors for proper fit and alignment | <input type="checkbox"/> | <input type="checkbox"/> | |
| Equipment labels permanently affixed | <input type="checkbox"/> | <input type="checkbox"/> | |
| Cabinet is clean and clear of dust or dirt | <input type="checkbox"/> | <input type="checkbox"/> | |
| Verify the application of manufacturer recommended torque values applied to bolted connections | <input type="checkbox"/> | <input type="checkbox"/> | |
| Seismic anchoring installed and functional where applicable (non-short circuiting) | <input type="checkbox"/> | <input type="checkbox"/> | |
| Alarm contact is properly installed and wired | <input type="checkbox"/> | <input type="checkbox"/> | |
| Communications cable installed and connected | <input type="checkbox"/> | <input type="checkbox"/> | |
| Protective relays properly installed and wired (frequency, over/under voltage) | <input type="checkbox"/> | <input type="checkbox"/> | |
| Emergency power control system installed, powered and diagnostics performed | <input type="checkbox"/> | <input type="checkbox"/> | |
| Inspect insulators, barriers and shields for damage or contamination | <input type="checkbox"/> | <input type="checkbox"/> | |
| Verify that enclosure is properly grounded and resistance to ground meets grounding specifications | <input type="checkbox"/> | <input type="checkbox"/> | |
| Metering installed, properly sized for desired voltage and amperage ranges and properly wired | <input type="checkbox"/> | <input type="checkbox"/> | |
| Inspect mechanical linkage or tie connections – operate switch manually | <input type="checkbox"/> | <input type="checkbox"/> | |
| By-pass switch operates correctly in all positions | <input type="checkbox"/> | <input type="checkbox"/> | |
| Verify phase relationships | <input type="checkbox"/> | <input type="checkbox"/> | |
| ATS is exercised in auto mode without line voltage or loads applied | <input type="checkbox"/> | <input type="checkbox"/> | |
| Megger test of switch current carrying components – phase to phase and phase to ground. Test voltage per manufacturer's recommendations | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | |

| Operational Checks | | | |
|--|--------------------------|--------------------------|---------|
| Check if Acceptable; Provide comment if unacceptable | NA | | Comment |
| Specified sequences of operation and operating schedules have been provided with all variations documented | <input type="checkbox"/> | <input type="checkbox"/> | |
| Specified point-to-point checks have been completed and documentation record submitted for this system | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | |

Sensor and Actuator Calibration

All field-installed sensors and gages, and all actuators (dampers and valves) on this piece of equipment shall be calibrated in accordance with Specification Section 01810. All test instruments shall have had a certified calibration within the last 12 months: **Y/N**_____. Sensors installed *in* the unit at the factory with calibration certification provided need not be field calibrated.



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| Sensor or Actuator Tag & Location | Location OK | 1 st Gage or BAS Value | Instrument Measured Value | Final Gage or BAS Value | Pass Y / N |
|--------------------------------------|----------------|--------------------------------------|------------------------------|----------------------------|---------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Comments:

*Fill out all form fields before signing!

Name Organization Title Signature

University of Missouri Commissioning Authority



(Place Digital Locking Stamp Here)