

PEARL Reconditioning Standards			
LOW VOLTAGE CIRCUIT BREAKER PANELBOARDS	Revision		
	Standard	Number	Date
	1310	5	11-2008

The term "reconditioning" is defined as "the process of returning electrical equipment to safe and reliable operating condition based on the design of the original manufacturer at the time of manufacturing."

REFERENCES

The following references are use in this standard. Each of these references can be found in their respective listed locations.

Table References: Section 6000

- Table 1: US Standard bus connection bolt torque values.
- Table 2: Insulation resistance and test values for electrical apparatus.
- Table 11: Insulation resistance and test temperature conversion to 20°C values.

I TEST EQUIPMENT

The following test equipment is required to perform the testing requirements of this reconditioning standard:

1. Insulation Resistance Test Set (Megohmmeter) 1000 Vdc minimum

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II RECONDITION EVALUATION

These steps are used to determine what will be required to recondition this product under this standard.

1 INSPECTION

1.1 Frame/Enclosure

- 1.1.1 Ensure that the nameplate/label data is legible.
- 1.1.2 Ensure that the third party listing service label is legible.
- 1.1.3 Inspect the overall frame for missing screws, bolts, nuts, fasteners, retainers and keepers.
- 1.1.4 Inspect for unused openings.
- 1.1.5 Inspect for improper covers.
- 1.1.6 Inspect for rust and corrosion.
- 1.1.7 Record results on an approved PEARL Evaluation Form.

1.2 Phase Bus

- 1.2.1 Inspect for signs of overheating.
- 1.2.2 Inspect for rust and corrosion.
- 1.2.3 Inspect for missing and defective parts.
- 1.2.4 Inspect insulation structure for signs of overheating and deterioration.
- 1.2.5 Inspect for loose connections.
- 1.2.6 Record results on an approved PEARL Evaluation Form.

1.3 Neutral Bus

- 1.3.1 Inspect for signs of overheating.
- 1.3.2 Inspect for rust and corrosion.
- 1.3.3 Inspect for missing and defective parts.
- 1.3.4 Inspect for loose connections.
- 1.3.5 Record results on an approved PEARL Evaluation Form.

1.4 Ground Bus

- 1.4.1 Inspect for signs of overheating.
- 1.4.2 Inspect for rust and corrosion.
- 1.4.3 Inspect for missing and defective parts.
- 1.4.4 Inspect for loose connections.
- 1.4.5 Record results on an approved PEARL Evaluation Form.

1.5 Bus Support

- 1.5.1 Inspect for signs of overheating.
- 1.5.2 Inspect for signs of deterioration.
- 1.5.3 Inspect for chips, cracks, and broken insulators.
- 1.5.4 Record results on an approved PEARL Evaluation Form.

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1.6 Control Circuits

- 1.6.1** Inspect for signs of deterioration.
- 1.6.2** Inspect for signs of overheating.
- 1.6.3** Inspect for loose connections.
- 1.6.4** Check all interconnecting wiring terminal blocks.
- 1.6.5** Record results on an approved PEARL Evaluation Form.

1.7 Interlocks

- 1.7.1** Check all cabinets for interlock function.
- 1.7.2** Check all Kirk key systems, if applicable.
- 1.7.3** Record results on an approved PEARL Evaluation Form.

2 TESTING

2.1 Insulation Resistance

- 2.1.1** Perform an insulation resistance test at test values specified in Table 2 of Section 6000 as follows:
 - 2.1.1.1** Phase to ground
 - 2.1.1.2** Neutral to ground
 - 2.1.1.3** Phase to neutral
 - 2.1.1.4** Phase to phase
- 2.1.2** Correct for temperature, if necessary (Table 11).
- 2.1.3** Record results on an approved PEARL Evaluation Form.
- 2.1.4** Compare test results to manufacturer's recommendations or Table 2 of Section 6000.

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III RECONDITIONING PROCEDURES

The following procedures are in a recommended order and are required to recondition this product. PEARL recognizes that, based on actual product design and as found condition, some of these procedures may not be applicable. The testing requirement must be completed before the product can be labeled as a PEARL reconditioned product.

1 RECONDITIONING

1.1 Frame/Enclosure

1.1.1 Disassemble to clean.

1.1.2 Clean all parts of contamination and corrosion.

1.1.3 Prepare the frame/enclosure to paint, as necessary.

1.1.4 Paint frame/enclosure.

1.2 Missing or Defective Components, Parts and Hardware

1.2.1 Replace or repair any missing or defective components, parts and hardware found during the inspection phase of this standard.

1.3 Phase Bus

1.3.1 Ensure that all bus connection points are clean.

1.3.2 Replate connection points or bus (silver or tin, depending on the application).

1.4 Neutral Bus

1.4.1 Ensure that all bus connection points are clean.

1.4.2 Replate connection points or bus (silver or tin, depending on the application).

1.5 Ground Bus

1.5.1 Ensure that all bus connection points are clean.

1.6 Lubrication

1.6.1 Lubricate hinges.

1.7 Torque

1.7.1 Check all screw and bolt connections for the proper torque per manufacturer's recommendations or Table 1 of Section 6000.

1.7.2 Record results on an approved PEARL Reconditioning Test Form.

1.8 Final Assembly

1.8.1 Ensure that the frame is plumb and square.

1.8.2 Cover any unused openings.

1.8.3 Ensure that the nameplate/label data is complete, correct and legible.

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2 TESTING

2.2 Insulation Resistance

2.2.1 Perform an insulation resistance test at test values specified in Table 2 of Section 6000 as follows:

2.2.1.1 Phase to ground

2.2.1.2 Neutral to ground

2.2.1.3 Phase to neutral

2.2.1.4 Phase to phase

2.2.2 Correct for temperature, if necessary (Table 11).

2.2.3 Record results on an approved PEARL Reconditioning Test Form.

2.2.4 Compare test results to manufacturer's recommendations or Table 2 of Section 6000.

2.2.5 The test results must be within the guidelines recommended in order for the product to become a PEARL labeled product.

IV PEARL CERTIFICATION

This product has now been reconditioned under the PEARL Reconditioning Standard. The blue PEARL Reconditioning Quality Seal may now be placed on the device.