PowerGATE™ ReadySwitch
400 Amp Transfer Switch and Inlet Panel

- A cost effective way to prepare your business facility for a power outage.
- cULus 1008 listed to ensure safety and reliability.
- Patent Pending Mechanical Interlock for safe connection
- Utility & Generator disconnects
- Hinged door with keylock entry
- Suitable for use as Service Equipment (US Only)
PowerGATE™ ReadySwitch

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Important:

This manual contains information critical to the proper installation and operation of the Lex Products PowerGATE™ ReadySwitch Panel. Be certain to read and understand all instructions prior to installation and operation.

Note: This manual is furnished exclusively to support installation and operation of the Lex Products PowerGATE ReadySwitch Panel. All concepts and ideas are the sole property of Lex Products and are not to be duplicated or utilized in any manner without written permission.
**Prior to Installation: Site Preparation**

Prepare installation site according to local codes.

The PowerGATE ReadySwitch is to be secured to a building using appropriate 3/8” fasteners (See Figure 1).

The surface where the PowerGATE ReadySwitch is to be secured must be capable of supporting the weight of the cabinet as well as the cables attached to it.

The following should be taken into consideration when locating the PowerGATE ReadySwitch:

- Identify and meet local codes and local Authority Having Jurisdiction (AHJ)
- The PowerGATE ReadySwitch is designed for exterior operation ONLY
- To prevent carbon monoxide poisoning from improperly ventilated generator emissions, the ReadySwitch must be mounted outdoors only. The mounting location is to be carefully selected to allow convenient connection to a generator and located a suitable distance away from any building openings or HVAC inlets.
- Proper clearance must be allowed in front of the PowerGATE ReadySwitch to allow for opening of access doors and attachment of externally connected cables. This distance should be no less than six (6) feet from the face of the panel.
- While keylock protection is provided, access by unauthorized personnel and vandals should be taken into consideration when locating this device.

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**Shipment: Unpacking and Inspection**

*Note:* Be careful in the use of sharp object when cutting packaging as scratching of outer coating may result in rusting.

Perform a visual inspection to ensure the door and handles are in functioning condition and that the panel integrity is intact.

**Determining Your Part Number**

Review Appendix F to verify part number, rating voltage, and amperage

**Figure 1: 400 AMP**

Rear view with mounting holes
Product Features

- Seamless gasket provides water & dust tight seal
- Ample contractor wiring room to accommodate wire bend radii
- Keylock entry prevents unauthorized access and operation
- Individual cable entry holes restrict access, reducing cable theft
- Industry standard Cam-type connections save crucial time in emergency situations
- Low profile enclosure is only 11 1/4 inches deep

*Any conduit penetrating the bottom must extend to the horizontal barrier

- Enclosure is cULus Listed Type 3R Rainproof*
- Keyed entry prevents unauthorized access and operation
- Cables drape straight down
- Dead-front panel prevents accidental contact with wiring chamber

*Any conduit penetrating the bottom must extend to the horizontal barrier

Contact Lex Products: 800.643.4460 info@lexproducts.com
Installation

The installation of the PowerGATE ReadySwitch should be carried out by qualified personnel in accordance with local electrical codes.

Step 1: Fasten the PowerGATE ReadySwitch to secure location

**NOTE:** The PowerGATE ReadySwitch weighs 252 lbs. without attached cables.

1. The panel should be located so there is adequate room for the externally connected cables to hang below the panel.
   A. Typically allow a minimum of 36” clearance from the bottom of the panel to finished ground level
2. Installation must be level and plumb to allow for proper drainage from PowerGATE ReadySwitch weep holes
3. Fastening onto an external wall using 3/8” fasteners must be completed prior to proceeding with any terminations (See Figure 1 for hole spacing)

Step 2: Installing the Conduit

**NOTE:** Conduit to enter through top or right/left side (No bottom feed - See Figure 5B)

**NOTE:** To maintain outdoor rating compliance for the enclosure, proper sealing procedures must be followed. This is to include, but not limited to, the use of proper gaskets.

**NOTE:** In order to prevent enclosure damage and to attain the enclosure requirements, the conduit must be aligned to prevent unnecessary stress on the enclosure walls.

1. Open up door to expose dead front panel
2. Unfasten the dead front panel by removing the hardware securing it (See Figure 5 and 5A)
3. Conduit to be sized according to cabling rating
   A. 400 Amp cable range #6-500MCM
4. It is recommended that a knockout punch be used to cut hole for conduit
   A. Place the punch on the inside of the enclosure and draw the punch through to the die on the outside.
5. Vacuum entire upper chamber to ensure no shavings are left behind.
MOLDED CASE SWITCH VERSION
WIRING CONNECTIONS

CIRCUIT BREAKER SWITCH VERSION
WIRING CONNECTIONS
NON SERVICE ENTRANCE USE

CIRCUIT BREAKER SWITCH VERSION
WIRING CONNECTIONS
SERVICE ENTRANCE USE
Installation – Initial Setup - Main Power

Step 1: Wiring the Main Terminals

⚠️ WARNING
Ensure circuit breakers are OFF and the transfer switch is locked out from utility power prior to connection.

Failure to install transfer switch will create the potential for the generator to energize utility lines and endanger utility personnel. Conversely, utility lines may energize the PowerGATE ReadySwitch and endanger generator personnel.

The PowerGATE ReadySwitch is for the connection to a main panel of a structure, with an option to switch to backup generator via a CAM-Type connection, such that the inlets are only energized from the generator.

1. Pull the cables to the PowerGATE ReadySwitch
2. First, strip and install the ground cable to the ground terminal block. NOTE: See figure 5a
3. Tighten terminal screws to 375 lb-in torque each. Fig 9 pg8
4. If metallic conduit is used, connect ground wire from ground bushing on conduit to the ground connection point in the bottom left quadrant of the panel.
   A. Ground conductor must be a minimum of 2 AWG
   NOTE: Conduit shall NOT be relied upon to provide grounding protection to tap box.
5. Continue to connect the neutral wire to the ground terminal block. (for service entrance rated models ONLY)
6. Verify the 3 phases of the service entrance.

⚠️ WARNING
Three phase power systems consist of three phase or hot conductors that are shifted by 120 degrees. Three phase loads such as motors may only work properly if the phases are connected in the correct order. Some motors may work when connected improperly, but will operate backwards. Utility power and electrical generators may be wired either in a clockwise or counter-clockwise order. It is important that any generator connected to the PowerGATE ReadySwitch is connected in the same rotation (clockwise or counter-clockwise) as the utility power.

7. Connect the 3 phases of the switch here
   A. MAIN TERMINAL
   B. BUILDING TERMINAL
8. Replace dead front panel and secure using hardware.

Step 2: Determine Phase Rotation

This information will be needed when connecting a generator.

1. Determine phase rotation of the utility power.
   A. Connect a phase rotation meter to a three phase power source in the building and record whether the building is wired clockwise or counter-clockwise
2. Apply the provided label (Figure 7) to the inside of the PowerGATE ReadySwitch on the inside of the cam connection chamber door. (Figure 8)

Figure 7

Figure 7A

Lex Products Part Number – LBL-PGIP-ROTATION

Figure 8

Lex Products Part Number – LBL-SERVICEDIS (Label only applicable for Service Entrance rated version of ReadySwitch)

Step 3: Complete a Safety Test

Do not attempt to use the PowerGATE ReadySwitch prior to installation and completing the Pre-Operation and Operation Checklist under Appendix A.
Step 4: Completing Set Up

1. Close utility and re-energize system.
2. After ensuring system power, close the door of the PowerGATE ReadySwitch.
3. Lock the door, marking the keys as appropriate.

Connecting A Portable Generator

Step 1: Review Pre-Operation Checklist under Appendix A prior to operation (page 10)

WARNING
DO NOT ATTEMPT CONNECTION WHILE CIRCUITS ARE LIVE
– Do not use cables if they appear frayed
– Do not use cable if connectors or plug do not seat properly
– Do not use cables if any copper cabling is exposed
– To limit risk of shock, disable generator automatic start to prevent unintended starting

Step 2: Determining phase rotation of generator

1. Disconnect generator from all loads if needed.
2. Connect a phase rotation meter to the output phases of the generator.
3. Record generator phase rotation. (clockwise or counter-clockwise)

Step 3: Making Cam Connections

1. Open the front door of the PowerGate ReadySwitch.
2. Ensure that the vermin door is un-obstructed and that the cable can flow freely through cable entry holes.
3. Complete the Ground (green) connections first by feeding the cable through the appropriate port, beginning with the closest from the door to the left.

Proper connection (See Figure 9):

A. Grasp connector jacket and firmly insert Cam connector into Cam plug.

Step 3: Close and secure chamber door, allowing cables to exit through cable ports at bottom

WARNING
Power MUST BE supplied from a single generator

Switching

1. To switch from MAIN power to BACKUP power:
   A. Portable generator must be connected prior to this step (see step 3.5 above)
   B. Start generator per manufacturer instructions
   C. Close main breaker on the generator
   D. Open the front door of the PowerGATE ReadySwitch.
   E. Turn the UTILITY BREAKER to OFF
   F. Turn backup breaker to ON.
   G. Close and lock chamber door, ensuring that all cables exit through the entry holes at the bottom.
Operation
2. To switch from BACKUP power to MAIN power
   A. Open the front door of the PowerGATE ReadySwitch
   B. Turn the backup breaker to OFF
   C. Turn the MAIN breaker to ON
   D. Close and lock chamber door, ensuring that all cables exit through the cable entry holes at the bottom.

3. Open the main breaker on the generator
4. Stop and turn off generator per manufacturer instructions

**WARNING**
DO NOT ATTEMPT TO DISCONNECT GENERATOR WHILE CIRCUITS ARE LIVE.

Disconnecting a Portable Generator
1. Open the front door of the PowerGate ReadySwitch
   A. To limit the risk of shock, disable generator automatic start to prevent unintended starting.

2. Disconnect the Phase (hot) connections, beginning with the furthest to the right
   Proper disconnection (See Figure 9):
   A. Grasp connector jacket firmly and rotate cam connector clockwise until it stops
   B. Firmly pull on connector until it separates from the plug
   C. Set aside

3. Continue with ALL Phase (hot) connections
4. Complete disconnect of ALL hot connections prior to proceeding
5. Disconnect the Neutral (white) connection
6. Disconnect the Ground (green) connection.

Step 4: Close and lock front door of the PowerGATE ReadySwitch.

Limited Warranty
When this PowerGATE ReadySwitch is installed and operated according to the manual’s instructions Lex Products will repair or replace any of its mechanical or electrical parts if they are found to be defective in material or workmanship within one year of the purchase date.

Maintenance
The PowerGATE ReadySwitch will require periodic maintenance. Lex Products recommends annual inspections to keep the panel in safe operating condition. Lex Products recommends that the Pre-Operation and Operation Checklist under Appendix A serve as a basis for annual inspection.

Technical Support
Lex Products technical services are available to assist in resolving issues by calling 1.855.LEX.1002 or emailing support@LexProducts.com. For any other information, please call Lex Products at 1.800.643.4460 or e-mail info@LexProducts.com.
Appendix A

Pre-Operation & Operation Checklist

1. Visual inspection of enclosure
   - Ensure the PowerGATE ReadySwitch is firmly secured to the building
   - Review conduit connection for signs of leakage
   - Ensure enclosure is intact with no signs of cracking

2. Open the front door of the PowerGATE ReadySwitch
   - Ensure the chamber is dry and free of debris
   - Ensure the vermin door is un-obstructed and that cable can flow freely through cable entry holes
   - Ensure that gaskets are pliable and no cracking exists
   - Ensure that door hinges are secure and lubricated
   - Ensure that hasps are intact and operational

3. Inspect all portable cables
   - Do not use cables if they appear frayed
   - Do not use cable if connectors or plug do not seat properly
   - Do not use cables if any copper wiring is exposed

4. Lex Products technical services are available to assist in resolving issues. If you have any questions or need technical advice or suggestions regarding this product, please contact Lex Products at 203-363-3738 or e-mail support@LexProducts.com

Appendix B

Initial Setup Safety Checklist

1. Ensure that all load terminals are securely fastened and that the set screws are set at 375lb.-in torque each

2. Ensure electrical connections are intact with no signs of corrosion or cracking

3. Review all safety labels and ensure that they are present and legible. See Appendix E for label nomenclature and location. Replace as needed

4. Ensure Phase rotation is correct
   - Verify Phase A of MAIN is PHASE A as labeled on the terminals of the input
   - Verify Phase B of MAIN is PHASE A as labeled on the terminals of the input
   - Verify Phase C of MAIN is PHASE A as labeled on the terminals of the input
   - Verify Phase A of BUILDING is PHASE A as labeled on the terminals of the input
   - Verify Phase B of BUILDING is PHASE A as labeled on the terminals of the input
   - Verify Phase C of BUILDING is PHASE A as labeled on the terminals of the input

Appendix C

Represented Model Numbers and Wire Range for ReadySwitch

Specific model numbers for 400 Amp Wye operation:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Wire Range</th>
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<tbody>
<tr>
<td>PIPM0400-C-AJ-GRXEE</td>
<td>#6-500MCM</td>
</tr>
<tr>
<td>PIPM0400-C-AJ-GOXEE</td>
<td>#6-500MCM</td>
</tr>
<tr>
<td>PIPM0400-C-AJ-GBXEE</td>
<td>#6-500MCM</td>
</tr>
<tr>
<td>PIPM0400-S-AJ-GRXFF</td>
<td>#6-500MCM</td>
</tr>
<tr>
<td>PIPM0400-S-AJ-GOXFF</td>
<td>#6-500MCM</td>
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<tr>
<td>PIPM0400-S-AJ-GBXFF</td>
<td>#6-500MCM</td>
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Appendix D

Labels for Replacement

Parts List

- Lex Products Part Number – LBL-PGIP-D2
- Lex Products Part Number – 10519-2-026

WARNING

AVERTISSEMENT

Verify the condition of the power source prior to manually transferring. Manual operation may result in out-of-phase transfer when both sources are energized. Vérifiez l'état de la source d'alimentation avant d'effectuer le transfert manuellement. Un fonctionnement manuel risquerait de causer un transfert hors phase lorsque les deux sources sont activées.

DANGER

Do not start the generator until all connectors are connected or made to be inaccessible. Any terminal may be energized when any cable is connected. Dé-énergisez cables at the generator prior to connecting or removing any connectors.

Ne pas mettre la génératrice en marche avant que tous les connecteurs soient connectés ou rendus inaccessibles. N'importe quelle borne peut être mise sous tension si un câble est raccordé. Débrancher les câbles à la génératrice avant de brancher ou de débrancher les connecteurs.
PowerGATE™ ReadySwitch

TRANSFER SWITCH AND INLET PANEL

Transfer Switch - This Device Will Not Automatically Transfer To An Alternative Source

Manual Transfer Switch

Lex Products Part Number – LBL-RDYSW-BUILDING

Lex Products Part Number – LBL-RDYSW-GGN

Lex Products Part Number – LBL-RDYSW-UTILITY

Lex Products Part Number – LBL-RDYSW-TSS

Appendix E

Warning Labels and Locations

10519-2-023

10519-2-024

10519-2-026
## Appendix F

### Service Entrance

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<th>Part Number</th>
<th>Description</th>
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<th>Environmental Rating</th>
<th>NEMA 3R</th>
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<tr>
<th>Input</th>
<th>(1) Set of (5) 16 Series Cam-type color coded panel mount inlets (Brown, Orange, Yellow)</th>
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<table>
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<tr>
<th>Output</th>
<th>Direct Wire</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Enclosure</th>
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<tr>
<th>Dimensions</th>
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<table>
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<tr>
<th>Approximate Weight</th>
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<tbody>
<tr>
<td>PIPM0400-C-C-AJ-GOXEE</td>
<td>400 Amp, 3 Phase, (H, H, H, N, G) 4 Pole, 5 Wire, 600 VAC Maximum</td>
<td>PIPM0400-S-S-AJ-GOXFF</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<thead>
<tr>
<th>Input</th>
<th>(1) Set of (5) 16 Series Cam-type color coded panel mount inlets (Black, Red, Blue)</th>
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<th>Output</th>
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