The LINDE Electronic Governor Type EG-203 is a modified, self-contained governor for 220-volt, 60-cycle service. All the material in Form 9256 applies to Governor Type EG-203 with one exception. There is no reversing switch built into Governor Type EG-203.

Refer to Figure 3, the schematic diagram, in Form 9256. Notice that the armature of the motor is connected to tube T101 through a reversing switch, SW102.

Now refer to Figure 1, below. Two changes have been made in the circuit. First, the reversing switch has been replaced by a reversing relay. Second, the contacts of an 'on-off' relay have been connected into the line leading from T101. Both of these components, the on-off relay and the reversing relay, are included in the auxiliary apparatus. They are not included in the governor itself. Leads are brought out to the relay contacts through a main terminal strip on the governor. Actual connections are shown in the circuit diagram, Figure 5 of this Appendix.

The pages that follow include a replacement parts list, keyed pictures, and a circuit diagram of governor Type EG-203.

* CIRCUIT ELEMENTS MARKED WITH AN ASTERISK ARE NOT PART OF THE GOVERNOR. THEY ARE INCLUDED IN AUXILIARY APPARATUS.

FIG. 1 — SCHEMATIC DIAGRAM REVISIONS
Replacement Parts List
FOR
"LINDE" ELECTRONIC GOVERNOR TYPE EG-203 PART NO. 38V45
HOW TO ORDER REPLACEMENT PARTS

1. Replacement parts can be identified on the keyed illustrations which follow this parts list. Each part bears a name and a number. The majority of parts also show in parentheses the symbol number (R-101, C-103) which identifies the part on the circuit diagram. When ordering parts from LINDE, order by part number and part name as given on the illustrations. DO NOT ORDER BY PART NUMBER ALONE, OR BY SYMBOL NUMBER.

2. Be sure that your order specifies the quantity of each part needed.

3. Always state the series of serial number of the governor on which the part is to be used. When available, list the governor symbol also. (This information appears on the governor nameplate.)

4. Indicate any special shipping instructions.

5. When ordering parts from LINDE, use the LINDE district office nearest you.

IMPORTANT: Almost all parts used in this governor are standard commercial parts. In an emergency you can order them from LINDE. However, it will save you time and money to purchase these parts from a local electronics outlet, or directly from the manufacturer. (Full descriptions of the parts are given in the list below.) When doing so, use the manufacturer's part number or designations. The LINDE part number is for use only when ordering from LINDE.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>SYMBOL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>05W41</td>
<td></td>
<td>Terminal Strip Mounting Plate</td>
</tr>
<tr>
<td>05W42</td>
<td></td>
<td>Front Panel</td>
</tr>
<tr>
<td>80W85</td>
<td></td>
<td>Grommet - 3/8-in. S.A.E. Std. Rubber</td>
</tr>
<tr>
<td>88W70</td>
<td></td>
<td>Connector - Steel City Electric Cat. No. 522 (3 used)</td>
</tr>
<tr>
<td>89W26</td>
<td>R-109</td>
<td>Resistor - BTA 100,000 Ohms, International Resistance Co.</td>
</tr>
<tr>
<td>90W24</td>
<td>F101, F102</td>
<td>Fuse - 5-Amp. Type 3AG (2 used)</td>
</tr>
<tr>
<td>92W11</td>
<td></td>
<td>Terminal Strip - H.B. Jones No. 4-141</td>
</tr>
<tr>
<td>92W28</td>
<td>TR102</td>
<td>Transformer - United Transformer Corp., No. FT-2</td>
</tr>
<tr>
<td>92W29</td>
<td></td>
<td>Socket - American Phenolic Corp. No. 78RS8 (2 used)</td>
</tr>
<tr>
<td>92W30</td>
<td></td>
<td>Socket - Johnson No. 123-208B</td>
</tr>
<tr>
<td>92W31</td>
<td></td>
<td>Tube Clip - National Radio Products Type 12</td>
</tr>
<tr>
<td>92W32</td>
<td>SR101, SR102</td>
<td>Rectifier - Federal Selenium Rectifier No. 1021 500 MA (2 used)</td>
</tr>
<tr>
<td>92W33</td>
<td>Bias Battery</td>
<td>EVEREADY Battery 4-1/2 V. No. 781</td>
</tr>
<tr>
<td>92W34</td>
<td>R101</td>
<td>Resistor - BTA 56,000 Ohms, International Resistance Co.</td>
</tr>
<tr>
<td>92W35</td>
<td>R104</td>
<td>Resistor - BTA 510,000 Ohms, International Resistance Co.</td>
</tr>
<tr>
<td>92W36</td>
<td>R103</td>
<td>Resistor - BTA 1,100,000 Ohms, International Resistance Co.</td>
</tr>
<tr>
<td>92W38</td>
<td>R102</td>
<td>Resistor - Ohmite &quot;Brown Devil&quot; 10 Watt - 1 Ohm</td>
</tr>
<tr>
<td>92W39</td>
<td>C102</td>
<td>Condenser - Dubler PTE 6DS 0.005 Mfd 600 WDC</td>
</tr>
<tr>
<td>92W40</td>
<td>C101</td>
<td>Condenser - Cornell Dubler PTE 6SS 0.05 Mfd 600 WDC</td>
</tr>
<tr>
<td>92W41</td>
<td></td>
<td>Terminal Plate - Miller Mfg. Co. No. 450</td>
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<tr>
<td>92W42</td>
<td>TD101</td>
<td>Time Delay Relay - Amperite Co. No. 2N30</td>
</tr>
<tr>
<td>92W43</td>
<td>T101</td>
<td>Voltage Regulator Tube - RCA No. OC3VR105</td>
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<tr>
<td>92W44</td>
<td></td>
<td>Battery Clamp - Weston Part No. 72901</td>
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<tr>
<td>92W46</td>
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<td>Thyatron Tube - No. EL-C3J</td>
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<td>92W47</td>
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<td>Dial Plate - Mallory No. 369</td>
</tr>
<tr>
<td>92W53</td>
<td></td>
<td>Knob - Mallory No. 366</td>
</tr>
<tr>
<td>92W54</td>
<td>P101</td>
<td>Potentiometer - Ohmite 2 Watt, Type AB, Type U, Vendor Cat. No. CU-1041</td>
</tr>
<tr>
<td>92W77</td>
<td>S1</td>
<td>Meter - Weston Model No. 301 D.C. 0.01 Millimeter</td>
</tr>
<tr>
<td>93W25</td>
<td>R107</td>
<td>Resistor - BTA 100,000 Ohms - 5% Tolerance, International Resistance Co.</td>
</tr>
<tr>
<td>93W52</td>
<td>R106</td>
<td>Resistor - Ohmite 50 Watt, 100 Ohms No. 0555 with (2) Centering Washers</td>
</tr>
<tr>
<td>94W02</td>
<td></td>
<td>Terminal Strip - H.B. Jones No. 14-141</td>
</tr>
<tr>
<td>94W03</td>
<td>R105</td>
<td>Resistor - BT-2 5100 Ohms, International Resistance Co.</td>
</tr>
<tr>
<td>94W04</td>
<td></td>
<td>Lamp - GE 40 Watt, 120 Volt, Frosted</td>
</tr>
<tr>
<td>94W05</td>
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<td>Lamp Socket - Bryant No. 4063</td>
</tr>
<tr>
<td>94W07</td>
<td></td>
<td>Bottom Plate - Bud Radio Inc., No. 4689</td>
</tr>
<tr>
<td>94W08</td>
<td></td>
<td>Condenser - Mallory FP 346</td>
</tr>
<tr>
<td>94W09</td>
<td></td>
<td>Transformer - United Transformer Corp. No. CG-34</td>
</tr>
<tr>
<td>94W10</td>
<td></td>
<td>Condenser Socket - Mallory PS-6</td>
</tr>
<tr>
<td>D-28922</td>
<td>R108*</td>
<td>Resistor, Ohmite 300 Watt, 10 Ohms, &quot;Corrib&quot;</td>
</tr>
</tbody>
</table>

All circuit wiring is No. 16 AWG stranded type SR10 except filament leads on tube T101. These are type TW No. 12, stranded building code wire.

*Resistor R-108 is not included in the governor assembly, it is furnished as part of associated apparatus in the BMM-1 machine.

The terms "Eveready" and "Linde" are registered trade-marks of Union Carbide and Carbon Corporation.
FIG. 2 - ELECTRONIC GOVERNOR EG-203 - FRONT VIEW

- PANEL-05N42
- SWITCH 92W25 (SW-101)
- PILOT LIGHT-92W24 (PL-101)
- FUSE MOUNT-90W10
- FUSE-90W24 (F-101, F-102)
- METER-92W77 (ST)
- DIAL PLATE 92W63
- KNOB-92W65
- LAMP-94W04 [WL]
- SOCKET-94W05
- TUBE CLIP-92W31
- RESISTOR-93W52 (R-106)
- THYRATRON TUBE 92W46 SOCKET-92W30
- RESISTOR-92W38 (R-102)
- T-102 VR TUBE-92W43 SOCKET-92W29
- TIME DELAY RELAY-92W42 SOCKET-92W29
- CONDENSER-94W08 (C-103, C-104 & C-105)
- SOCKET-94W06
- CONNECTOR-88W70
- BOTTOM PLATE-94W07
- BATTERY-92W33 (BIAS BATTERY)
- CLAMP-92W44

FIG. 3 - ELECTRONIC GOVERNOR EG-203 - REAR VIEW
NOTES:
(1) RESISTORS, CONDENSERS ETC. HAVE BEEN NUMBERED TO CONFORM WITH
    THE TEXT OF THE LINDE ELECTRONIC GOVERNOR INSTRUCTION BOOKLET FORM 9256.
    SYMBOLS IN BRACKETS ARE THOSE USED IN THE HW-M-1 MACHINE CIRCUIT DIAGRAM.
(2) THE GOVERNOR INCLUDES ONLY THE PARTS ENCLOSED BY DASHED LINE ABOVE.
(3) WHEN GOVERNOR IS USED WITH A JANETTE /4 HP 110 D.C. SHUNT WOUND MOTOR.
A) AN OD3-VR105 VOLTAGE REGULATOR TUBE IS USED.
B) A JUMPER IS CONNECTED FROM TERMINAL T2-3 TO T2-4 AS SHOWN.
C) A 10 OHM 300 WATT RESISTOR (R108) IS CONNECTED BETWEEN TERMINALS T2-1 & T2-2.
(4) THE MOTOR IS NOT A PART OF THE GOVERNOR.

FIG. 5 - CIRCUIT DIAGRAM - "LINDE" ELECTRONIC GOVERNOR EG-203 (PART NO. 38V45)
LINDE Supplies These Quality Products to the Nation’s Industries

INDUSTRIAL GASES
LINDE Oxygen, Nitrogen, Argon, Neon, Helium, Krypton, Xenon, Hydrogen
PRET-O-LITE Acetylene
CALCIUM CARBIDE
UNION Carbine
CARBIC Processed Carbine

OXY-ACETYLENE EQUIPMENT
OXWELD Apparatus for Cutting, Joining, Treating, and Forming Metals Acetylene Generators Manifolds, Regulators and Valves Welding Rods and Supplies
PRET-O-WELD Welding and Cutting Apparatus
PUROX Welding and Cutting Apparatus
PRET-O-LITE Air-Acetylene Apparatus and Small Tanks CARBIC Acetylene Flood Lights Acetylene Generators

ELECTRIC WELDING EQUIPMENT
UNIONMETL Automatic Welding Apparatus and Supplies
HELIRARC Welding Torches
LINDE Sigma Welding Equipment

SPECIAL EQUIPMENT
LINDE Jet-Piercing Equipment Plate-Edge Preparation Equipment Polyethylene Powder and Flame-Spraying Equipment Steel-Conditioning Machines Sub-Zero Cold Treatment Equipment

OXWELD Oxy-Acetylene Cutting Machines Pressure-Welding Machines

OXYGEN THERAPY SUPPLIES
LINDE Oxygen U.S.P. Oxygen Therapy Regulators Oxygen Therapy Manifolds and Valves

SYNTHETIC CRYSTALS
LINDE Synthetic Sapphire, Ruby, Spinel, and Titania Synthetic Calcium- and Cadmium Tungstates Fine Alumina Abrasive

ORGANOSILICONS
LINDE Silane Monomers Polysiloxane Polymers and Resins


LINDE AIR PRODUCTS COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION

Dominion Oxygen Company, Limited, Toronto

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Boston 16, Mass.
444 Stuart Street
Buffalo 2, N. Y.
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2 Virginia Street
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Pittsburgh 19, Pa.
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Cincinnati 29, Ohio
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Cleveland 14, Ohio
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6-240 General Motors Building
Indianapolis 4, Ind.
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Milwaukee 46, Wis.
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Minneapolis 2, Minn.
827 Second Avenue, South
St. Louis 8, Mo.
4226 Forest Park Boulevard

Southern States
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310 Peachtree Street, N. E.
Birmingham 5, Ala.
1001-13 South 22nd Street
Jacksonville 3, Fla.
2400 Dennis Street
Memphis 1, Tenn.
45 West McLemore Avenue
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San Francisco 6, Calif.
22 Battery Street
Seattle 4, Wash.
2001 First Avenue, South
Spokane 12, Wash.
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In Canada
Dominion Oxygen Company, Limited
Toronto • Montreal
Winnipeg • Vancouver

A. F.
Dec 6, 1951