

System 5000 UNIT MOUNTED GENERATOR CONTROLS

DESCRIPTION

The System 5000 Unit-Mounted Generator Control Systems combines a variety of components necessary to control and protect a single engine generator set, and houses them in a single protective metalclad enclosure. Each System 5000 is custom engineered and manufactured to customer selection of our available options.

All units are equipped with AC Voltmeter, AC Ammeter, dial type Frequency Meter, combination Ammeter/Voltmeter Phase Selector Switch, fuse protection, terminal blocks and vibration isolators. A wide variety of optional accessories are available and listed on the reverse side of this bulletin.

FEATURES

Standard meters are 3½ inch, full scale, ± 2% accuracy instruments which provide excellent visibility.

The enclosure is constructed for drip proof application out of 14 gauge sheet steel. Standard finishes are ANSI gray, OSHA blue, alpine green, yellow and beige. Other colors are available upon request at a nominal cost.

The front panel is recessed and hinged for complete easy access to all internal components. It is secured with two quarter-turn, captive, quick opening fasteners. Bumper pads are provided to protect the front panel when it is in the open position.

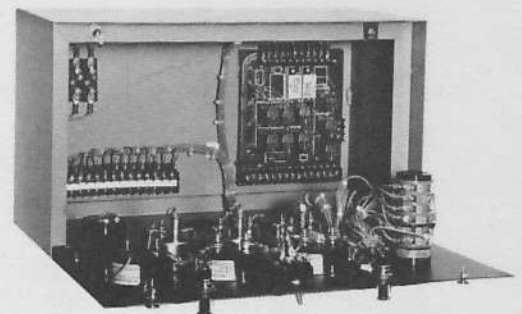
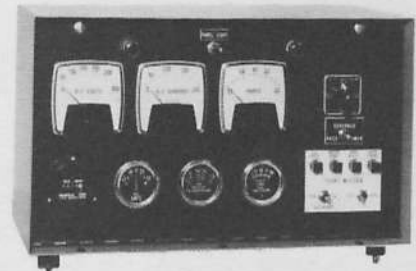
Meter scales are available in the following ranges:

- Voltmeter 0 to 600 VAC
- Ammeter 0 to 4000 AMPS
- Frequency Meter 45 to 65 Hz.

Dual scale instruments are available at no additional cost.

Current transformers are included and shipped loose for customer convenience.

To 4000 Amps
To 600 Volts AC
50 to 60 Hz
Single Phase or
Three Phase



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ORDERING DATA

When ordering a Lake Shore System 5000 Unit Mounted Generator Control Panel, the following data must be provided so that your order can be properly filled:

PRIME MOVER

Engine Manufacturer
DC Voltage Available

GENERATOR

Kilowatt Output
Output Voltage
How Connected
Frequency Output

OPTIONAL ACCESSORIES

1. **Panel Illumination Lights.** Mounted on front panel to provide illumination of meters and controls.
2. **Elapsed Time Meter.** Mounted on front panel to record the engine running time.
3. **11000 Start-Master.** Mounted inside enclosure, single-crank or multi-crank engine Start-Masters are available with several options. Please refer to Bulletin 11000 for complete details.
4. **Manual Start/Stop Switch.** Mounted on front panel for manual operation consists of an on/off switch and crank pushbutton.
5. **Mounting Holes for Customer Provided Material.**
6. **Governor Control Switch.** Mounted on front panel for speed adjustment.
7. **Synchronizing Lights & Switch.** Mounted on front panel for paralleling applications.
8. **Reverse Power Relay.** Mounted inside enclosure, adds protection for paralleling applications.
9. **Battery Charger.** Mounted inside enclosure, this 2-amp trickle charger helps maintain battery voltage.
10. **Electric Tachometer.** Mounted on the front panel to monitor engine speed.
11. **Power Factor Meter.** Mounted on front panel to indicate Power Factor.
12. **Kilowatt Meter.** Mounted on the front panel to indicate kilowatt usage.
13. **Kilowatt Hour Meter.** Mounted on front panel to record total kilowatt usage, available with or without demand registers.
14. **Three Ammeters.** Mounted on front panel in place of a single Ammeter with Phase Selector Switch.
15. **Voltmeter Switch.** Mounted on front panel for applications where monitoring of amperage and voltage may be required on different phases.
16. **Emergency Stop Pushbutton.** Mounted on face of panel for safety purposes.
17. **Pilot Lights.** Mounted on front panel to replace standard Pilot Lights offered or to provide additional indication.
18. **Mounting of Customer Provided Material.**

Lake Shore Electric Corporation manufactures a complete line of Automatic Transfer Switches, Bypass Isolation Switches, Switchgear, Motor Operators and Engine Control Panels. For further information regarding other products or the representative in your area, please contact the factory.



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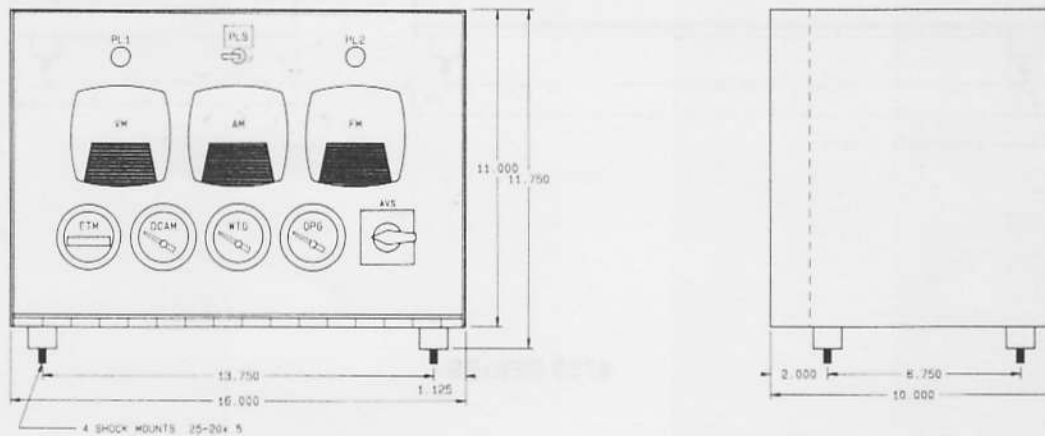




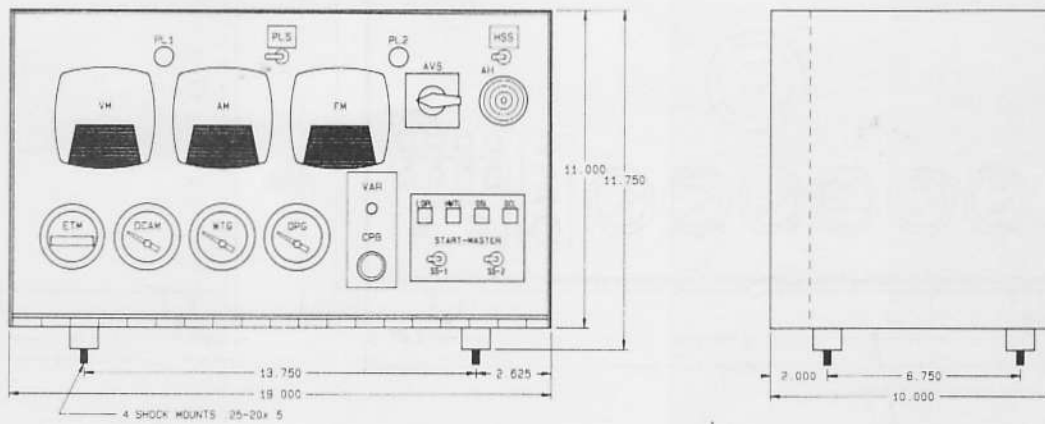
ENCLOSURE DIMENSIONS FOR UNIT MOUNTED GENERATOR CONTROLS

System 5000 Unit Mounted Generator Controls can be provided in any of four (4) basic enclosures. The enclosure provided will be determined by the types and quantities of options selected. The factory will provide the smallest enclosure capable of accomodating the selected options. To properly size the enclosure for your particular needs, please refer to Bulletin 5020.

5100 SERIES



5300 SERIES



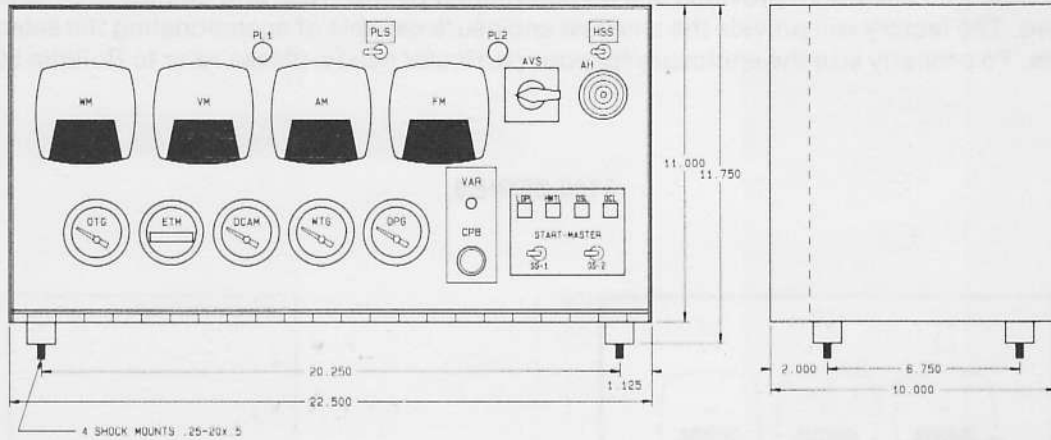
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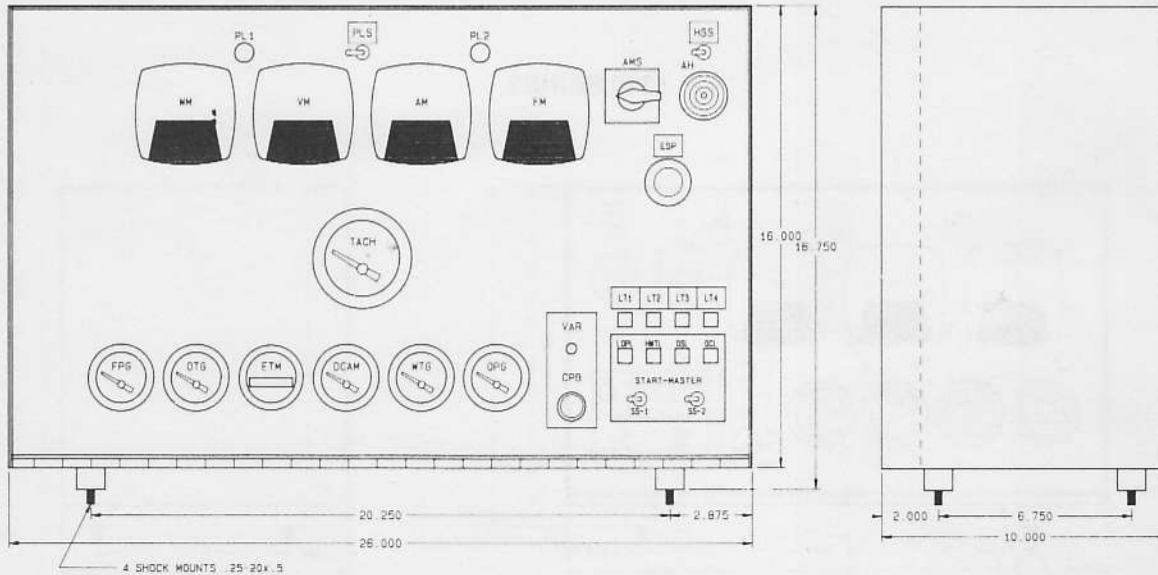




5500 SERIES



5700 SERIES



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ENCLOSURE SELECTION GUIDE FOR UNIT MOUNTED GENERATOR CONTROLS

HOW TO USE THIS SELECTION GUIDE

Lake Shore Electric Corporation offers 18 options and accessories which can be provided in the Unit Mounted Generator Control Systems. Each option or accessory occupies a specific volume or surface area in an enclosure. This has been converted to space factors. This selection guide shows in columnar form which accessories can be mounted in each series enclosure and the number of Space Factors each accessory requires.

OPTIONS AND ACCESSORIES NO. DESCRIPTION	SERIES 5100 (MAXIMUM 8 SPACE FACTORS)	SERIES 5300 (MAXIMUM 16 SPACE FACTORS)	SERIES 5500 (MAXIMUM 24 SPACE FACTORS)	SERIES 5700 (MAXIMUM 44 SPACE FACTORS)
1. Panel Lights	*	*	*	*
2. Elapsed Time Meter	2	2	2	2
3. Start Master	†	4	4	4
3D. Pre-Alarms (up to 4)	†	4	4	4
3E. Alarm Horn and Switch	†	4	4	4
3G. Alarms (up to 4)	†	4	4	4
3I. Count as part of 3D &/or 3G	†	*	*	*
3J. Crank Pushbutton	†	4	4	4
4. Manual Start/Stop Switch	†	4	4	4
5. Mounting Holes (each)	4	4	4	4
6. Gov. Control Switch	4	4	4	4
7. Sync Lights & Switch	†	4	4	4
8. Reverse Power Relay	†	4	4	4
9. Battery Charger	†	†	4 (1.)	4 (1.)
10. Tachometer	†	8	8	8
11. Power Factor Meter	†	†	4	4
12. Wattmeter	†	†	4 (1.)	4 (1.)
13. Watthour Meter	†	†	8	8
14. Three Ammeters	†	8	8	8
15. Voltmeter Switch	4	4	4	4
16. Emergency Stop Pushbutton	†	4	4	4
17. Count as part of 3D &/or 3G	†	*	*	*
18A. Mount Regulator	†	(2.)	(2.)	(2.)
18B. Mount Pyrometer	†	4	4	4

(1.) Either a Battery Charger or a Wattmeter may be placed in this enclosure. Both accessories may not be installed in this enclosure.
 (2.) Consult factory for Space Factor on this accessory.
 * Does not require a Space Factor.
 † Cannot be installed in this enclosure.

SPACE FACTORS

"Space Factors" are used to express the combined surface area each accessory will occupy on the front and back panels of the enclosure. Each size enclosure contains space for the mounting of accessory equipment as follows: Series 5100, 8 Space Factors; 5300, 16 Space Factors; 5500, 24 Space Factors; 5700, 44 Space Factors.



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