STATIC PILOT WIRE RELAY
TYPE SPD99AA

INTRODUCTION

This supplement, together with GEK-49794B, constitutes the instructions for the SPD99AA relay.

DESCRIPTION

The SPD99AA is similar to the SPD11A with the following exceptions:

1. The SPD99AA is rated 24 volts DC.
2. The SPD99AA uses external inverter 013887286.

DC CONTROL VOLTAGE TAPS

The 013887286 external inverter converts 24 volts DC to 48 volts DC. Therefore, when wiring the external inverter, the DC control voltage taps in the SPD relay (located at the left of the upper tap block) should be placed in the left position which is labeled 48 volts.

EXTERNAL INVERTER CONNECTIONS

The 013887286 external inverter is designed to supply one SPD99A pilot wire relay and one SPA pilot wire monitoring relay (Type 99AA, AB, BA, or BB). Connections for the DC control power are made as shown in Fig. 1 of this booklet.
EXTERNAL INVERTER MOUNTING

The 0138B7286 External Inverter can be mounted on the rear of the SPD relay or at a convenient location near the relay. Mounting on the rear of the SPD is shown in Fig. 3 of this booklet.

DC CURRENT BURDENS

Table I below indicates the burden of the external inverter on the 24 volt DC station supply under a variety of operating conditions.

<table>
<thead>
<tr>
<th>Connected Relays</th>
<th>DC Current - ma</th>
<th>With SPA's TTA Energized DC Current - ma</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>400</td>
<td>-</td>
</tr>
<tr>
<td>SPD99AA Alone</td>
<td>650</td>
<td>-</td>
</tr>
<tr>
<td>SPD99AA plus SPA99AA</td>
<td>800</td>
<td>-</td>
</tr>
<tr>
<td>SPD99AA plus SPA99AB</td>
<td>800</td>
<td>-</td>
</tr>
<tr>
<td>SPD99AA plus SPA99BA</td>
<td>800</td>
<td>950</td>
</tr>
<tr>
<td>SPD99AA plus SPA99BA</td>
<td>800</td>
<td>950</td>
</tr>
</tbody>
</table>

List of Illustrations

Fig. 1 - Supplementary External Connections Diagram (0275A4432)
Fig. 2 - Internal Connections for 0138B7286 Inverter (0275A4431)
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Fig. 1 (0275A4432-0) Supplementary External Connections Diagram
Fig. 2 (0275A4431-0) Internal Connections for 013887286 Inverter
Fig. 3 (0275A4433-0) Outline Diagram for 0138B7286 Inverter