

# Solent Summit N Scale Modular Group

## Operating Guidelines – Electrical Engineers Notes

### 1. Before the Meet

1. Suitcase custodian clears slots using JMRI or OPSW#36="c"
2. Elect Electrical Engineer and Mechanical Engineer for forthcoming meet.

### 2. Start of Subsequent Days of Meet

1. Clear all slots except consists (discretion may be applied here)

### 3. Electrical Set Up

The Mechanical Team should connect all board to board buses as they go along, leaving the Electrical Engineer to:

1. Ensure that all section breaks are switched correctly underneath the 1:1 boards (see Power District notes)
2. Ensure that the switches under the 1:2 boards are correctly set (see Power District notes)
3. Ensure there are separate scenic sections adjoining each auto reversing yard (i.e. there are at least four sections in the total layout)
4. Break the board to board buses where necessary for section feeds and other buses
5. Connect buses
6. Connect any switching yard that is going to be operated, to its own PSX protected supply.
7. Run LocoNet cables (SS is not in the LocoNet run)
8. Connect Solent Summit wiring looms
9. Power up and test the layout.

### 4. Power Up Sequence

1. Turn power to command station and boosters on
2. After about 3 seconds move command station mode switch from Sleep to Run
3. After about a further 3 seconds move boosters' mode switches from Sleep to Run
4. Turn on track power with throttle
5. Check yard and Solent Summit turnouts
6. Check section breaks are switched on or off as appropriate on all of the 1:1 boards
7. Check operation of yard auto-reversers using RampMeter
8. Check booster phasing at section breaks using RampMeter and correct if necessary (see specific note)
9. When using RampMeter voltages below 11.5 and above 12.3 also need investigating

### 5. Shut Down Process

1. Turn track power off with throttle
2. Set boosters' mode switches to Sleep
3. Set command station mode switch to Sleep
4. Turn power to command station and boosters off

### 6. Troubleshooting

1. In event of major problems such as all slots full, or corruption of command station slot memory first try releasing all slots by setting OPSW#36 to "c" (all consists will need resetting)
2. If that fails a system reset OPSW#39 to "c", followed by resetting OPSWs

## 7. General Notes:

### OPSW Changing

1. Turn track power off with throttle
2. Set command station mode switch to Ops
3. Disconnect LocoNet from command station
4. Set OPSW using throttle, JMRI or LoconetChecker

#### **Using Throttle**

Connect throttle to LocoNet port

Press SWCH to enter switch mode

Use keypad to enter OPSW number which will be displayed along with the current OPSW setting (t or c)

Press "CLOC c" or "OPTN t" to change setting

Remove throttle LocoNet cable

5. Re-connect LocoNet to command station
6. Set command station mode switch to Run
7. Turn on track power with throttle

### **DCS100 Command Station Settings**

<b>OPSW#</b>	<b>Description</b>	<b>Setting</b>
5	Puts Command Station in master mode	c
13	Extend purge time from 200 to 600 seconds	c
15	Purge forces speed to zero	c
18	Extend short circuit shut down from 1/8th to 1/2 second	c
25	Disable aliasing as not needed	c
33	Restore track power to prior state at power on	c
34	Allow track to power up to run state if set to run prior to power on	c
42	Disable 3 beeps on loco address purging	c
44	Expand system capacity to 120 slots	c

All other OPSWs are left at default

### **DB150 Settings**

<b>OPSW#</b>	<b>Description</b>	<b>Setting</b>
5	default for command station is "c"	t

All other OPSWs are left at default and the remaining settings done with jumpers.

Config A/Ground      Booster

### **Booster Phasing Problems**

If time is short, just flip the black/red connection over at a convenient junction and reset the phasing properly when time permits.

Sometimes boosters "polarity" may get out of phase on start up. (This won't happen on auto reversing boosters as they will just flip between the two opposite phases but it may happen on "ordinary" boosters.)

02/03/17