RAMP CALCULATION PROGRAM
(MODELLED AFTER CONTROL ROOM APPLICATION)

Instructions:
Cut and paste the desired ramp segments into the ramp
Modify the "user" parameters for each segment as needed
Note: "User" adjustable values in large bold font with green backround fields

For initial Pdot, power supply voltage (I small): Vps = L(di/dt) +I*R, pdot = (Vps-P(i)(amps/gev)*R)/(L*(amp/gev))

Calculator helper R= 0.28600 amps/gev= 58.76 P(i)= 22.00
L= 0.69600 PS ramp V= 10000.00
Then, Pdot(i)= ***235.46882***

For constant power supply voltage during ramp (approximate): Pdot(i) = -R/L*(P(i)-p(i-1)) +Pdot(i-1)

Calculator helper P(i-1)= 19000.00 Pdot(i-1)= -395.00
P(i)= 2000.00
Then, Pdot(i)= ***6590.63218***

For initial Pdot in invert, power supply voltage: Vps=L(di/dt) + I*R, pdot = (Vps-P(i)(amps/gev)*R)/(L*(amp/gev))

Calculator helper P(i)= 119.70 PS invert V= -9694.00
Then, Pdot(i)= ***-286.21414***

THE RAMP SEGMENT TYPES:

#####	VPARAB	***2.98667***	***2.98667***	8.96	6.00	***2.01***	
#####	CAPDEP	0.49900	***3.48567***	***8.96***	***0.00***	***0.00***	
Seq.	**Type**	**Delta t**	**Time**	**Momentum**	**Pdot**	**Pddot**	**PS Volt**

THE RAMP:

1	INITI	0.34000	***0.34000***	8.889	***0.00***	***0.00***	149.39
2	VPARAB	***0.02367***	***0.36367***	8.96	6.00	***253.52***	395.97
3	VPARAB	***0.04154***	***0.40521***	9.5	20.00	***337.04***	977.62
4	VPARAB	***0.08929***	***0.49449***	22	260.00	***2688.00***	11003.28
5	VPARAB	***0.25610***	***0.75059***	85	232.00	***-109.33***	10916.90
6	VPARAB	***0.13889***	***0.88948***	115	200.00	***-230.40***	10112.34
7	VPARAB	***0.04700***	***0.93648***	119.7	0.00	***-4255.32***	2011.67
8	CAPDEP	0.02000	***0.95648***	***119.7***	***0.00***	***0.00***	2011.67
9	VPARAB	***0.09484***	***1.05132***	105	-310.00	***-3268.71***	-10913.85
10	VPARAB	***0.14876***	***1.20008***	60	-295.00	***100.83***	-11056.64
11	VPARAB	***0.19029***	***1.39037***	11	-220.00	***394.13***	-8812.76
12	VPARAB	***0.03909***	***1.42946***	6.7	0.00	***5627.91***	112.60
13	VPARAB	***0.04864***	***1.47810***	7.7945	45.00	***925.08***	1971.42
14	VPARAB	***0.04864***	***1.52675***	8.889	0.00	***-925.08***	149.39
15	CAPDEP	0.00100	***1.52775***	***8.889***	***0.00***	***0.00***	149.39