

# Panel & 1-Line 2008 Order Form

Company Name \_\_\_\_\_

Contact Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ ST \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Because you are a registered user of 1-Line or Software you are entitled to upgrade to Panel 2008 or the all new 1-Line 2008. These programs conform to the 2002, 2005, 2008 NEC.

## CHECK ONE OR BOTH

- Panel 2008 Upgrade - Only \$125 ( Regular Price \$225 ) **You Save \$100**  
The all new Panel 2008 now includes a Code year selectable feature that allows you to choose the 2002, 2005 or 2008 NEC.
- 1-Line 2008 Upgrade - Only \$225.00 ( Regular Price \$435.00 ) **You Save \$210**  
The all new 1-Line 2008 software will allow you to link up to 24 panels to a main switchboard and printout a 1-Line drawing. 1-Line 2008 now includes a Code year selectable feature that allows you to choose the 2002, 2005 or 2008 NEC

## SHIPPING METHOD

- Email (FREE)       Email & Hard Copy \$10       Hard Copy Only \$10

## PAYMENT METHOD

- Visa       Master Card       AMX       Discover       Check Enclosed

Credit Card Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

Sign \_\_\_\_\_

**FAX TO: ( 208 ) 443-6629**

MAIL TO:

Durand & Associates  
176 Three Waters Road  
Priest Lake, ID 83856  
Phone ( 208 ) 443-6627

# 1-Line 2008

## Feature Comparison

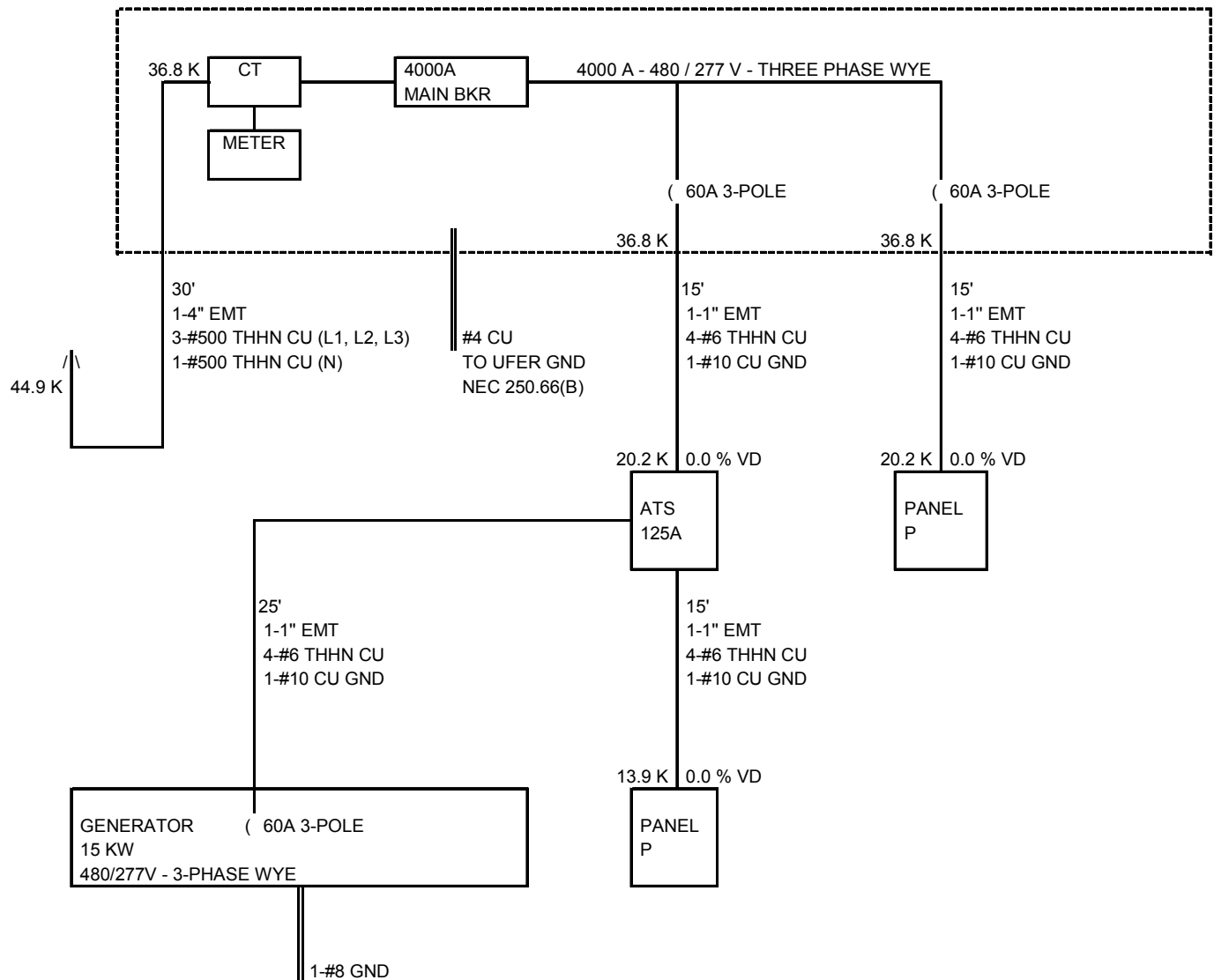
Feature Comparison	1-Line 2005	1-Line 2007	1-Line 2008
<b>Number of Panels</b>	12	18	<b>24</b>
<b>Number of Sub Panels</b>	0	18	<b>24</b>
<b>Number of Xmfr Panels</b>	0	18	<b>24</b>
<b>Automatic Transfer Switch</b>	No	No	<b>Yes</b>
<b>Automatic Generator Sizing</b>	No	No	<b>Yes</b>
<b>Code Year Selectable</b>	No	No	<b>Yes</b>
<b>True Phase Display</b>	No	No	<b>Yes</b>
<b>2008 Code Compliant</b>	No	No	<b>Yes</b>
<b>2005 Code Compliant</b>	Yes	Yes	<b>Yes</b>
<b>2002 Code Compliant</b>	No	No	<b>Yes</b>
<b>Load Calc Summary</b>	No	Yes	<b>Yes</b>
<b>Neutral Load Calc Summary</b>	No	No	<b>Yes</b>
<b>Minimum Neutral Load Calc</b>	No	No	<b>Yes</b>
<b>Sub Panel Metering</b>	No	Yes	<b>Yes</b>
<b>Subpanel Breaker Position</b>	None	Fixed	<b>Variable</b>
<b>1-Phase Load Balance</b>	No	Yes	<b>Yes</b>
<b>Manual Loads</b>	12	18	<b>24</b>
<b>Transformers</b>	0	18	<b>24</b>
<b>Main Switchboard</b>	Yes	Yes	<b>Yes</b>
<b>84 Circuit Panels</b>	No	Yes	<b>Yes</b>
<b>Fault Current Calcs</b>	No	Yes	<b>Yes</b>
<b>Manual Fault Current</b>	No	Yes	<b>Yes</b>
<b>Manual Error Checking</b>	No	Yes	<b>Yes</b>
<b>3-Phase Delta</b>	No	Yes	<b>Yes</b>
<b>Feed 1-Phase Panel from 3-Phase Source</b>	No	Yes	<b>Yes</b>
<b>True 1-Line Drawing</b>	No	Yes	<b>Yes</b>
<b>Voltage Drop Display</b>	No	Yes	<b>Yes</b>
<b>Manual Voltage Drop</b>	No	Yes	<b>Yes</b>
<b>Auto Conductor Size</b>	Yes	Yes	<b>Yes</b>

# Automatic Transfer Switch & Generator

1-Line 2008 lets you place a transfer switch on the Main Switch Board at Circuit Position #1.

Automatic Transfer Switch & Engine Generator ( Located at Circuit Position C1 )

AUTOTRANSFERSWITCH	YES
TRANSFER SWITCH SIZING	MANUAL
SIZE OF TRANSFER SWITCH (AMPS)	125
ATS DISTANCE FROM MSWBD	15'
ENGINE GENERATOR	YES
GENERATOR SIZING	MANUAL
KW OF GENERATOR	15
GEN-SET DISTANCE FROM ATS	25'



# Code Year Selectable

1-Line 2008 let's you choose the Code Year. ( 2002, 2005, or 2008 )

**Main Switch Board**

2002  
 2005  
 2008

LOAD CALCULATIONS FOR - MAIN SWITCHBOARD				
BASED ON THE 2008 NEC				
	L1	L2	L3	NEC 220.61(A) NEUTRAL
CALCULATED LOAD ( NEC 215.5 )	16,300 VA	15,950 VA	15,856 VA	16,300 VA
CALCULATED LOAD WITH DEMAND FACTORS ( NEC 215.5 )				
GENERAL LOAD	3,000 VA	3,000 VA	3,000 VA	3,000 VA
RECEPTACLE LOAD (NEC TABLE 220.44)				
1ST 10,000W	3,333 VA	3,333 VA	3,333 VA	3,333 VA
REMAINDER @ 50%	1,583 VA	1,583 VA	1,583 VA	1,583 VA
CONTINUOUS LOAD (NEC 215.2)	3,600 VA	3,600 VA	3,600 VA	3,600 VA
PLUS 25% (L1, L2, L3)	900 VA	900 VA	900 VA	
<b>PLUS 0% (NEUTRAL) NEC 215.2(A) EX NO 2</b>				<b>0 VA</b>
MOTOR LOAD (NEC 430.24)	1,900 VA	1,900 VA	1,900 VA	1,900 VA
PLUS 25% OF LARGEST MOTOR	475 VA	475 VA	475 VA	475 VA
KITCHEN LOADS (NEC 220.56)				
L1 ( 1,300 X 1 ) =	1,300 VA			1,300 VA
L2 ( 950 X 1 ) =		950 VA		
L3 ( 856 X 1 ) =			856 VA	
TOTAL BALANCED LOAD (3-PHASE)	15,647 VA	15,647 VA	15,647 VA	
TOTAL BALANCED LOAD (1-PHASE)	94 VA	94 VA	0 VA	
TOTAL UNBALANCED LOAD (1-PHASE)	350 VA	0 VA	0 VA	
				15,191 VA

New Exception to the 2008 NEC

LOAD CALCULATIONS FOR - MAIN SWITCHBOARD				
BASED ON THE 2005 NEC				
	L1	L2	L3	NEC 220.61(A) NEUTRAL
CALCULATED LOAD ( NEC 215.5 )	16,300 VA	15,950 VA	15,856 VA	16,300 VA
CALCULATED LOAD WITH DEMAND FACTORS ( NEC 215.5 )				
GENERAL LOAD	3,000 VA	3,000 VA	3,000 VA	3,000 VA
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REMAINDER @ 50%	1,583 VA	1,583 VA	1,583 VA	1,583 VA
CONTINUOUS LOAD (NEC 215.2)	3,600 VA	3,600 VA	3,600 VA	3,600 VA
<b>PLUS 25%</b>	<b>900 VA</b>	<b>900 VA</b>	<b>900 VA</b>	<b>900 VA</b>
MOTOR LOAD (NEC 430.24)	1,900 VA	1,900 VA	1,900 VA	1,900 VA
PLUS 25% OF LARGEST MOTOR	475 VA	475 VA	475 VA	475 VA
KITCHEN LOADS (NEC 220.56)				
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L3 ( 856 X 1 ) =			856 VA	
TOTAL BALANCED LOAD (3-PHASE)	15,647 VA	15,647 VA	15,647 VA	
TOTAL BALANCED LOAD (1-PHASE)	94 VA	94 VA	0 VA	
TOTAL UNBALANCED LOAD (1-PHASE)	350 VA	0 VA	0 VA	
				16,091 VA

NEC 2005 Calculation Method

# Subpanel Breaker Position

1-Line 2008 let's you place subpanel circuit breaker in various positions.

SUB PANEL PHASE		3-PHASE	
BREAKER POSITION		8, 10, 12	
		1, 3, 5	
		2, 4, 6	
		7, 9, 11	
		8, 10, 12	
		13, 15, 17	
		14, 16, 18	
		19, 21, 23	
		20, 22, 24	

	VA	I	H	CIRCUIT DESCRIPTION	BKR	#
L1		G				2
L2		G				4
L3		G				6
L1						8
L2						10
L3						12
L1		G				14
L2		G				16
L3		G				18

Circuits 8, 10, 12 or other positions

# Minimum Neutral Load Calcs

With 1-Line 2008 you may now select the minimum size neutral.

NEUTRAL SIZE	MINIMUM
	NONE
	FULL
	AUTO
	MINIMUM

NEC 220.61(A)
NEUTRAL *
8,400 VA
<hr/>
8,400 VA
<hr/>
30.3 A
<hr/>
0.0 A
<hr/>
30.3 A