



PRO CO
COMMERCIAL DIVISION

PLATEWORKS™

Captain Nema® Panel Cookbook

REV 03/01/2000

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ORDER TEMPLATES

NEMA STANDARD PANELS

NEMA 6	6" X 6" NEMA Standard / 6 Cells	NEMA 6
NEMA 8	8" X 8" NEMA Standard / 15 Cells	NEMA 8
NEMA 1008	10" X 8" NEMA Standard / 18 Cells	NEMA 1008
NEMA 10	10" X 10" NEMA Standard / 24 Cells	NEMA 10
NEMA 1210	12" x 10" NEMA Standard / 32 Cells	NEMA 1210
NEMA 12	12" x 12" NEMA Standard / 48 Cells	NEMA 12
NEMA 1512	15" X 12" NEMA Standard / 48 Cells	NEMA 1512
NEMA 15	15" X 15" NEMA Standard / 70 Cells	NEMA 15
NEMA 18	18" X 18" NEMA Standard / 108 Cells	NEMA 18

RACK PANELS

AP19- 1	1 Space, 19" Rack Panel / 14 Cells	AP19-1
AP19- 2	2 Space, 19" Rack Panel / 28 Cells	AP19-2
AP19- 3	3 Space, 19" Rack Panel / 42 Cells	AP19-3
AP19- 4	4 Space, 19" Rack Panel / 56 Cells	AP19-4
AP19- 5	5 Space, 19" Rack Panel / 70 Cells	AP19-5
AP19- 6	6 Space, 19" Rack Panel / 84 Cells	AP19-6

OPTIONS TEMPLATES

V-1 to V-3	OPTIONS 1
V-6 to V-10	OPTIONS 2
Captain NEMA Blank Worksheet	CNW1
.....	CNW2

CONNECTOR MENU

A-9 to G-13H	C-1
H-1 to P-2	C-2
P-3 to S-2	C-3
T-1 to Z-5	C-4

VARIOUS OPTIONS MENU

V-1 to V-5	O-1
V-6 to V-10	O-2
V-11 to V-15	O-3

PRICING

Panel Material Pricing Guide	Golden Rod*
Connector Menu Pricing Guide	Golden Rod*
Various Options Menu Pricing Guide	Golden Rod*

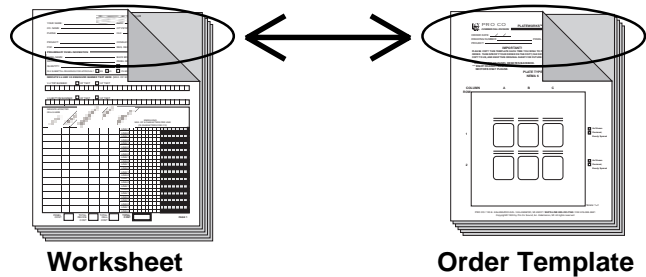
* All pricing sheets will be printed on golden rod paper for quick identification. Prices and specifications subject to change without notice.
 PRO CO / 135 E. KALAMAZOO AVE. / KALAMAZOO, MI 49007 / **WATS LINE 888-253-7360** / FAX 616-388-9681
 Copyright© 1990 by Pro Co Sound, Inc. Kalamazoo, MI All rights reserved

IMPORTANT
READ THIS BEFORE USING THE COOKBOOK

NEMA PANEL INSTRUCTIONS

1. CUSTOMER INFORMATION.

Complete the customer information section at the top of the Captain NEMA worksheet. Also, complete the information section at the top of the ORDER TEMPLATE for this panel. **MAKE PHOTOCOPIES, DO NOT WRITE ON THE ORIGINALS!!** (Orders cannot be processed without this information.)

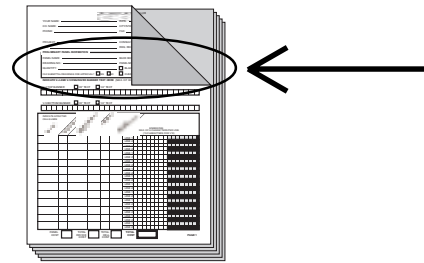


Worksheet

Order Template

2. PANEL SELECTION

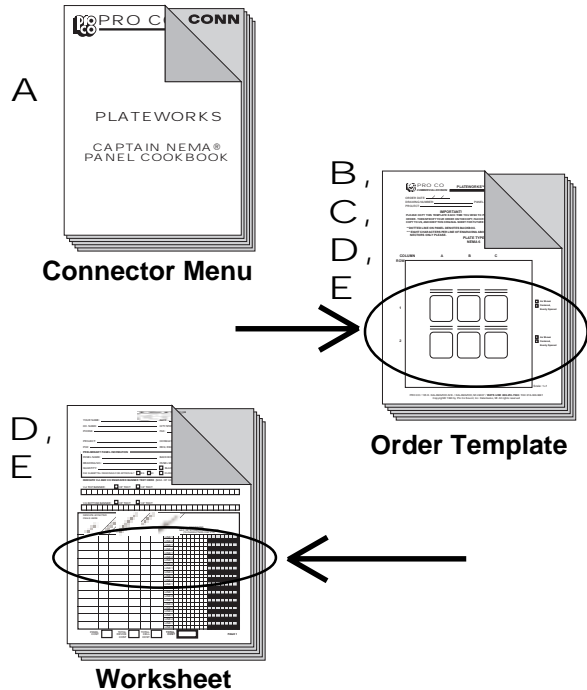
- A) Determine the size of the specific NEMA box to be used with this panel.
- B) Determine how the NEMA box will be mounted to the wall—Flush is recessed in the wall, Surface is on the wall.
- C) Select the exact panel size needed from the Panel Material Pricing Guide.
- D) Select the Color of this panel—Clear or Black.
- E) Place all this information in the appropriate spaces provided on the Captain NEMA worksheet.



Worksheet

3. CONNECTOR SELECTION AND PANEL LAYOUT

- A) Select the connectors (and devices) needed for this panel from the Connector Menu.
- B) Determine what connectors (and devices) will go in which cell.
- C) Place the appropriate connector designations in the desired cells on the Order Template. Place the appropriate connector designations and model numbers next to the correct cell address on the Worksheet.
- D) On the Order Template, pencil in the CELL TEXT you need, above each connector. Then, print your CELL TEXT requirements next to the appropriate cell address on the Worksheet. Some templates are too small to clearly print your text requirements on them. This is why you need to clearly print the CELL TEXT needed on the Worksheet for this panel—so we can read it!
- E) If this panel requires an I.D. Banner, Borders, or Brackets, pencil in the artwork on the Order Template, and the specific information required on the Worksheet.



Connector Menu

Order Template

Worksheet

IF YOU ARE TRYING TO SPEC A RACK PANEL: SEE NEXT PAGE

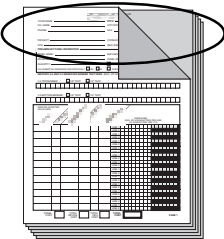
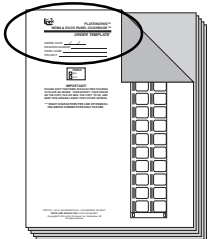
HOW TO FIGURE AN ESTIMATE FOR YOUR PANELS: SEE PAGE iii

IMPORTANT
READ THIS BEFORE USING THE COOKBOOK

RACK PANEL INSTRUCTIONS

1. CUSTOMER INFORMATION.

Complete the customer information section at the top of the Captain NEMA worksheet. Also, complete the information section at the top of the ORDER TEMPLATE for this rack panel. **MAKE PHOTOCOPIES, DO NOT WRITE ON THE ORIGINALS!!** (Orders cannot be processed without this information.)


↔


Worksheet

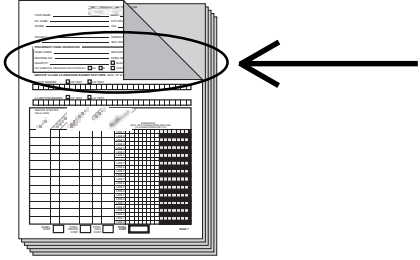
Order Template

2. PANEL SELECTION

A) Determine the size of the rack panel you need. Available sizes can be found on the Panel Material Pricing Guide.

B) Select the Color of this rack panel—Black.

C) Place all this information in the appropriate spaces provided on the Captain NEMA worksheet.



Worksheet

3. CONNECTOR SELECTION AND PANEL LAYOUT

A) Select the connectors (and devices) needed for this rack panel from the Connector Menu.

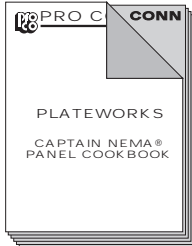
B) Determine what connectors (and devices) will go in which cell.

C) Place the appropriate connector designations in the desired cells on the Order Template. Place the appropriate connector designations and model numbers next to the correct cell address on the Worksheet.

D) On the Order Template, pencil in the CELL TEXT you need, above each connector. Then, print your CELL TEXT requirements next to the appropriate cell address on the Worksheet. Some templates are too small to clearly print your text requirements on them. This is why you need to clearly print the CELL TEXT needed on the Worksheet for this panel—so we can read it!

E) If this rack panel requires an I.D. Banner, Borders, or Brackets, pencil in the artwork on the Order Template, and the specific information required on the Worksheet.

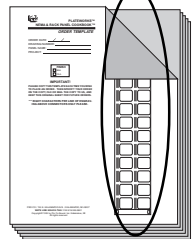
A



Connector Menu

B,
C,
D,
E

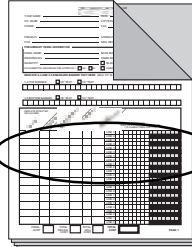
→



Order Template

D,
E

→



Worksheet

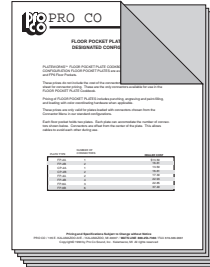
HOW TO FIGURE AN ESTIMATE FOR YOUR RACK PANELS: SEE NEXT PAGE

IMPORTANT
READ THIS BEFORE USING THE COOKBOOK

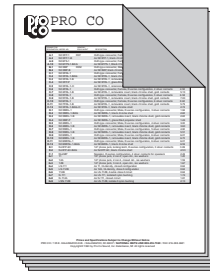
FIGURING AN ESTIMATED COST FOR YOUR PANEL

1. Locate the price of the panel you have selected on the goldenrod CAPTAIN NEMA COOKBOOK™ PANEL MATERIAL PRICING GUIDE*. (Note that prices vary depending on panel material desired.)

Enter the price next to "PANEL" in the pricing section of your **photocopied** WORKSHEET.

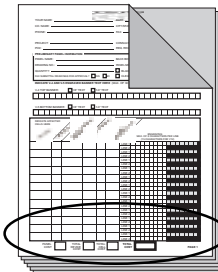


2. Locate the price(s) of the connector(s) and various option (s) you have selected on the goldenrod CAPTAIN NEMA COOKBOOK™ CONNECTOR MENU PRICING GUIDE and enter in the spaces provided on the WORKSHEET. Add up the total and enter the total next to "CONNECTORS" in the pricing section of your WORKSHEET. If the panel is being ordered with no connector(s), write "0" in this location.



3. To arrive at a total estimate for your panel, put the PANEL COST in the box marked Panel Cost on the WORKSHEET. Add the numbers in the DEVICE or ENGRAVING column and put this sum in the Total Device Cost box, Add the numbers in the CELL COST column and place this sum in the Total Cell Cost box. Add these three boxes to get a total panel cost. (Repeat 1, 2 and 3 for each different panel configuration.)

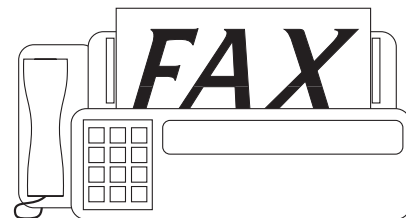
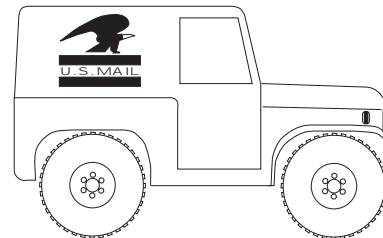
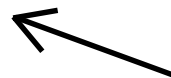
PANEL COST	+	DEVICE COST	+	CELL COST	=	TOTAL COST
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Worksheet

4. Your ORDER TEMPLATES are now complete. Please mail or FAX your order to:

PRO CO COMMERCIAL DIVISION
135 E. KALAMAZOO AVE.
KALAMAZOO, MI 49007
FAX 616-388-9681



NEMA SAMPLE ORDER TEMPLATE iv

ORDER DATE: 4 / 1 / 00 COMPANY NAME: Waterhouse Sound
 DRAWING NUMBER: 2761 PANEL NAME: Studio A
 PROJECT: _____ BACKBOX SIZE: 12 x 12

IMPORTANT!

PLEASE COPY THIS TEMPLATE EACH TIME YOU WISH TO PLACE AN ORDER. THEN SPECIFY YOUR ORDER ON THE COPY, FAX OR MAIL THE COPY TO US, AND KEEP THIS ORIGINAL SHEET FOR FUTURE ORDERS.

****DOTTED LINE ON PANEL DENOTES BACKBOX.**
***** EIGHT CHARACTERS PER LINE OF ENGRAVING ABOVE CONNECTORS ONLY PLEASE.**

PLATE TYPE		FINISH	
<input checked="" type="checkbox"/> NEMA SURFACE <small>(Panel is same size as backbox)</small>	<input checked="" type="checkbox"/> BLACK	<input type="checkbox"/> CLEAR	
<input type="checkbox"/> NEMA FLUSH <small>(Panel is larger than backbox)</small>			

		PLATE TYPE NEMA 12							
COLUMN		A	B	C	D	E	F	G	H
	ROW	STUDIO A							
		MIC INPUTS				TIE LINES			
		1	2	3	4	1	2	3	4
1		C-1	C-1	C-1	C-1	C-1	C-1	C-1	C-1
		5	6	7	8	5	6	7	8
2		C-1	C-1	C-1	C-1	D-1	D-1	D-1	D-1
		CUE OUT				DIR IN			MIC INPUTS
3		D-1	D-1			E-1	E-1		Z-1
4		D-1	D-1			E-1	E-1		Z-1
5			MON C	V-2					
			MON B	PO-1					
6			MON A	V-2					

As Shown
 Centered, Evenly Spaced

As Shown
 Centered, Evenly Spaced

As Shown
 Centered, Evenly Spaced

As Shown
 Centered, Evenly Spaced

As Shown
 Centered, Evenly Spaced

As Shown
 Centered, Evenly Spaced

Scale: .5 = 1

SAMPLE VARIOUS OPTIONS ORDER TEMPLATE **V**

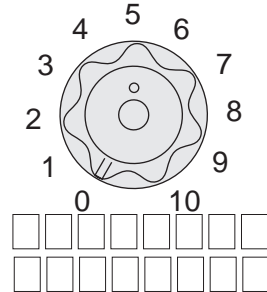
ORDER DATE: 4 / 1 / 00 COMPANY NAME: Waterhouse Sound
 DRAWING NUMBER: 2761 PANEL NAME: Studio A
 PROJECT: _____ BACKBOX SIZE: 12x12

IMPORTANT!

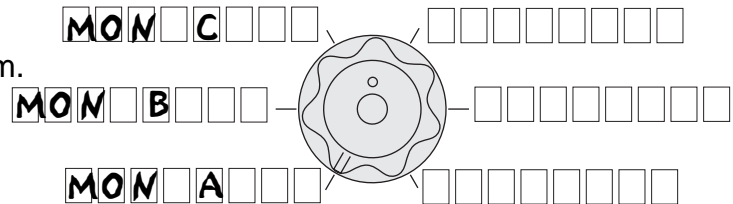
PLEASE COPY THIS TEMPLATE EACH TIME YOU WISH TO PLACE AN ORDER. THEN SPECIFY YOUR ORDER ON THE COPY, FAX OR MAIL THE COPY TO US, AND KEEP THIS ORIGINAL SHEET FOR FUTURE ORDERS.

OPTIONS DESIGNATION MODEL NUMBER

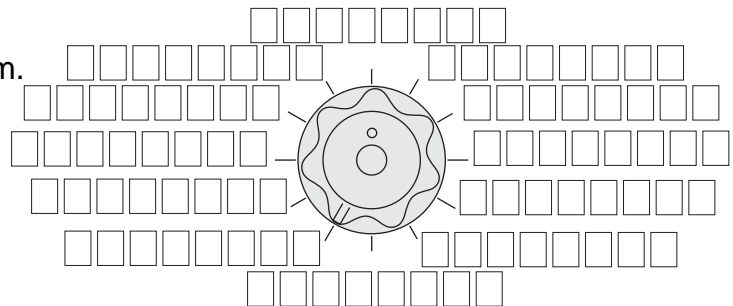
V-1 V-0-10 at 300°
8 Characters per line maximum.



V-2 ROTARY 1-6
8 Characters per line maximum.



V-3 ROTARY 1-12
8 Characters per line maximum.



NOTE: 1 character per box. Extra characters will be trunkated.



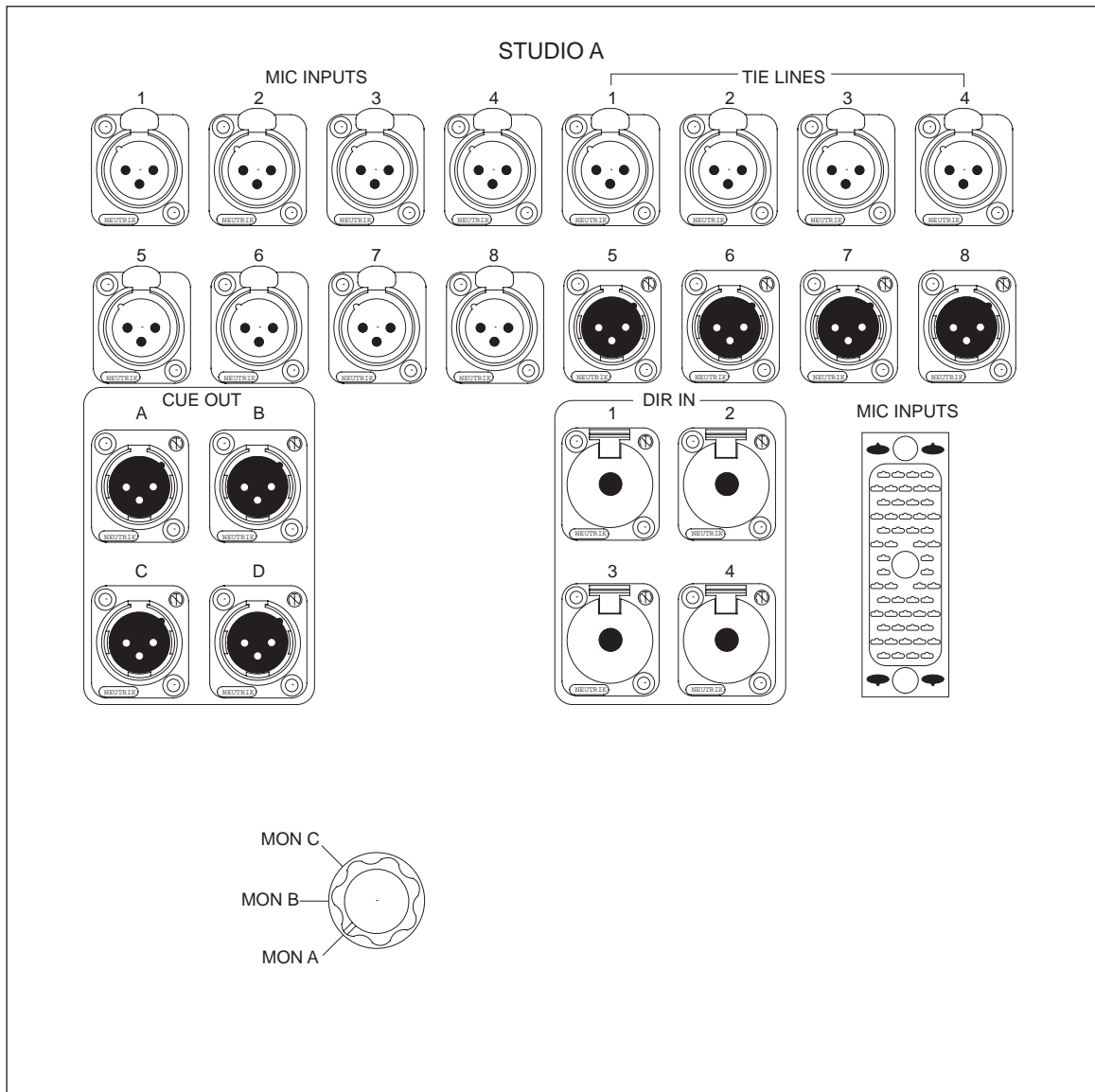
PANEL NAME: **STUDIO A**

DRAWING NUMBER: **2761**

vii

CELL NO(s).	DESIGNATION NO.	DEVICE OF ENGRAVING MODEL NO.	DEVICE OF ENGRAVING COST	NUMBER OF CELLS REQUIRED	CELL COST CELLS REQ'D X \$4.00	INDICATE AFFECTED CELLS HERE		ENGRAVING MAX. OF 8 CHARACTERS PER LINE (15 CHARACTERS FOR V12)
						LINE 1:	LINE 2:	
G-1	C-1	NC3FDL-1	1.95	1	4.00	LINE 1:		
						LINE 2:	3	
H-1	C-1	NC3FDL-1	1.95	1	4.00	LINE 1:		
						LINE 2:	4	
E-2	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	5	
F-2	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	6	
G-2	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	7	
H-2	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	8	
A-3, B-3 A-4, B-4	V-14	INSIDE TITLE	10.00	/	N/CHG	LINE 1:	C U E O U T	
						LINE 2:		
A-3	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	A	
B-3	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	B	
A-4	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	C	
B-4	D-1	NC3MDL-1	1.82	1	4.00	LINE 1:		
						LINE 2:	D	
E-3, F-3 E-4, F-4	V-11	TITLE	10.00	/	N/CHG	LINE 1:	D I R I N	
						LINE 2:		
E-3	E-1	NJ3FP6C	3.36	1	4.00	LINE 1:		
						LINE 2:	1	
F-3	E-1	NJ3FP6C	3.36	1	4.00	LINE 1:		
						LINE 2:	2	
E-4	E-1	NJ3FP6C	3.36	1	4.00	LINE 1:		
						LINE 2:	3	
F-4	E-1	NJ3FP6C	3.36	1	4.00	LINE 1:		
						LINE 2:	4	
H-3, H-4	Z-1	DS-056FP	9.60	2	8.00	LINE 1:		
						LINE 2:		
H-3	V-12	GROUP TITLE	N/CHG	/	N/CHG	LINE 1:	M I C I N P U T S	
						LINE 2:		
C-5	PO-1	RTRY (CRL PA 2003)	/	2	8.00	LINE 1:		
						LINE 2:		
C-5, C-6	V-15	VCTR	/	/	/	LINE 1:		
						LINE 2:		
C-5	V-2	ROTARY 1-6	10.00	/	N/CHG	LINE 1:		
						LINE 2:		
TOP	V-4		15.00	/	/	LINE 1:		
						LINE 2:		
						LINE 1:		
						LINE 2:		

**SAMPLE FINISHED PRODUCT LAYOUT
AS SPECIFIED ON NEMA SAMPLE ORDER TEMPLATE**





ORDER TEMPLATE

ORDER DATE: 4 / 1 / 00
 COMPANY NAME: Waterhouse Sound
 DRAWING NUMBER: 2760
 PANEL NAME: I.D. Panel
 PROJECT: _____

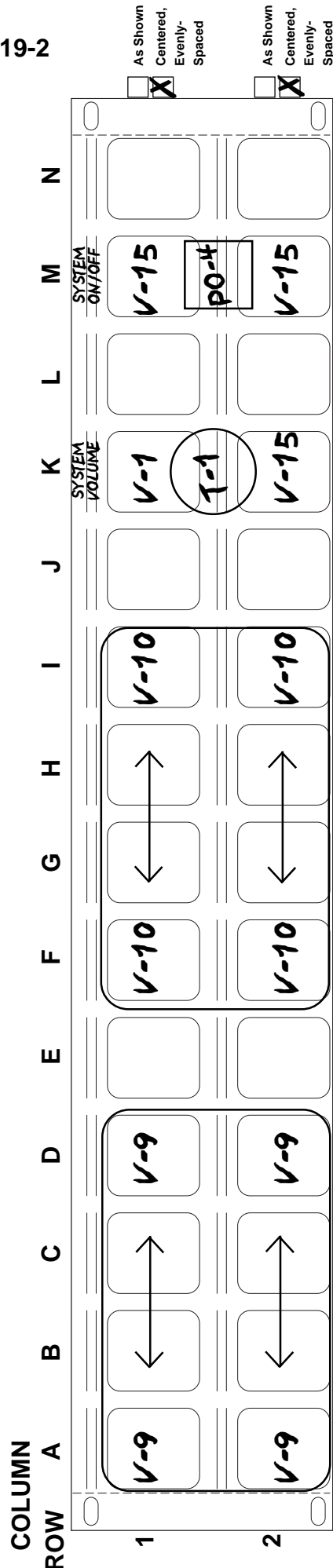
IMPORTANT!

PLEASE COPY THIS TEMPLATE EACH TIME YOU WISH TO PLACE AN ORDER. THEN SPECIFY YOUR ORDER ON THE COPY, FAX OR MAIL THE COPY TO US, AND KEEP THIS ORIGINAL SHEET FOR FUTURE ORDERS.

*** EIGHT CHARACTERS PER LINE OF ENGRAVING ABOVE CONNECTORS ONLY PLEASE.

ALL PRO CO AP19-SERIES RACK PANELS ARE 1/8" BLACK ANODIZED ALUMINUM.

PAGE: 1 OF: 4



SAMPLE VARIOUS OPTIONS ORDER TEMPLATE **X**

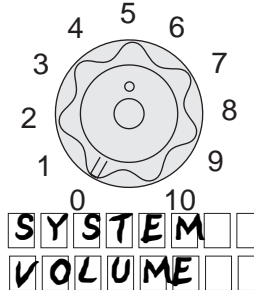
ORDER DATE: 4 / 1 / 00 COMPANY NAME: Waterhouse Sound
 DRAWING NUMBER: 2760 PANEL NAME: I.D. Panel
 PROJECT: _____ BACKBOX SIZE: _____

IMPORTANT!

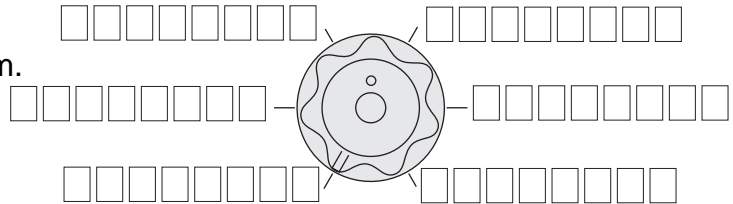
PLEASE COPY THIS TEMPLATE EACH TIME YOU WISH TO PLACE AN ORDER. THEN SPECIFY YOUR ORDER ON THE COPY, FAX OR MAIL THE COPY TO US, AND KEEP THIS ORIGINAL SHEET FOR FUTURE ORDERS.

OPTIONS DESIGNATION MODEL NUMBER

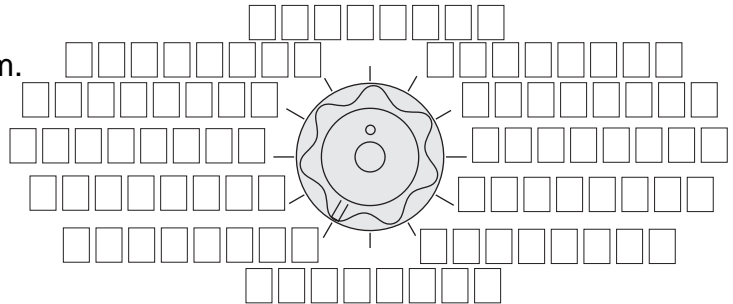
V-1 V-0-10 at 300°
8 Characters per line maximum.



V-2 ROTARY 1-6
8 Characters per line maximum.



V-3 ROTARY 1-12
8 Characters per line maximum.



NOTE: 1 character per box. Extra characters will be trunkated.



SAMPLE VARIOUS OPTIONS ORDER TEMPLATE xi

ORDER DATE: 4 / 1 / 00 COMPANY NAME: Waterhouse Sound

DRAWING NUMBER: 2760 PANEL NAME: I.D. Panel

PROJECT: _____ BACKBOX SIZE: _____

IMPORTANT!

PLEASE COPY THIS TEMPLATE EACH TIME YOU WISH TO PLACE AN ORDER. THEN SPECIFY YOUR ORDER ON THE COPY, FAX OR MAIL THE COPY TO US, AND KEEP THIS ORIGINAL SHEET FOR FUTURE ORDERS.

OPTION DESIGNATION MODEL NUMBER

V-6 SWTC 1
8 Characters per line maximum.
1/8" Height

LLLLLLLLLL

LLLLLLLLLL

V-9 CON ID
30 Characters per line maximum. 1/8" Height

SYSTEM INSTALLED BY:

WATERHOUSE SOUND, INC. LLLLLLLLLL

1440 INDEPENDANCE BLVD. LLLLLL

BURBANK, CA 90002 801-555-9876

V-10 CONSUL ID
30 Characters per line maximum. 1/8" Height

SYSTEM DESIGNED BY:

FUNK & BURNS ARCHITECTS LLLLLL

1225 S. W. 53RD AVENUE LLLLLL

NEW YORK, NY 10013 212-555-9483

NOTE: 1 character per box. Extra characters will be trunkated.



YOUR NAME: Joe Lei DATE: 4/1/2000
 CO. NAME: Waterhouse Sound CITY/STATE: Burbank, Ca
 PHONE: 801-555-9876 FAX: 801-555-9877
 PROJECT: _____ CONSULTANT: Krash & Burns
 PO#: FB2743 REQ. RECEIVING DATE: 4/29/2000

PRELIMINARY PANEL INFORMATION

PANEL NAME: I. D. Panel BACK BOX SIZE: _____
 DRAWING NO.: 2760 PANEL MODEL NO.: AP-19-2
 QUANTITY: 1 BLACK ANODIZED SURFACE MOUNT
 FAX SUBMITTAL DRAWINGS (\$3.00 each) CLEAR ANODIZED FLUSH MOUNT
 FOR YOUR APPROVAL? YES NO

INDICATE ENGRAVED BANNER TEXT HERE (30 CHARACTERS MAX.) V-4 TOP BANNER: 1/8" TEXT 1/4" TEXT

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

V-5 BOTTOM BANNER: 1/8" TEXT 1/4" TEXT

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

CELL NO(s).	DESIGNATION NO.	DEVICE or ENGRAVING MODEL NO.	DEVICE or ENGRAVING COST	NUMBER OF CELLS REQUIRED	CELL COST CELLS REQ'D X \$4.00	INDICATE AFFECTED CELLS HERE		ENGRAVING MAX. OF 8 CHARACTERS PER LINE (15 CHARACTERS FOR V12)	
						LINE 1:	LINE 2:	LINE 1:	LINE 2:
A-1 - D-1	V-9	CON ID	29.95	8	N/CHG				
A-2 - D-2									
F-1 - I-1	V-10	CONSUL ID	29.95	8	N/CHG				
F-2 - I-2									
K-1	T-1	PKD-10KLIN	9.62	1	4.00				
K-1	V-1	VO-10	7.50	/	/				
K-1, K-2	V-15	VCTR	/	/	/				
M-1	PO-4	EAO	/	1	4.00	LINE 1: S Y S T E M			
M-1, M-2	V-15	VCTR	/	/	/	LINE 2: O N / O F F			
	SD-1	SUBMITTAL	/	1	3.00	LINE 1:			
						LINE 2:			
						LINE 1:			
						LINE 2:			
						LINE 1:			
						LINE 2:			
						LINE 1:			
						LINE 2:			

PANEL COST **21.25** + TOTAL DEVICE COST **77.02** + TOTAL CELL COST **11.00** = TOTAL COST **98.38**

**SAMPLE FINISHED PRODUCT LAYOUT
AS SPECIFIED ON NEMA SAMPLE
ORDER TEMPLATE**

