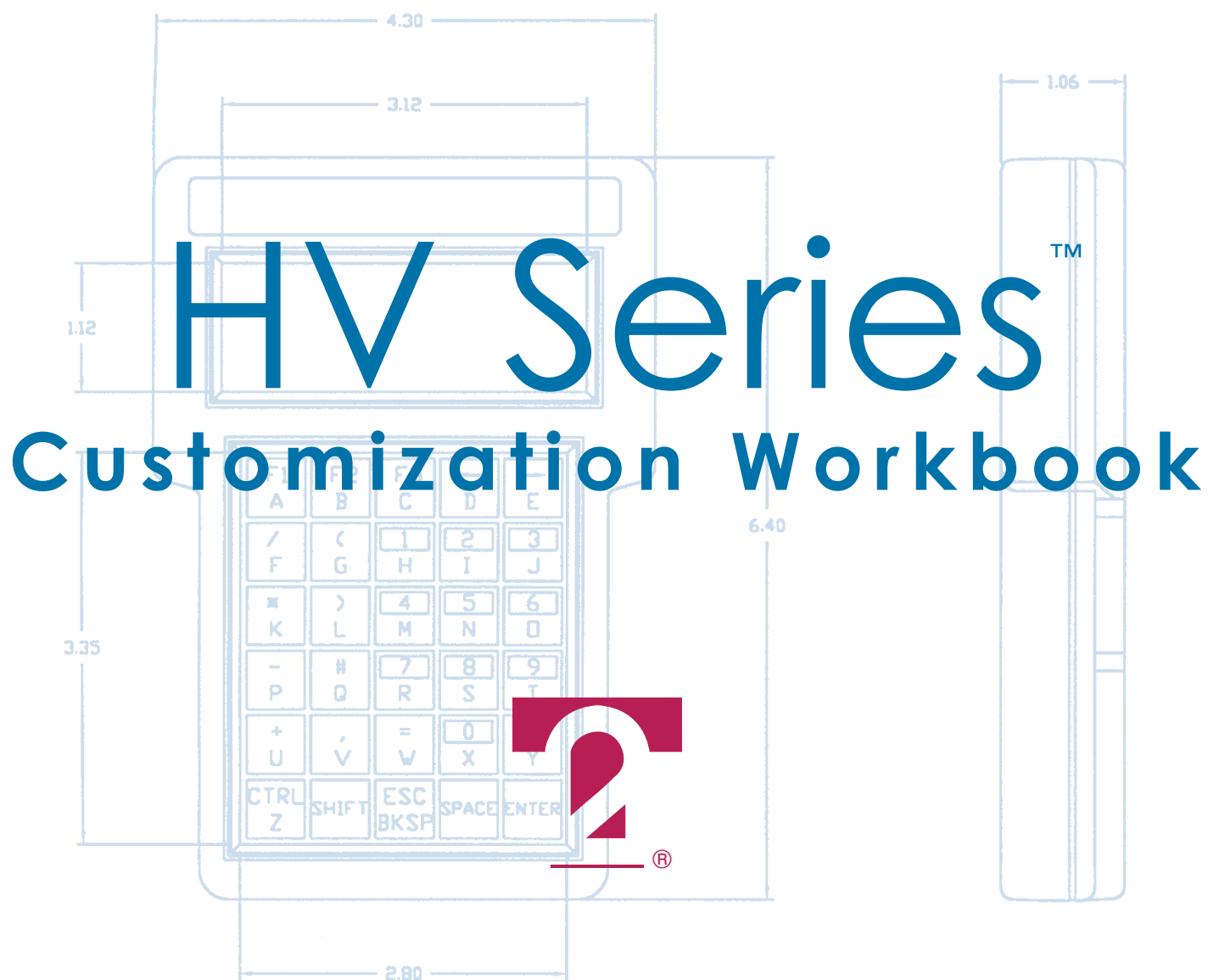
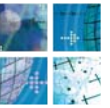






Thank you for downloading the customization booklet for the HV Series™. Our objective is to supply you with the highest quality hand held computer products available—with all the custom features required for your unique application.

This workbook provides easy-to-use templates to customize the HV Series for your application. To get started, just fill in your name and contact information and let the customization begin! If you have questions, just give us a call at 215.441.5305 and ask for Customer Service. No question is too simple when it comes to creating your masterpiece.

If you will not be providing camera-ready artwork, please sketch in the desired graphics and return the appropriate sheets indicating the particular items to be customized. Two Technologies uses the Pantone Matching System® Colors (uncoated colors only) to match all colors. Pantone® color guides are available at virtually any art supply store, or our customer service team can help you in selecting colors that best match your product or corporate colors.

The following features are customizable on the HV Series:

- Case Color
- Keypad
- Logo tag
- Serial Tag
- Display
- Cable
- Custom defaults
- Custom key outputs
- Custom firmware
- Backlit or Phosphorescent keypad
- Boot

We look forward to the opportunity to work with you on this project. Rest assured, we will provide you with a hand held computer you are proud to put your name on.

Name:

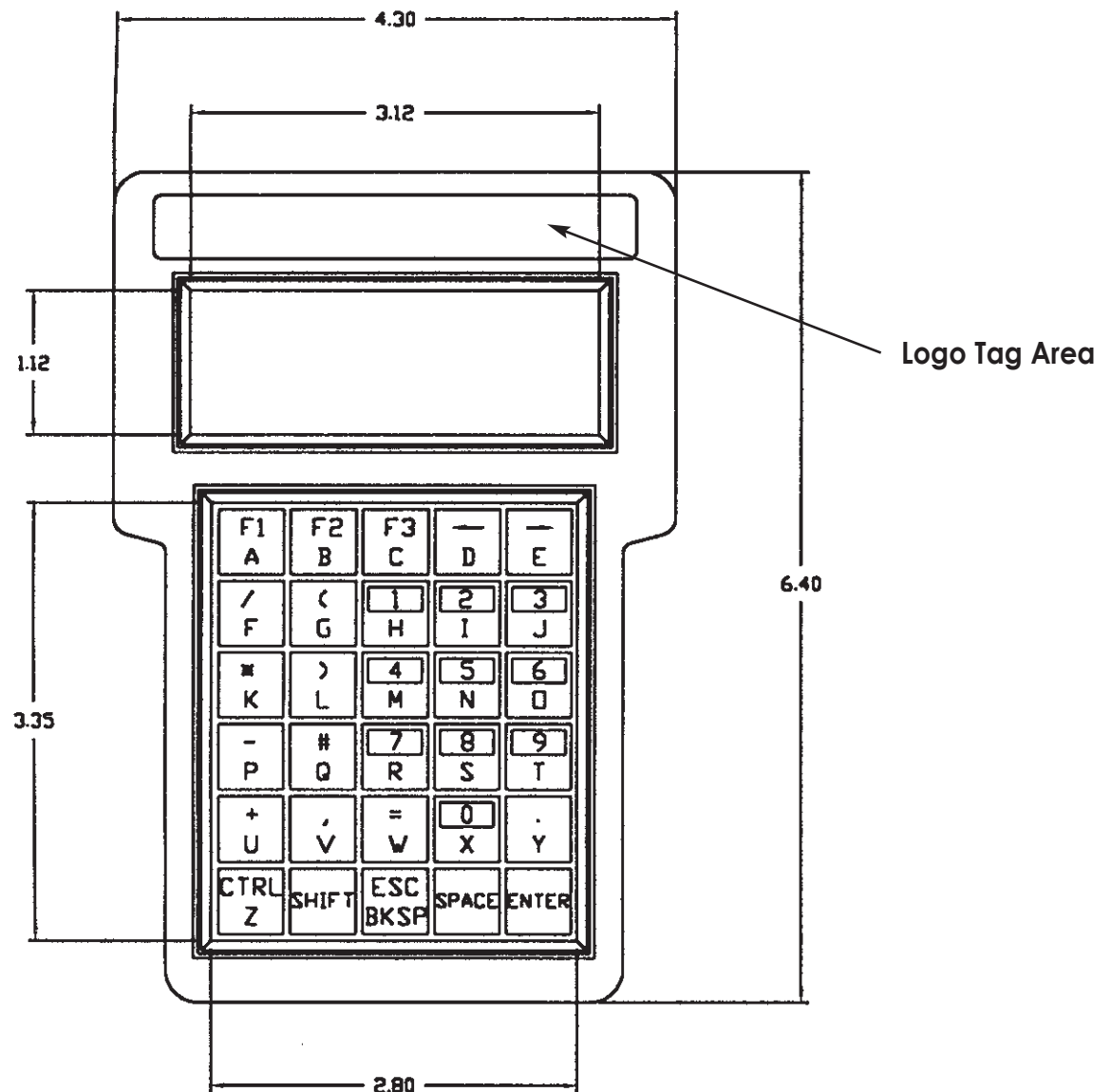
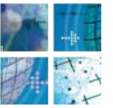
Title:

Company:

Telephone Number:

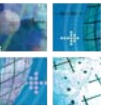
E-Mail Address:

Case Dimensions



- Not Drawn to Scale
- All Dimensions are in Inches

Layout Sample



Draw in your logo and indicate the PANTONE® color(s).



Logo Tag

NOTE: Please provide us with camera-ready artwork if your corporate or product logo is required.

NOTE: You don't need to be the next Leonardo da Vinci. Just pick-up a pen or a pencil and jot down your ideas. When you're happy with your layout, just fax it over. We have graphic designers who will turn your sketches into a masterpiece!

EXAMPLE:

Pantone Color(s):

1. *F1 = PMS 215*
2. *Text = Black*
3. *Bkgrd = PMS Cool Gray 3*

Font & Point Size:

Times New Roman 24 Pt.

EXAMPLE:

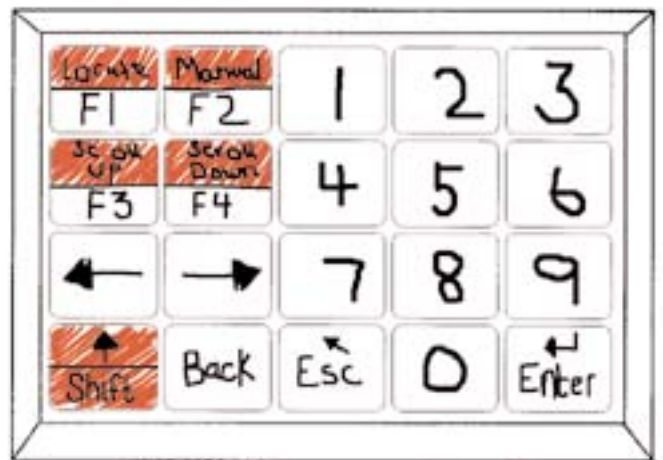
Pantone Color(s):

1. *Text = Black*
2. *Bkgrd = PMS Cool Gray 3*

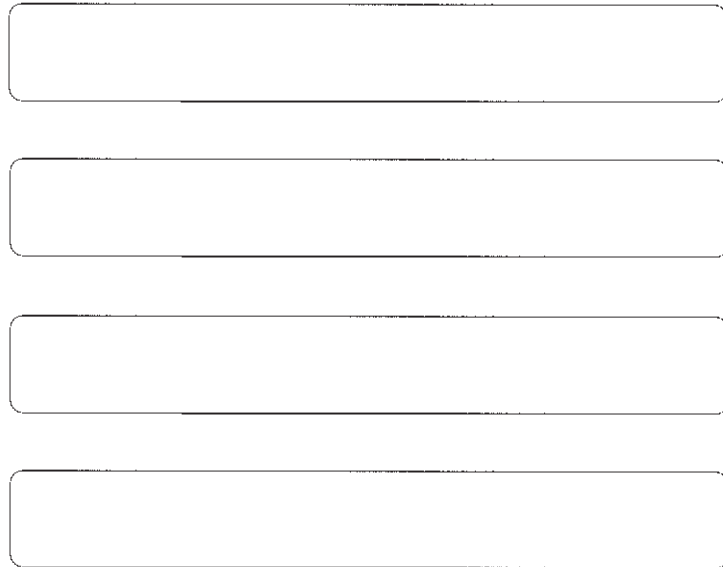
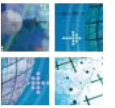
Font & Point Size:

Times New Roman 24 Pt.

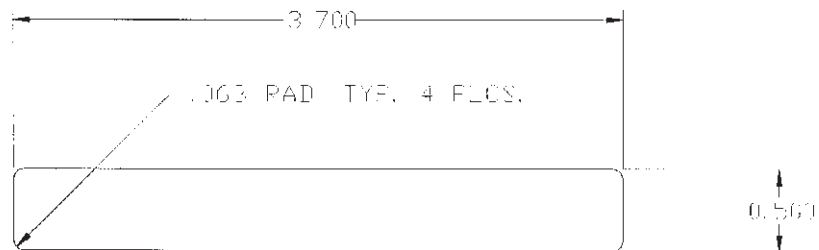
Draw in your keypad and indicate the PANTONE® color(s).



Logo Tag Layouts



Scale 1:1

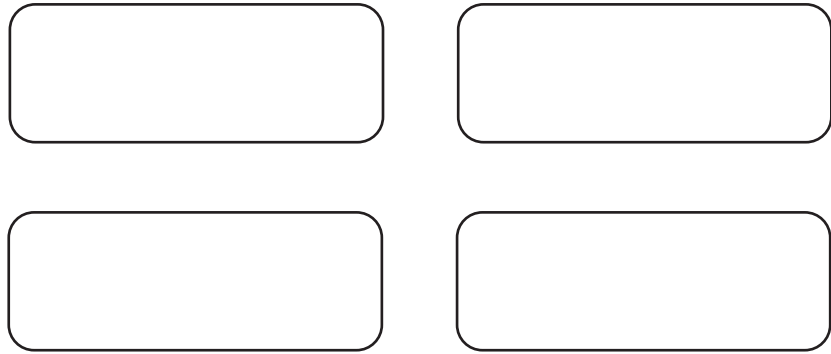
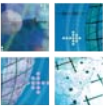


Pantone Color(s):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Font & Point Size:

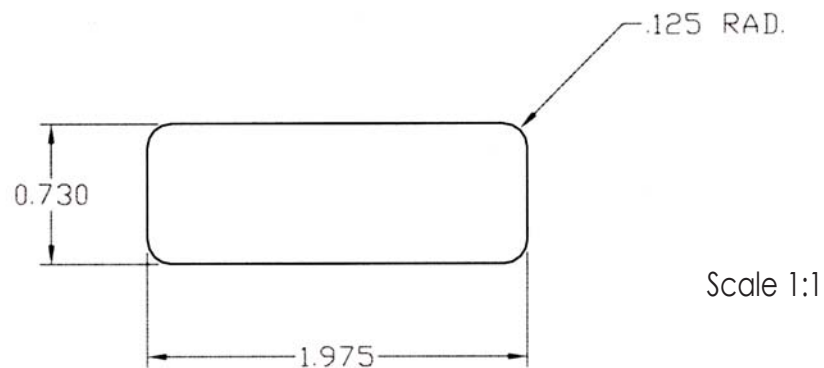
Serial Tag Layout



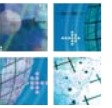
Pantone Color(s):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

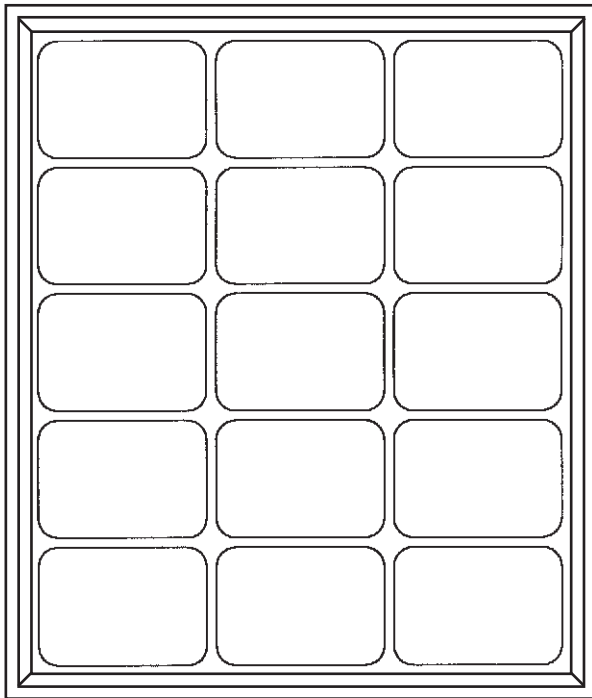
Font & Point Size:



15-Key Membrane



Scale 1:1

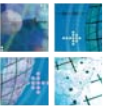


Pantone Color(s):

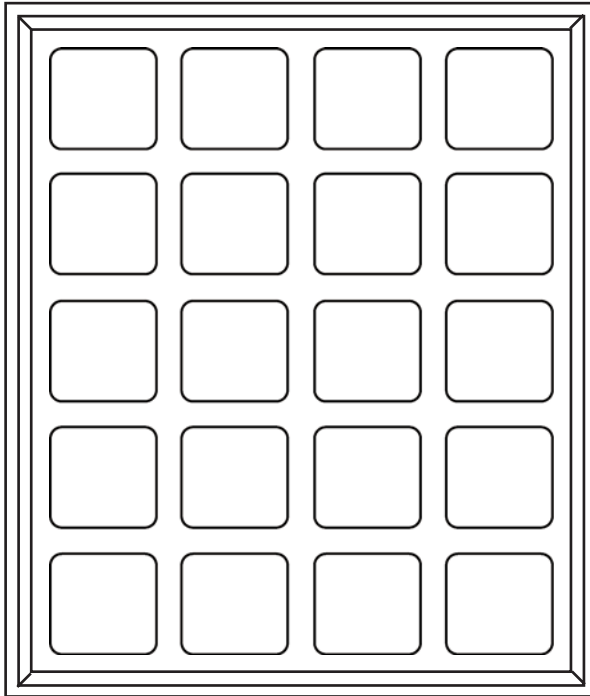
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Font & Point Size:

20-Key Membrane



Scale 1:1



Pantone Color(s):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Font & Point Size:

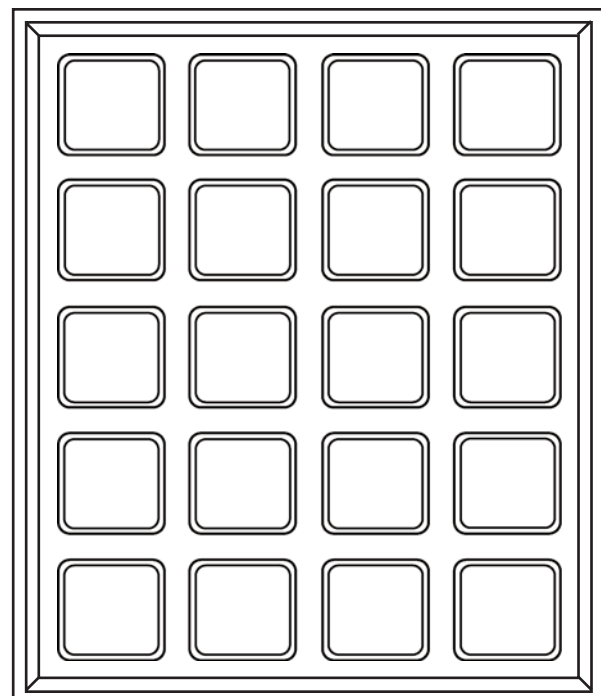
20-Key Elastomeric

Scale 1:1

Pantone Color(s):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

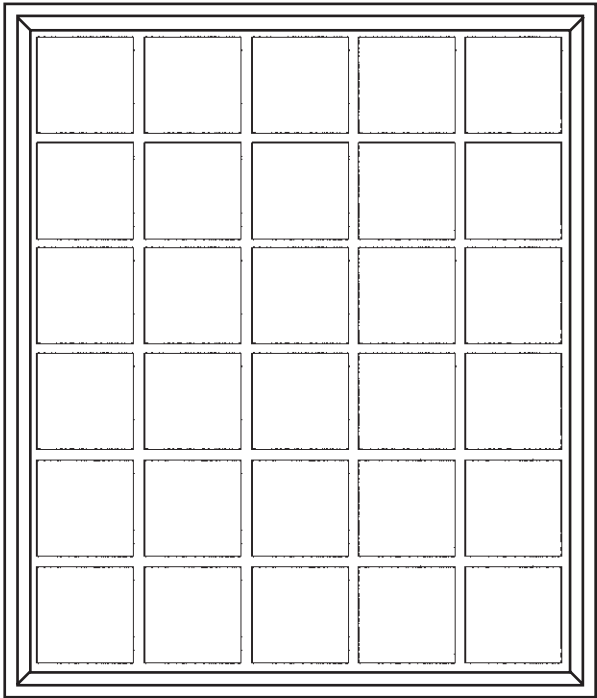
Font & Point Size:



30-Key Membrane



Scale 1:1



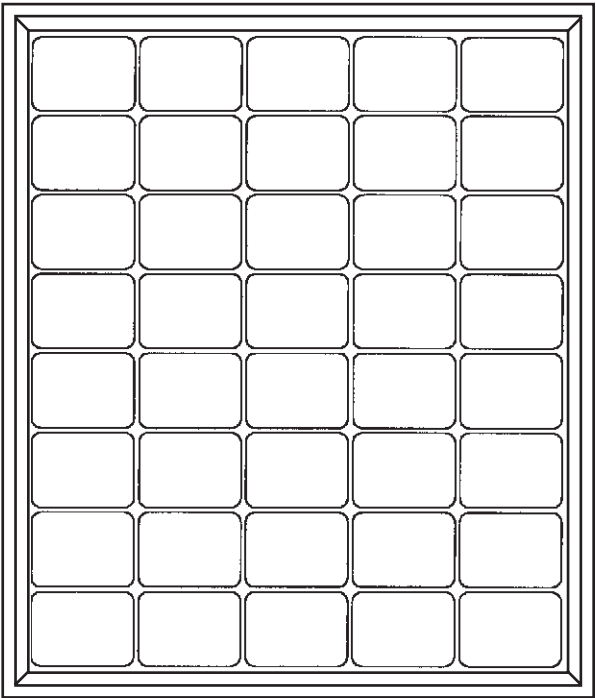
Pantone Color(s):

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

Font & Point Size:

40-Key Membrane

Scale 1:1

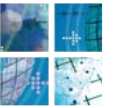


Pantone Color(s):

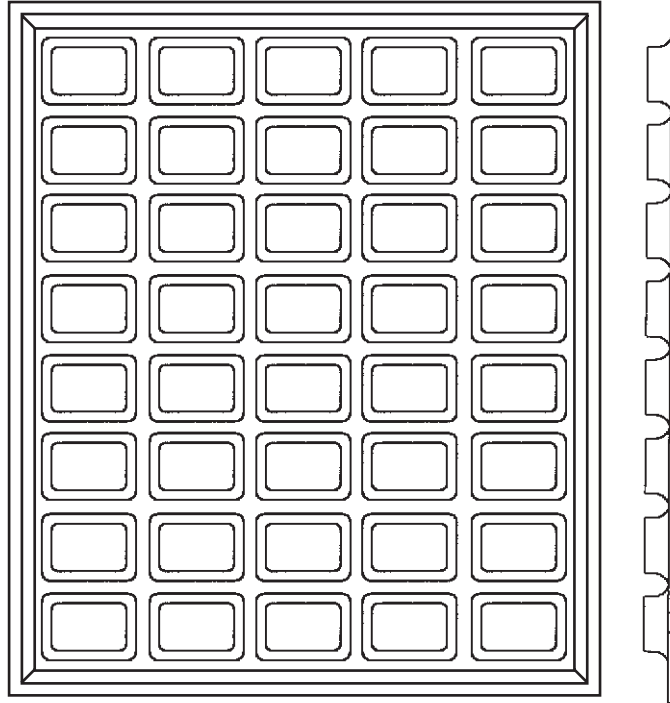
- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

Font & Point Size:

40-Key Elastomeric



Scale 1:1



Pantone Color(s):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Font & Point Size:

15- Key Custom Keycode Layout



KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)
C1	____	C6	____	C11	____
S1	____	S6	____	S11	____
U1	____	U6	____	U11	____
C2	____	C7	____	C12	____
S2	____	S7	____	S12	____
U2	____	U7	____	U12	____
C3	____	C8	____	C13	____
S3	____	S8	____	S13	____
U3	____	U8	____	U13	____
C4	____	C9	____	C14	____
S4	____	S9	____	S14	____
U4	____	U9	____	U14	____
C5	____	C10	____	C15	____
S5	____	S10	____	S15	____
U5	____	U10	____	U15	____

NOTES:

PREFIX

"C" = CTRL Key output

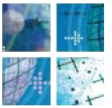
"S" = SHIFT Key output

"U" = Single Key output

☐ Check if CTRL function is disabled

☐ Check if SHIFT function is disabled

20-Key Custom Keycode Layout



KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)
C1 — S1 — U1 —		C6 — S6 — U6 —		C11 — S11 — U11 —		C16 — S16 — U16 —	
C2 — S2 — U2 —		C7 — S7 — U7 —		C12 — S12 — U12 —		C17 — S17 — U17 —	
C3 — S3 — U3 —		C8 — S8 — U8 —		C13 — S13 — U13 —		C18 — S18 — U18 —	
C4 — S4 — U4 —		C9 — S9 — U9 —		C14 — S14 — U14 —		C19 — S19 — U19 —	
C5 — S5 — U5 —		C10 — S10 — U10 —		C15 — S15 — U15 —		C20 — S20 — U20 —	

NOTES:

PREFIX

"C" = CTRL Key output

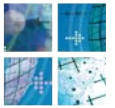
"S" = SHIFT Key output

"U" = Single Key output

☐ Check if CTRL function is disabled

☐ Check if SHIFT function is disabled

20-Key Standard Keycode Layout



KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)
C1 S1 U1	— — 41	C6 S6 U6	— — 42	C11 S11 U11	— — 43	C16 S16 U16	— — 44
C2 S2 U2	— — 31	C7 S7 U7	— — 32	C12 S12 U12	— — 33	C17 S17 U17	— — 2B
C3 S3 U3	— — 34	C8 S8 U8	— — 35	C13 S13 U13	— — 36	C18 S18 U18	— — 2D
C4 S4 U4	— — 37	C9 S9 U9	— — 38	C14 S14 U14	— — 39	C19 S19 U19	— — 08
C5 S5 U5	— — 2E	C10 S10 U10	— — 30	C15 S15 U15	— — 20	C20 S20 U20	— — 0D

NOTES:

PREFIX

"C" = CTRL Key output

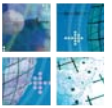
"S" = SHIFT Key output

"U" = Single Key output

☐ Check if CTRL function is disabled

☐ Check if SHIFT function is disabled

30-Key Custom Keycode Layout



KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)
C1	_____	C7	_____	C13	_____	C19	_____	C25	_____
S1	_____	S7	_____	S13	_____	S19	_____	S25	_____
U1	_____	U7	_____	U13	_____	U19	_____	U26	_____
C2	_____	C8	_____	C14	_____	C20	_____	C26	_____
S2	_____	S8	_____	S14	_____	S20	_____	S26	_____
U2	_____	U8	_____	U14	_____	U20	_____	U26	_____
C3	_____	C9	_____	C15	_____	C21	_____	C27	_____
S3	_____	S9	_____	S15	_____	S21	_____	S27	_____
U3	_____	U9	_____	U15	_____	U21	_____	U27	_____
C4	_____	C10	_____	C16	_____	C22	_____	C28	_____
S4	_____	S10	_____	S16	_____	S22	_____	S28	_____
U4	_____	U10	_____	U16	_____	U22	_____	U28	_____
C5	_____	C11	_____	C17	_____	C23	_____	C29	_____
S5	_____	S11	_____	S17	_____	S23	_____	S29	_____
U5	_____	U11	_____	U17	_____	U23	_____	U29	_____
C6	_____	C12	_____	C18	_____	C24	_____	C30	_____
S6	_____	S12	_____	S18	_____	S24	_____	S30	_____
U6	_____	U12	_____	U18	_____	U24	_____	U30	_____

NOTES:

PREFIX

"C" = CTRL Key output

"S" = SHIFT Key output

"U" = Single Key output

☐ Check if CTRL function is disabled

☐ Check if SHIFT function is disabled

30-Key Standard Hex Output



KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)
C1	01	C7	02	C13	03	C19	04	C25	05
S1	11	S7	12	S13	13	S19	14	S25	—
U1	41	U7	42	U13	43	U19	44	U25	45
C2	06	C8	07	C14	08	C20	09	C26	0A
S2	2F	S8	28	S14	31	S20	32	S26	33
U2	46	U8	47	U14	48	U20	49	U26	4A
C3	0B	C9	0C	C15	0D	C21	0E	C27	0F
S3	2A	S9	29	S15	34	S21	35	S27	36
U3	4B	U9	4C	U15	4D	U21	4E	U27	4F
C4	10	C10	11	C16	12	C22	13	C28	14
S4	2D	S10	23	S16	37	S22	38	S28	39
U4	50	U10	51	U16	52	U22	53	U28	54
C5	15	C11	16	C17	17	C23	18	C29	19
S5	2B	S11	2C	S17	3D	S23	30	S29	2E
U5	55	U11	56	U17	57	U23	58	U29	59
C6	—			C18	—	C24	—	C30	—
S6 CONTROL		SHIFT		S18	1B	S24	20	S30	0D
U6	5A			U18	08	U24	20	U30	0D

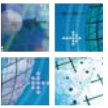
PREFIX

"C" = CTRL Key output

"S" = SHIFT Key output

"U" = Single Key output

40-Key Custom Keycode Layout



KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)
C1 _____ S1 _____ U1 _____	C9 _____ S9 _____ U9 _____	C17 _____ S17 _____ U17 _____	C25 _____ S25 _____ U25 _____	C33 _____ S33 _____ U33 _____					
C2 _____ S2 _____ U2 _____	C10 _____ S10 _____ U10 _____	C18 _____ S18 _____ U18 _____	C26 _____ S26 _____ U26 _____	C34 _____ S34 _____ U34 _____					
C3 _____ S3 _____ U3 _____	C11 _____ S11 _____ U11 _____	C19 _____ S19 _____ U19 _____	C27 _____ S27 _____ U27 _____	C35 _____ S35 _____ U35 _____					
C4 _____ S4 _____ U4 _____	C12 _____ S12 _____ U12 _____	C20 _____ S20 _____ U20 _____	C28 _____ S28 _____ U28 _____	C36 _____ S36 _____ U36 _____					
C5 _____ S5 _____ U5 _____	C13 _____ S13 _____ U13 _____	C21 _____ S21 _____ U21 _____	C29 _____ S29 _____ U29 _____	C37 _____ S37 _____ U37 _____					
C6 _____ S6 _____ U6 _____	C14 _____ S14 _____ U14 _____	C22 _____ S22 _____ U22 _____	C30 _____ S30 _____ U30 _____	C38 _____ S38 _____ U38 _____					
C7 _____ S7 _____ U7 _____	C15 _____ S15 _____ U15 _____	C23 _____ S23 _____ U23 _____	C31 _____ S31 _____ U31 _____	C39 _____ S39 _____ U39 _____					
C8 _____ S8 _____ U8 _____	C16 _____ S16 _____ U16 _____	C24 _____ S24 _____ U24 _____	C32 _____ S32 _____ U32 _____	C40 _____ S40 _____ U40 _____					

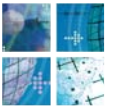
NOTES:

PREFIX

"C" = CTRL Key output
 "S" = SHIFT Key output
 "U" = Single Key output

- ☐ Check if CTRL function is disabled
- ☐ Check if SHIFT function is disabled

40-Key Standard Hex Output Table



KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)	KEY	OUTPUT (HEX)
C1	—	C9	—	C17	—	C25	—	C33	—
S1	5B	S9	5D	S17	28	S25	29	S33	—
U1	11	U9	12	U17	13	U25	14	U33	15
C2	01	C10	02	C18	03	C26	04	C34	05
S2	21	S10	2B	S18	3C	S26	3E	S34	23
U2	41	U10	42	U18	43	U26	44	U34	45
C3	06	C11	07	C19	08	C27	09	C35	0A
S3	3F	S11	2D	S19	31	S27	32	S35	33
U3	46	U11	47	U19	48	U27	49	U35	4A
C4	0B	C12	0C	C20	0D	C28	0E	C36	0F
S4	2C	S12	2F	S20	34	S28	35	S36	36
U4	4B	U12	4C	U20	4D	U28	4E	U36	4F
C5	10	C13	11	C21	12	C29	13	C37	14
S5	3A	S13	2A	S21	37	S29	38	S37	39
U5	50	U13	51	U21	52	U29	53	U37	54
C6	15	C14	16	C22	17	C30	18	C38	19
S6	3B	S14	5E	S22	3D	S30	30	S38	25
U6	55	U14	56	U22	57	U30	58	U38	59
C7	1A	C15	—	C23	—	C31	—	C39	—
S7	2E	S15	40	S23	26	S31	24	S39	0D
U7	5A	U15	08	U23	20	U31	0A	U39	0D
C8	—	C16	—	CTRL		CASE		SHIFT	
S8	22	S16	5F						
U8	1B	U16	09						

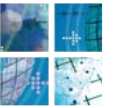
PREFIX

"C" = CTRL Key output

"S" = SHIFT Key output

"U" = Single Key output

HV Series Custom Default Worksheet



Please check off only ONE box for each default parameter selection!

Note: Underlined Boxes ☐ indicate standard factory default settings.

1. Baud Rate (bits/second): ☐ 110 ☐ 150 ☐ 300 ☐ 600 ☒ 1200 ☐ 2400 ☐ 4800 ☐ 9600
2. Parity: ☒ Even ☐ Odd ☐ Mark ☐ Space ☐ None
3. Data/Stop Bits: ☒ 7,1 ☐ 7,2 ☐ 8,1 ☐ 8,2
4. Display Serial Errors: ☐ Yes ☒ No
5. Audible Serial Errors: ☐ Yes ☒ No
6. Support XON/XOFF: ☐ Yes ☒ No
7. Display Control Characters: ☐ Flashing ☐ With^ ☒ No
8. Display Escape Characters: ☐ Flashing ☐ With^ ☒ No
9. Cursor Visible: ☒ Yes ☐ No
10. Auto Line Wrap: ☒ Yes ☐ No
11. New Line On CR: ☐ Yes ☒ No
12. Display Self-Test: ☒ Yes ☐ No
13. Backlight: ☐ Yes ☒ No
14. Display Size: ☒ 80 CHR 20 x 4 ☐ 64 CHR 16 x 4 ☐ 32 CHR 16 x 2
15. Local Echo: ☐ Yes ☒ No
16. Key Repeat: ☐ Off ☒ Slow ☐ Fast ☐ Max
17. Audible Keys: ☐ Yes ☒ No
18. Reduced Command Keypad: ☐ Yes ☒ No

Access Restrictions

1. *Function Key Programming via Keypad: ☐ Yes ☐ No
2. Access to Parameters Menu via Keypad: ☐ Yes ☐ No
3. "Serial" Parameters Modifications: ☐ Yes ☐ No
4. Programming of Custom Characters: ☐ Yes ☐ No

Connector Pin Outs



(Required at time of order)

RS-232

TERMINAL

- 1 +Supply to Terminal
- 2 Handshake into Terminal
- 3 Handshake out from Terminal
- 4 Data into Terminal
- 5 Data out from Terminal
- 6 Common

YOUR CORRESPONDING PINS

RS-422

TERMINAL

- 1 +Supply to Terminal
- 2 +Data into Terminal
- 3 +Data out from Terminal
- 4 -Data into Terminal
- 5 -Data out from Terminal
- 6 Common

YOUR CORRESPONDING PINS

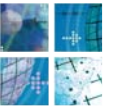
RS-485

TERMINAL

- 1 +Supply to Terminal
- 2 Not Used
- 3 +Data
- 4 Not Used
- 5 -Data
- 6 Common

YOUR CORRESPONDING PINS

Cable Design Form



Cable Types

- ☐ Straight Cable - Round Jacket ☐ Straight Cable - Flat Jacket
☐ Coiled Cable - Round Jacket ☐ Coiled Cable - Flat Jacket

Cable Length

- ☐ 7 Foot ☐ 15 Foot ☐ Custom - Length= _____

Cable Color

- ☐ Black ☐ Gray
☐ Other (Custom) _____

Shielding

- ☐ Unshielded ☐ Shielded
Shield Termination at Host _____
Shield Termination at Terminal _____

Wire Size

- ☐ 26GA (Std. for all cables)
☐ Other (Custom) _____

Custom Connector Information

Connector Type: _____
Connector Manufacturer: _____
Manufacturer Part No: _____
Qty: _____

- ☐ Sketch Attached ☐ Sample Attached