

NO: PM-021
DATE: April 2015

PRODUCT: K3MA, K3HB Panel Meters
TYPE: Modification Notice

K3MA, K3HB Digital Panel Meters LCD Display Modified to Improve Visibility

Effective Date: May 2015 production

Affected Models

K3MA Panel Meters

Models	Specification
K3MA-F	AC/DC24
K3MA-F	AC100-240
K3MA-F-A2	AC/DC24
K3MA-F-A2	AC100-240
K3MA-J	AC/DC24
K3MA-J	AC100-240
K3MA-J-A2	AC/DC24
K3MA-J-A2	AC100-240
K3MA-L	AC/DC24
K3MA-L	AC100-240
K3MA-L-C	AC/DC24
K3MA-L-C	AC100-240



K3HB Panel Meters

See the full list of part numbers on the following pages.

K3HB Panel Meters

Models	Specification	Models	Specification
K3HB-CNB	AC/DC24	K3HB-CNB-FLK3AT23	AC100-240
K3HB-CNB	AC100-240	K3HB-CNB-L1AC21	AC100-240
K3HB-CPB	AC/DC24	K3HB-CNB-L1AT11	AC/DC24
K3HB-CPB	AC100-240	K3HB-CNB-L1AT11	AC100-240
K3HB-HTA	AC/DC24	K3HB-CNB-L2AT11	AC/DC24
K3HB-HTA	AC100-240	K3HB-CNB-L2AT11	AC100-240
K3HB-PNB	AC/DC24	K3HB-CNB-T12	AC100-240
K3HB-PNB	AC100-240	K3HB-CPB-CPAC22	AC/DC24
K3HB-PPB	AC/DC24	K3HB-HTA-1	AC/DC24
K3HB-PPB	AC100-240	K3HB-HTA-1	AC100-240
K3HB-RNB	AC/DC24	K3HB-HTA-BCD1	AC/DC24
K3HB-RNB	AC100-240	K3HB-HTA-BCD1	AC100-240
K3HB-RPB	AC/DC24	K3HB-HTA-C1	AC100-240
K3HB-RPB	AC100-240	K3HB-HTA-C2	AC/DC24
K3HB-SSD	AC/DC24	K3HB-HTA-C2	AC100-240
K3HB-SSD	AC100-240	K3HB-HTA-CPAC11	AC/DC24
K3HB-VLC	AC/DC24	K3HB-HTA-CPAC11	AC100-240
K3HB-VLC	AC100-240	K3HB-HTA-CPAC21	AC/DC24
K3HB-XAA	AC/DC24	K3HB-HTA-CPAC21	AC100-240
K3HB-XAA	AC100-240	K3HB-HTA-DRT1	AC/DC24V
K3HB-XAD	AC/DC24	K3HB-HTA-DRT1	AC100-240V
K3HB-XAD	AC100-240	K3HB-HTA-FLK1A	AC/DC24V
K3HB-XVA	AC/DC24	K3HB-HTA-FLK1AT11	AC/DC24
K3HB-XVA	AC100-240	K3HB-HTA-FLK1AT11	AC100-240
K3HB-XVD	AC/DC24	K3HB-HTA-FLK3A1	AC100-240
K3HB-XVD	AC100-240	K3HB-HTA-FLK3AT11	AC/DC24
K3HB-CNB-A	AC100-240V	K3HB-HTA-FLK3AT11	AC100-240
K3HB-CNB-A-DRT1	AC/DC24	K3HB-HTA-L1A	AC100-240V
K3HB-CNB-A-DRT1	AC100-240	K3HB-HTA-L1AC2	AC100-240
K3HB-CNB-A1	AC/DC24	K3HB-HTA-L1AT11	AC/DC24
K3HB-CNB-A1	AC100-240	K3HB-HTA-L1AT11	AC100-240
K3HB-CNB-ABCD1	AC/DC24	K3HB-HTA-L2AC1	AC100-240
K3HB-CNB-ABCD1	AC100-240	K3HB-HTA-L2AT11	AC/DC24
K3HB-CNB-AT11	AC/DC24	K3HB-HTA-L2AT11	AC100-240
K3HB-CNB-AT11	AC100-240	K3HB-HTA-T11	AC/DC24
K3HB-CNB-AT12	AC/DC24	K3HB-HTA-T11	AC100-240
K3HB-CNB-AT12	AC100-240V	K3HB-HTA-T21	AC/DC24V
K3HB-CNB-CPAC21	AC/DC24	K3HB-PNB-A-DRT1	AC/DC24
K3HB-CNB-CPAC21	AC100-240	K3HB-PNB-A-DRT1	AC100-240
K3HB-CNB-CPAC24	AC/DC24	K3HB-PNB-A1	AC/DC24
K3HB-CNB-FLK1AT11	AC/DC24	K3HB-PNB-A1	AC100-240
K3HB-CNB-FLK1AT11	AC100-240	K3HB-PNB-ABCD1	AC/DC24
K3HB-CNB-FLK3AT11	AC/DC24	K3HB-PNB-ABCD1	AC100-240
K3HB-CNB-FLK3AT11	AC100-240	K3HB-PNB-AT11	AC/DC24
K3HB-CNB-FLK3AT23	AC/DC24	K3HB-PNB-AT11	AC100-240

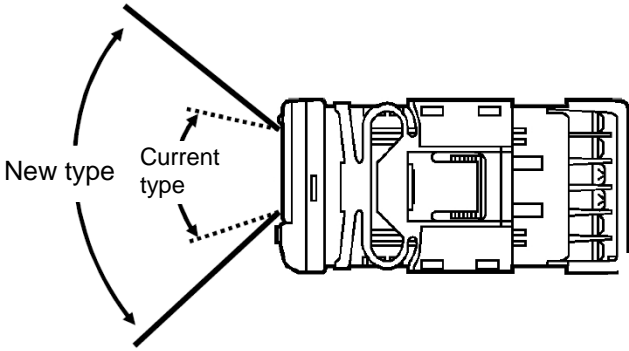
Models	Specification	Models	Specification
K3HB-PNB-CPAC11	AC/DC24	K3HB-RNB-CPAC11	AC100-240
K3HB-PNB-CPAC11	AC100-240	K3HB-RNB-CPAC12	AC/DC24V
K3HB-PNB-CPAC21	AC/DC24	K3HB-RNB-CPAC12	AC100-240
K3HB-PNB-CPAC21	AC100-240	K3HB-RNB-CPAC14	AC/DC24V
K3HB-PNB-FLK1AT11	AC/DC24	K3HB-RNB-CPAC21	AC/DC24
K3HB-PNB-FLK1AT11	AC100-240	K3HB-RNB-CPAC21	AC100-240
K3HB-PNB-FLK3AT11	AC/DC24	K3HB-RNB-CPAC22	AC/DC24
K3HB-PNB-FLK3AT11	AC100-240	K3HB-RNB-DRT	AC/DC24
K3HB-PNB-L1AT11	AC/DC24	K3HB-RNB-FLK1AT11	AC/DC24
K3HB-PNB-L1AT11	AC100-240	K3HB-RNB-FLK1AT11	AC100-240
K3HB-PNB-L2AT11	AC/DC24	K3HB-RNB-FLK3A1	AC100-240V
K3HB-PNB-L2AT11	AC100-240	K3HB-RNB-FLK3AT11	AC/DC24
K3HB-PPB-A1	AC/DC24	K3HB-RNB-FLK3AT11	AC100-240
K3HB-PPB-A1	AC100-240	K3HB-RNB-L1A	AC/DC24
K3HB-PPB-ABCD1	AC/DC24	K3HB-RNB-L1A	AC100-240V
K3HB-PPB-ABCD1	AC100-240	K3HB-RNB-L1AC1	AC100-240
K3HB-PPB-AT11	AC/DC24	K3HB-RNB-L1AC11	AC100-240
K3HB-PPB-AT11	AC100-240	K3HB-RNB-L1AC2	AC100-240V
K3HB-PPB-CPAC11	AC/DC24	K3HB-RNB-L1AC21	AC100-240
K3HB-PPB-CPAC11	AC100-240	K3HB-RNB-L1AT11	AC/DC24
K3HB-PPB-CPAC21	AC/DC24	K3HB-RNB-L1AT11	AC100-240
K3HB-PPB-CPAC21	AC100-240	K3HB-RNB-L1AT12	AC100-240
K3HB-PPB-FLK1AT11	AC/DC24	K3HB-RNB-L2A	AC100-240
K3HB-PPB-FLK1AT11	AC100-240	K3HB-RNB-L2AC1	AC100-240
K3HB-PPB-FLK3AT11	AC/DC24	K3HB-RNB-L2AC11	AC100-240V
K3HB-PPB-FLK3AT11	AC100-240	K3HB-RNB-L2AC21	AC/DC24
K3HB-PPB-L1AT11	AC/DC24	K3HB-RNB-L2AT11	AC/DC24
K3HB-PPB-L1AT11	AC100-240	K3HB-RNB-L2AT11	AC100-240
K3HB-PPB-L2AT11	AC/DC24	K3HB-RPB-A	AC/DC24
K3HB-PPB-L2AT11	AC100-240	K3HB-RPB-A	AC100-240
K3HB-RNB-A	AC/DC24	K3HB-RPB-ABCD1	AC/DC24
K3HB-RNB-A	AC100-240	K3HB-RPB-ABCD1	AC100-240
K3HB-RNB-A-DRT1	AC/DC24	K3HB-RPB-AT11	AC/DC24
K3HB-RNB-A-DRT1	AC100-240	K3HB-RPB-AT11	AC100-240
K3HB-RNB-A1	AC100-240	K3HB-RPB-CPAC11	AC/DC24
K3HB-RNB-ABCD1	AC/DC24	K3HB-RPB-CPAC11	AC100-240
K3HB-RNB-ABCD1	AC100-240	K3HB-RPB-CPAC14	AC/DC24
K3HB-RNB-AC1	AC100-240	K3HB-RPB-CPAC21	AC/DC24
K3HB-RNB-AC12	AC100-240	K3HB-RPB-CPAC21	AC100-240
K3HB-RNB-AT11	AC/DC24	K3HB-RPB-FLK1AT11	AC/DC24
K3HB-RNB-AT11	AC100-240	K3HB-RPB-FLK1AT11	AC100-240
K3HB-RNB-AT21	AC/DC24	K3HB-RPB-FLK3AT11	AC/DC24
K3HB-RNB-C1	AC100-240	K3HB-RPB-FLK3AT11	AC100-240
K3HB-RNB-CPAC1	AC100-240V	K3HB-RPB-L1AT11	AC/DC24
K3HB-RNB-CPAC11	AC/DC24	K3HB-RPB-L1AT11	AC100-240

Models	Specification	Models	Specification
K3HB-RPB-L2AT11	AC/DC24	K3HB-VLC-ET11	AC/DC24
K3HB-RPB-L2AT11	AC100-240	K3HB-VLC-ET11	AC100-240
K3HB-SSD-A-DRT1	AC/DC24V	K3HB-VLC-FLK1BT11	AC/DC24
K3HB-SSD-A-DRT1	AC100-240V	K3HB-VLC-FLK1BT11	AC100-240
K3HB-SSD-ABCD1	AC/DC24	K3HB-VLC-FLK1BT12	AC/DC24
K3HB-SSD-ABCD1	AC100-240	K3HB-VLC-FLK1ET11	AC/DC24
K3HB-SSD-AT21	AC/DC24V	K3HB-VLC-FLK1ET11	AC100-240
K3HB-SSD-AT24	AC/DC24	K3HB-VLC-FLK3B1	AC100-240
K3HB-SSD-C1	AC/DC24V	K3HB-VLC-FLK3BT11	AC/DC24
K3HB-SSD-C11	AC100-240V	K3HB-VLC-FLK3BT11	AC100-240
K3HB-SSD-C2	AC100-240	K3HB-VLC-FLK3ET11	AC/DC24
K3HB-SSD-FLK1AT11	AC/DC24	K3HB-VLC-FLK3ET11	AC100-240
K3HB-SSD-FLK1AT11	AC100-240	K3HB-VLC-L1BT11	AC/DC24
K3HB-SSD-FLK3AT11	AC/DC24	K3HB-VLC-L1BT11	AC100-240
K3HB-SSD-FLK3AT11	AC100-240	K3HB-VLC-L1E	AC100-240V
K3HB-SSD-L1AT11	AC/DC24	K3HB-VLC-L1ET11	AC/DC24
K3HB-SSD-L1AT11	AC100-240	K3HB-VLC-L1ET11	AC100-240
K3HB-SSD-L2AT11	AC/DC24	K3HB-VLC-L2BT11	AC/DC24
K3HB-SSD-L2AT11	AC100-240	K3HB-VLC-L2BT11	AC100-240
K3HB-VLC-B-DRT1	AC/DC24V	K3HB-VLC-L2ET11	AC/DC24
K3HB-VLC-B-DRT1	AC100-240V	K3HB-VLC-L2ET11	AC100-240
K3HB-VLC-B1	AC/DC24	K3HB-XAA-1	AC/DC24
K3HB-VLC-B1	AC100-240	K3HB-XAA-1	AC100-240
K3HB-VLC-BBCD1	AC/DC24	K3HB-XAA-BCD1	AC/DC24
K3HB-VLC-BBCD1	AC100-240	K3HB-XAA-BCD1	AC100-240
K3HB-VLC-BT11	AC/DC24	K3HB-XAA-C1	AC100-240
K3HB-VLC-BT11	AC100-240	K3HB-XAA-CPAC11	AC/DC24
K3HB-VLC-BT12	AC100-240	K3HB-XAA-CPAC11	AC100-240
K3HB-VLC-BT2	AC/DC24V	K3HB-XAA-CPAC21	AC/DC24
K3HB-VLC-CPBC11	AC/DC24	K3HB-XAA-CPAC21	AC100-240
K3HB-VLC-CPBC11	AC100-240	K3HB-XAA-DRT1	AC/DC24V
K3HB-VLC-CPBC13	AC/DC24	K3HB-XAA-DRT1	AC100-240V
K3HB-VLC-CPBC21	AC/DC24	K3HB-XAA-FLK1AT11	AC/DC24
K3HB-VLC-CPBC21	AC100-240	K3HB-XAA-FLK1AT11	AC100-240
K3HB-VLC-CPBC23	AC100-240	K3HB-XAA-FLK3AT11	AC/DC24
K3HB-VLC-CPEC11	AC/DC24	K3HB-XAA-FLK3AT11	AC100-240
K3HB-VLC-CPEC11	AC100-240	K3HB-XAA-L1AT11	AC/DC24
K3HB-VLC-CPEC21	AC/DC24	K3HB-XAA-L1AT11	AC100-240
K3HB-VLC-CPEC21	AC100-240	K3HB-XAA-L2AT11	AC/DC24
K3HB-VLC-E-DRT1	AC/DC24V	K3HB-XAA-L2AT11	AC100-240
K3HB-VLC-E-DRT1	AC100-240V	K3HB-XAA-T11	AC/DC24
K3HB-VLC-E1	AC100-240	K3HB-XAA-T11	AC100-240
K3HB-VLC-E1	AC/DC24	K3HB-XAD-A-DRT1	AC/DC24V
K3HB-VLC-EBCD1	AC/DC24	K3HB-XAD-A-DRT1	AC100-240V
K3HB-VLC-EBCD1	AC100-240	K3HB-XAD-A-DRT3	AC/DC24

Models	Specification	Models	Specification
K3HB-XAD-A1	AC/DC24	K3HB-XVA-L1AT11	AC100-240
K3HB-XAD-A1	AC100-240	K3HB-XVA-L2AT11	AC/DC24
K3HB-XAD-ABCD1	AC/DC24	K3HB-XVA-L2AT11	AC100-240
K3HB-XAD-ABCD1	AC100-240	K3HB-XVA-T11	AC/DC24
K3HB-XAD-AT11	AC/DC24	K3HB-XVA-T11	AC100-240
K3HB-XAD-AT11	AC100-240	K3HB-XVD-A-DRT1	AC/DC24V
K3HB-XAD-AT23	AC/DC24	K3HB-XVD-A-DRT1	AC100-240V
K3HB-XAD-C1	AC/DC24	K3HB-XVD-A1	AC/DC24
K3HB-XAD-C2	AC/DC24	K3HB-XVD-A1	AC100-240
K3HB-XAD-CPAC11	AC/DC24	K3HB-XVD-ABCD1	AC/DC24
K3HB-XAD-CPAC11	AC100-240	K3HB-XVD-ABCD1	AC100-240
K3HB-XAD-CPAC13	AC/DC24	K3HB-XVD-AT11	AC/DC24
K3HB-XAD-CPAC14	AC/DC24V	K3HB-XVD-AT11	AC100-240
K3HB-XAD-CPAC21	AC/DC24	K3HB-XVD-AT12	AC/DC24V
K3HB-XAD-CPAC21	AC100-240	K3HB-XVD-C1	AC100-240
K3HB-XAD-CPAC22	AC100-240	K3HB-XVD-C2	AC/DC24
K3HB-XAD-CPAT24	AC/DC24	K3HB-XVD-C2	AC100-240
K3HB-XAD-FLK1AT11	AC/DC24	K3HB-XVD-CPAC11	AC/DC24
K3HB-XAD-FLK1AT11	AC100-240	K3HB-XVD-CPAC11	AC100-240
K3HB-XAD-FLK3AT11	AC/DC24	K3HB-XVD-CPAC12	AC100-240V
K3HB-XAD-FLK3AT11	AC100-240	K3HB-XVD-CPAC21	AC/DC24
K3HB-XAD-L1AT11	AC/DC24	K3HB-XVD-CPAC21	AC100-240
K3HB-XAD-L1AT11	AC100-240	K3HB-XVD-CPAC22	AC/DC24V
K3HB-XAD-L2AC1	AC100-240	K3HB-XVD-CPAC22	AC100-240
K3HB-XAD-L2AT11	AC/DC24	K3HB-XVD-CPAT24	AC/DC24
K3HB-XAD-L2AT11	AC100-240	K3HB-XVD-FLK1AT11	AC/DC24
K3HB-XAD-T2	AC/DC24V	K3HB-XVD-FLK1AT11	AC100-240
K3HB-XVA-1	AC/DC24	K3HB-XVD-FLK3AT11	AC/DC24
K3HB-XVA-1	AC100-240	K3HB-XVD-FLK3AT11	AC100-240
K3HB-XVA-BCD1	AC/DC24	K3HB-XVD-L1AT11	AC/DC24
K3HB-XVA-BCD1	AC100-240	K3HB-XVD-L1AT11	AC100-240
K3HB-XVA-C1	AC/DC24	K3HB-XVD-L1AT24	AC100-240
K3HB-XVA-C1	AC100-240V	K3HB-XVD-L2AC1	AC100-240
K3HB-XVA-C11	AC/DC24	K3HB-XVD-L2AT11	AC/DC24
K3HB-XVA-CPAC11	AC/DC24	K3HB-XVD-L2AT11	AC100-240
K3HB-XVA-CPAC11	AC100-240	K3HB-XVD-L2AT21	AC/DC24V
K3HB-XVA-CPAC21	AC/DC24	K3HB-XVD-T1	AC/DC24V
K3HB-XVA-CPAC21	AC100-240	K3HB-XVD-T1	AC100-240
K3HB-XVA-DRT1	AC/DC24V	K3HB-XVD-T11	AC/DC24
K3HB-XVA-DRT1	AC100-240V	K3HB-XVD-T11	AC100-240
K3HB-XVA-FLK1AT11	AC/DC24	K3HB-XVD-T12	AC/DC24
K3HB-XVA-FLK1AT11	AC100-240	K3HB-XVD-T12	AC100-240
K3HB-XVA-FLK3AT11	AC/DC24	K3HB-XVD-T2	AC/DC24
K3HB-XVA-FLK3AT11	AC100-240	K3HB-XVD-T2	AC100-240
K3HB-XVA-L1AT11	AC/DC24	K3HB-XVD-T23	AC100-240





Detail of Differences









Visibility of LCD Display









Before the change	After the change
<p>Display method STN (Super-Twisted Nematic)</p> <ul style="list-style-type: none"> The LCD picture was deleted because it was not possible to take a picture under the same shooting conditions as ASO-E-14003 and to compare before and after the change. 	<p>Display method MVA (Multi-domain Vertical Alignment)</p> <ul style="list-style-type: none"> The adopted new LCD improves the contrast ratio and the viewing angle. Character heights, shapes, and colors are unchanged. 

Display Brightness Comparison

Pictures that show the display before and after the change were taken under the same conditions.

Before the change	After the change
<p>Front panel K3MA series1, K3HB series</p> <p>[Front view] Green</p>  <p>Red</p> 	<p>Front panel K3MA series, K3HB series</p> <p>[Front view] Green</p>  <p>Red</p> 

Before the change	After the change
<p data-bbox="110 163 441 195">K3MA series, K3HB series</p> <p data-bbox="110 226 344 258">[Diagonally upward]</p> <p data-bbox="203 258 279 289">Green</p>  <p data-bbox="203 533 256 564">Red</p> 	<p data-bbox="824 163 1156 195">K3MA series, K3HB series</p> <p data-bbox="824 226 1058 258">[Diagonally upward]</p> <p data-bbox="917 258 993 289">Green</p>  <p data-bbox="917 533 971 564">Red</p> 
<p data-bbox="165 884 435 915">[Diagonally downward]</p> <p data-bbox="165 915 241 947">Green</p>  <p data-bbox="165 1199 219 1230">Red</p> 	<p data-bbox="857 884 1127 915">[Diagonally downward]</p> <p data-bbox="880 915 956 947">Green</p>  <p data-bbox="880 1199 933 1230">Red</p> 

Before the change	After the change
<p data-bbox="110 163 441 195">K3MA series, K3HB series</p> <p data-bbox="167 226 423 285">[Diagonally rightward] Green</p>  <p data-bbox="167 659 217 690">Red</p> 	<p data-bbox="824 163 1156 195">K3MA series, K3HB series</p> <p data-bbox="881 226 1138 285">[Diagonally rightward] Green</p>  <p data-bbox="881 659 932 690">Red</p> 
<p data-bbox="167 1062 407 1121">[Diagonally leftward] Green</p>  <p data-bbox="167 1457 217 1488">Red</p> 	<p data-bbox="857 1062 1097 1121">[Diagonally leftward] Green</p>  <p data-bbox="881 1467 932 1499">Red</p> 

Specifications in this product news are as of the issue date and are subject to change without notice. Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.