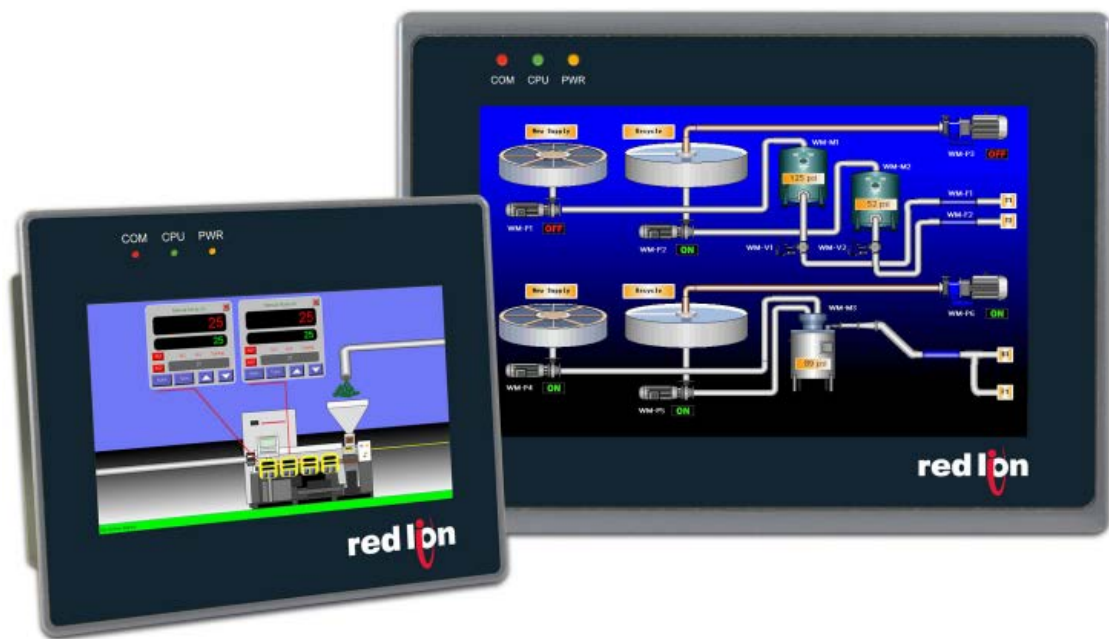


KNOWLEDGE BINDER – G3 KADET 2ND GENERATION



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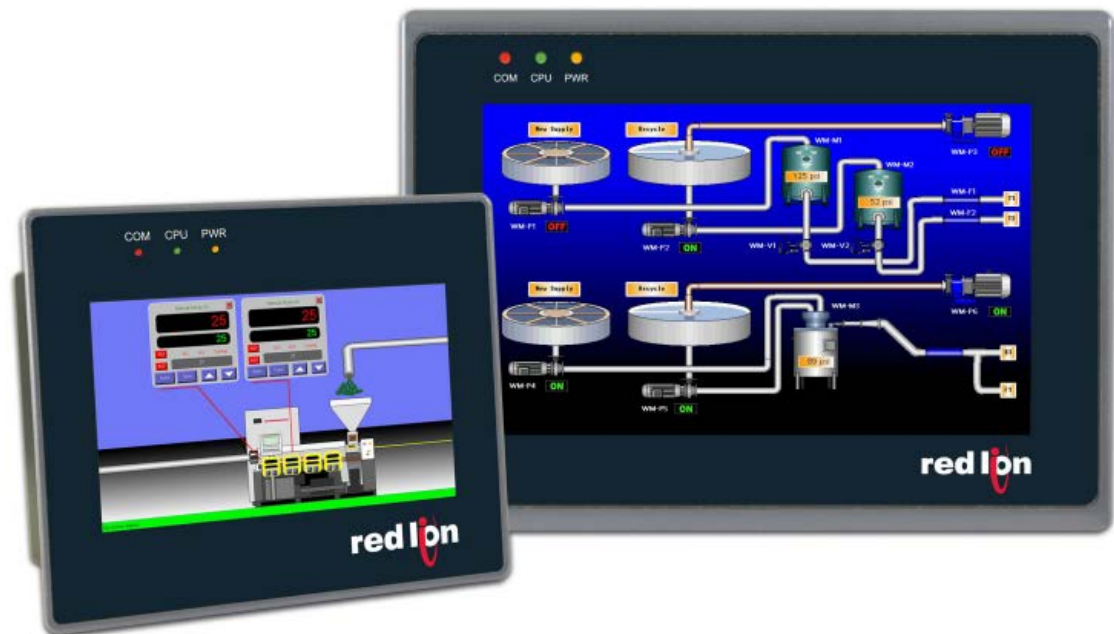
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Written by Jesse Benefiel.

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KNOWLEDGE BINDER – G3 KADET 2ND GENERATION



WHAT IS THE KADET "SECOND GENERATION"?

The original G3 Kadet, initially launched in 2008, has been a very successful addition to the standard range of G3 series HMI due to its relatively high value to cost ratio. The G3 Kadets set an industry benchmark for communications flexibility – its ability to communicate via multiple protocols simultaneously has allowed OEMs and machine builders alike to integrate equipment from varying automation hardware vendors.

If you're interested in learning more about the original G3 Kadets, refer to the G3 Kadet Knowledge Binder located here. http://sellmore.redlion.net/dist/Kadet_kb1.pdf

SECOND-GENERATION ENHANCEMENTS

The second generation models replace the previous models, and bring with them some exciting new features. The new 4.3" G304K2 HMI now includes an Ethernet port, allowing it to communicate with Ethernet-equipped PLCs, drives and other automation devices. Up to four Ethernet protocols may be selected from a list of over 70. Two serial protocols may also be assigned to the unit's RS232 and RS485 ports, allowing it to communicate via six protocols simultaneously – quite a feat for an entry level HMI! The G304K2's high-resolution 480x272 display has also been enhanced to support 32K colors, providing operators with a crystal-clear user interface despite its diminutive size.

The new 7" G307K2 replaces the G306K, and offers an ultra-modern WVGA wide-screen display. Like the 4.3" model, it also supports 32K, but in an 800x480 resolution display that's relatively large. Indeed, the majority of the G307K2 is consumed by the display, giving it a modern appearance that OEM's will appreciate. The G307K2 supports up to four Ethernet protocols and three serial protocols—simultaneously—making it the most powerful HMI in its class.

EXISTING 1ST GENERATION USERS

Many of you will have existing Kadet customers, and while I'd like to say that the 2nd generation is a fit, form and function replacement, that's simply not the case. Unfortunately a few differences exist between them (though panel-cutout size is NOT one of them – the new 7" unit fits in the same cutout as the older 6" model, and the physical size of the 4" remains unchanged.)

For more information regarding the differences, and the steps your customers will have to take to overcome them, please refer to the following documents...

DISTRIBUTOR MEMO – <http://sellmore.redlion.net/dist/G3KadetMemo2012.pdf>

TECHNICAL NOTES

Converting From G304K to G304K2...

<http://www.redlion.net/Support/TechNotes/HumanMachineInterface/TNG3K4.pdf>

Converting From G306K to G307K2...

<http://www.redlion.net/Support/TechNotes/HumanMachineInterface/TNG3K6.pdf>

AVAILABLE MODELS

The G3 Kadet Series was designed to offer your customers a high-value HMI. While not as powerful as the standard G3 series, the G3 Kadet still offers some unique features.

HARDWARE

DISPLAY SIZES



The range consists of just two models – remember, the Kadets are considered our entry level offering. A wider range of sizes are available in the standard G3 series HMI. Both Kadet models utilize a TFT display with 32K-color support. The actual size and resolution of each is listed below...

MODEL	SIZE	RESOLUTION
G304K2	4.3-inch wide	480 x 272
G307K2	7-inch wide	800 x 480

PORTS

An overview of the available ports is listed below...

MODEL	SERIAL	ETHERNET
G304K2	1 RS-232	10/100 MB
	1 RS-232/422/485	
G307K2	1 RS-232	10/100 MB
	2 RS-232/422/485	

SOFTWARE

The G3 Kadets are programmed via Red Lion's acclaimed Crimson[®] 3.0 software – there are no plans to offer support via Crimson 2.0. Conversion support is available moving from C2 to C3; refer to the earlier Technical Notes for assistance.

FEATURES/BENEFITS

MULTI-PROTOCOL SUPPORT

At the risk of sounding redundant, the Kadet 2 series excels at communication – never before have entry-level HMIs provided the ability to communicate to so many Ethernet and serial protocols simultaneously. This provides two distinct, yet related benefits to the customer...

UNIFIED USER INTERFACE

In today's automation market, virtually every device – the PLC, VFD, motion controller, etc. – is equipped with an Ethernet or serial port. If the machine builder wants a single HMI to display data from all of these devices, he usually has to buy all of the automation devices from a single vendor, resulting in less-than-optimal pricing. With Red Lion's Kadet series, the customer can buy the ¹best-in-class automation devices for the task at hand, knowing that the Kadet will be able to communicate to each of them without the need for costly protocol converters.

SEAMLESS INTEGRATION

Customers not only want an HMI that communicates to various equipment, they want the devices to be able to share data amongst themselves. With a few simple clicks, your customer can get his PLC communicating with his servo, as well as his temperature controller and his SCADA software. All of this can be done without any understanding of the protocols being used; Crimson 3.0 makes configuration a snap. Simply drag a register(s) from one device to another to establish communications between them – even the so-called “protocol converter companies” don't make it this easy!

ETHERNET

While most manufacturers' HMIs can communicate over Ethernet via one protocol or to one device only, Red Lion offers the ability to configure four different protocols, communicating with an unlimited number of Ethernet devices, simultaneously!

As more and more PLCs, drives and other industrial devices standardize on Ethernet, this feature becomes critically important. The G3 Kadets can communicate to all of these devices over the same piece of wire, converting their protocols as necessary, to get them communicating with one another!

SMALLER IS BETTER?

Many OEMs produce small machines with very little panel space. Though diminutive in size, the G304K boasts a high-resolution color display. Don't let your customers think that a small monochrome HMI is their only choice when space is a consideration. They'll be impressed with this little unit!

¹ For many OEM machine builders, “best-in-class” is code for “lowest cost.”

WHERE'S IT MADE?

Red Lion manufactures the vast majority of its products in the U.S. In fact, the standard G3 series is manufactured within 200 yards of this author's office.

The G3 Kadet, in contrast, is a purchased component. When initially launched, some of our sales personnel and customers feared that we were getting out of the manufacturing business – I can assure you that's not the intention. Rather, it's just that we have a finite amount of engineering resources at our disposal, and we wanted them to focus their talent on the flagship series.

While I won't mention the company with which we partnered by name, I can assure you that they've been a solid supplier, with high quality products. Of course, those with experience in the HMI market may notice that our Kadet looks awfully similar to a few other "manufacturers" here in the U.S. Indeed, we're not the only company to select this particular vendor.

However, in stark contrast to the other HMI companies, only ours can run Crimson software. This allows us to provide software that's powerful yet easy to use, while providing a level of support that's far superior to the other companies that sell similar looking hardware.

MARKET POSITIONING

As previously mentioned, the G3 Kadet was designed for the segment of the HMI market that does not need the advanced features of the standard G3 series.

In no way should you refer to the G3 Kadet as “stripped down”, or the “low cost” model – indeed neither statement is accurate! As you’ll see on the following pages, the G3 Kadet offers clear advantages over the competitors within its segment, and therefore it is still not competing with the real “low cost” players in the market.

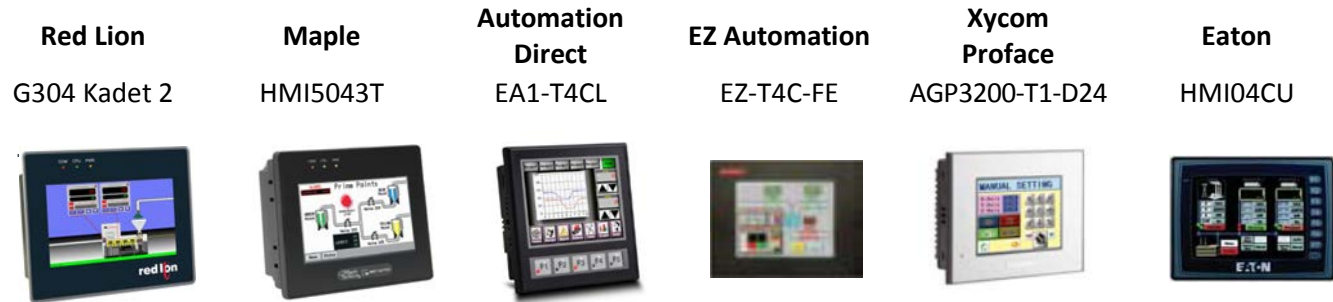
When referring to this new series, whether verbally or in print, be sure to call it by its full name, e.g. “**G3 Kadet**”. Consistent use of the G3 prefix lets customers know that this product is associated with the well-established and respected G3 family of products, giving it instant credibility in the marketplace.

MODEL REVIEW

The following is offered as a quick review of G3 features, and how they compare to those of the G3 Kadet second-generation.

	G3 SERIES	G3 KADET 2
PROGRAMMED VIA CRIMSON 3.0	✓	✓
MULTIPLE SERIAL PORTS	✓	✓
ETHERNET	✓	✓
COMPILER FOR CUSTOM USER PROGRAMS	✓	✓
PROTOCOL CONVERSION	✓	✓
DATA LOGGER	✓	
WEB SERVER	✓	
MODEM SUPPORT	✓	
MESSAGING FACILITIES	✓	
FTP SERVER/CLIENT	✓	
EXPANSION CARDS	✓	

G304K COMPARISON



Serial Comms Ports	2	2	1	2	1	3
Ethernet	Yes	Yes	No	Yes	Yes	No
Simultaneous Protocols	4	2 ??	1	2 ??	2	3
Colors	32K (64K Image)	64K	32K	256	256	64K
TFT	Yes	Yes	Yes	Yes	Yes	Yes
Display Size	4.3"	4.3"	4.1"	3.5"	3.8"	3.5"
Resolution	480 x 272	480 x 272	320 x 240	320 x 240	320 x 240	320 x 240
Touchscreen Resolution	Not limited	Not limited	Not limited	48 Touch cells	Not limited	Not limited
Memory Card	No	No	No	No	No	No
Price	\$399.00	\$390.00	\$356.00	\$399.00	\$710.00	\$403.00
Software	Free Crimson 3.0	\$75.00	Free	\$99.00	GP-Pro Ex, per license fee	Free

G306K COMPARISON



Serial Comms Ports	3	3	3	2	1	2	3
Ethernet	Yes	No	Yes	No	Yes	Yes	Option \$
Simultaneous Protocols	7	3	4	2 ??	2 ??	4	3
Colors	32K (64K Image)	64K	64K	32K	65K	65K	256
TFT	Yes	Yes	Yes	Yes	Yes	Yes	No
Display Size	7"	7"	7"	5.7"	5.7"	7.5"	5.7"
Resolution	800 x 480	800 x 480	800 x 480	320 x 240	320 x 240	640 x 480	320 x 240
Touchscreen Resolution	Not limited	Not limited	Not limited	Not limited	192 Touch cells	Not limited	Not limited
Memory Card	No	No	Yes	No	SD Card	CF Card	SM Card
Price	\$799.00	\$650.00	\$650.00	\$432.00	\$599.00	\$1,548.00	\$774
Software	Free Crimson 3.0	\$75.00	\$75.00	Free	\$99.00	GP-Pro Ex, per license fee	Free

SELLING TOOLS

Various tools are provided in order to help you sell the entire G3 family. Because the series is always being enhanced, some of the support items fall slightly behind. We are doing our best to keep them up to date; check this space often!

COLLATERAL

BROCHURE

Our current brochure is part number [ADLD0107], and may be ordered from the factory. It may also be viewed on the web at...

<http://sellmore.redlion.net/dist/SalesMeeting2012/Collateral/Catalogs/G3brochure/>

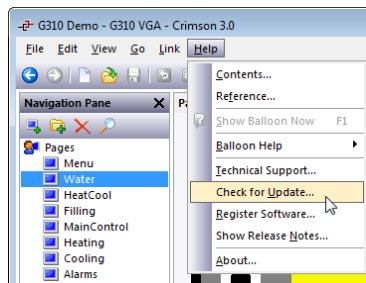
SOFTWARE



Crimson is available as a free download from...

<http://www.redlion.net/Support/Downloads/SoftwareLibrary/Crimson3.html>

If you already have Crimson 3.0 installed, and your computer has access to the Internet, you can make sure you always have the latest released build by clicking Help – Check for Updates.



BULLETINS

Hardware bulletins on the various G3 Kadet panels, as well as the accessories, are available at...

<http://www.redlion.net/Support/Literature.html#G>

SUPPORT

Our main support page is located at...

<http://www.redlion.net/Support.html>

...and offers various resources to support the G3 and G3 Kadet series HMI.

CABLES, DRIVERS & DRIVER INFORMATION SHEETS



For a list of devices that the G3 can communicate to, assistance in selecting the proper communications cable and any available Driver Information Sheets, visit the Cables and Drivers section of our web site. If you don't find what you're looking for, please call Technical Support. We're always adding new devices to our list!

<http://www.redlion.net/Support/Downloads/DeviceDrivers.html>

TECH NOTES

A growing list of Tech Notes is provided to assist with a variety of applications at...

<http://www.redlion.net/Support/VirtualHelpDesk/TechNotes.html>

TECH SUPPORT

The Interface Team at Red Lion currently has four full time members that may be reached Monday through Friday, 8:00 AM to 5:00 PM EST at...

717-767-6511, or via email techsupport@redlion.net.

CUSTOMIZING FOR OEMS

It isn't uncommon for OEMs to ask us if our HMIs can be private labeled. While we would rather the Red Lion logo be prominently displayed everywhere possible, we understand that the same goal is in the mind of many machine builders.

Currently, we have various levels of agreements with OEMs. These solutions range anywhere from standard HMIs with the Red Lion logo replaced with their logo, to thorough private label agreements that even include a custom version of Crimson 3.0 software.

Contact your local Red Lion sales manager about these types of opportunities.

SELLING THE KADETS

DON'T PROMOTE THE G3 KADET FIRST!

Remember the old sales adage – you can always go down in price, but it's difficult to go up. When promoting our HMIs, focus on the power and ease of programming offered by the standard G3 series. If the customer doesn't need its features, you can always recommend the G3 Kadet.

For those of you that have attended any of our product Workshops, you'll no doubt remember the mantra "Seeing is believing!" in regard to our product's features. Every company says that their products can do "this" or "that" – that their software is "easy to use". The only real way to make them believers is to prove it to them. Make sure to read the Crimson 3.0 Tutorials, and prepare yourself to "wow" the customer.

GOOD LUCK, AND GOOD SELLING!