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Canon G15 Review

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October 2012, Carl Garrard



Canon G15 Review- For as long as I can recall, I've been looking for a rangefinder styled camera that can perform nearly all of my photographic tasks in one single package. The range I ask of in a design ranges from Landscape to Low Light Street to Macro Shooting. To date, Canon's G series cameras have *almost* completely met my entire needs for a compact rangefinder style camera, but have fallen slightly short in certain key areas. Could the G15 finally be the best well rounded G camera yet? I know I'm certainly not alone in the pursuit for the perfect compact camera, so for those that are interested in this type of camera, please read on.

CANON G15 B&H DEAL

Canon G15 Review: Introduction

The Canon Powershot G15 is the latest G series camera from Canon stemming from a historical and traditional lineup of G series cameras that goes way back to the year 2000. In the digital age of cameras, this is indeed way back. The G15 sports an all metal body, 3" LCD w/920K dots and a glass cover outer layer (might be the first compact ever to have a glass LCD cover), and a 28-140mm f/1.8-f/2.8 lens. Inside sits a newly Canon developed 12mp CMOS HD sensor capable of outputting 12mp and true 1080p HD video. A new digic 5 processor handles the load.

On the power side, the G15 uses a new NB-10L battery that replaces the NB-7L battery of the G10/11/12 cameras, which is slightly smaller with less power than it's predecessors. As usual the G15 comes with a *slightly improved* optical viewfinder (as is "tradition" with the G series) for those who prefer to compose through glass with the camera stabilized by your forehead. Also, the G15 is loaded with many of the modern Jpeg only grounded features like HDR, low light mode, and digital "filters" to aid in many different scenarios.

In the box you get the very basics: A CD manual (bleh), warranty card and fast start up manual, battery and charger, camera strap. Basic, but the camera yields a lot for the price (especially the deal I found for mine).

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Canon G15 Review: Overview



Taking a closer look at the G15's front side, we see the typical additions to the modern G series. An optical finder, AF assist lamp, removable ring w/bayonet accessory mount and release button, and a real textured grip. New additions are the front control wheel (only since the G12), hidden pop up flash (G1X started that), slimmer design, and that wonderful newly designed lens with a f/1.8-f/2.8 28-140mm specification. The new lens is completely redesigned and has lens elements designed similar to the much higher priced professional grade Canon "L" lenses for DSLRS. It offers more than just the brighter aperture too. The new lens improves upon it's predecessors lens in many other respects, and the front bezel is now made of metal, not plastic. Overall it's just more refined, and a bit larger optic too (it needs to be for the fast aperture range).

Distortions such as barrel, chromatic aberrations, flare, and pincushion have all been slightly improved over the G10-G12 cameras (especially CA's). Macro performance has also been addressed, and the minimum focusing distance has been improved for 75% of the focal range (from about 35-110mm). This allows greater control over depth of field beyond its brighter lens, so there is a two fold improvement here.

The AF assist lamp is also brighter and casts a larger area of illumination than the recent G series cameras (G7 onward to now). This helps the G15 focus faster and with more lock rates, and more accuracy in low to no light conditions. Add that to the brighter lens that allows a one and one third stop advantage, and the G15 suddenly becomes a much better low light camera for several reasons.



Taking a look at the back of the G15 there are many differences in comparison to it's recent predecessors. The OVF housing is more flush to the body, the LCD is 3" wide with a glass cover and 920K dots of resolution. Glare resistance and viewing angles are marvelous. Less scratches and much easier to view with much more detail. One of the finest 3" LCD screens I've seen on any camera, let alone a compact. I do believe the G15 is the first compact camera to sport a glass LCD screen. Moving on, the EV dial is positioned right at the thumb and is now an acceptable -3 to +3 range.

The thumb pad is larger and better contoured than previous G cameras, and inset is a dedicated video button. Nice to have that but it's in the wrong location. An AEL button should be there instead. And in place of the playback button by the finder, the video button should reside. This would put the playback and delete buttons right next to one another, and this layout overall would be even better and more efficient. Canon should pay me for these kind of tips. Ok I'm kidding about the pay but I'm serious about the tips.

The G15 is a still shooters camera first, so the priority of controls should be in favor of still shooters. Right? That should be a no brainer, but alas. And again moving on... the AEL button is still available albeit to the right and down from the thumb pad, and the MF position gives way to the ISO adjustment because the ISO dial has been removed from the top. That doesn't bother me much, but shooters of G cameras do like their dials! I do like how macro, standard, and manual focus options are now all in one place as a result. Some cons have pros afterall.



And on the top of the G15 lies most of the changes compared to it's predecessors. Gone is the exposure dial replaced by a pop up flash and release switch. And in instead of the centered stacked array of remaining control dials, there is an offset duo consisting of the main menu dial and dedicated EV dial with a greater range of exposure compensation. This dial is perfectly situated to be controlled by the thumb at all times. This, was a good decision. I'm not so sure about the popup flash replacing an ISO or EV dial though.

Seems to me it's more of a marking "slick" presentation than a practical advantage over the previous iterations. I don't ever recall having red eye issues with any G series camera from the G7 onward, but maybe I've just been lucky. Having the flash

pop up about 1/2" higher doesn't seem to be all that much of an advantage to me. Especially for what you lose control wise. Also, you'll now need to pop up the flash in order to use it because it doesn't have an auto popup control. Just one more step to get a flash exposure. Seems like an awful lot of loss of quick control for a slick pop up flash that looks cool. Hmmm.

Otherwise, this is a G camera through and through. Overall the body is a bit cleaner in appearance, and looks almost too simple in comparison to say, the G12. But the G15 handles very well and better than the current competition, so I'm not going to complain much overall. That said, competition in this category is getting tight Canon- you might as well keep advancing in user control, not go backwards. And that is my last word on that.

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Canon G15 Review- Performance

In this section I'll go over area's of the G15's performance that I feel are noteworthy. Obviously there will be areas I don't cover but I'll try to prioritize the most important ones. That said, the Canon G15 is equipped with a new Digic V processor, that helps the G15 process complex equations faster than previous cameras.



The autofocus improvement is immediately noticeably, impressively so- and especially in good light. In dark light, the new AF assist lamp covers a slightly larger area which along with the brighter aperture, allows the G15 to lock onto subjects in the dark much quicker than the G12. The G15 is quick enough that I'd not hesitate to take action shots knowing full well I probably only have one chance to snag a good one. But the G15 isn't supposed to be an action camera or DSLR, its supposed to be a well rounded instrument that minimalists can rely on in photographic situations when carrying large heavy gear isn't an option.

In that role, the G15 performs admirably. It indeed is a quick performing camera that can execute many tasks quickly and competently. I'd go so far to say that most photographers out there would be better off with a camera like the G15 instead of a DSLR.

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Canon G15 Review- LCD Screen



I don't normally dedicate a section to LCD screens for any cameras I've reviewed in the past. Normally I give the basics and how they perform and move on. But this isn't your typical screen. This is probably the nicest LCD screen I've used on any camera let alone a compact. It's specifications are pretty normal these days- 3" and 920K dots. But what the specs don't tell you is that this screen is covered by a tempered glass sheet that has layers of anti glare resistant technology built into it. The contrast is a wide gamut type and the refresh rate is stunning.

This LCD is a beauty. Probably the best 3" screen I've ever used. Out in the sun, I had no issues viewing this screen even with the brightness turned all the way down to save a bit of battery life. That's saying something right there. But lets go back a bit. This LCD is a **glass covered screen**. That means that you don't have to fiddle with screen protectors (extra \$ and hassle) that typically *ruin the glare resistance* or clarity of your screen, nor do you have to worry nearly as much about scratching it. Not having to be so careful about scratching a screen is a real liberating feeling, let me tell you.

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Canon G15 Review: G15's Neat Tricks

Step Zoom Feature- This feature is one of the best new features about the G15 in my opinion. This feature will cycle through set focal lengths using either the front control wheel or the main control wheel on the back of the camera (you can assign it in the set control dial/wheel function screen). Focal lengths of 28, 35, 50, 85, 100, and 140mm are available. I have it assigned to the front control wheel.

When I use DSLR's I like to use prime lenses, especially the classic focal lengths. Many of the set focal lengths in the G15 are indeed that. 140mm is a bit odd, but it's close enough to 135mm anyways (which would be my preference). So this is something I use often and really liked on some of my older Ricoh cameras, and now the G's have it.

I much prefer knowing the equivalent focal length prior to pressing the shutter, than guessing, and reviewing it after. Plus, I like a nice clean focal length, not half lengths etc. And, to boot, the G15 remembers the last focal length you were at when you turned off the camera. So if you like to use one focal length for a set amount of time during the day, it will automatically go to that focal length after you turn the camera back on. That's slick.

And yet another slick mention on the feature is that the G15 remembers how many clicks of the wheel you make when you turn the wheel. So if you want to go from wide to full tele fast, just run your finger across either wheel and walla, it will go all the way to the end (just be sure you do enough clicks, a little practice and its real easy to do). This also means that you can compose with the G15 to your eye, count the clicks you make with the front or rear wheel, and you'll know (by memory) what focal length you'll be using if you start from the full wide or full tele side.

I highly recommend G15 users to use this feature and get used to it.

Handheld Night Scene- Although this feature is primarily targeted for low light shooting, you can absolutely use it in bright day light too. This feature takes three shots at the same exposure, stacks them, and auto aligns them for less overall image noise and detail gain. If you think of noise as the holes in swiss cheese, stacking 3 together will give you less holes to look through than a single slice. Since noise is random (just like holes in swiss cheese) stacking 3 images means more noise holes are plugged with detail from each additional shot.

The camera seems to choose the largest aperture at all light levels that it can. In bright light, it will use the lowest ISO value as a priority, and only reduce aperture size if the correct exposure cannot be reached even with the maximum shutter speed value. I like that way of programming, even though I'd prefer full manual control of that feature instead. This means that I can shoot daylight shot Jpegs that will show more fine detail, less noise, and better color retention because I'm using 3 shots instead of just one Jpeg stacked together. Overall, image quality is improved no matter what ISO level. Jpeg shooters, give it a shot.

The only caveat is that you have no control over the Jpeg output. Even if you use the custom color option for Jpeg shooting in other modes, it won't revert to those settings for this mode. But I must warn you to not write this feature off based on that alone. Despite being an auto mode, the results are still quite good and the camera will go as high as ISO 6400 in the lowest levels of light! You do however at least have control over the exposure value, but not the aperture or any other settings bar using the self timer. Other good news is that the images are at full 12mp resolution, not the reduced resolution the G12 had for higher than ISO 3200 values. The auto aligning seems very forgiving for handshake too, I had no issue shooting at 1/5th of a second hand held with zero blur. Not too shabby.

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Canon G15 Review: Battery and Battery Life

The G15 is equipped with a new NB-10L battery that gives 920mAh of power. This is less than the G10-12's battery which was the NB-7L battery which gives 1050mAh of power. Reducing the size of the battery may not have been necessary, but, allowed the G15 to be slimmer in the grip area along with the rest of the body compared to the G12. Although the battery is rated for less power, one has to realize that this G camera can still whoop all over other compacts in battery life, and many mirrorless models.

There's little real life loss in battery power compared to the G12- an estimated 30-50 shots less per charge. So, I'm not going to make a fuss about that side of the debate. However, if like me, you have two different G series cameras, that means you'll need two different chargers. I'd like to have seen Canon allow the older charger to be used for the G15, but there you have it.

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Canon G15 Review: That New Lens

A 28-140mm equivalent focal length can cover a lot of photographic situations, especially when you have a large or "bright" aperture. Canon knows this too. But to do all of those tasks with exceptional image quality is yet another challenge. When Canon decided to change the lens design yet again for the G series camera, they had to be sure that the optical quality would at least compare to its predecessor. The G12, G11, and G10 had set the precedence for optical quality in a compact package, so the G15's new lens had to be good or else face a very scrutinizing audience.



Good news G fans, the G15's new lens not only is a full stop and one third brighter through the entire range, this lens is slightly sharper and slightly better than its predecessor. Mind you I can only compare similar aperture and focal settings with the G15 vs the G12 to come to this conclusion, since the G12 does not have a bright f/1.8 wide angle nor an f2.8 telephoto. Given the same aperture settings the G15 has better control over several different distortions- barrel, pincushion, chromatic aberrations, flare, ghosting, etc.

Now that is quite a feat considering the predecessor's lens was already quite excellent. In fact, I rather expected a slight decrease in overall quality considering the optical advantage of the brighter aperture. None doing however, which is welcome news to say the least.

Further, the G15 allows closer focusing than the G12 did through most of the range bar wide angle. All of the middle focal lengths from about 35-120mm allow even closer focusing than the G12 did. This means that you have more control over background blur, and greater magnification for much of the range. So the story doesn't simply end with the fact that this new lens is just brighter and faster.

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Canon G15 Review: Summarized Comparisons

How does the G15 compare against some of its closest rivals, predecessors, and relatives? The below quick comparisons help answer that question for the camera shopper. I've put together a nice gain's and losses list compared to other G cameras and a similar competitor from another brand.

Compared to the G10



- Loses- Tethering, dedicated sound recorder abilities, the CCD *fingerprint* output, a dedicated ISO dial, some nominal resolution advantages at base ISO, better positioning of the AEL button, more shotcut button settings, ISO range from 1-15 second exposures (only ISO 80 available), and the angled control buttons.
- Gains- A much faster/brighter lens, more depth of field control, greater EV range on dial, step zoom feature, better noise control from the sensor, much better video, CMOS sensor benefits, better macro capability (improved magnification through the first 3/4ths of the focal range), faster overall performance, a glass LCD screen cover with better viewing angles and less glare, an LCD with more resolution, lighter and smaller body with no sacrifice in build quality, a much greater ISO range, durable textured finish, front command dial, pop up style flash, zoom step mode, more custom settings on controls, NR control for higher ISO settings, X-Fine Jpegs, and other software based features (there is a list of them).

Compared to the G12



- Loses- An articulated screen, the CCD *fingerprint* output, better positioning of the AEL button, dedicated ISO dial, more shortcut button settings, ISO range from 1-15 second exposures (only ISO 80 available), and angled control buttons.
- Gains- A much faster/brighter lens, more depth of field control, greater EV range on dial, step zoom feature, better noise control from the sensor, better video, CMOS sensor benefits, better macro capability (improved magnification through the first 3/4ths of the focal range), faster overall performance, a glass LCD screen cover with better viewing angles and less glare, better macro capability (improved magnification through the first 3/4ths of the focal range), an LCD with more resolution and size advantage, lighter and smaller body with even better build quality, a greater ISO range, pop up style flash, zoom step mode, more custom settings on controls, NR control for higher ISO settings, X-Fine Jpegs, and other newer software based features (there is a list of them).

Compared to the G1X



- Loses- The big sensor with it's nominal resolution advantage, and a bit of low light performance (when ISO's and aperture values are compared equally only), ISO range from 1-15 second exposures (only ISO 80 available), dedicated ISO dial. Also loses the articulated screen.
- Gains- A much faster/brighter lens, better depth of field control in macro shooting, step zoom feature, much lower price (initial MSRP), massively better macro performance, light years faster autofocus, automatic lens cover, much faster overall performance, a glass LCD screen cover with better viewing angles and less glare, and an LCD with more resolution and size advantage, lighter and smaller body with even better build quality, high speed 10fps shooting mode.

Compared to the Fuji X10



- Loses- Clarity and magnification of the optical viewfinder, bigger 2/3" sensor, better Jpeg output and control, and Fuji unique modes and film simulations (low light EXR 6mp mode and Fuji film simulations to be precise).
- Gains- Battery life, step zoom feature, lower price, higher nominal ISO range (not relegated to Jpeg only over ISO 3200), better grip, better handling, better ergonomics, smaller and lighter size, brighter lens with greater overall range, better macro capability and depth of field control, much faster overall operation, much better sorted menu system, better use of the live histogram, light years better manual focusing mode, and overall- just a more refined tried and true and balanced product in use. The X10 isn't.

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Canon G15 Review- What Makes It *Great*?

That is the question isn't it? When buying a camera, amongst so many others, you want to know what stands out about it and why you should buy it. Well, with the G15 there are several things about it that make it a great camera choice. And remember while some manufacturers may have many of the same specifications or features, or even have others, its not necessarily going to make the camera as good or better. How features are implemented, how quickly and intuitively they can be used and - how accessible they are, makes just as much of a difference as having them in the first place. Some cameras might have one or two features that "beat" the G15, but none of them implement the entire feature package better than the G15 does.

Here is my list on why the G15 is a "great" camera:

- A fast lens with an excellent all purpose range and macro capabilities that gives you a suprising amount of photographic creativity and control for a compact camera
- Effective optical image stabilization (I shoot hand held easily down to 1/5th second with no blur)
- A dual axis electronic level that you can calibrate (excellent option Canon)
- Good low light image quality by any standard
- Superb build quality
- Even better ergonomics
- Fast external controls
- Quick autofocus
- Raw capable
- Excellent battery life (although not as good as the G10-12 cameras)
- Included AF assist lamp
- Excellent glass covered LCD screen
- Pocketable (just)
- Affordable price
- Comfortable spacious grip on the front and rear
- Optical viewfinder when you need one
- Quick start up and shut down, and overall operation (scrolling, accessing menus, in camera development, etc.)
- Hot shoe and fast sync speeds with external flashes
- Mostly customizable menu system
- Two custom menu settings on the mode dial (use them!)
- Addition of XFine Jpegs, and some NR control of high ISO shots (low to high)

Canon G15 Review: Image Quality

AfterShooting almost primarily with the G15 for quite some time I've got some things to say about it's image quality. The 1 1/7" sized sensor in the G15 is Canon's latest, and most say it's the same as the S100 (which I also have). However, although the sensor *may* be the same as the S100's, Canon's definitely done some tweaking to the image output from it.

How to get the best Jpegs

Color- Set creative style to custom, and back off sharpening all the way- you can sharpen later and get better results than what come from the camera. This works for all ISO's too. Personally my limit on using out of camera Jpegs stops at ISO 5000, but I'll use up to 10,000 for raw images. That's a whole stop difference, simply because I think the quality is there in the raw files. However, very decent results are possible at 5,000 ISO if you expose properly and sharpen later (at least by my standards).



OOC Jpeg, ISO 5000

Hi-ISO Black and White- Shoot creative style b/w mode and put the G15 on auto i contrast. This will give you the full range of ISO available (as 200% and 400% do not) and will help to prevent shadows from blocking up and highlights blowing out. It's really noticeable in the shadows (saving detail and less blocking). I wish Canon allowed contrast/sharpness adjustments for this style, but they only allow that in the custom creative menu. At least they offer 3 ranges of noise control, and I recommend setting the G15 to low.



OOC Jpeg, b/w, a little flat on contrast but noise is controlled well. Mind boggling that Canon don't allow the user to choose contrast or sharpness on b/w images out of camera for Jpegs.

Overall Image Quality Assessment

Excellent, for a compact. I much prefer the G15's bright glass with a versatile focal length to a compact with larger sensor, slow lens, and a more confined focal length. Out in the real world, the G15 performs excellent and leaves little to desire. It's base ISO has a bit more noise than I think it should, but that's just being nit picky. I'd have no issues making big 13x19" prints from raw files on this camera. Both optically and digitally, this camera has excellent IQ even into the higher ISO settings. ISO 3200 is completely useable up to 11x14" quite often which is amazing to me. And if you don't mind grain in your images (I don't) up to 6,400 at that print size. ISO 12,800 can be coaxed into a nice 5x7 at the very least, or, an 8x10 in a pinch.



I've seen small sensors just get better and better over the years and the G15's sensor is all that. It's probably the best sensor I've seen at this size when you look at the entire ISO range, and it even has some slightly larger sensors beat as well (for example, the X10's which only goes up to 3200 ISO in raw). I don't hesitate to bring the G15 with me anywhere for fear of quality of images.



Full telephoto f/5, great sharpness, a hint of noise at base ISO

I know its capabilities and to be sure they don't stand up to a good DSLR. But, they do get close enough and I know how to shoot with the G15 to ensure I can come back with a nice big detailed print that most people couldn't tell apart from a DSLR on a print. That, is ultimately what is important.



ISO 80, good bokeh and good macro performance (could have got closer)

When I want professional level image quality in an ultra lightweight well handling package I can bring anywhere, no doubt I'll reach for the G15. From landscapes to macro to portraits, the G15 offers a lot of camera, a lot of versatility, and a lot of image quality for its price and small sensor. It's simply excellent bang for your buck- no questions asked.

CANON G15 B&H DEAL

Canon G15 Review- Conclusion



Canon brings the G series back to some of its roots, and also (just) back into your pocket. Although it's not an ultracompact by any means, the G15 is slim enough to fit into a coat pocket, big shirt pocket, or even loose jeans pockets in a pinch. This makes it a bit more portable than recent G series cameras, more like the G7 which basically was the grandfather of all the modern G series camera designs. Overall I find the new size and weight an excellent overall compromise in design. There is little if any negative impact by being smaller and lighter in this case when compared to say, the G10-G12 cameras.

What a fun camera. It sits next to me as I type, begging me to go shoot with it, instead of write about it. It's texture, overall shape and design, excellent front and rear grip, glass screen, excellent speedy performance, and great image quality just beg you to pick it up and have fun with it. And when you do, you're treated to the most solid G series camera I've ever had my hands on. The front and back panels are metal (G11/12 the rear was plastic) again, and thick too. This is a dense camera that feels like a single carved block of magnesium alloy- no kidding or exaggerating about that.

And I'll ramble more about the build quality. All of the buttons, dials, switches, pop ups, and doors feel perfect. There's a machined quality about the whole camera. The dials and buttons have just the right amount of tension and feedback before the click. Even the rear control dial is improved too. The texture of the whole camera feels like you paid about \$2,000.00 for it. It's thick, durable, and a non slip type, but not too gritty.. It's quite excellent. Even the shutter release has more surface area and is the soft touch type and feels quite nice on the fingertip.

Overall this is an excellent pocket camera that continues to refine as the line ages and progresses. I applaud Canon's ability to continue to just make a great product even better. There absolutely no reasons why I wouldn't recommend the G15 to anyone, let alone those looking for a compact as a back up to a DSLR.

Be safe and happy shooting,

-Carl Garrard

Canon G15: Pros

- Redesigned lens adds several photographic advantages (not just low light)
- Fastest operating G series camera yet
- Arguably the best built G series camera to date (glass screen and full metal panels, dense feel, excellent finish)
- Addition of XFine Jpegs
- Addition of NR control for high ISO shots (assuming 1600 and above, but no NR off)
- Largest and most detailed 3" screen on any compact to date (plus with a glass cover, but see cons)
- 2 Customizable settings on the mode dial (use them!), fast access to other settings you use often (things like ND filter, b/w photos, etc...)
- High ISO output is the best of all the small sensors (1 1/7" and smaller)
- Great video
- Good all day shooting battery life
- Excellent handling and controls
- Comfortable to hold, stable and secure
- Just flat out the overall package you want in a serious compact

Canon G15: Cons

- Slightly lower battery life than its predecessors since the G7
- Removal of Illuminated Dial Points
- Lack of articulated screen (in favor of a larger more detailed one w/glass cover however)
- Only ISO 80 available at exposures 1 second or less (same as S100)
- Low ISO output not as clean as I'd like to see in the blue channel (giving way to better high ISO however)
- Lack of noise reduction "off" setting for Jpegs

POSTED BY C. GARRARD AT 8:02 PM 

11 COMMENTS:

 Nick said...

A very informative read. It's also the first place I've seen mention of this "step zoom" feature - which is pretty cool. Thanks for the great review!

FEBRUARY 8, 2013 AT 3:38 PM

 Von said...