

Pclix XT User Manual

Version 3.22
March 2011



For more information regarding our
products please visit us at www.pclix.com

This manual will only be distributed as a digital file,
which in a small but important way helps our environment.
Please recycle whenever you can.

Pclix XT User Manual 3.22

A quick note about this manual. It covers all features and operational aspects of the Pclix XT. Please read our Time-Lapse and Video Shooting Tips located on your Pclix Flash drive or on our website. There is one for Still Camera, one for Video Cameras and one for Canon Video DSRL Shooters. For those downloading this User Manual from our Website this same Shooting Tips documents can be found at www.pclix.com under the Camera Compatibility Menu.

Index	Page
User Warning (Please Read)	4
Introduction	5
What's Inside the Box	5
User Interface	6
Power Adapter (optional)	6
Battery Installation	6
Setting Your Camera Model (50-89)	7
Still Camera Model Programming Chart	7
Video Camera Model Programming Chart	9
Communicating with your Camera	10
Using Infrared Light	10
Using a Camera Control Cable	11
Basic Operations Mode	11
Advanced Operations Mode	12
Programming & Using the User Intervals (90-99)	12
Factory Pre-Programmed User Intervals	13
User Interval Programming Sequence	14
Split Second Mode (00,01)	14
Setting Delay Start Option	15
Delay Start Time Programming Sequence (12)	16
Delay Start OFF / ON Programming Sequence (10,11)	16
Setting Image Count Option	16
Image Count Programming Sequence (22)	17

Pclix XT User Manual 3.22

Index	Page
Image Count OFF/ON Programming Sequence (20,21)	17
Setting Bulb Length Option	17
Bulb Length Programming Sequence (32)	18
Bulb Length OFF/ON Programming Sequence (30,31)	19
Bulb Toggle OFF/ON Programming Sequence (33,34)	19
User Preferences	19
Setting Interval Warning Length (40)	19
Setting Shutter Push Length (41)	20
LED Trigger Swapping (Green 42, Red 43)	20
Infrared Repeat Value (44)	21
Quick Canon Setup for Video Recording (45)	21
Save User Setup to Flash Memory (46)	22
Recall User Setup From Flash Memory (47)	22
Display Firmware Version (48)	23
Reset Pclix XT to Factory Settings (49)	23
Quick Pclix XT Programming Guide	24
Quick Canon Setup Programming Guide (See Page 21 for more Information)	25
Pclix XT Technical Specifications	26
Time-lapse Tips, Tricks and Resources	27
Time-Lapse Shooting Equation	27
Warranty Information	28
Our Copyright - Please Respect it!	28
Thank You	28



User Warnings:

Do not leave batteries in the Pclix XT for extended periods of time if you intend not to use the device. Ensure that you have installed the batteries correctly. Do not attempt to charge the batteries of the Pclix XT and always use a fresh pair when required. Properly dispose of old batteries. If your community has a recycling program that accepts batteries make use of it, not only for the batteries in this product but for others as well. Batteries may explode or leak if handled incorrectly. Do not dispose batteries in fire of any kind.

Please keep the Pclix XT out of the reach of children. While the Pclix XT is too big to fit down a child's throat the batteries are not, nor is the nylon hand strap. The camera cable could become tangled around a child's neck causing injury or death. It is your responsibility to ensure this device is stored in a safe place away from children and pets.

While the Pclix XT is a tough little device it is not waterproof nor is it weather proof. Treat it the way you would treat your camera. If you are in dicey weather consider protecting your Pclix XT using a small plastic ziplock bag or something similar. Water or weather damage of any kind to the Pclix XT will void the warranty.

Pclix and our parent company 1017 Visual Effects Inc. will not be responsible for any lost income due the use, misuse or failure of this device however caused. Nor will we be held liable for any damages including all camera equipment as a result of the use of this product.

Pclix and our parent company 1017 Visual Effects Inc. reserves the right to change the specifications of the hardware and software described in this manual at any time without notice. We also reserve the right to release, update or discontinue any of our products at anytime.

Pclix XT User Manual 3.22

Congratulations! You are now the proud owner of a Pclix XT. While this device is extremely easy to get the hang of, we strongly recommend you carefully read through this entire manual. By doing so, you'll learn all the various options and features built into every Pclix XT; plus you'll get some tips and tricks for time-lapse photography as well. We encourage you to provide any feedback regarding our products, service or support. Please visit our website at www.pclix.com to do so. Enjoy.

Introduction:

For decades cinematographers have been using very expensive motion picture equipment to photograph all kinds of amazing time-lapse sequences. During that time time-lapse photography was out of the reach for most people due to the high cost of the equipment needed, the film stock, processing and either transferring the results to videotape or projecting it in a theater. Those days are behind us. With the huge advances in digital still cameras, digital video cameras, personal computers and the availability of dozens of software applications this type of photography is available to just about anyone, including you. By adding the Pclix XT into the mix you now have the ability to shoot time-lapse images anywhere, anytime.

With no special adjustments other than setting the camera model code to suit your camera, your new Pclix XT can turn your digital still camera or video camera into a time-lapse movie-making machine with intervals from 1 - 89 seconds in 1 second steps; 2, 5, 10, 20, and 30 minute intervals; and 2, 4, 12, and 24 hour intervals right out of the box. Longer or in-between intervals can be readily set as described in the advanced section below. As well the Pclix XT can also trigger a camera in tenths of a second instead of just whole seconds using the Split Second Mode. This means you can set an interval anywhere between 0.1 – 9.9 seconds in tenths of a second.

The Pclix XT is based upon our original and very popular Pclix XT model. The difference between the two is quite substantial when it comes to the software. Again we have designed the XT model as was the original LT with you the photographer in mind. Not only will the Pclix XT allow you to photograph truly amazing time-lapse sequences, it's also extremely easy to use. The Pclix fits into just about any camera bag, it's built to tough standards and will run on two AAA batteries for about a month. Using the Pclix XT you can very accurately photograph time-lapse sequences using any interval you choose between 0.1 and 9.9 seconds in tenths of a second or 1 second to 100 hours in one second increments. As well you can set the number of images to be taken, program a delayed start, define the shutter length using the bulb feature and set the Pclix XT to control one of dozens of different still cameras or video cameras. The Pclix XT can also be used to remotely start and stop cameras shooting video, not only this but it can do it from up to 200 feet away. This is extremely popular with cinematographers shooting video with Canon 5DMKII or 7D cameras models.

The Pclix XT will trigger with any digital still or video camera that is listed on our compatible camera listings that has an Infrared Remote feature or the ability for a contact switch closer. Many cameras have at least one of these options, however, sadly many have neither. Currently the Pclix XT is compatible with dozens of camera models from Nikon, Canon, Fuji, Olympus, Sony, JVC, Samsung, Panasonic, Sanyo, Aiptek, Minolta and Pentax. See our website for a current listing of all compatible still and video cameras.

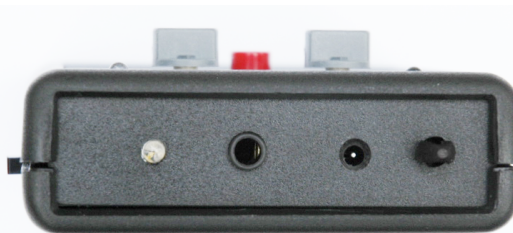
What's Inside the Box:

- Pclix XT
- Black Nylon Tripod/Hand strap with a 360 degree swiveling plastic hook
- 2 x AAA Alkaline Batteries
- Pclix XT User Manual and Demo Files on a 1GB Flash Drive. Just give it a twist.
- 2 x Laminated Quick Reference Cards, 1 for General Operation, 1 for Canon DSLRs
- 2 x 1.375" Velcro Dots so that you can mount your Pclix XT anywhere
- Camera Control Cable – (Optional) Included if ordered.
- 3 Volt Power Adapter – (Optional) Included if ordered.
- Some very good Karma

Pclix XT User Manual 3.22

User Interface:

The Pclix XT consists of four simple switches, first a black POWER switch along the right side of the device, a red FIRE switch on the top face and finally two grey rotating dial switches each numbered 0 to 9. For the purpose of this manual we will refer to these two grey dials as the LEFT dial and RIGHT dial. For the most part think of the LEFT dial as “the tens” and the RIGHT dial as “the ones”. However they do have other meanings in the programming menu discussed later in this manual. Above and a little to either side of the grey dials are two LEDs with an icon beside each. On the right next to the camera icon is GREEN LED when lit, on the left a clock icon beside a RED LED when lit. Using these four simple controls you will be able to set and control all of the features and options of the Pclix XT.



There are three other items on the front panel of Pclix XT to help it do what it does. The first is another LED that looks much the same as the two LEDs on the top face, however this is an Infrared LED used to trigger your camera using Infrared light. Infrared light is invisible to the human eye so you will never see this LED light up. Beside the IR LED there's a 1/8" stereo connector, this connector does one of two things. The first allows you to plug in one of our Infrared Control Cables or secondly one of our Directly Connected Camera Control cables. Only one can be used at a time and the type of cable must be defined in the camera model preference. The last connection on the front face is for an external power source. This power jack makes it possible to power the Pclix from a source other than the internal batteries allowing the Pclix XT to run for years instead of a month with the internal batteries. We can supply a few optional power accessories should you need them. Visit our website for more information.

Power Adapter:

If you've ordered the optional power adapter it will be included with your order. The obvious advantage of this adapter is you do not have to worry about batteries running low. There are many instances when a time-lapse sequence could take a lot longer than a month to shoot. Buildings can take many months or longer to complete so do many scientific experiments. In cases like these, an adapter can be used to power the Pclix for years if necessary.

Battery Installation:

The Pclix XT uses two AAA Alkaline batteries that are included with your order. To install the batteries simply slide the battery cover door located on the backside of the Pclix in the direction of the arrow. The battery holder has the proper polarity printed on it to ensure the batteries are installed correctly. DO NOT use rechargeable batteries with the Pclix XT, rechargeable batteries are generally 1.2 volts each not the 1.5 volts required by the Pclix.

Pclix XT User Manual 3.22

NOTE: The Pclix XT can trigger a camera in two ways. One with infrared light, the other by using a dedicated Camera Control Cable wired from the Pclix XT to your camera. When using Infrared Light the Pclix is designed to function properly down to around 2.2 volts. If you are experiencing a situation where your camera is properly connected and the Pclix XT appears to be working correctly and no triggers are being received by your camera then replace the batteries. If that fails to correct the problem then contact us for further assistance.

Setting Your Camera Model:

The first thing you must do before all others is to ensure the Pclix XT is programmed to the correct Camera Model Code for the still or video camera which you are wanting to trigger. Once set the Pclix XT remembers this User Preference forever or until you change it at a later date. There are two reasons why you might change this User Preference later. One, you might want to use the Pclix XT to trigger a different camera model using either infrared light or a Camera Control Cable. The second is if you want to alternate between triggering a video camera to take an image or to start and stop recording video. Basically once this user preference is set like all user preferences it is saved in flash memory. The flash memory of the Pclix XT is retained while the unit is off and even if the batteries are removed.

So let's proceed to set your Pclix XT to control your particular camera. In order to perform this function the power switch of Pclix XT must be in the OFF position. Simply slide the BLACK power switch towards you using your right thumb to turn OFF the device.

Now from the two different charts on the following few pages you are going to have to determine the Camera Model Code that is associated with your still camera or the infrared remote model number which is used to trigger your particular video camera. If you are connecting the Pclix XT to your camera using one of our directly connected Camera Control Cables, then the model code will be "50" regardless of the camera's make and model. Let's say that again. If you are using a directly connected Camera Control Cable connecting the Pclix XT and your camera together you must use model code "50". Otherwise if your camera will be triggered using infrared light then the Camera Model Code will be between 51 and 89. For example to trigger the Nikon D3000 with infrared light you would set the Pclix XT Camera Model Code to "51". The following camera compatibility chart is used to determine the Camera Model Code for STILL cameras ONLY. If you will be triggering a still camera which is supported by the Pclix XT then locate the Camera Model Code from the first column of the chart which matches your camera. There is a fourth column in the following tables called IR Repeat Value, ignore it for now, we will discuss that function later in the manual.

Still Camera Camera Model Codes and Compatibility Listing.

Model Code	Still Camera Make and Infrared Remote Model Number	Still Camera Models Supported by the Pclix XT	IR Repeat Value
50	Used for ALL cameras when using any of our Camera Control Cables to the right.	To be used ONLY with the following Camera Control Cables; C-300, C-320, C-350, C-400, C-500, C-530, C-540, C-700. (Again, this model code is NOT to be used when triggering your camera using infrared light, see below)	Not Used

Pclix XT User Manual 3.22

Model Code	Still Camera Make and Infrared Remote Model Number	Still Camera Models Supported by the Pclix XT	IR Repeat Value
The Following Codes are used to trigger a camera using infrared light.			
51	Nikon ML-L3	D40, D40x, D50, D60, D70, D70s, D80, D90, D3000, D3100, 8400, 8800	2
52	Sony (Instant) RMT-DSRL1	NEX5, A230, A290, A330, A380, A390, A450, A500, A550, A580, A700, A900, SLT-A33, SLT-A55	5
53	Sony (2 Second Delay) RMT-DSRL1	NEX5, A230, A290, A330, A380, A390, A450, A500, A550, A580, A700, A900, SLT-A33, SLT-A55	5
54	Canon WD-DC100	Powershot Pro90 IS, Pro 1, Pro S1, G1, G2, G3, G5, G6, S60, S70	6
55	Olympus RM-1(CH1), RM-2	E1, E10, E20, E20N, E100RS, Evolt E300, Evolt E330, Evolt E500, C2000z, C2020z, C-2030z, C2040z, C2100z, C-2500z, C3000z, C3020z, C-3030z, C-3040z, C-4040z, C5050z, C7000, C7070, C50, C60, C730UZ, C740, C750UZ, C755UZ, C770UZ, D-40, Stylus 300, Stylus 400, Stylus 410, C770	3
56	Olympus RM-1(CH2)		3
57	Minolta RC-3	DiIMAGE A200, F100, F200, F300, S305, S404, S414	3
58	Pentax RC-E, RC-F, RC-WP	W90, *istDS2, *istDS, *istDL2, *istDL, *istD, *ist, K100D, K110D, K200D, K10D, K20D, K-M, K-7, Optio S6/S60, Optio S5z/S5n/S5i, Optio S4i/S4, Optio SV/SVi, Optio 550/555, Optio 750z, Optio 330/430[rs], MZ-6	1
59	Fuji RM-S2	Fuji FinePix S2000HD	2
60	Samsung SRC-A3	Samsung NV7, NV10, NV11, NV15, NV20, NV24HD, NV30, NV40, SL820, TL320, L74W HZ10W, HZ15W	1
61	Canon (Instant) RC1, RC5, RC6	EOS 550D(Rebel T2i), EOS 5D Mark II, EOS 7D, EOS 500D (Rebel T1i), EOS 450D(Rebel XSi), EOS 1000D(Rebel XS), EOS 400D(Rebel XTi), EOS 350D(Rebel XT), EOS 300D, EOS 30/33/30V, EOS 50/55, EOS kissIII, EOS kissIIIL, EOS 100, EOS 10, EOS 300V, EOS 300X, 300VQD, EOS IX, IXUS jr/II/III, SURESHOT, ELAN7, Rebel T1 Date, Rebel T2 Date, Z180u, Z155, 120, 370Z, 370Z	1
62	Canon (2 Second Delay) RC1, RC5, RC6	Same as above provided the camera supports a 2 Second Delay infrared trigger. Many do, some don't. Please check your camera manual if you are not sure. This code is also used to start and stop the Canon 5DMKII and 7D recording.	1

Video Camera Camera Model Codes and Compatibility Listing.

The chart below lists all the Video Camera Infrared Remotes which the Pclix XT supports. If your camera came with one of these Infrared Remotes or it's compatible with one of these remotes the Pclix XT will be able to trigger your camera. We support two buttons on each of the supported remotes, the photo button and the record button. The record button is a toggle meaning that the first push starts recording, the second push stops recording. There are two codes listed for each remote, the first will cause the video camera to take a still, the second will toggle the camera in and out of record. **PLEASE NOTE:** The Sony RM-F-300 remote does not have a photo button and therefore only recording start and stop is supported.

Model Code	Video Camera Manufacturer and Function	Video Camera Infrared Remotes Supported	IR Repeat Value
63 64	Canon - Photo Button - Record Button*	Canon Infrared Remotes; WL-D85, WL-D87	2
65 66	Canon - Photo Button - Record Button*	Canon Infrared Remotes; WL-D86, WL-D88, WL-D89	2
67 68	Sony - Photo Button - Record Button*	Sony Infrared Remotes; RMT-808, RMT-814, RMT-830, RMT-831	5
69 70	Sony - Photo Button - Record Button*	Sony Infrared Remotes; RMT-835	5
71 72	Sanyo - Photo Button - Record Button*	Sanyo Infrared Remotes; Xacti BRC-C3	2
73 74	Panasonic - Photo Button - Record Button*	Panasonic Infrared Remotes; LSSQ0336, N2QAEC000003, N2QAEC000012, N2QAEC000013, N2QAEC000018, VSQW0044	2
75 76	Panasonic - Photo Button - Record Button*	Panasonic Infrared Remotes; N2QAEC000023	2
77 78	JVC - Photo Button - Record Button*	JVC Infrared Remotes; RM-V730U, RM-750U, RM-751U	5
79 80	Aiptek - Photo Button - Record Button*	Aiptek Infrared Remote; ZPT-RM	2
81	Sony - Record Button*	Sony Infrared Remotes; RM-F-300 Record Start and Stop ONLY - Bulb MUST be turned ON	5

* The Record Button is a toggle, first press is "start" recording, second press is "stop" recording.

Pclix XT User Manual 3.22

Once you know the model code for your specific still camera or video camera you can proceed. The Pclix XT has been designed so that you can enter the programming mode the same way for all the User Programmable options. This makes learning the various functions of the device easier to grasp. Later in this manual we will go into more detail regarding the other User Preferences. However for now, all we need to do is set the camera model. Start by making sure that the Pclix XT POWER switch is in the OFF position. Then set gray dials to the desired Camera Model Code, the LEFT dial is for the tens, the RIGHT for the ones. That is to say if your Camera Model Code is "56" then the LEFT dial will be set to "5" and the RIGHT dial to "6". Once both dials are at the correct number position, hold down the red FIRE button while sliding the POWER switch to the ON position. The RED LED will flash 3 times to indicate you are entering the programming mode. Once the RED LED has completed it's three flashes release the red FIRE button, the GREEN LED will then flash 4 time to indicate you have successfully defined the camera model. NOTE: The Pclix XT has error checking built into the camera model programming mode. If you try to program an invalid number the RED LED will light and stay lit. At this point you must turn OFF the Pclix XT and start over, ensuring you have correctly set the dials to a valid model number. The last step is to exit the programming mode by simply turning OFF the Pclix XT. You have now successfully set the Pclix XT to control the camera of your choice. In a nutshell, all user programming is entered and exited this same way.

Now lets make sure the Pclix XT can trigger your camera. The first thing you should do is set both the LEFT and RIGHT dial to zero. Now follow these next few steps. Turn ON your camera, remove the lens cap and put your camera into manual focus. If your camera is going to be triggered using Infrared Light then it must be put into "Infrared Remote" in order to receive the Infrared trigger, if you are unsure how to do this please see your camera manual. On the other hand if you are using a Camera Control Cable make sure the cable is connected between the Pclix XT and your camera. Next turn ON the Pclix XT. There will be 3 GREEN flashes to indicate you have started it up correctly. If you are controlling your camera using Infrared Light, then point the Pclix XT towards the infrared receiver on the front of your camera. Normally the infrared receiver is behind a small plastic red window above and to one side of the lens. Now push the red FIRE button on the Pclix XT. Your camera should take an image. You can now proceed to the next chapter "Basic Operation". If your camera did not respond, then re-read this section of the manual beginning with at "Setting Your Camera Model" to make sure you did not miss a step.

Communicating with your Camera:

As mentioned there are two ways for the Pclix XT to communicate with your camera, Infrared Light and Camera Control Cable. Let's deal with Infrared Light first.

Infrared Light:

If you are going to be communicating with your camera using Infrared Light you have two options. Every Pclix XT has a built in Infrared LED on the front panel of the device. If you have programmed your Pclix XT using any of the camera model codes other than "50" then you are able to trigger your camera without any cables attached. The one drawback to this approach is the camera needs to "see" the Pclix XT. This means the Pclix XT must be in front of the lens but NOT necessarily in the frame. You can easily point the Pclix XT towards the camera just outside of the frame and it will happily instruct your camera to take an image. Likewise, you can use this same technique when using the Pclix XT as a simple wireless remote. The Pclix XT will trigger your camera up to 4.5 meters away and in some cases further.

The second Infrared method is to plug in one of our Infrared Camera Cables(C-100, C-200, C-150) into the 1/8" (3.5mm) jack on the front panel of the Pclix XT. When this cable is installed, the Infrared LED on the front panel will be disabled. Using this cable allows you to position the Pclix XT behind the camera making the operation a little easier and the controls more accessible. There is however one small drawback to this method. Being, what is the best solution to attaching the Infrared Cable to the camera? Since camera models come in a variety of shapes and sizes coming up with one solution to attach the cable to your camera is a difficult challenge. After trying many different methods the simplest solution for most cameras seems to be a few small piece of black electrical tape. It sounds

Pclix XT User Manual 3.22

hokey I know, but it actually works extremely well. By using a couple of pieces a few inches long you can tape the end of the cable right over the Infrared window on your camera effectively blocking out all other light sources. This method should not mark or damage your camera in anyway. However there are a very few camera models which do not like the infrared light source right up against the receiver on the camera. If your camera does not respond properly when the optical cable is taped over the receiver then it must be held a few inches give or take away from the receiver. This method requires a wee bit of engineering in order to hold the cable in the proper place. Here are a few ideas as a starting point. Perhaps an elastic band around the lens will hold the optical cable in the right place. A small piece of stiff but bendable wire wrapped around a tripod leg with the optical cable taped to it could also hold the cable in the proper place. Truly this is a little like the wild west in the sense that there is no out of the box solution in these few cases. However as long as your camera can see the infrared light trigger it doesn't much matter how or where the cable is mounted. One last thing to consider. The sun as you know is the largest light we have and it will over power all other sources of light. If you are triggering your camera with infrared light while shooting into direct sunlight you might experiences triggering issues. In this case it is imperative that you use black electrical tape to hold the end of the Infrared Camera Cable directly over top of the infrared receiver effectively blocking all of the suns rays.

Camera Control Cable:

If your camera requires a Camera Control Cable which is directly connected to the remote connector on your camera than you must ensure you have programmed the Pclix XT to model code 50. This will disable both the internal Infrared LED and also the ability to use an Infrared Control Cable. It will also allow the Pclix XT to close an optically isolated internal switch thereby causing your camera to take an image. We offer many different Camera Control Cables due to the many different cameras we support. Basically the connection is the same for all. Simply plug in the 1/8" (3.5mm) end of the cable into the Pclix XT jack and the other end into the remote connector on your camera. You MUST have your camera in Manual Focus if using a Directly Connected Camera Control Cable.

Basic Operation

The Pclix XT has been designed to allow you the user to quickly start shooting in the basic mode. In the "Tips and Tricks" section of this manual you will find some suggestions to follow as a starting point when shooting a time-lapse sequence. Try and familiarize yourself as best as you can with the operation of your camera, things such as using manual focus, the different shooting modes and setting your camera into remote mode. As always, you have many options as to how you can configure your camera for photography and your chosen settings will influence your results when using the Pclix XT. Due to the dozens of camera models the Pclix XT can be used with we cannot possibly go into operational details for every make of camera, so please consult your camera manual.

In the basic mode you have 89 interval settings right at your fingertips, actually 99 when you include the User Programable Intervals which will be covered in the "Advanced Operation" section of this manual. For now we are only going to concentrate on the first 89. You should think of these 89 intervals settings as 01 second to 89 seconds, using any of them is as easy as dialing in the interval you desire using the LEFT and RIGHT grey dials. Again, think of the LEFT dial as the "tens" and the RIGHT dial as the "ones". Once you have set your interval and configured your camera to accept an infrared trigger or Camera Control Cable simply turn ON the Pclix XT. Once ON, the Pclix XT will flash the GREEN LED three times to indicate it is operating correctly. There will then be a short delay and the GREEN LED will flash again, during this flash your camera should take an image if everything is set correctly. If you have an interval of anything other than 1 second then the RED LED will flash every second of the countdown. Once your desired interval is reached the GREEN LED will flash and your camera will be instructed to take an image. Otherwise if you have the interval set to 1 second the GREEN LED will flash every second and your camera will also take an image on each GREEN flash. PLEASE NOTE: Pclix XT has a User Preference LED Swapping (42,43) which allows you to swap the LEDs when shooting. This means that RED will flash on the trigger and GREEN will flash on the 1

Pclix XT User Manual 3.22

second countdown. This feature is mainly used by people shooting video. Factory Default is GREEN on trigger.

When operating in this basic time-lapse mode you can change the interval at anytime without turning OFF the Pclix XT. Simply dial in your new interval time, the Pclix will continue to countdown your old interval, once at zero the GREEN LED will flash and an image will be taken. Then your new interval setting will be loaded and used from that point on.

In this Basic Operational mode the Pclix XT will continue to instruct your camera to take an image until the Pclix XT is switched OFF, your camera battery goes dead or the memory card becomes full.

The RED fire button can be used at anytime to take an image. For example, if during a long interval you would like to trigger the camera for whatever reason, you can do so. Or you can set both dials to zero and use the Pclix XT as a simple cabled or infrared wireless remote.

Advanced Operation

In the Pclix XT "Advanced Operation" modes, you have the ability to change the way the device functions. Various User Preferences and custom timing options can be set and saved into the Pclix XT. All settings are saved into flash memory and will stay there until further changes are made. This means that you do not need to worry about losing your custom settings if the batteries need to be replaced or the Pclix XT is left turned OFF for extended periods of time.

The programming features of the Pclix XT have been designed so you can quickly and easily change any or all of the user preferences, anywhere, anytime. There is no need to pre-program settings using a computer or PDA before you decide what you are going to photograph. From within the programming area you can set the Pclix XT to control various camera models (as we have already done earlier in this manual). You can define up to 10 custom User Intervals, set a delayed start time, set the number of images to be taken and define a shutter bulb length. Once these settings are programmed you can switch these options ON or OFF independently without affecting the selected durations or image counts. Other User Preferences can also be set which control the operation of the Pclix XT. Things like, Shutter Length, Interval Warning, LED swapping (used when shooting video) plus a few others, all are covered later in this manual.

There are three basic steps in order to put the Pclix XT into the programming mode. The first is to make sure the power switch for the Pclix is in the OFF position. The second is to set the two dials to the number of the programming option you would like to effect. This could be turning an option ON or Off, setting a length of an option, defining your Camera Model Code or adjusting various User Preferences. Again the LEFT dial is for the "tens", the RIGHT for the "ones". The third step is to hold down the RED fire button while you turn ON the Pclix XT. If you have done this correctly the RED LED will flash 3 times. Once the three flashes have finished you can release the RED fire button. At this point the GREEN LED will flash from 1 to 4 times to indicate you've either completed the programming option you wanted to set or to proceed to the next step. The software of the Pclix XT will warn you if you have made an error or attempted to enter an illegal number. All programming options end with the GREEN LED flashing four times indicating your settings have been saved in memory. You must turn OFF the Pclix to exit the programming mode. Now your settings have been saved in memory and you are free to turn ON the device and trigger your camera.

Programming and Using the User Interval Settings (90-99)

First let's explain how to program and use the user programmable interval settings (90-99). More than likely this is the user function you will use most often and due to the nature of this function it has the most steps in order to enter your settings. Subsequent programmable functions of the Pclix XT are much easier to explain once you are familiar with setting the User Programmable Interval function (90-99).

Pclix XT User Manual 3.22

There is one major difference in the way the User Programmable Intervals and the basic intervals operate. As we described in the "Basic Operation" section of this manual, if the 01 to 89 intervals are changed as the Pclix XT is running, then the present interval finishes and an image is taken. Then the new interval length is loaded and used from that point on. In the User Programmable Intervals the Pclix XT does NOT wait until the present interval is finished. Instead when you change from one User Interval to another, the Pclix XT will load the new interval length and take an image immediately. This is done because you might change from a very long User Interval to a very short User Interval. Remember when I say long; it can be up to 100 hours.

Again, when you are using the Pclix XT in the "Basic Operation" mode, you can set the dials anywhere between 01 and 89 thereby making that setting the interval. However the Pclix XT actually has 99 dial positions not 89. It is these last 10 which are used for your User Programable Intervals. The dial positions 90 to 99 can be programmed to any interval you choose between 01 second and 100 hours, actually 99 hours, 59 minutes and 59 seconds to be exact and all in 1 second increments. The Pclix XT comes factory pre-programmed with the following intervals saved into these 10 locations of 90-99.

Factory Pre-Programmed User Intervals and Registers			
Register	Interval	Register	Interval
90	2 Minutes	95	1 Hour
91	5 Minutes	96	2 Hours
92	10 Minutes	97	4 Hours
93	20 Minutes	98	12 Hours
94	30 Minutes	99	24 Hours*

*99 is changed to 11 minutes 33 seconds if you load the Quick Canon Setup (45) which is described later in this manual.

However as you'll see in the following few paragraphs, it's a breeze to change one or all of these user interval registers in mere seconds to whatever you like.

As mentioned, there are 10 user intervals registers numbered 90 – 99. Like all user settings you'll have to enter programming mode to make any changes. The first thing you need to do is shut OFF the Pclix XT, then set the dials to the number of the register you would like to save your User Interval into. For example: if you would like to save your User Interval into register 92 then set the dials to 92. Next hold down the red FIRE button and turn on the Pclix XT, the RED LED will flash 3 times indicating you are in the programming mode. Now release the red FIRE button. After doing so the GREEN LED will flash 1 time. This single flash is telling you to input the number of hours you want your User Interval to be. Set the LEFT and RIGHT dials to that number, somewhere between 00 and 99. Once you have set the dials to your desired number of hours then push the red FIRE button once, the GREEN LED will now flash 2 times asking for you to set the number of minutes you'd like for your User Interval. Set the dials somewhere between 00 – 59 and then push the red FIRE button again. This time the GREEN LED will flash 3 times, Now all that is left to do is to enter the number of seconds you would like in your interval. Again, set the dials to a number between 00 – 59 and push the red FIRE button one last time. If everything has been done correctly the GREEN LED will flash 4 times and your User Interval will be saved in the User Programable Register you selected in the first step register 92. Now turn OFF the Pclix XT to exit the programming mode. Congratulations you have just programmed your first User Interval. It's that easy. All it takes is 4 simple steps that can be done anywhere, anytime. Now set the dials to 92 and turn ON the Pclix XT, the Pclix XT will now trigger your camera at the interval you have just programmed. Now go through the steps a few more times saving different length intervals into a different registers to get the hang of it.

Pclix XT User Manual 3.22

User Interval Programming Sequence (User Interval Registers 90-99):

- Turn the Pclix XT OFF
- set the dials to the interval register to be programmed 90 – 99
- while pushing the red Fire button turn ON the Pclix XT to enter programming mode
- after 3 RED LED flashes release FIRE button
- the GREEN LED will flash once indicating to enter the interval hours
- set the interval hours using the LEFT and RIGHT dials
- push the FIRE button to enter the hours, the GREEN LED will flash 2 times
- set the interval minutes using the LEFT and RIGHT dials
- push the FIRE button to enter the minutes, the GREEN LED will flash 3 times
- set the interval seconds using the LEFT and RIGHT dials
- push the FIRE button to enter the seconds, the GREEN LED will flash 4 times
- turn OFF Pclix XT to exit programming mode
- You're done

NOTE: The Pclix XT has error checking built-in making it impossible to enter a number higher than 59 for either the minutes or the seconds. If you have the dials set to a number above 59 then the RED LED will flash once to indicate an error. Change the dials to a number 59 or below and then push the red FIRE button.

Now that you've got the hang of user interval programming and how easy it is, the rest of the Pclix XT user functions are even easier. These encompass the Start Delay Option, Image Count Option, Bulb Length Option, Split Second Mode, Interval Warning, Shutter Length and a few others which we'll get to shortly. The first three of these options each have a number or length of time which can be programmed into those functions; they also can be turned ON or OFF with out effecting the programmed number or length of time; the forth being the Split Second Mode can only be turned ON or OFF. The rest are custom user settings which effect the overall operation of the Pclix XT. In the next few pages we will describe all of these functions starting with the Split Second Mode.

Split Second Mode (00, 01):

What this feature does is allow you to split a second of time into tenths and use those tenths in your interval settings. Imagine the difference in results between a 1 second interval and a 2 second interval. Basically everything is moving 100% faster in the 1 second interval vs. the 2 second interval. With this mode you can have an interval anywhere from 0.1* to 9.9 seconds and all in tenths of a second steps. This makes it possible to have an interval of 0.5 seconds or 1.5, 2.3, 4.5, 6.7 seconds and so on. As with other interval settings on the Pclix XT this feature works with both the Image Count Option and Start Delay Option. However if you have the Bulb Option turned ON the Pclix XT will shut it OFF when you turn ON Split Second Mode. The two cannot be used at the same time. One other limitation is you cannot save Split Second interval times into the User Interval registers.

In this mode ONLY the LEFT Dial sets the seconds and the RIGHT Dial sets the tenths of a second. Also if your interval is anything above 1 second then the RED led will flash to indicate the passing of seconds counting down to the next camera trigger.

You must take into account the speed at which your camera can take an image and then be ready to take another when using this mode, this includes the time it takes to write the image to your memory card if your camera does not buffer images. Also take into account the length of the shutter required for a proper exposure. Some digital cameras are able to take many images a second others do not offer this functionality. You will need to determine how fast your camera can take images over and over again using the fastest interval. For this test turn on the Split Second Mode as described below and set your camera to receive a remote trigger. The play around with the interval setting to determine how fast your camera is able to repeatedly shoot with out missing shots when the Pclix XT instructs the camera to take an image. Basically you need to experiment a little bit to see what

Pclix XT User Manual 3.22

settings work best with your camera model. Exposure length as set by your camera also plays a huge part in how fast you can shoot in Split Second Mode.

To turn ON the Split Second Mode first turn OFF the Pclix XT, then set the LEFT Dial to 0 and the RIGHT Dial to 1, now Hold down the red FIRE button and turn ON the Pclix XT, release the FIRE button, after the 4 GREEN flashes turn OFF the Pclix XT. To turn OFF the Split second Mode set both LEFT and RIGHT Dials to 0 and repeat the steps above.

Once the Pclix XT is set to operate in Split Second Mode then when you turn ON the Pclix XT the GREEN led will flash only 2 times, if the Split Second Mode is set to OFF the GREEN led will flash 3 times.

*This number is totally dependent upon the camera model you are using. Most cameras are not able to shoot and process images this quickly when being remotely controlled. This limitation is due for the most part to the speed of the camera and not the Pclix XT.

Setting Delayed Start Options (Start Delay OFF 10, Start Delay ON 11, Start Delay Length 12):

This option allows you to set a delayed start for your image sequence. The delay can be anywhere from 1 second to 99 hours and 59 minutes, in 1 second increments. In this mode, you set the desired start delay length and then turn it ON or OFF in order to use it. If this start delay length is one that you might use fairly regularly the ability to turn it ON or OFF is very handy instead of re-programming it each time. This option could be used to start a sequence very early in the morning perhaps to catch the sun coming up if you are a late riser. Or maybe you might be away for a period of time and need the sequence to start unattended. With this option those kinds of scenarios are possible as are others. We will deal with setting the delay time first, then how to turn this option ON and OFF.

This setting is programmed much the same as the user interval times are entered with one exception. That is you must use the programming code 12 in order to set the length of the Delayed Start.

So to program the Delay Start turn OFF the Pclix XT as you always need to do in order to get into programming mode. Then first set the dials to 12 then hold down the red FIRE button and turn ON the Pclix XT, after the RED LED flashes 3 time release the FIRE button. The GREEN LED will now flash once indicating you need to enter the delay hours using the LEFT and RIGHT dials. Once you've set the hours push the red FIRE button, the GREEN LED will flash 2 times indicating you now need to enter the minutes for the delay. Set the dials for the minutes and then push the red FIRE button again, you'll see 3 GREEN flashes. Now all that's left to do is program the seconds, set the seconds and push the FIRE button one last time. You should now see the GREEN LED flash 4 time which means you have successfully programmed a Delayed Start Time. Turn OFF the Pclix XT.

The next step is to turn ON the Delay Start Option. In order to do this you must put the Pclix XT into programming mode one more time. Set the dials to 11 and startup the Pclix XT in the programming mode. Once you release the red FIRE button the GREEN LED will flash 4 times indicating you have now turned ON the Delay Start Option. Now turn off the Pclix XT to exit programming mode. To shut OFF the Delay Start Option you would use the programming code of 10.

PLEASE NOTE: If you plan on using the Delay Start Option it is advised that you confirm your camera is receiving commands by pushing the red FIRE button a few times at the beginning of the Delay Start countdown.

The Pclix XT will let you know what Options you have set ON or OFF. In the Delay Start Option, it does this during the LED startup sequence when the Pclix XT is turned ON. In normal mode the GREEN LED will flash 3 times during startup, if the Delay Start Option is set ON then on the first flash of the GREEN LED on startup the RED LED will also flash at the same time to indicate the Delay Start is ON.

Pclix XT User Manual 3.22

When the Pclix XT is counting down the Delay Start time the GREEN LED will flash once every 3 seconds to indicate you are in the process of counting down the delay. Once the Delay Start time reaches zero then Pclix XT will instruct your camera to take pictures as normal.

Delay Start Programming Sequence (Start Delay Length 12):

- Turn the Pclix XT OFF
- Set the dials to programming code 12
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash once indicating to enter the Start Delay hours
- Set the Delay Start hours using the LEFT and RIGHT dials
- Push FIRE button to enter the hours, the GREEN LED will flash 2 times
- Set the Delay Start minutes using the LEFT and RIGHT dials
- Push FIRE button to enter the Delay Start minutes, the GREEN LED will flash 3 times
- Set the Delay Start seconds using the LEFT and RIGHT dials
- Push FIRE button to enter the seconds, the GREEN LED will flash 4 times
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero
- You've just set the Delay Start time

Delay Start OFF / ON Programming Sequence (Start Delay OFF 10, Start Delay ON 11):

- Turn the Pclix XT OFF
- Set the programming code to 11 to turn Delayed Start ON or 10 for Delayed Start OFF
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash 4 times indicating you have successfully set either ON or OFF
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Setting Image Count Options (Image Count OFF 20, Image Count ON 21, Image Count Value 22):

The Image Count Option allows you to tell the Pclix XT how many images to trigger your camera to take. Once that number is reached the Pclix XT will stop triggering your camera and indicate your sequence is finished by flashing the RED LED once every 3 seconds until you shut OFF the device. You can program the Image Count to any number of images between 1 and 9,999. This option is handy to stop the camera from continuing to take images once the memory card is full. Also if you know the final frame count of your sequence, you can set the Image Count to that number and have the camera stop.

Programming this option is accomplished basically the same way as other options on the Pclix XT. You first must turn OFF the Pclix XT, then set the dials to programming code 22. Now that the dials are set, hold down the red FIRE button and turn ON the Pclix XT, after the 3 RED flashes release the FIRE button, the GREEN LED will flash 2 times. Let's say for example; you want your camera to take 1547 images. Set the LEFT dial to the thousands, in this case 1 and the RIGHT dial to the hundreds which is 5 in our example. With these two dials set, push the red FIRE button. The GREEN LED will flash 3 times asking for the tens and ones which in our example the LEFT dial should be set to 4 and the RIGHT dial set to 7. Now push the red FIRE button to enter the last two numbers of your Image Count. At this point the GREEN LED will flash 4 times to indicate your Image Count has been set. Turn OFF the Pclix XT.

Pclix XT User Manual 3.22

Like the Delay Start Option, the Image Count must also be turned ON in order to use it. You can turn it ON by setting the dials to 21 and entering programming mode in the usual way, or OFF by setting the dials to 20 and entering the programming mode.

The Image Count Option let's you know if it is ON or OFF during normal startup. In normal mode the GREEN LED will flash 3 times during startup, if the Image Count Option is set ON then the RED LED will flash during the second flash of the GREEN LED at startup.

Once your Image Count is finished the RED LED will flash every 3 seconds to indicate your sequence is finished shooting. To clear the Pclix XT after shooting your sequence turn OFF the device. If you turn the Pclix XT back ON it will repeat the Image Count down until you set the Image Count Option OFF.

Image Count Programming Sequence (Image Count Value 22):

- Turn the Pclix XT OFF
- Set the dials to programming code 22
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash twice telling you to enter the thousands & hundreds
- Set the thousands & hundreds using the LEFT and RIGHT dials
- Push FIRE button to enter those numbers, the GREEN LED will flash 3 times
- Set the tens & ones using the LEFT and RIGHT dials
- Push FIRE button to enter the tens & ones, the GREEN LED will flash 4 times
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero
- You've just set the Image Count

Image Count OFF / ON Programming Sequence (Image Count OFF 20, Image Count ON 21):

- Turn the Pclix XT OFF
- Set the programming code to 21 to turn Image Count ON or 20 for Image Count OFF
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash 4 times indicating you have successfully set either ON or OFF
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Setting Bulb Length Options (OFF 30, ON 31, Length 32, Bulb Toggle OFF 33, Bulb Toggle ON 34):

The Bulb Length Option allows you to instruct the camera as to how long the shutter will remain open on a still or how long a video camera will continue recording. On a still camera this is very useful when there is little light and a long exposure is necessary. Or on a video camera when you want the camera to record a clip of a given length. The length of the bulb or length of the Video recording can also be triggered manually by pushing the Red Fire button once to open the shutter or start video recording and then pushing it a second time to close the shutter or stop video recording.

The Bulb option of the Pclix XT has another interesting feature called Bulb Toggle. It's best described this way. When both dials are set to zero you can trigger bulb manually by pushing the Fire button. The Pclix XT factory setting is to set the Default of the Bulb Toggle to ON. This means that if you push the Fire button the when the dials are set to zero the shutter will open or video recording will be started. The shutter will stay open or video will continue to be recorded until you push the Fire button a second time. Upon doing so the shutter will close or video recording will be stopped.

Pclix XT User Manual 3.22

If however Bulb Toggle is set to OFF then when you push the Fire button the shutter will open or video recording will be started and continue for the programmed length of the Bulb on the Pclix XT. That is to say if you have a Bulb Length of 10 seconds programmed into the Pclix XT then with Bulb Toggle set to OFF your camera will expose a 10 second shot or record a video clip of 10 seconds in length.

You are able to define a Bulb Length of up to 59 minutes and 59 seconds using the programming mode. NOTE: Your bulb length must be at least 1 second shorter than your interval length for this option to function correctly. To set the Bulb Length start by turning OFF the Pclix XT. You first set the programming code to 32. Now hold down the red FIRE button while turning ON the Pclix XT. After the 3 RED LED flashes indicating you are now in programming mode release the FIRE button, the GREEN LED will flash 2 times asking for you to set the minutes of your bulb length. Once set push the red FIRE button again, the GREEN LED will flash 3 times asking you to enter the seconds of your bulb length. Once set push the red FIRE button one last time, there will be 4 GREEN LED flashes indicating you have correctly set the bulb length. Remember the Pclix XT will flash the RED LED once to indicate an error if you try and enter a number greater than 59 for the minutes or the seconds. Reset the dials to a number of 59 or below, now push the red FIRE button to enter your number.

You can turn ON the Bulb Length Option by setting the dials to 31 and entering programming mode in the usual way, or OFF by setting the dials to 30 and entering the programming mode.

Like the other Options the Pclix XT let's you know if the Bulb Length Option is ON or OFF during normal startup. In normal mode the GREEN LED will flash 3 times during startup, if the Bulb Length Option is set ON then the RED LED will flash during the third flash of the GREEN LED at startup.

During the time the shutter is open the GREEN LED will remain lit to indicate the shutter is in the open state and the RED LED will continue to flash every second as the Bulb Length is counted down.

Bulb Length Programming Sequence (Bulb Length 32):

- Turn the Pclix XT OFF
- Set the dials to programming code 32
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash twice asking you to enter the Bulb Length minutes
- Set the Bulb Length minutes using the LEFT and RIGHT dials
- Push FIRE button to enter the minutes, the GREEN LED will flash 3 times
- Set the Bulb Length seconds using the LEFT and RIGHT dials
- Push FIRE button to enter the Bulb Length seconds, the GREEN LED will flash 4 times
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero
- You've just set the Bulb Length

PLEASE NOTE: One major limitation of Bulb is this. If you are using both Bulb and User Programmable Intervals at the same time you CANNOT change your User Interval (ie:98 to 99) while shooting. You must first turn OFF the Pclix, change your User Interval and then turn the Pclix ON again.

PLEASE NOTE: Not all cameras have the ability to use Bulb. Check your camera user manual if you are uncertain. You must also set your camera to Bulb when using this function. Some camera models have built in maximum lengths that the bulb can be kept open. As an example, Olympus cameras having the bulb feature limit the exposure length to 8 minutes. Please consult your camera manual for possible limitations regarding your camera model.

Bulb Length OFF / ON Programming Sequence (Bulb OFF 30, Bulb ON 31):

- Turn the Pclix XT OFF
- Set the programming code to 31 to turn Bulb ON or 30 for Bulb OFF
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button

Pclix XT User Manual 3.22

- The GREEN LED will flash 4 times indicating you have successfully set either ON or OFF
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Bulb Toggle OFF / ON Programming Sequence (Bulb Toggle OFF 33, Bulb Toggle ON 34):

- Turn the Pclix XT OFF
- Set the programming code to 33 to turn Bulb Toggle OFF or 34 for Bulb Toggle ON
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash 4 times indicating you have successfully set either ON or OFF
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

User Preferences

The Pclix XT also has a set of User Preferences which can be adjusted to suit various shooting situations, display the current software version or to reset the Pclix XT to factory settings. The chart below lists the current preferences available, following the chart there is a description of each function.

Programming Code	Preference	Description
40	Shutter Push Length	Can be set to a value of between 1/100ths - 99/100th of a second (Default is 20/100ths of a second)
41	Interval Warning Length	Can be set to a value of between 1 - 59 seconds (Default is 20 seconds)
42	Green LED Trigger Swap	Make the Green LED flash on camera trigger. (Default)
43	Red LED Trigger Swap	Make the Red LED flash on camera trigger. Allows the user to have the standard red recording indicator for video recording.
44	Infrared Repeat Value	Can be set to a value of 1 - 9 repeats (Default varies depending upon model code selected).
45	Quick Canon Setup	Quickly configure the Pclix XT to control video recording on Canon 5DMKII, 7D, T2i, 550D, 600D DSLR Cameras.
46	Save User Setup	Save current setup to Flash memory from Pclix XT.
47	Recall User Setup	Recall saved setup from Flash memory into Pclix XT.
48	Display Firmware Version	Used to display the currently installed firmware of the Pclix XT.
49	Reset Pclix XT to Factory	Used to reset the Pclix XT to factory settings.

Setting Shutter Push Length (40)

This User Preference allows you to set the length of the Shutter Push. By factory default the Shutter Push Length is set to 20/100ths of a second. This setting only comes into play if the Pclix XT is set to

Pclix XT User Manual 3.22

camera model code 50. Using the programming sequence below you can set the shutter push length anywhere between 1/100th to 99/100ths of a second in length. If your camera is missing the odd frame then increasing the Shutter Push Length should solve the problem. Likewise if you are using a camera which is able to shoot high frame rates then shortening the length might allow you to trigger your camera quicker when the Pclix XT is in "Split Second Mode".

Shutter Push Length Programming Sequence (40):

- Turn the Pclix XT OFF
- Set the programming code to 40
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash three times asking you to enter the Warning Length
- Set the Shutter Push Length (01–99) using the LEFT and RIGHT dials
- Push FIRE button to enter the Warning Length, the GREEN LED will flash 4 times
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero
- You have now changed the Shutter Push Length

Setting Interval Warning Length (41)

Wouldn't it be great if the Pclix XT could warn you it's about to trigger your camera, of course it would. After all you don't want to be photographed watering your plant just as your camera takes another time-lapse image of the flower opening to full bloom. The Pclix XT has the ability to give you a visible warning providing two rules are met. First, the interval must be 1 minute or longer and second the interval must be a User Programmed Interval stored in any of the registers numbered 90 to 99. Normally when the Pclix XT is counting down to the next interval the RED LED gives a quick flash every second, however when the Pclix XT is within the length of the warning the RED LED flash inverts. Meaning the RED LED stays lit with the RED LED turning OFF quickly every second instead of turning ON. The factory default for the length of the warning is 20 seconds but you can change the length of the warning to anything between and including 01 and 59 seconds using the programming sequence below. If you try and set a warning length of 60 seconds or greater you will get an error warning indicated by a RED LED flash, reset the dials and try again.

Interval Warning Length Programming Sequence (41):

- Turn the Pclix XT OFF
- Set the programming code to 41
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash three times asking you to enter the Interval Warning Length
- Set the Interval Warning Length seconds (01–59) using the LEFT and RIGHT dials
- Push FIRE button to enter the Warning Length, the GREEN LED will flash 4 times
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero
- You've just set the Interval Warning Length time

LED Trigger Swapping (Green 42, Red 43)

This user preference is used to reverse the Green and Red LEDs. We highly suggest you ONLY change this preference if you are using the Pclix XT to trigger video recording. If you use the programming code of 42 (Default) then the Green LED will flash whenever a trigger is sent to the camera, it will also stay lit when a video camera is recording. However the convention for recording and shooting film is normally indicated by a Red LED, Green in some cases means standby. For this reason we have made it possible to swap the LEDs therefore making the Red LED flash or stay lit when the camera is

Pclix XT User Manual 3.22

triggered or recording. You can set the Pclix XT to flash the Red LED when a trigger is sent by using the programming code of 43.

PLEASE NOTE: When you swap the trigger LED to Red it's only the triggers and countdown flashes which are reversed. All other LED indications function as normal. That is to say with the LED Trigger Swap set to RED upon start up of the Pclix XT you will still get 3 Green flashes to indicate the Pclix XT is running. Likewise you will see 3 Red flashes when entering the programming mode.

LED Trigger Swapping Programming Sequence (Green 42, Red 43):

- Turn the Pclix XT OFF
- Set the programming code to 42 for Green LED or 43 for Red LED
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash 4 times indicating you have successfully set either ON or OFF
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Infrared Repeat Value (44)

When cameras are triggered using Infrared Light a small burst of coded invisible light is sent from the infrared remote to the camera. If the camera sees the proper coded light which happens very quickly then it will respond by taking an image. Many times camera manufactures repeat the short coded burst of light a few times in secession. This is done to ensure the camera receives the trigger. Cameras manufactures sometimes send the coded light only once, others send it 5 times. There is no standard in this area. It's for this reason that you have the ability to change the number of infrared coded burst of light sent with each trigger. Not only that but the Pclix XT keeps track of the number of coded bursts for each and every Model Code. We have done our best to try and duplicate what the original infrared remotes are doing and the Pclix XT comes factory set to match the original infrared remotes.

So, why would you want to change this number? You would change this number if your camera is missing the odd trigger. You might try and increasing the Infrared Repeat Value by one and then see if this solves the issue of missing frames, if not try increasing it by two. The tables on pages 8 and 9 have a forth column listing all the Default Infrared Repeat Values for each Infrared Model Code.

Infrared Repeat Value Programming Sequence (44):

- Turn the Pclix XT OFF
- Set the programming code to 44
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The GREEN LED will flash 3 times asking you to enter an Infrared Repeat Value
- Leave the LEFT dial set to 4 and set the RIGHT dial to the desired value from 1 to 9
- Push FIRE button to enter Infrared Repeat Value, the GREEN LED will flash 4 times
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Quick Canon Setup (45)

In one easy programming step you can load all the proper settings required to shoot video with supported Canon DSLR cameras. The known supported cameras at this point are the Canon 5DMKII and 7D, others will surely follow. If you execute programming code 45 the following User Preferences are set.

Pclix XT User Manual 3.22

The camera model code is set to "62" in order to trigger the camera to record video provided the Infrared Remote 2 seconds delay is active on the camera. The LEDs are swapped so that the RED LED (43) indicates you are recording, Bulb is turned ON (31), Bulb Toggle is set to ON (34) meaning when the dials are at zero the first push of the RED button starts recording and the second stops recording. The length of Bulb (32) is set to 11 minutes and 30 seconds, User Programmable Interval 99 is set to 11 minutes and 33 seconds. These last two settings are used to tell your camera to stop recording at 11:30 just before the 12 minutes 4 GB FAT 32 file size limit is reached. The the Pclix will then wait 3 seconds while the camera finishes saving the file at which time another start trigger will be sent to the camera and recording will continue. The length of these last two settings can be changed if you wish.

Quick Canon Setup Programming Sequence (45):

- Turn the Pclix XT OFF
- Set the programming code to 45
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- Both the RED and GREEN LED will flash 1 time
- Push FIRE button once to confirm the loading of the Quick Canon Setup
- The GREEN LED will flash 4 times to indicate the Quick Canon Setup has been loaded
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Save User Setup (46)

The Pclix XT has the ability to save one complete setup into flash memory. When you perform a save all User Preferences including camera model, image count settings, bulb settings, custom intervals, start delay settings, etc., etc., will be saved into flash memory for later recall.

Save User Setup Programming Sequence (46):

- Turn the Pclix XT OFF
- Set the programming code to 46
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- Both the RED and GREEN LED will flash 2 times.
- Push FIRE button once to confirm you want to Save the current Setup.
- The GREEN LED will flash 4 times to indicate you have successfully Saved your Setup
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Recall User Setup (47)

The Pclix XT has the ability to recall one complete setup from flash memory. By performing this function you will replace the current Pclix XT settings with the ones saved in memory. All user settings including camera model, image count settings, bulb settings, custom intervals, start delay settings, etc., etc., will be recalled and available the next time the Pclix XT is turned ON.

Recall User Setup Programming Sequence (47):

- Turn the Pclix XT OFF
- Set the programming code to 47
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- Both the RED and GREEN LED will flash 3 times
- Push FIRE button once to confirm you want to Recall the Saved Setup

Pclix XT User Manual 3.22

- The GREEN LED will flash 4 times to indicate your Saved Setup has been Recalled
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero

Display Firmware Version (48)

The Pclix XT has the ability to indicate which version of firmware is currently installed. This is done by using the following programming sequence.

Display Firmware Version Programming Sequence (48):

- Turn the Pclix XT OFF
- Set the programming code to 48
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button

The Pclix XT will then flash the Green LED 3 or 4 times indicating the whole number of the firmware version, followed by one Red LED flash for the decimal, next it will flash the Green LED a number of times indicating the decimal number of the firmware version. Put those two sets of Green flashes together and you have the firmware version, example 3.2

Reset Pclix XT to Factory (49)

The Pclix XT as mentioned earlier has internal flash memory, this memory stores all the variable settings of the Pclix XT. If for some reason the Pclix XT does not seem to be operating correctly then Resetting the Flash Memory might solve the problem. You can also use this Reset to quickly reload the factory settings if you want to start with a clean slate. By performing a Reset you will effectively erase all of your user preferences, camera model code, custom intervals, image count, bulb length, user changed Infrared Repeats Values, etc, etc,. This Reset CANNOT be undone. To Reset your Pclix XT follow the steps below.

Reset Pclix XT to Factory Programming Sequence (49):


- Turn the Pclix XT OFF
- Set the programming code to 49
- While pushing the red Fire button turn ON Pclix XT to enter programming mode
- After 3 RED LED flashes release FIRE button
- The RED and GREEN LEDs will flash 2 times
- Push the FIRE button again, the RED and GREEN LEDs will flash 3 more times
- Push FIRE button one last time
- The GREEN LED will flash 4 times to indicate you have successfully Reset your Pclix XT
- Turn OFF the Pclix XT to exit programming mode
- Reset both dials to zero
- You have now just Reset the Pclix XT to it's Factory settings

Pclix XT User Manual 3.22

Quick Pclix XT Programming Guide:

This Quick Programming Guide included with your Pclix XT is intended to be used as a quick reference when shooting. The CODE column is the number used to enter the various programming functions. The OPTION column lists the variables which can be set and finally the STEPS for PROGRAMMING SEQUENCE lists the steps needed to set the user preferences for each USER OPTION. Please read the detailed instructions in the previous pages for in depth detail regarding programming.

Quick Pclix XT
Programming Guide



If an option is set ON then the

LED startup sequence will flash

as indicated under Start Up.

To enter Programming Mode turn OFF your Pclix XT, HOLD down red FIRE button, turn ON your Pclix XT, wait for 3 RED flashes to finish then release the red Fire button.


Start Up	Pclix Features	Code	Option	Steps for Programming Sequence
<div><div></div><div></div><div></div></div>	Split Second	00 01	Off On	Set code, enter Programming Mode, release FIRE button, after 4 Green flashes turn OFF Pclix XT.
<div><div></div><div></div><div></div></div>	Delayed Start	10 11	Off On	Set code, enter Programming Mode, release FIRE button, after 4 Green flashes turn OFF your Pclix XT.
	1 Sec to 100 Hrs	12	Length	Set code, enter Programming Mode, release Fire button, after 1 Green set Hours, push Fire, after 2 Greens set Minutes, push FIRE, after 3 Greens set Seconds, push FIRE, after 4 Greens turn OFF.
<div><div></div><div></div><div></div></div>	Image Count	20 21	Off On	Set code, enter Programming Mode, release FIRE button, after 4 Green flashes turn OFF your Pclix XT.
	1 to 9,999	22	Count	Set code, enter Programming Mode, release Fire, after 2 Greens set Thousands & Hundreds, push FIRE, after 3 Greens set Tens & Ones, push FIRE button, after 4 Greens turn OFF Pclix XT.

Start Up	Pclix Features	Option	Code	Steps for Programming Sequence
<div><div></div><div></div><div></div><div></div></div>	Bulb	Off On	30 31	Set code, enter Programming Mode, release FIRE button, after 4 Green flashes turn OFF Pclix XT.
	1 Sec to 59:59	Length	32	Set code, enter Prog Mode, release FIRE button, after 2 Greens set Minutes, push FIRE, after 3 Greens set Seconds, push FIRE, after 4 Greens turn OFF Pclix XT.
Program Camera Model Code			50 to 89	Set dials to desired Camera Model, 50-89 (see user manual for details), enter Prog Mode, release FIRE, after 4 Greens turn OFF Pclix XT.
Program Custom User Intervals			90 to 99	Choose a register 90 to 99, enter Programming Mode, after 1 Green flash set Hours, push Fire, after 2 Greens set Minutes, push FIRE, after 3 Greens set Secs, push FIRE, after 4 Greens turn OFF Pclix XT.
Other user preferences*; 33/34 - Bulb Toggle Mode, 40-Trigger Length, 41-Trigger Warning, 42/43-LED Swap, 44-Infrared Repeats, 45-Quick Canon Setup, 46-Save Setup, 47-Recall Setup, 48-FW Version, 49-Pclix XT Reset. *See manual for info.				
This Guide is meant for quick reference only, detailed operating instructions for the Pclix XT can be found in your User Manual or downloaded from our website. Enjoy.				
www.pclix.com				
1017 Visual Effects Inc. - copyright©2011				

Pclix XT User Manual 3.22

Quick Canon Setup:

This Quick Canon Setup Guide included with your Pclix XT is intended to be used to set your Pclix XT to record video with supported Canon Cameras. Simply follow the steps in order to set the User Preferences to the base Canon Setup for triggering recording.

**Quick Canon Setup for triggering video recording on supported Canon DSLR Cameras.***

The Pclix XT can easily trigger your Canon DSLR to start and stop recording video by following the simple steps below.

On the Pclix XT

- 1 - Power OFF your Pclix and then set the dials to 45, the left to 4, the right to 5
- 2 - Hold down the RED trigger button and Power ON Pclix
- 3 - After 3 RED LED flashes release RED trigger button
- 4 - RED and GREEN LEDs will flash once, Push RED trigger Button
- 5 - The GREEN LED will flash 4 times, Power OFF
- 6 - Set both dials to zero and Power ON Pclix

On your Camera * visit www.pclix.com for the current list of supported Canon Cameras

- 1 - Power ON your Canon Camera
- 2 - Turn ON the 2 second Infrared Remote mode (used for triggering recording)
- 3 - Put your Camera in "Liveview"

Starting and Stopping Recording

- 1 - Aim the Pclix XT towards the Infrared Receiver on the front of your camera.
- 2 - To start recording push the RED button. Push RED button again to stop.
- 3 - Enjoy.

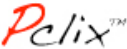
See over -->

Quick Canon Setup - Extras

The Quick Canon Setup on the opposite side of this card sets the following;
Camera Model Code is set to 62 (2 sec. Canon Infrared Trigger), Bulb is turned ON, Bulb Length is set to 11min 30sec, User Programmable Interval 99 is set to 11min 33sec, Bulb Toggle is turned ON, Record LED is set to RED, Split Sec Mode is set to OFF, Delay is set to OFF, Image Count is set to OFF

Using two of the above settings you can start and stop your camera recording at regular intervals. With the Bulb Length set to 11:30 and User Programmable Interval 99 set to 11:33 you can ensure that your camera will never reach the 4GB FAT 32 File size limit and stop recording. Simply load Quick Canon Setup, set the dials to 99 and turn on the Pclix XT. Your camera will shoot until the memory card is full. (3 seconds to be lost for each 11:30 of shooting as the file is saved) Both the Bulb Length and the User Programmable Intervals can easily be changed to suit your shooting situation.

You can easily shoot time-lapse sequences with these same Canon cameras by changing the Camera Model Code to 61 and turning off Bulb. The Pclix XT has many features which this card does not cover, please read the User Manual to learn more about what the Pclix XT can do for you. The current User Manual is on our website under the Support menu. Thanks.

**www.pclix.com**
1017 Visual Effects Inc. - copyright©2011

See Over -->

Pclix XT User Manual 3.22

Pclix XT Technical Specifications:

The technical specifications listed below apply to both the current Pclix XT and our original Pclix LT. If you require further information please contact us using the email links on our website.

Size:	3.62 (92) x 2.61 (66.5) x .82 (21) Inches (mm)
Weight:	With Batteries - 5.9 oz (153 grams), w/o Batteries - 4.9 oz (130 grams)
Internal Power:	2 x AAA Batteries (3 volts in total)
External Power:	2.1 - 3.6 volts
External Power Connector:	0.70mm ID, 2.35mm OD. Available from Digikey.com part # CP-012-ND or you can order our P-50 External Power Cable.
Camera Connector:	Stereo 3.5 mm (female) connector, Tip = Infrared, Ring = Shutter Sleeve = GND
Housing:	Scratch Resistant UL94-HB Plastic
Operating Temp. Range:	-40C to +60C (We have had clients using the Pclix down to -60C in the high arctic, however data sheets for the internal components only go as low as -40C)
Switching Current:	The Internal Optical Relay which closes when using a directly connected camera control cable from the Pclix to your camera is limited to 130 MAmps. (This relay is not used when triggering with Infrared Light)

Pclix XT User Manual 3.22

Time-lapse Tips, Tricks and Resources

By adding the Pclix XT into your photography toolbox you now have the ability to shoot time-lapse images anywhere, anytime. To get you started we have detailed some of the information which has been learned along the way plus added tips and tricks from other Pclix users. If you would like to share any time-lapse sequences you have shot using our products by all means let us know. We always have a handful posted on our website for the world to see and look forward to building our Users Gallery much larger than it presently is.

There are already online many hundreds of amazing time-lapse works shot by Pclix users all over the world. There website which host the majority are of course Youtube, Google Video and Vimeo. You can go to any of these websites and search their vast library by entering the search word "pclix", you'll get loads of great stuff.

On our website at www.pclix.com we have a few pages dedicated to time-lapse shooting tips and thoughts. You can find these pages under the Camera Compatibility Menu on the Upper Left side of most our our website pages. The first page deals with digital still cameras, the second with digital video cameras and finally the third with Canon 5DMKII and 7D Video shooting which is in a class by itself due to the popularity of these cameras being used to shoot professional video all over the world.

Time-Lapse Shooting Equation:

One question that comes up quite often is "What is the best interval to use in a certain shooting situation?" Good question indeed. The answer to that question is like asking "How long is a piece of string?" However, there are a few quick ways to get you in the ballpark plus a few variables that can be added in order to get a bit more creative.

Here is a basic (some would say not so basic) equation to help determine the best interval between shots. This is only a starting point, obviously many combinations of shooting lengths, interval settings, frame rates and other factors can come into play. However as you get more comfortable with the process this will become easier to understand and you well then be able to focus more on the creative aspect of time-lapse photography.

Equation – Obtain Shooting Interval

Let's say for example you are going to photograph a sunset and you imagine your shooting time will be about two hours. You first need to convert that two hours into minutes which gives you 120 minutes. But what we really need is the total number of seconds in that original 2 hours, so take the 120 minutes and multiply that by 60 seconds. You end up with 7200 total seconds.

(2 hours multiplied by 60 minutes multiplied by 60 seconds) = 7200 total seconds

Now lets say you would like the length of your finished sequence to be 10 seconds, you must first multiply 10 seconds by either 24, 25 or 30 frames (or images) per second. Typically standard video has 30 frames per second in North America and 25 frames per seconds in Europe. Whereas film and High Definition Video generally have 24 frames per second. Lets assume we would like 30 frames per seconds because our time-lapse sequence will eventually be shown on television in North America. So we use the equation below...

10 seconds multiplied by 30 frames per second = 300 frames for our finished sequence

So all that is left to do is divide the first part by the second part, this will give you the proper interval setting for the sunset example above using the Pclix XT.

7200 seconds of shooting divided by 300 final sequence frames = an interval of 24 seconds

Pclix XT User Manual 3.22

OK, I know, it looks completed the first time through but really it's not when you get the hang of it. So again here is the full equation from start to finish. You must first calculate the numbers inside the brackets and then numbers outside to obtain the proper interval number.

(Your intended shoot time in minutes multiplied by 60 seconds) divided by (the length of your finished shot in seconds multiplied by 24 or 30 frames per second) = interval of Pclix XT

Warranty

All Pclix products are covered by warranty for the period of two (2) years from the date of purchase. Manufacturing defects and/or component failure ONLY. This warranty is limited to only the above mentioned areas and does not cover damage or failure due to weather, or misuse. DO NOT open or unscrew the back panel from the Pclix XT case, doing so will void your warranty.

Copyright

The information covered in this manual is under © copyright and may not under any circumstances be reproduced in any electronic or printed form without express written permission. Individuals can companies who have purchased equipment from 1017 Visual Effects Inc. may print this manual for the purpose of instruction on the use of our products.

Thank-You

Again we thank-you for purchasing our products. Please visit our website anytime for up to date information, links, FAQ and examples from other using this same amazing little device. Please feel free to contact us for any reason; suggestions, support or sales. Our contact details are easily found on our website at www.pclix.com, we look forward to hearing from you. Enjoy.

Pclix is a division of 1017 Visual Effects Inc., Toronto, Canada
1017 Visual Effects Inc.©2011