

## PART 1 - THE SONY TRV900.

Before we consider the camera in any detail, a few notes about the cameras that IDRC currently has. We have two cameras at our disposal; the Canon Elura 50 and the Sony TRV900. The Canon is best suited for those who simply want to “point and shoot”; that is, it is very easy to use and produces good results with little to no tinkering with the manual settings. On the other hand, the Sony is capable of doing some pretty impressive things; it’s not your ordinary DV camera. This camera has three chips (i.e. 3CCD); what that means is that it separates the reds, blues and greens out of your colour shot, which results in a much truer representation of the spectrum. Most consumer cameras (like the Canon) only have one chip. The second thing is that while it can be used taking advantage of the automatic settings, it can also be used completely manually. The benefits of using the manual settings are that you can make the camera operate at its best given a wide variety of conditions; light, movement, hard focusing, or soft. However, you have to know what the settings mean. That said, it’s fairly straightforward, as luckily you will see what the camera is seeing as you go along, and if you don’t like it you can change it. This differs from the manual environment found in, for instance, a 35mm camera with manual features, as you won’t know how your settings affect your picture until you develop the roll of film. In a digital environment, you can adjust all settings when the camera is paused and start recording when satisfied. This is all to say that going manual on either camera is easy; I would encourage people to try it out. But, I will not go into great detail here about manual settings here. Here, I will explain the automatic settings that can be enabled to address environments where manual settings would have been required.

### STEP 1: THE POWER DIAL



The switch to turn the camera on can be seen here. If you look closely at that red button, you will see four settings around the dial: VTR, OFF, CAMERA, and MEMORY. I won’t address the MEMORY function as it relates to using memory cards instead of cassettes. The first three, however, are key. To change the dialled selection, press in the green button and turn the dial. The first option, VTR, allows you to use the camera like a VCR. This is useful for playing back your footage on the camera itself. It is essentially the same interface as any ordinary VCR; the VTR controls (which light up in VTR mode) are found here, on the top of the camera:



You can view your footage either through the viewfinder or the LCD screen, though the LCD screen depletes batteries more quickly. The second option, OFF, turns the camera off. The third option, CAMERA, puts you into shooting mode. These are the three basic settings you will be using; most of our time will be devoted to a discussion of the camera in CAMERA mode. A note; **if you turn the knob all the way down to MEMORY by accident with the intention to turn to CAMERA, you cannot use it.** It may appear to be

working fine, but you will see a flashing yellow card symbol with a line through it. This is the camera telling you that there is no card in the camera and that you cannot use it to shoot footage. Just make sure you are in the right mode: CAMERA.

## STEP 2: INSERTING A CASSETTE



To insert or eject a cassette, simply press the EJECT button, as shown to the left. Then, insert the cassette in the camera, label side facing outside, as shown right. Fully insert the cassette and close the door.



## STEP 3: RECORDING

To record, ensure you are in CAMERA mode. You will notice a green coloured STBY in the upper centre portion of the viewfinder, indicating that the camera is in standby mode. To record, simply depress the button in the middle of the POWER dial. Once you do so, you will notice the green PAUSE change to a red REC. This indicates that the camera is now recording. Also notice a few other things; to the left of the REC you will see either SP or LP; this indicates what speed you are recording in. SP gives you 60 minutes on one cassette, while LP gives you 90 minutes. I find little difference between the two in terms of quality, and so I would use LP. This is the default on the camera. To change this, press the MENU button found inside the viewfinder bay, as shown directly to the right, and then when the options come up in the viewfinder use the SEL/PUSH EXEC knob to shuttle to TAPE SET as shown below right. Next, select it by pressing the dial in. This places you in the REC MODE option; push the dial in once more. Now turn the dial to shuttle between SP or LP. To make your choice, highlight one or the other and depress the dial again. To exit, press MENU again. To the right of the SP/LP and REC/STBY indicator notice the timecode; this tells you where you are on the cassette in terms of hours, minutes, and seconds (H:MM:SS). Finally, note the image of a cassette below the timecode with "XX min". This indicates how much time you have left on the cassette you are using, where "XX" represents the number of minutes left. For instance, if you inserted a new cassette into the camera in LP mode, you would see "90 min", indicating you have 90 minutes left on the cassette. It counts down as you shoot footage to zero.



### Timecodes

Before we go any further, I'll briefly discuss what a timecode is. The timecode is more than just a clock; it allows for the editor (i.e. you) to easily capture footage later on. I discuss why in more detail in the Capturing notes, but at this point I would advise you to **ensure that you do not have any breaks, or blank spots, when viewing back your footage**; if you do, the timecode will reset and you will not be able to take full advantage of the benefits a uniform timecode offer when capturing footage onto your computer. Just try to ensure that when you play back your footage, you do not stop after the footage ends, but rather try to start a second or two before the point where the last footage taken ends. This only applies if you have gone into PLAY/VCR mode, watched your footage, and then wish to begin recording again in CAMERA mode. If you are shooting continually in CAMERA mode, the camera will not leave any blank spots.

## STEP 2: ZOOMING IN AND OUT

To zoom in and out, use the rocker switch on the top of the camera right next to the VTR controls, as shown right. “W” represents a wide angle shot (zoom out), whereas “T” represents a telephoto shot (zoom in). Depending what you want, zoom in or out by rocking the switch between “W” and “T”. A suggestion; the camera has a 12x optical zoom, which gives realistic magnified images, whereas the digital zoom goes up to 48x. The **digital zoom gives poor quality images** (as is the case with most digital zooms at this point in time) and so I wouldn’t use it so much. Camera shake also becomes much more apparent. As far as focusing while zooming, the camera focuses automatically, so you don’t have to worry about that. That said, in some cases it won’t focus properly because the camera isn’t sure what to focus on. In these cases, you may have to go manual. We will address this in what follows.



## STEP 3: MANUAL FOCUS

Choosing to focus manually has its advantages in a number of situations. If you are shooting a low contrast image (say, a room painted white) the camera may not know what to focus on. Similarly, if you are shooting in dark surroundings, the camera will have a hard time to focus automatically, and you’ll probably get a shot of your subject going in and out focus. The same thing holds true for areas where backlighting is an issue.



To change from auto to manual focus, switch down to manual as depicted left. Then, turn the focus ring (found around the lens) until you are satisfied. Two more things; if, when you are in manual mode and you wish to go to auto quickly, you can just press the “PUSH AUTO” button, found under the afore mentioned switch. Similarly, if you want to quickly stop focusing on that which is close to you and focus on things that are far away, you can switch down all the way to “INFINITY”.

## STEP 4: AUTOMATIC SETTINGS FOR OPTIMAL PERFORMANCE

Here I’ll explain how auto settings work in the context of most commonly faced problems when shooting in a variety of conditions; again, my treatment will be brief and will not go into the technicalities in order to, at this stage, keep it as simple as possible.

### BACKLIGHT COMPENSATION:



Pressing this button tells the camera that you are shooting a dark subject against a light background (say a person on a sunny day outside). If you let the camera decide automatically (that is, without using this option), the person would wash out and be akin to a silhouette, while the bright things around him or her would be properly exposed. Granted, maybe you would want that effect, but presumably for interviews you would not. So, the Backlight

Compensation option is nice for that. Press it and see what a difference it makes. The problem here is that sometimes it works too well and while the person is properly exposed, the background is washed out (i.e. far too bright).

#### THE ND FILTER:



A Neutral Density, or ND, filter is useful in conditions similar to those where Backlight Compensation may be necessary. In essence, what it does is limit the amount of light reaching the camera to only 16% of what it usually would. And since chances are you are shooting on automatic exposure, the camera will make the necessary adjustments to compensate for less light. So you may be wondering, what is the use of it? Well, it is useful if you are shooting in really bright conditions that would make the camera overexpose the image. Moreover, the camera thankfully will know when to use the filter and when not to. So, just **leave it turned on at all times** and put your faith in the camera. You'll know the camera is taking it into consideration as you will see "ND ON" or "ND OFF" on the bottom middle of the viewfinder.

#### PROGRAMMED AUTOMATIC EXPOSURE (AE):



Like all point and shoot cameras, shutter speed (how fast the shutter opens and closes) and aperture (how narrow the iris of the lens is and thus how much depth of field you get) is determined within the camera, so you don't have to deal with it. That said, there are five settings that the camera has to help you given particular circumstances. To access these five presets, you have to do two things: first, press the AE button, and second, choose among the five presets by rotating the dial below the button. The button and dial are represented in the two photos to the left respectively.



There are five presets: Aperture Priority, Shutter Priority, Sports, Sunset, and Low Light. We'll discuss each briefly.

**Aperture Priority, or AE(A)**, is useful if your main concern is depth of field, which is precisely what aperture determines. That is, if the iris is narrow, you will get most everything in focus, but you aren't letting a lot of light in the camera. On the other hand, if the iris is wide open, you are letting a lot of light into the camera, but only certain things will be in focus; those things in the distance will not be. The camera considers that first, focuses on your subject, and adjusts everything else accordingly. Simply press on the dial and choose your desired aperture stop; the shutter speed will be chosen automatically. Conversely, **Shutter Priority, or AE(S)**, places how fast the shutter is opening and closing as the main concern, forcing the other settings to be subordinate to that. Shutter speed primarily relates to whether or not you are capturing moving objects, and allows you to "freeze" them so that your shot is smooth and not choppy. Again, press on the dial and select your desired shutter speed, the aperture will be chosen automatically. **Sports** allows you to capture fast moving objects effectively, such as if you are in a moving vehicle and wanting to ensure that the footage you are taking of what passes by is not choppy. If you choose this then essentially what is happening is you are forcing the camera

to open and close the shutter very quickly, thereby allowing the fast moving objects (and by extension your rapidly changing shot) to be clearly visible. But, the trade-off here is that because you are letting less and less light into the camera, you will not get things that are close to you in focus as the lens opens up as wide as it can to let in as much light as possible. **Sunset**, on the other hand, is the opposite. Here, the camera slows the shutter speed down, allowing more light into the camera so as to allow for a relatively dark scene to be properly exposed. Finally, **Low Light** takes Sunset to the extreme, and really slows down the shutter speed to let the maximum amount of light in. This setting allows you to take shots inside dark rooms, by candlelight, or at night time. The problem here is that because the shutter is opening and closing so slowly, your shot will be really choppy, especially if you are moving the camera. If you use this preset, either use a tripod (ideally) or try to be as still as possible. Mind you, if what you are shooting is moving, a tripod makes no difference and there isn't much you can do.