

## **TM550 PASSIVE INFRARED TRAIL MONITOR**

### **Operating Instructions**

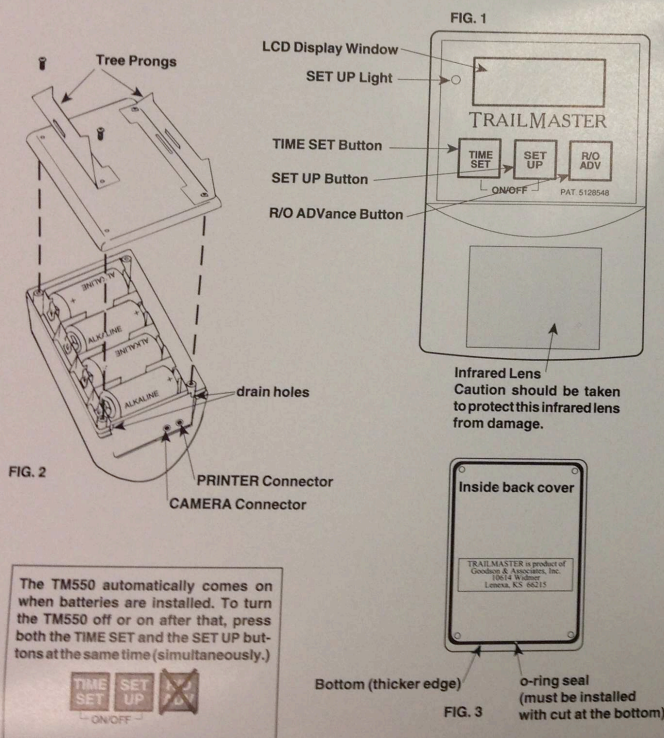
Before operating the unit, please read this manual thoroughly and retain it for future use.



CONGRATULATIONS ON YOUR PURCHASE OF THE TM550, THE MOST INNOVATIVE AND RELIABLE passive infrared trail monitor available today.

The TM550 monitor is a compact unit, utilizing passive infrared technology. The function of the TM550 Infrared Trail Monitor is to record the presence of animals in the area you have chosen to monitor. This is done by recording times that the unit detects warm-blooded animal movement within its area of sensitivity. The TM550 stores 1000 animal movement events. The area of sensitivity is typically 65 feet deep and spreads in a elliptical cone 150° wide and 4° high. The internal clock displays 24-hour time to differentiate between a.m. and p.m. times. The TM550 monitor is weather-proof. It will work in all weather conditions, in temperatures ranging from -40°F to +130°F.

The TM550 will work with the TRAILMASTER TM35-1 Camera Kit, the TM Data Collector, and the TM StatPack Software.



The TM550 automatically comes on when batteries are installed. To turn the TM550 off or on after that, press both the TIME SET and the SET UP buttons at the same time (simultaneously.)



The TM550 must always be mounted in the upright position. There are drain holes on the bottom of the unit that must always be positioned down. The back cover must be installed with the thick edge at the bottom. The cut in the o-ring seal should also be at the bottom of the TM550.

REMEMBER to mount the TM550 on a object that will not move in the wind.

## BATTERY INSTALLATION

Remove the four (4) stainless steel screws from the back cover of the TM550. (See FIG. 2) Once the screws are removed, the two tree prongs will come off and the back cover can be removed. When the back cover has been removed, notice that it has an o-ring seal installed in the groove that goes around the inside edge of the back cover. IMPORTANT: NOTICE THAT THE BOTTOM EDGE OF THE BACK COVER IS THICKER THAN THE TOP EDGE. (See FIG. 3)

Once the back is removed, install four fresh ALKALINE c-cell batteries as indicated by the + sign in the battery holder. The batteries should be placed on top of the nylon battery removal strap.

When batteries are installed, replace the back cover of the unit. When reinstalling the back cover, be certain that the o-ring material is in place and that the back cover is installed with the thick edge (bottom side) down. Check to see that the battery removal strap is not protruding from the unit. The tree prongs should be positioned so that the sharp prongs are pointing out. The points of the tree prongs will help stabilize the TM550 when it is strapped to a tree. The tree prongs can be positioned in several ways to accommodate different diameter trees.

Replace the four stainless steel screws. DO NOT OVER-TIGHTEN SCREWS.

The TM550's internal clock (time and date) must be set when batteries are first installed, and each time old batteries are replaced with fresh batteries.

**IMPORTANT:** The TM550 automatically comes on when batteries are installed. It is important to complete the Time & Date Setting (pg 2), Sensitivity Setting (pg 3), Camera Control Settings (pg 4), and Clearing Event Data (pg 4) before you turn the unit off.

## TIME & DATE SETTING - Accessed by holding down the TIME SET button for five seconds



Use TIME SET button to advance to the next digit.  
Use R/O ADV to adjust the time and date settings.

**Time & Date Setting Mode:** With new batteries installed and the back cover properly in place, the TM550 internal clock and calendar must now be set. The TM550 does a display test, displaying [8.8:8.8], and then automatically enters the Time & Date Setting Mode. The first digit of the time display is flashing, indicating that you need to set the hour of the day. (The TM550 has a 24-hour clock.) Set the time and date by following Steps 1 through 7 below. This ▼ indicates the digit that flashes to let you know which digit is being adjusted.

NOTE: Once you have the time and date set, the TM550 will automatically exit the Time & Date Setting Mode, and will advance to the Time / Date Flashing Mode. The time and date will flash alternately for ten seconds and then the TM550 will automatically enter the Event Gathering Mode, and will start gathering event data.

1. [ 0:00 ] is displayed press R/O ADV to set the hour (24-hour clock)
2. Press TIME SET [ 0:00 ] is displayed press R/O ADV to set the minute
3. Press TIME SET [ Yr 99 ] is displayed press R/O ADV to set the correct year (decade)
4. Press TIME SET [ Yr 99 ] is displayed press R/O ADV to set the correct year (year)
5. Press TIME SET [ 1. 1 ] is displayed press R/O ADV to set the correct month
6. Press TIME SET [ 1. 1 ] is displayed press R/O ADV to set the correct day of month
7. Press TIME SET the display will alternate between time and date 10 times and then display the event number. The time display has a semi-colon separating the digits and the month/day display has a decimal separating the digits.

If you want to make a change in the time or date setting, you will need to firmly hold down on the TIME SET button for five seconds to get back into the Time & Date Setting Mode.



**SENSITIVITY SETTING** - Accessed by pressing the TIME SET button repeatedly until "P" number is displayed. You may need to press one, two or three times, depending on what mode you are in. Use TIME SET button to advance to the correct screen. Use R/O ADV to adjust the sensitivity settings.

The TM550 has non-volatile memory. It will remember the sensitivity settings you last used, even if you remove the batteries. Therefore, the values displayed may be different than the default values indicated below.

**Sensitivity:** If this is the first time you are using the TM550, you will need to consider a sensitivity setting appropriate to your needs. There are two settings that determine the sensitivity of the TM550:

- The "P" number. This is the number of infrared pulses required to be considered an event. The "P" number is adjustable from 1 to 5.
- The "Pt" number. This is the time allowed to get the required pulses. The "Pt" number is adjustable from 0.5 seconds to 10 seconds. NOTE: Not all "Pt" values are available for all "P" settings; i.e., if "P" is set on 1, no "Pt" value is available; if "P" is set on 5, the shortest time available for the "Pt" is 2.5 seconds. (See TABLE 1 below.)

Different situations may require different settings to achieve optimal performance.

A good setting for large animals (bear or deer) is [P 5] [Pt 2.5]. This is the least sensitive setting. For smaller animals you may want to use [P 3] [Pt 3.5].

As the number of required pulses is increased ("P" number goes up), the sensitivity to small animals decreases. Also, as the time allowed to get the required pulses decreases ("Pt" number goes down) the sensitivity to small animals decreases. The most sensitive setting is [P 1]. This setting is too sensitive for normal applications.

Default is [P 1] This sensitivity is used for test purposes. Not advisable for use. Sensitivities available: P (pulses required to be an event) 1 through 5 Pt (time in seconds) .5 to 10 seconds

- Press **TIME SET** [P 1] is displayed press **R/O ADV** to set sensitivity for animal size. See section on HOW THE TM550 WORKS (pg 5)

If the "P" number is set on any setting other than 1, you will go to Step 2. If the "P" number is set on 1, go directly to CAMERA CONTROL FUNCTIONS, Step 3.

- Press **TIME SET** [Pt .5] is displayed press **R/O ADV** to control the length of time over which the pulses must be detected before it is recognized as an event. See Pt (Time in Seconds) TABLE 1 below.

TABLE 1

Pt (Time in Seconds)			
P#	Pt time in sec	MIN.	to MAX.
P 1*	Pt cannot be adjusted		
P 2	Pt can be from	0.5 sec	to 10 sec
P 3	Pt can be from	1.5 sec	to 10 sec
P 4	Pt can be from	2.0 sec	to 10 sec
P 5	Pt can be from	2.5 sec	to 10 sec

\*A sensitivity setting of P1 is too sensitive for normal operation in the field, and is not recommended in most circumstances.

**EXAMPLE for large animals:** With "P" set on "5", and "Pt" set on "2.5" an object meeting the heat differential requirements must interrupt "5" pulse windows within a 2.5 second time period to be recorded as an event. If it takes longer than 2.5 seconds to get the required pulses, an event will not be recorded. In this example, with "P" set on "5", you may set a "Pt" time between 2.5 seconds and 10 seconds. However, as "Pt" increases, the probability of detecting smaller animals also increases. (Refer to TABLE 1.)

You can get to any basic function (time setting, sensitivity setting, and camera control by pressing (not holding down) the TIME SET button until the function you want to set is displayed. You may need to press the button once or twice depending on the mode you are in.

**CAMERA CONTROL SETTINGS** - Accessed by pressing the TIME SET button repeatedly until the "cd" number is displayed.

Use TIME SET button to advance to the correct function. Use R/O ADV to adjust to the correct setting.

The TM550 has non-volatile memory. It will remember the camera control settings (Camera delay and Camera Time Zone) you last used, even if you remove the batteries.

**Camera Delay Function:** The Camera delay function allows you to force a camera delay time between photographs to prevent using an entire roll of film when one animal may be in the area for an extended period. The TM550 continues to collect events as they occur even though the camera may not be activated on each event.

Default is [cd 2.0] minutes

Times available: 6 seconds (0.1 min) to 98 minutes (This time cannot be less than the Event delay time. See OPTIONAL SETTINGS - Event delay, pg 8)

- Press **TIME SET** [cd 2.0] is displayed press **R/O ADV** to set camera delay in minutes. Adjustable from 0.1 - 98 min.

**Camera Time Zone:** The Camera Time Zone (CTZ) on the TM550 controls when the TM550 will allow camera activations. Photographs will only be taken when an event occurs within the selected CTZ. On and off times for the CTZ can be set to the minute.

NOTE: The TM550 CTZ default is [-:on]. This indicates there is no start time so the camera will never be activated.

If you want to take photos 24 hours a day, set the following information:  
ON TIME: midnight - [00:00] [on:00] • OFF TIME: never - [-:oF] When the TM550 is set to take photos 24 hours a day, the event display will have a decimal point visible between the first and second digits [ . 1] to indicate you are in an active CTZ.

Default is [-:on] (never take photos)

Times available: Never, 24 hours/day, or Any one time period during a 24-hour period

Steps 4 and 5 set the time for the CTZ to start. Steps 6 and 7 set the time for the CTZ to stop.

- Press **TIME SET** [-:on] is displayed press **R/O ADV** to the hour you want the unit to be activated to take photographs. [ 0:00] stands for hour on.
- Press **TIME SET** [on: 0] is displayed press **R/O ADV** to the minute of the hour you want the unit to be activated to take photographs. [on:00] stands for minute on.
- Press **TIME SET** [-:oF] is displayed press **R/O ADV** to the hour you want the unit to stop taking photographs. [-:oF] stands for hour oF.
- Press **TIME SET** [oF: 0] is displayed press **R/O ADV** to the minute of the hour you want the unit to stop taking photographs. [oF:00] stands for minute oF.

The basic settings (time, date, sensitivity, and CTZ) are now set in the TM550. The unit may have recorded some events because it has detected your movements. At this time, you will want to clear this data from the TM550 memory.

#### CLEARING EVENT DATA

Press SET UP repeatedly until [S.uP] is displayed. Press R/O ADV . [c Ir] is displayed. Press TIME SET, [ 0] is displayed.

- Press **SET UP** twice [S.uP] is displayed press **R/O ADV** the display changes to [c Ir], (indicating the data is to be cleared)
- Press **TIME SET** [ 0] is displayed (your presence may cause the display to change to [ 1])

ONCE THE DATA IS CLEARED, THERE IS NO WAY TO RECALL IT.

WHEN THE DISPLAY SHOWS [c Ir], THE ONLY WAY TO RETAIN DATA IS TO PRESS THE R/O ADV BUTTON, CAUSING THE DISPLAY TO GO BACK TO [S.uP].

If you wish to leave the unit with "0" events, put it in [c Ir] and leave the area. In four minutes the unit will clear it's memory to "0" events and begin collecting data.



## SETTING UP THE TM550 - How the TM550 Passive Infrared Trail Monitor Works

Mount the TM550 monitor securely to a post or tree using the nylon strap provided. The tree prongs may be positioned with the sharp points or with the flat edges projecting out. This will depend on what you are strapping the unit to, and whether or not the sharp points may cause damage. You may also vary the distance between the prongs, depending on the diameter of the post.

It is generally recommended that the monitor be mounted level and at a height so that the beam will be chest high on the animal to be monitored. See FIG. 6. However, in some circumstances, you may want to limit the range of the TM550 so it does not "look" beyond the point of interest. To do this, mount the TM550 so that the beam is angled downward pointing more directly toward a site to limit the extended range of the infrared beam. See FIG. 8.

Animal (warm-blooded) movement occurring in its field of sensitivity will be recorded by date and time, and stored in the TM550's memory. The default setting for the TM550 is to record one event per minute. This may be changed by following the instructions in **OPTIONAL SETTINGS - Event delay (pg. 8)**. This feature will also allow you to know the length of time animals are in the area being monitored. If you record one event per minute for 14 minutes, you will know something was in the area for 14 minutes.

With the TM550, sensitivity to animal movement is determined by the **P** and **Pt** numbers. This is adjustable from **1** to **5**. Heat and motion information is being received by the TM550 in pulses (**P**), as represented in FIG. 5. The **P** number is the number of those pulse windows which must be interrupted within a specified time (Pt) to be recognized as an event. The **Pt** setting lets you control the specified time during which the number of pulse windows must be interrupted.

For instance, if you set the **P** number on **1**, there is no adjustment for the time period over which that pulse window must be interrupted and even very small movements will be counted. However, if you set the **P** number on **3**, and set the **Pt** time for **4** seconds, only animals which can interrupt 3 pulse windows within a 4 second time period will be counted.

As a general rule, when you want less sensitivity (as when monitoring large animals), set the **P** number high and the **Pt** number low. This means more lines will need to be interrupted, and it will have to happen within a shorter period of time. The anticipated distance between the monitor and the animal will also be a factor in determining the correct settings.

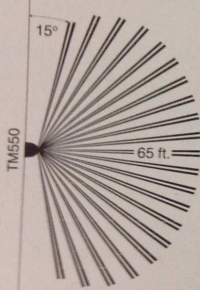
### RECOMMENDED SETTING for monitoring large animals:

"P" set on 5

"Pt" set on 2.5

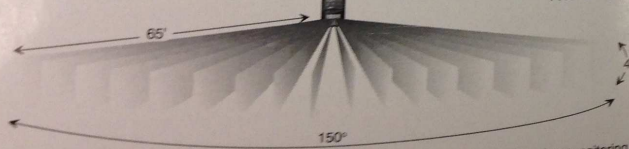
(This means that 5 pulse windows would need to be interrupted within a 2 1/2 second time period.)

FIG. 4 TOP VIEW

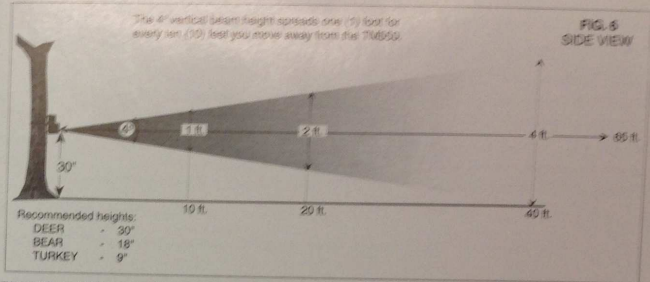


### AREA of SENSITIVITY - How to make narrower

FIG. 5 FRONT VIEW



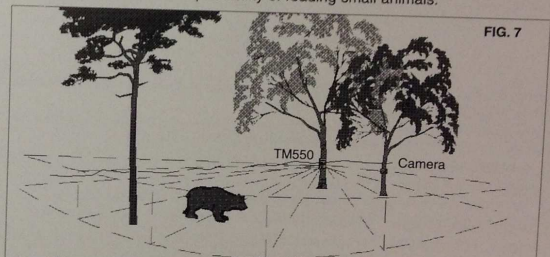
The area of sensitivity is 150° wide as seen in this diagram. This area may be too wide when monitoring some sites. This 150° angle can be reduced by placing electrical tape over the side edges of the infrared lens. This will reduce the area being monitored. The area of the lens not covered by the tape should always be centered and should never be less than 1/2 inch wide. Do not place tape over the top or bottom edges of the lens. Use the SET UP light to verify the area being monitored. Use this method to match the TM550's monitoring area with your camera's view finder area.



### VERIFYING AREA TO BE MONITORED

To verify the area of sensitivity, put the TM550 in the Set Up mode by pressing the SET UP button until [S. uP] is displayed. Walk through the area that you intend to monitor and verify that the Set Up Light flashes. This test will help you determine the area that the TM550 will be monitoring. When the TM550 is in the Set Up Mode, the unit uses a sensitivity of "P1", no matter what "P" setting you have set. The flashing Red Light is used only for area verification. The Red Light flashes ONLY while in the Set Up Mode.

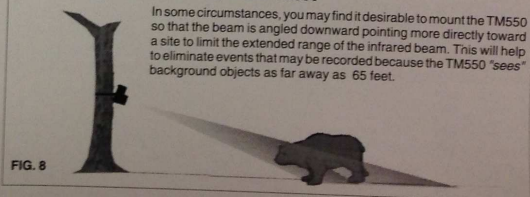
NOTE: Lower heights increase the probability of reading small animals.



The TM550 must be mounted on a tree or post that does not move. The sensor is a heat-and-motion sensor and is dependent on being stationary to work properly. The camera can be located up to 25 feet away from the TM550.

### LIMITING the RANGE of the TM550

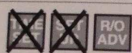
In some circumstances, you may find it desirable to mount the TM550 so that the beam is angled downward pointing more directly toward a site to limit the extended range of the infrared beam. This will help to eliminate events that may be recorded because the TM550 "sees" background objects as far away as 65 feet.



NOTE: The TM550 will automatically enter the event gathering mode four minutes after you have last pressed any button.



## READ OUT OF EVENT DATA



Press R/O ADV button to read out event information.  
Press the SET UP button to exit the Read Out Mode.

The TM550 stores event data in non-volatile memory. Data is not lost when batteries are changed. You must manually clear data to remove it. (See CLEARING EVENT DATA, pg 4.)

**NOTE:** The only button used to read out event data is the R/O ADV button. If you inadvertently press the wrong button during the read out process, and you see the [ c Ir ] display, press the R/O ADV button to go back to [ S. uP ] to avoid clearing event data information.

1. [event #] is displayed press R/O ADV the date of the first event is displayed. (The date will have a decimal in the center position.)
2. Press R/O ADV [ 1 ] is displayed, followed by the time of day event #1 occurred.
3. Press R/O ADV [ 2 ] is displayed, followed by the time of day event #2 occurred.

When the date changes, the TM550 will display the new date, and pressing the R/O ADV button will display the next event # and event time. Continue this process until all event information has been read out and [ thru ] is displayed

to review data again

press R/O ADV

or to save data and begin recording new data

press SET twice UP

until [ S. uP ] is displayed; then press TIME SET

or to clear data

press SET twice UP

until [ S. uP ] is displayed; then

press R/O ADV

until [ c Ir ] is displayed; then

press TIME SET

until [ 0 ] is displayed. (Changes quickly to [ 1 ].)

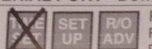
Holding down on the R/O ADV button during the read out process causes the unit to fast advance until a new date is encountered or the [ thru ] message is displayed.

You may see a decimal point between the first two digit positions during the read out process. This decimal indicates that the TM550 signaled the camera to take a photo on this event.

### EXAMPLES of event data:

- [ 10.25 ] [ 1 ] [ 10:25 ] On October 25 (decimal in the center position) Event #1 occurred at 10:25am (colon in center position); no photo taken
- [ 3.18 ] [ 48 ] [ 22:50 ] On March 18, Event #48 occurred at 10:50pm; no photo taken
- [ 11.27 ] [ .1 34 ] [ 1.8:15 ] On November 27(decimal in the center position), Event #134 occurred at 6:15pm (colon in center position); a photo was taken (decimal between the first two digits in the event number and time displays)
- [ 6. 3 ] [ . 10 ] [ .0:15 ] On June 3 Event #10 occurred at 12:15am (colon in center position) and a photo was taken

## SERIAL PORT - Downloading to the TM 24 Printer, TM Data Collector or TM StatPack Software



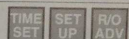
Press SET UP repeatedly until [ S.uP ] is displayed.  
Press SET UP to display baud rate.  
Press R/O ADV to send event data.

The TM550 can be used with various TRAILMASTER products for data handling. Connect the appropriate cable to the serial port on the TM550 and follow the procedure below:

1. Press SET UP [ S. uP ] is displayed
2. Press SET UP [ 3 00 ] is displayed (this is the baud rate) press R/O ADV to 300, 1200, 2400, or 9600 baud (default value is 9600)
3. Press SET UP [ Sn d? ] is displayed
4. Press R/O ADV [ Sn d! ] is displayed Event data is sent to the receiving device; Then [ th ru ] is displayed.
5. Press TIME or SET SET or R/O ADV to return to Time / Date Flashing Mode.

The TM550 has some additional controls to assign a unit number, extend camera functions, adjust event period length, and assign a passcode. USE OF THESE CONTROLS IS OPTIONAL. These controls are set on default values when the unit is new. Changes to them must be manually set. If changes are made to the default settings, you must manually reset them to return to the default values by following the procedures below.

## OPTIONAL SETTINGS - Accessed by holding down the SET UP button for six seconds.



Hold down SET UP button for six seconds.  
Use SET UP button to advance to the desired function display.  
Use R/O ADV to adjust the settings.

The TM550 has non-volatile memory. It will remember the optional settings you last used, even if you remove the batteries.

**Unit Number:** This is a user assigned unit number. It is used when you have multiple units in various locations and you want to identify data from different units.

Default is [ un 00 ] No unit number

Numbers available: 1 through 99

1. Press SET UP for 6 seconds [ un:00 ] is displayed press R/O ADV to advance to the ten's value for your chosen unit number
2. Press TIME SET [ un:00 ] is displayed press R/O ADV to advance to the one's value for your chosen unit number

**Camera Alive:** The TM550 sends a signal to the camera to keep the camera from turning off when a photo has not been taken for awhile. This function is the Camera Alive time. This value is set to 1.0 hours by the manufacturer. Do not change the value unless instructed by the manufacturer.

Default is [ CA 1.0 ] hour

Times available : 1 minute to 5 hours

3. Press TIME SET [ CA:1.0 ] is displayed press R/O ADV to the desired setting. Minutes are displayed as whole numbers from 1 - 59. (Up to 1 hour.) Times greater than 1 hour are displayed in 6-minute increments as decimals. (1.0 - 5.0 hours.)

**Camera time:** The Camera time determines how long the shutter activation signal is activated when an event is detected and a photo is to be taken. When using the TM35-1 Camera Kit, leave on 3.0 unless instructed otherwise by the manufacturer. When using a camera with "Bulb" feature, this function can be used to hold the shutter open for a length of time or can be used with a motor-drive for multiple exposures on one event.

Default is [ Ct 3.0 ] seconds

Times available : .5 second - 10 seconds

4. Press TIME SET [ Ct 3.0 ] is displayed press R/O ADV to adjust this time in one-half second intervals to desired time.

**Frame Limit:** This setting controls how many photos the TM550 will take before assuming the camera is out of film. Once the frame Limit is reached, the TM550 will stop activating the camera. The internal frame Limit counter starts over when ANY button is pressed on the TM550. **Always be certain to press a button (to reset the frame Limit counter) when changing film.**

Default is [ L 40 ] frames

Lengths available : 20, 30, 40, 60, 80, 100, 250, nL (no limit) exposures

5. Press TIME SET [ L 40 ] is displayed press R/O ADV to the length of the film in your camera EXAMPLE: For 36 exposure, use [ L 40 ]

**Event delay:** The Event delay function allows you to adjust the minimum time allowed between consecutive, recorded events. The normal "Ed" is one minute. With "Ed" set on 1.0 minute, the TM550 will store only one event per minute when an animal (heat-and-motion) is detected. Even if the animal moves many times within the minute, only one event will be recorded. There may be instances when you want to let the monitor store more than one event in a minute. EXAMPLE: When many animals pass through at one time. If you were using the camera, one minute might be too long to have between photos, and you might not get the photos you want.



Default is [Ed 1.0] minute

Times available : .1 minute (six seconds) to 2.0 minutes

6. Press **TIME SET** [Ed 1.0] is displayed press **R/O ADV** to adjust the time in 6 second intervals.

**PassCode:** Using a passcode protects the TM550 from access by unauthorized persons. If you choose to use passcode protection, it will be necessary to enter the passcode to access event data or to perform any of the setting functions in your TM550. Choose a passcode you can easily remember. When first setting your passcode, you are required to enter it twice; the second setting allows you to verify that you have set the correct passcode combination. Removing batteries will not remove the passcode protection. The only way to remove it is by manually re-setting the passcode combination to all "0's". If you forget your passcode, it will be necessary to send the TM550 to our repair facility for factory removal of the passcode. **You should record your personal passcode in the space provided on the back of this instruction manual.**

You may set a four-character passcode. You cannot use a passcode of all "0's." When "0000" is used, the TM550 is not passcode protected.

Default is [0000]

Characters available : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, b, C, d, E, F

Follow the procedure below to set your personal passcode. ("n" refers to characters as you set them in the TM550.)

7. Press **TIME SET** The display will alternate between [Entr] and [CodE].
8. Press **TIME SET** [0000] is displayed press **R/O ADV** to select the first digit or alphacharacter of your passcode.
9. Press **TIME SET** [n000] is displayed press **R/O ADV** to select the second digit or alphacharacter of your passcode.
10. Press **TIME SET** [nn00] is displayed press **R/O ADV** to select the third digit or alphacharacter of your passcode.
11. Press **TIME SET** [nnn0] is displayed press **R/O ADV** to select the last digit or alphacharacter of your passcode.
12. Press **any button** the display alternates between [rE-] and [Entr].

You must re-enter the exact passcode you previously set by following Steps 8 through 11 again.

If you fail to re-enter the exact passcode, [FAIL] will be displayed and you will need to begin the passcode setting process again. Press any button and the display alternates between [Entr] and [CodE]. Press any button again to begin and then repeat Steps 7 through 12.

After your personal passcode has been correctly entered, the unit will be unlocked so that you can perform functions. When it is unlocked you can read out or clear event data, or make changes in any of the settings. The TM550 will remain unlocked until no button has been pressed for four minutes. The TM550 will automatically lock when it detects that no button has been pressed for a four-minute duration, and it will be necessary to enter your personal passcode before performing any function.

When a passcode is set in your TM550, pressing any button will cause the display to alternate between [Entr] and [CodE]. You must enter your personal passcode. This passcode must be entered before performing any operation.

#### IMPORTANT

If you enter an incorrect passcode, the display will read [bAd]. Press any button. The TM550 will give you four attempts to enter the correct passcode. If you have not entered the correct passcode in four attempts the display will read [FAIL]. If any button is pressed when [FAIL] is displayed, the TM550 will lock up and the display will read [Locd]. The display will then change to show the number of events gathered. The TM550 will continue to gather new event data but pressing any button will cause the display to read [Locd]. You will not be able to perform any function with the TM550. Wait until after midnight (date change) and then try your passcode again. If you cannot get your TM550 to unlock, it will be necessary to send it to our repair facility to have the passcode removed and the defaults reset.

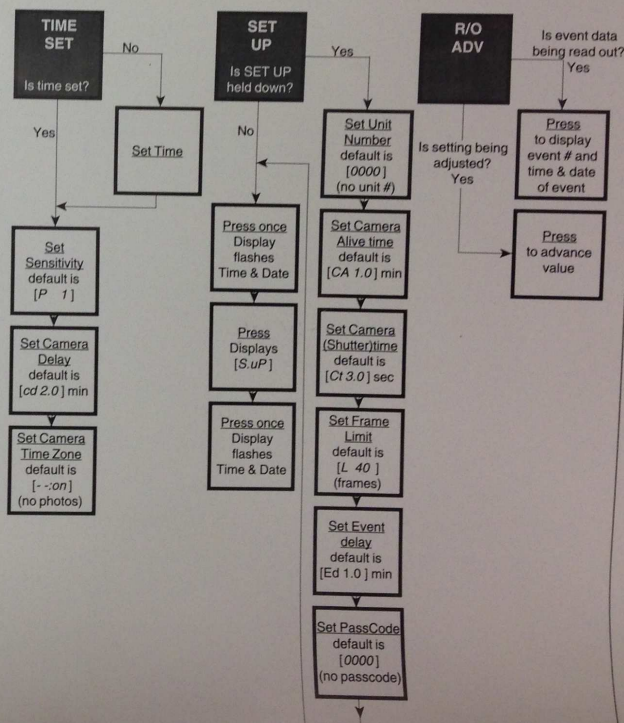
### TM550 Multi-Function Button CONTROLS

Each button on the TM550 is designed to perform several functions. This chart shows what function is accessed by each button. Clock (time and date) settings, sensitivity settings, and camera time zone (CTZ) settings are accessed with the TIME SET button. Optional camera control settings, and passcode settings are accessed with the SET UP button. The R/O ADV button is ONLY used to advance setting values for all functions.

If you only want to use the basic functions of the TM550, don't ever hold down (for six seconds) the SET UP button to access the OPTIONAL CONTROLS.

The functions accessed by the SET UP button are used for special applications. You may want to use these functions if you have many units in the field (unit number), if you need more than one event per minute (Event delay), or if you are using special camera equipment (Camera Alive, Camera time, and Frame Limit).

If you want to use the passcode feature ONLY, hold down on the SET UP button for six seconds (until the unit # is displayed), and then advance to the passcode setting function using the TIME SET button. (See OPTIONAL SETTINGS, pg. 8-9)





#### SPECIFICATIONS

Power: Four (4) ALKALINE C-cell batteries  
Battery Life: Twelve (12) months of continuous use  
Dimensions: 4.75"L x 3.25"W x 3.25"D  
Weight: 12 oz.  
Supplied Accessories: Nylon mounting strap  
Optional Accessories: TM35-1 Camera Kit  
(includes Camera, Shield, 25' Cable, Tree-pod)  
TM 24 Portable Printer  
TM Collector Data storage system  
TM Stat Pack Software and Cable

Design and specifications are subject to change without notice.

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**STORAGE: REMOVE THE BATTERIES IN THE OFF-SEASON TO PREVENT POSSIBLE DAMAGE FROM LEAKING BATTERY CELLS.**

#### LOW BATTERY INDICATOR

As the batteries in the TM550 reach the end of their useful life, the [**Lo b**] (low battery indicator) is displayed. When [**Lo b**] is displayed, the stored data can be read out manually or downloaded to the printer, data collector or computer. Batteries should be replaced as soon as possible.

Serial #

550-4094

Passcode #

(Record Here)

***Registration of your TrophyTimer assists in determining ownership in the event of lost or stolen property. Please send in your warranty card. This information is necessary if you should ever need factory removal of your passcode.***

The TRAILMASTER TM550 is a product of GOODSON & ASSOCIATES, INC.

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Lenexa, KS 66215  
ORDER 1-800-544-5415

GOODSON & ASSOCIATES, INC. guarantees that this product will be free from defects in material and workmanship for one year from the date of its original purchase. This does not cover damage caused by leaking batteries.