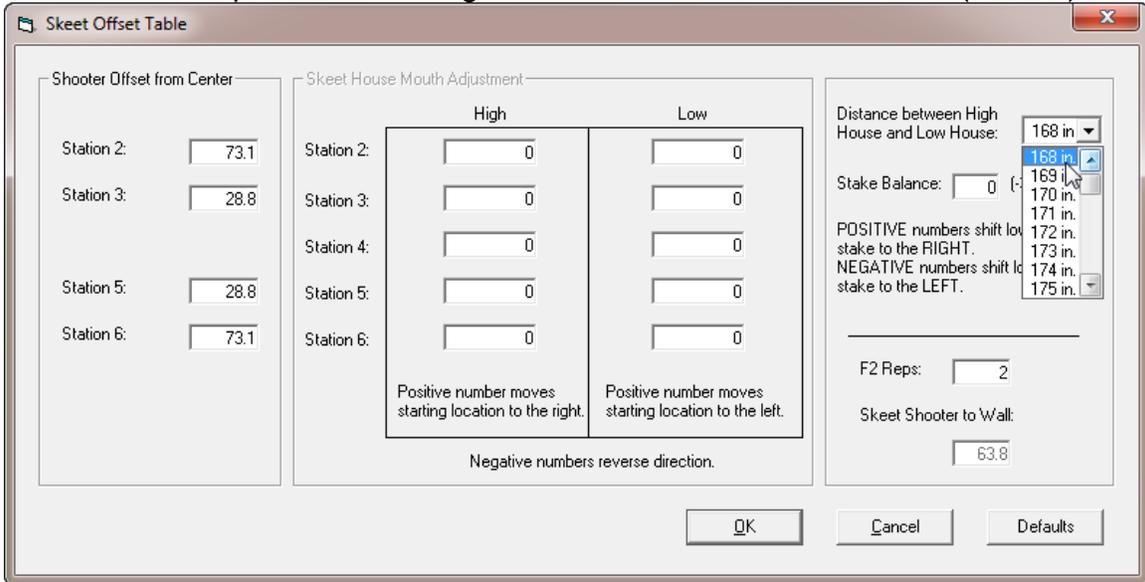


This procedure will customize your dual head DryFire unit to your shooting wall. A Full Field setup requires a minimum wall width of fourteen (14) feet and a maximum wall width of up to eighteen (18) feet.

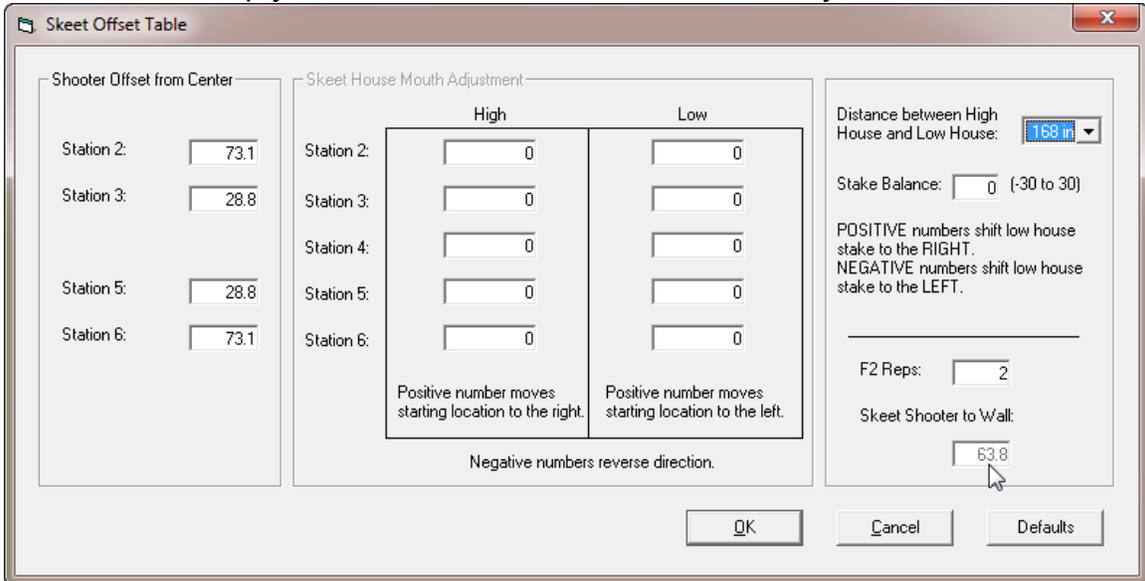
The following basic physical actions should have been implemented before you begin the customizing process.

1. Mount your 14 or 18-foot canvas on your shooting wall with the horizon (that is where the grass meets the tree line) at the height of your eyes. This can be done by walking up to the wall and making a mark right at the height of your eyeball. Then as you mount the canvas, on the wall, make sure the base of the tree line is at the height you marked.
2. Mount a High House silhouette on the left edge of the canvas.
3. Mount a Low House silhouette on the right edge of the canvas.
4. With a tape measure, find the exact center between the High House mouth and the Low House mouth and place a piece of $\frac{3}{4}$ inch masking tape vertically on the canvas to represent the cross-over stake (the exact horizontal center of the canvas). Record the distance in inches between the High House and the Low House as you will need this information later.
5. A good location for the DryFire unit will be 50 inches from the wall (measured to the center of the bubble level) and 40 inches above the floor (measured to the top surface of the bubble level). Your unit can be mounted on a tripod or you may choose to build a wooden pedestal and set the DryFire unit on the top (if you choose this method it would be wise to anchor the pedestal to the floor).
6. Mark out your shooting stations on the floor by using the following method:
 - a. Load the layout (bob-usaskeet-wall-setup.wdf)
 - b. Click on "Setup" on the menu bar, then click on "Edit Skeet Offsets"
 - c. In the upper right corner of the Skeet Offsets Screen, use the drop down window, and enter the distance you recorded in Step 4 above (distance between High and Low house).

In this example I am selecting the shortest distance, 168 inches (14 feet).



- d. Now that you have entered this important dimension, you will be able to use five (5) dimensions that have been calculated for you to help you locate Stations 2, 3, 4, 5, and 6 on your floor.



7. Mark out your shooting stations on the floor using the following information. All five (5) locations will be the same distance from the shooting wall. The distance is shown in the window labeled "Skeet Shooter to Wall," located in the lower right corner where the arrowhead is located.

- The horizontal position along the line you just laid out will be determined as follows: Station 4 is in the exact center of the wall and perpendicular from the cross-over stake. Station 3 & 5 will be “28.8” inches left and right of Station 4. Station 2 & 6 will be “73.1” inches left and right of Station 4. You will see the calculated distances, in inches, in the image below, which is found, on the left side of the Skeet Offset Table.

The image shows a software dialog box titled "Shooter Offset from Center". It contains four input fields, each with a label and a numerical value:

Station	Offset (inches)
Station 2:	73.1
Station 3:	28.8
Station 5:	28.8
Station 6:	73.1

The above example is for a minimum wall width of 168 inches.

- When shooting, it is important to be able to see the computer screen after every shot, therefore, we suggest you mount your computer on a small table with wheels so you will be able to move the table as you move from station to station.

This completes all aspects of the physical layout requirements.

You will now begin the adjusting process, which is necessary to customize your unit to your wall layout.

Start by double clicking on the DryFire USA Version 3.1.5 Icon.

The Safety message will appear.

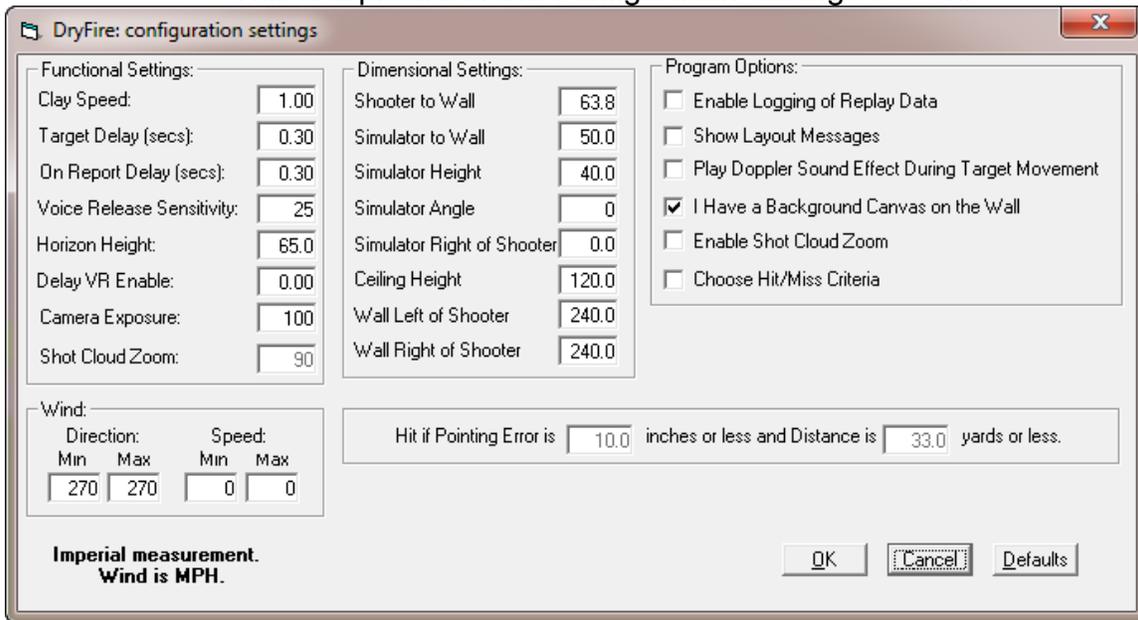


Click on "I understand."

I want to make some comments about your "System Configuration" file before we get started. Click "Setup" on the menu bar and then click "System Configuration" as shown below.



This is a picture of the Configuration Settings screen.



The window shown below is located in the top center portion of the Configuration Setting screen under the title “Dimensional Settings.”

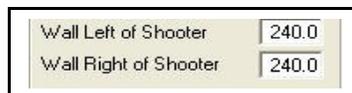


There are five (5) unique Skeet layouts in the DryFire layout file. All five (5) of the layouts begin with (bob-). By placing a prefix (bob-) in front of these layouts the software can distinguish these layouts from all others in the layout file. When any one of these layouts are loaded, many internal changes are made to allow the skeet layouts to operate in the manner you will become familiar with. One of these internal changes is to save the current value in the “Shooter to Wall” window; in this case 108.0 inches, and load the calculated distance to the wall, located in the window labeled “Skeet Shooter to Wall” a part of the Skeet Offset Table in the "Shooter to Wall" window.

After one of these layouts has been are loaded, this window will display the current calculated distance as shown below for the 168 inch width (14 feet).



The two windows shown below are also part of the “Dimensional Settings.” When any of the five (5) skeet layouts are loaded, these values will be changed to 240 as shown below. Please, do not measure your wall and then input your values. Just allow the software to change these values for you.



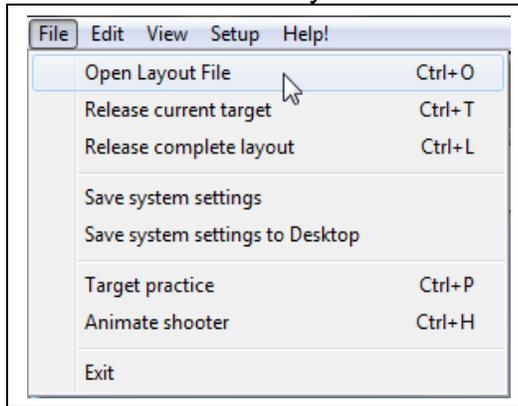
Chapter 6

Aug 10, 2012

Skeet Setup Procedure

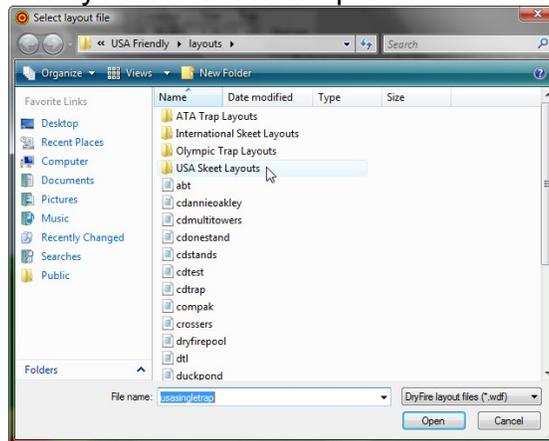
Version 3.1.5

Go to “File” in the upper left corner and move your cursor to “Open Layout File.”



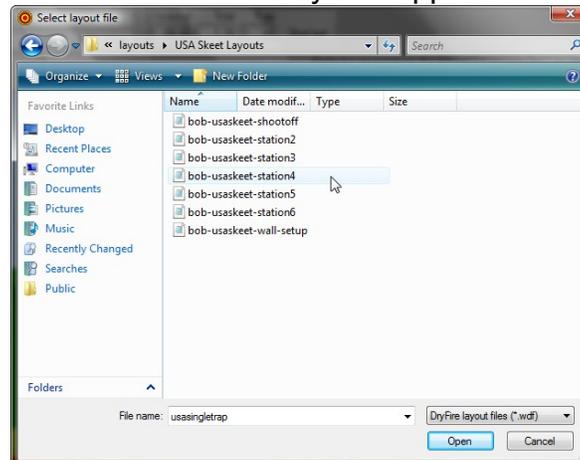
Now click on “Open Layout File.”

The layout file will now open as shown below.

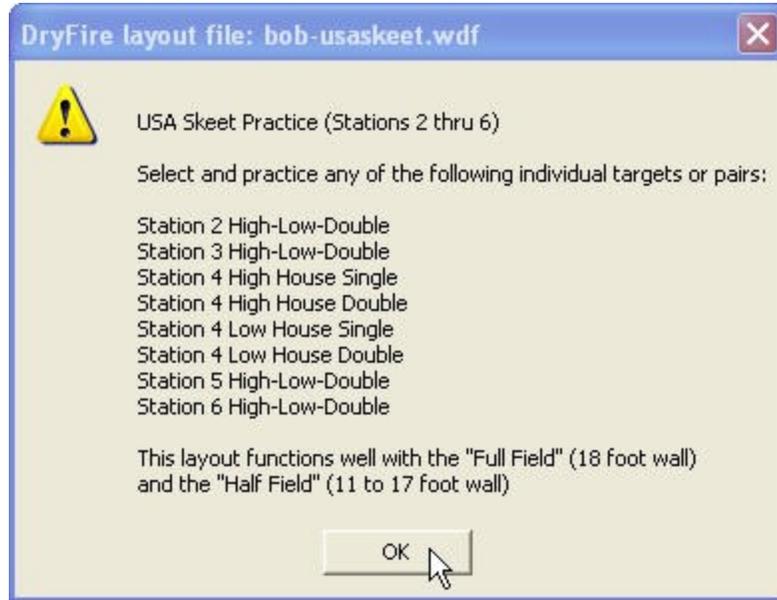


Move your cursor to “USA Skeet Layouts” folder as shown in the above picture and double click.

Seven skeet layouts appear.

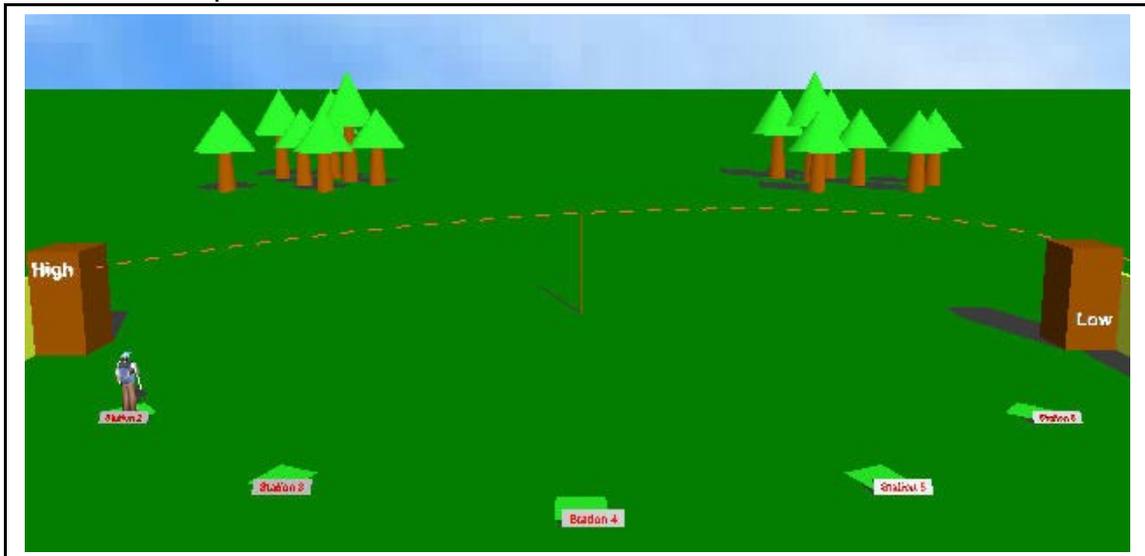


Double click on “bob-usaskeet-station 4”
This informational message will appear.



After reading, click "OK."

The picture below is a portion of the layout, which appeared. Please note that only five (5) stations are shown in the layout (stations 2, 3, 4, 5, & 6). Stations 1, 7, & 8 are difficult to project unless they can be projected on the ceiling; this requires a ten (10) to twelve (12) foot ceiling, and therefore, the decision was made to not implement Stations 1, 7, & 8.



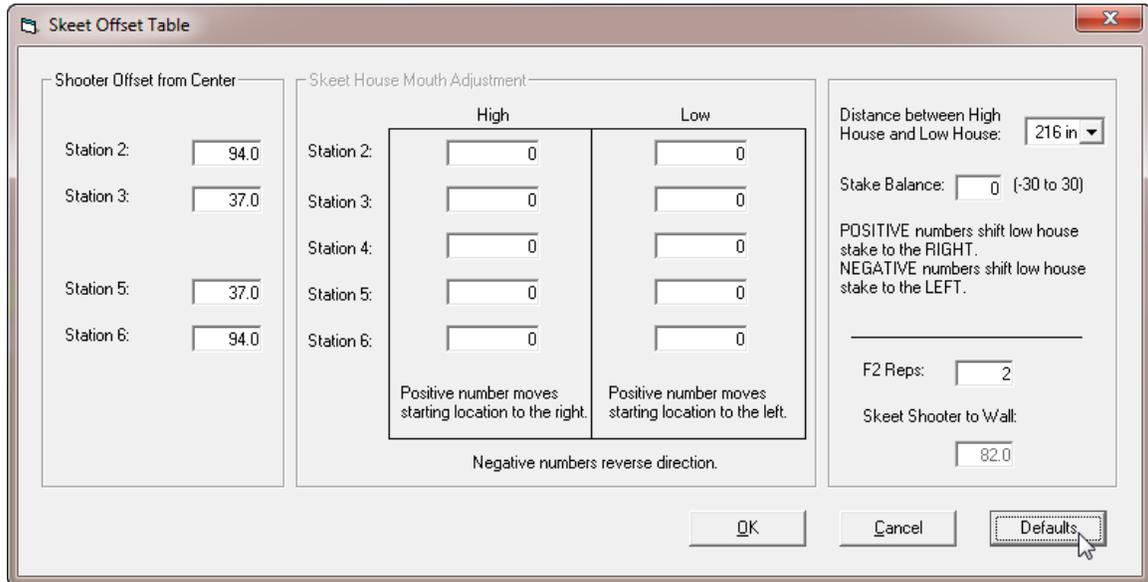
Aug 10, 2012

Go to the menu bar and click on “Setup,” then move the cursor down to “**Edit Skeet Offsets**” and click.



The Edit Skeet Offsets will only function if one of the five (bob-) layouts is loaded.

Below is the “Skeet Offset Table” after the defaults button has been clicked.



Overview of the Customizing Procedure

1. Using the Station 4 High House target, which is launched by the left head to mechanically align the position of the left head (shown by the visible laser dot) in relationship to the cross-over stake.
2. Align the right head with the left head so that both heads go to the same exact spot when told to go to the cross-over stake.
3. Verify that Stations 2, 3, 5, & 6 locate the crossover stake on the vertical piece of tape (which represents the crossover stake) and adjust if necessary.
4. And finally, adjust all stations so the target begins right at the mouth of the high and low houses.

Step 1

To accomplish this step you will need to understand some minor physical differences between the high house target and the low house target. Because the trap in the low house is not located in the same relative position as the high house (it is located approximately 28 inches above the base line, whereas the high house is on the base line) the distance from the low house to the crossover stake is slightly shorter than the distance from the high house to the crossover stake. The distance from the high house to the stake is 66.3 feet. The distance from the low house to the stake is 66.1 feet. You will be using this information in the “Stop Motion” logic to locate the stake.

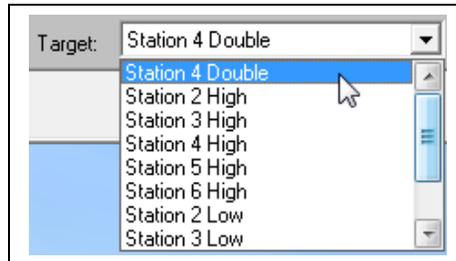
If you forget these numbers, you can find them by depressing the “F3” function key anytime you have a (bob-) layout loaded.

	Trap 1	Trap 2	Trap 3	Trap 4	Trap 5	Trap 6
Throw distance	180.00	180.00	0.00	0.00	0.00	0.00
Intermediate distance (post/hoop)	66.30	66.10	0.00	0.00	0.00	0.00
Intermediate height (post/hoop)	15.00	15.00	0.00	0.00	0.00	0.00
Clay flight time (seconds)	3.76	4.05	0.00	0.00	0.00	0.00
Clay flight distance	182.20	184.60	0.00	0.00	0.00	0.00

Distances are shown in feet. Values for some traps are not present in the layout file and will not be shown above.

Here is an image of the table.

We will begin by selecting “**Station 4 Double**” in the target window. It will normally be in the window, but if it isn't, open the window and click on "Station 4 Double" as shown below.

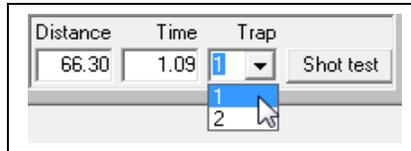


In the top center portion of the main screen you will find the Stop Motion logic.

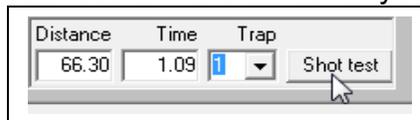


In the left window, enter the distance from the high house to the stake (66.3 feet).

In the Trap window, you have a choice of Head 1 (the left head) or Head 2 (the right head). Select Head 1

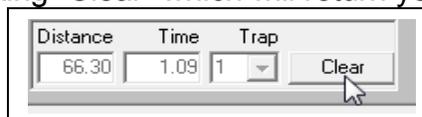


Now click the “Shot test” button. For 12 seconds, the laser built into the left head will show you where the stake is located. This location may not be exactly where you have put your piece of tape. The vertical piece of tape is your stake. Now, pivot (as viewed from above) the green DryFire box either slightly clockwise or counter-clockwise until the laser dot is in the center of your piece of tape.



Make a visible dot exactly where the laser dot is focused on the piece of tape.

Turn the laser off by clicking “Clear” which will return you to the main screen.



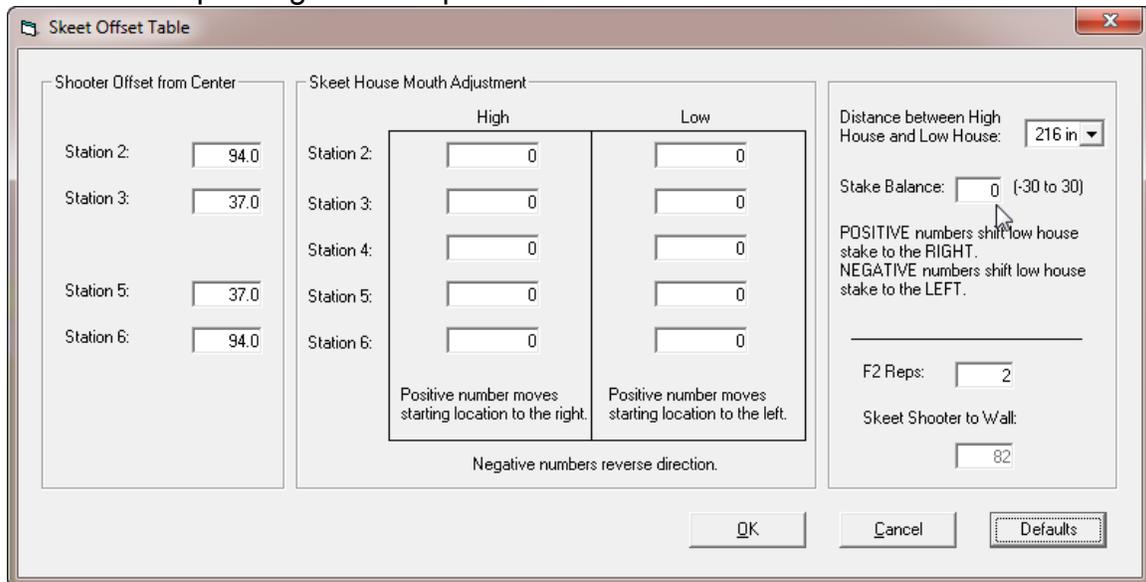
Step 2

We are going to move the right head to the same position we have marked for the left head. This will be done in two steps. First, we will move it horizontally and then we will move it vertically.

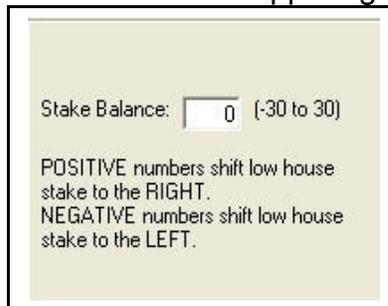


In the distance window, put (66.1) and in the Trap window select (2). Now click the “Shot test” button. The right head will now place a laser dot on the wall. Your job is to move the laser dot horizontally (to the left or right) until it is in line with the mark you have on the piece of tape.

To move horizontally you will enter the “Skeet Offset Table” using the “F6” function key. Below is a picture of the Skeet Offset Table. The adjustment feature you will be using “Stake Balance” is in the upper right corner where the arrowhead is pointing to the required window.



This is a cut out from the upper right corner.

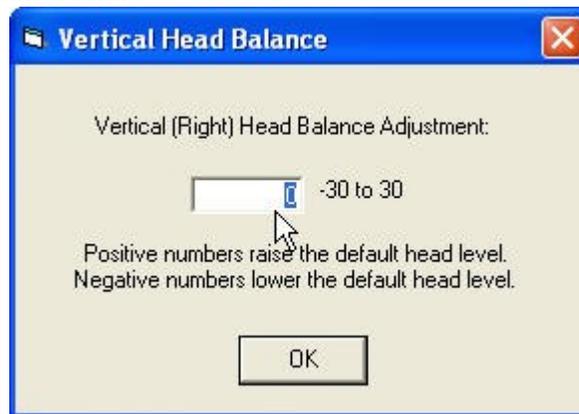


You will make the adjustment by entering a positive or negative number in the window. After entering a number, click OK and then return to the beginning of Step 2 to test your value. Continue going back and forth until the right head is lined horizontally up with the mark you made on the tape (which shows you the location of the left head).

Vertical Head Balance: Go to Edit and then click on “Vertical Head Balance.



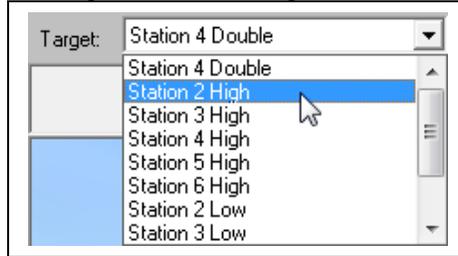
Enter a positive or negative number in the window to shift the right head laser beam up or down on the wall. Enter the number that you think will perfectly balance the right head to the left head. Then click “OK” and return to the beginning of Step 2 to test your value. Go back and forth between entering a number and testing the results until the right head places its laser dot at the same location as the left head.



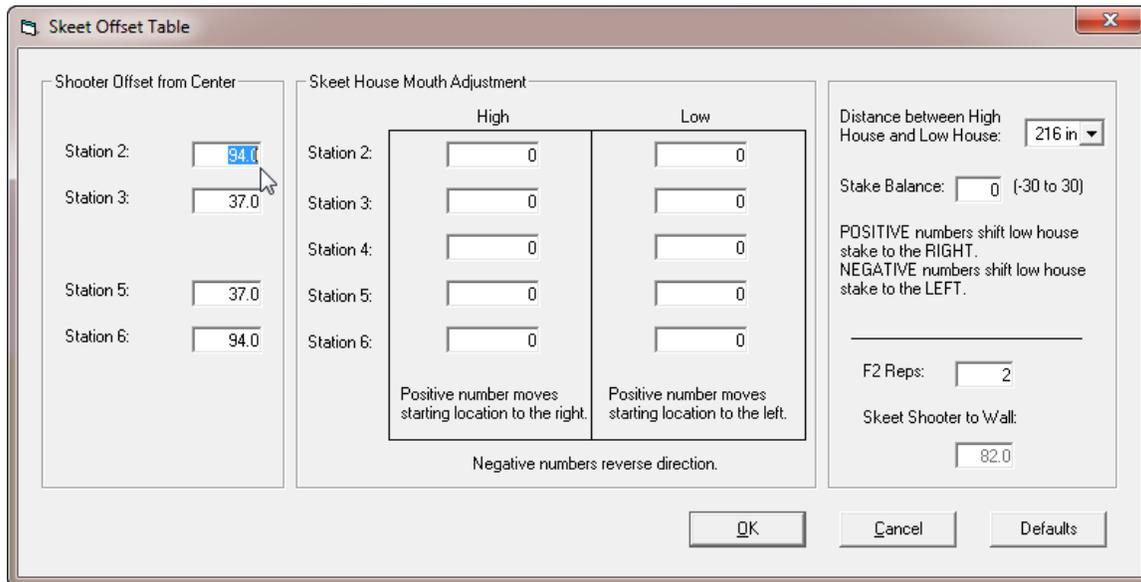
Step 3

The purpose of this step is to verify or adjust the location of the stake for the other four (4) Stations. The overall goal is that all five (5) Stations have the stake exactly in the middle of the canvas (where our vertical piece of tape is located).

Begin by selecting “Station 2 High” in the target window.



Depressing the “F6” function key will take you to the Skeet Offset Table, which will be used to adjust the location of the stake. These four (4) adjustment windows are on the left side of the Table under the heading “Shooter Offset from Center.”



In the upper left corner (where the arrowhead is located) you will find the Station 2 window is defaulted to 94.0 inches. This value will be close to correct, but you are going to test the location of the stake for Station 2 and if it is not quite perfect, you will change the number to make it perfect (in this case, perfect is defined as being on the tape). In the paragraph below, you will learn how the “F2” function key will help you with this process.

Aug 10, 2012

“F2” function key: Every time you depress the “F2” function key the selected head will first show you where the target will begin, then it shifts to the location of the stake, and finally it shows where the target will strike the ground. Showing all three locations in a sequence would be considered one repetition. The system default for the number of repetitions is three (3). In the beginning, 3 reps is a good setting because you will have plenty of time to determine if the stake is located perfectly on the piece of tape. If you want to change the number of reps, it can be changed in the lower right corner of the Skeet Offset Table as shown below.

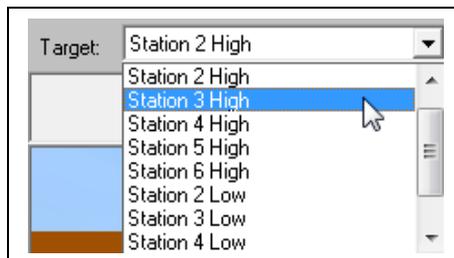


Now, knowing the value is set to 94.0, click the “OK” button in the lower right corner and it will return you to the main screen.

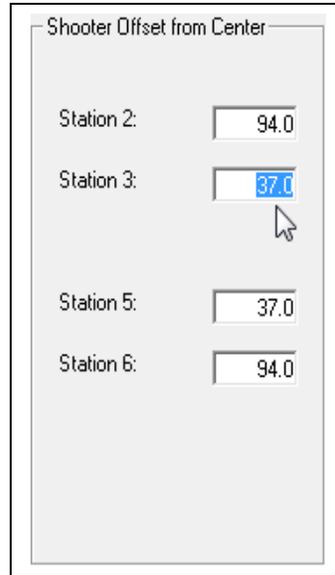
Depress the “F2” function key one time and watch as the left head shows you three locations on the wall. You are interested in the center location, which is

Showing you the location of the stake for Station 2 High. If it lands on the tape you don’t need to do anything. However, if it is slightly off the tape you will be able to make a change that will move the middle laser dot onto the tape. If your laser dot is located to the left of the tape make the number 94.0 slightly smaller (this value is in inches and therefore if you make the number 93.0 it should move the laser dot 1 inch to the right). Obviously, if your laser dot is to the right of the stake, making the number larger will move the laser dot to the left.

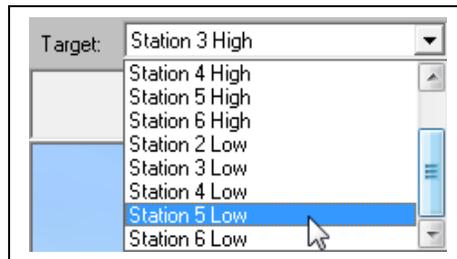
To prepare to adjust Station 3 High, we will select the “Station 3 High” target from the target list.



Depress the “F2” function key one time and watch as the left head shows you three locations on the wall. You are again interested in the center location, which is showing you the location of the stake for Station 3 High. If the laser dot is located on the piece of tape you can move on to Station 5 Low. If however, it is slightly to the left or right of the tape, depress the “F6” function key to open the Skeet Offset Table and change the value in the “Station 3” window.



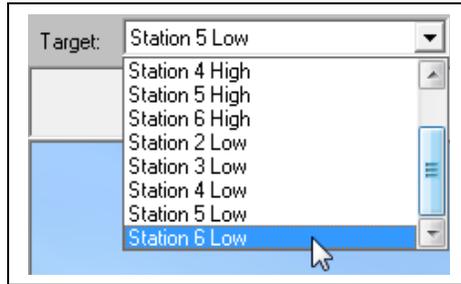
To prepare to adjust Station 5 Low, we will select the “Station 5 Low” target from the target list.



Depress the “F2” function key one time and watch as the right head shows you three locations on the wall. You are again interested in the center location, which is showing you the location of the stake for Station 5 Low. If the laser dot is located on the piece of tape you can move on to Station 6 Low. If however, it is slightly to the left or right of the tape, depress the “F6” function key to open the Skeet Offset Table and change the value in the “Station 5” window.

Note: For station 5 & 6 you will make the value larger to move the laser dot to the right and smaller to move it to the left.

To prepare to adjust Station 6 Low, we will select the “Station 6 Low” target from the target list.

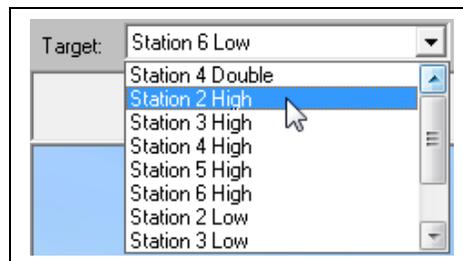


Depress the “F2” function key one time and watch as the right head shows you three locations on the wall. You are again interested in the center location, which is showing you the location of the stake for Station 6 Low. If the laser dot is located on the piece of vertical tape you are done with Step 3 and can move on to Step 4. If however, it is slightly to the left or right of the tape, depress the “F6” function key to open the Skeet Offset Table and change the value in the “Station 6” window.

Step 4

The center portion of the Skeet Offset Table is used to adjust the starting location of every target. The following process will be used for all ten (10) required adjustments:

1. Select the desired target from the target list. Let’s begin with Station 2 High.



2. Then depress the “F2” function key and determine where the first laser dot in the sequence of three locations is in relationship to the High House mouth. Below is a cut out portion of the “Skeet Mouth Adjustment” portion of the Skeet Offset Table. Please notice we have placed descriptive notes in this area to help you determine if you should enter a positive or negative number. The magnitude of the number is your best guess. If the laser dot for Station 2 is to the left of the actual High House opening (mouth) you will enter a positive number in the “Station 2 High” window.

3. You will then need to test the value you entered to see if it moves the starting point to the mouth of the High House. Return to the main screen by clicking "OK." Now, depress the "F2" function key and watch for the location of the first laser dot in relationship to the mouth of the High House. If it is right at the mouth you can move on to the next station, which would be "Station 3 High." If however, you are not yet perfect, go back to the "Station 2 High" window and make a change. Continue going back and forth until the target begins at the correct point.

Continue this process until you have entered the proper correction data in all ten (10) windows.

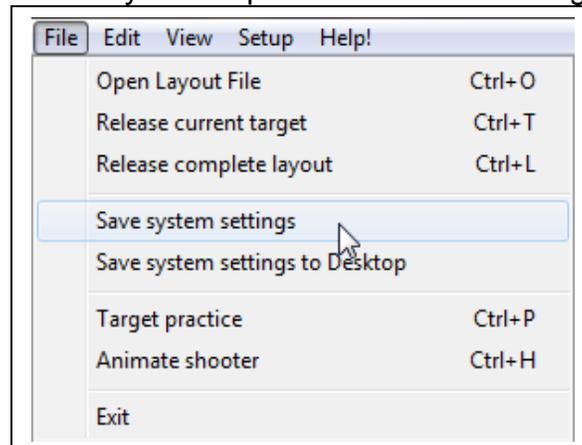
The final feature of the "Skeet Offset Table" is in the lower right corner. This window is defaulted to 82 inches. It is interesting to note, with the distance from the stake to the Skeet Houses being 108 inches in each direction and the Shooter standing 82 inches from the wall, we have a perfect 1/7th scale.

You cannot make an entry in this window. It is for viewing purposes only. The value in this window is changed anytime you change the number in the "Distance between High House and Low House," window, which has a range of 168 to 216 inches. When you change the number (the distance between the high and low houses) the DryFire software computes how far you should stand from the shooting wall for the distance you have entered.

Saving all the unique data you have entered into the DryFire system is a very good idea.

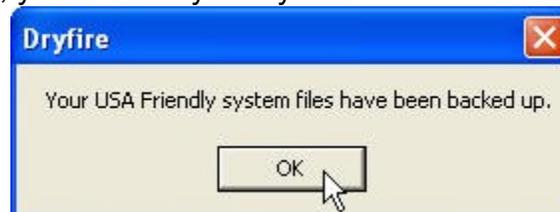
From time to time it is a very good idea to take advantage of the backup feature built into the Version 3.1.5 software. The “Save System settings” feature will copy all of the unique data you have entered into the system and store it safely on your hard drive. In the event you have a system failure you will be able to reload the software and then restore your unique data to exactly the way it was before the problem. Which means, you should never need to repeat this process again.

To save your unique data do the following:



Click on “File” and then click on “Save system settings.”

In response, you are told your system files have been backed up.



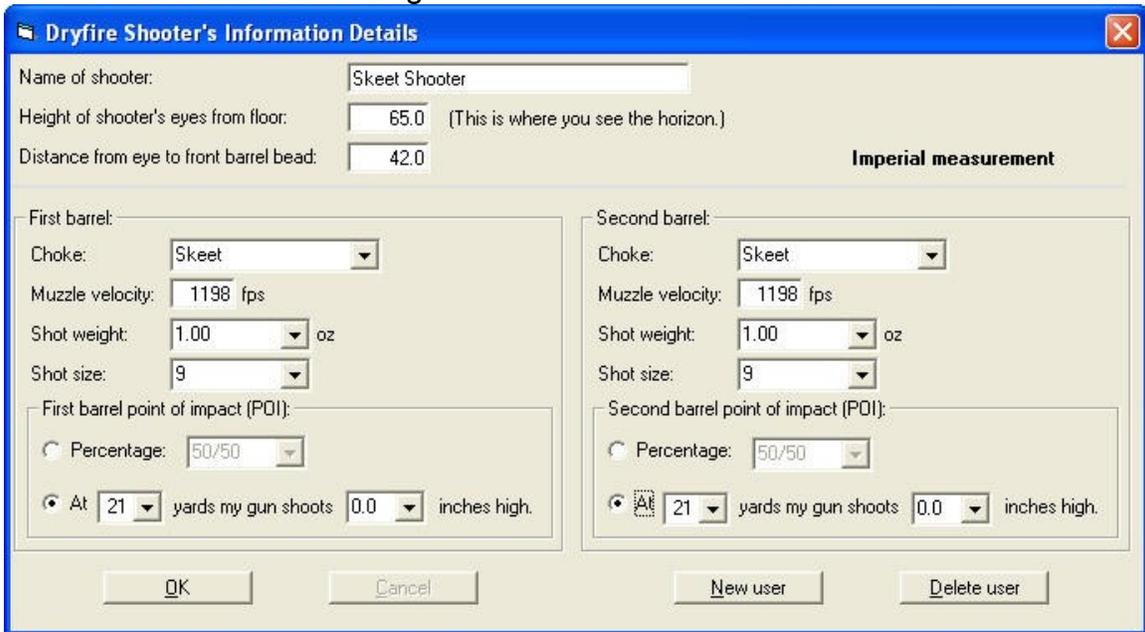
Click “OK.” Yes, it is that simple.

How a Skeet Shooter should set his Point of Impact...
How to make the Alignment Shot...
And how to properly use the Patterning Board...

Because Skeet targets are shot at such close range (all but one are typically shot at 21 yards or less; only the second target on a Station 4 pair is beyond 21 yards, more like 25 yards) it is important to take a slightly different approach to setting your POI (Point of Impact) in the Shooter's Information File. And also, we will modify the process of shooting the patterning board after your alignment shot.

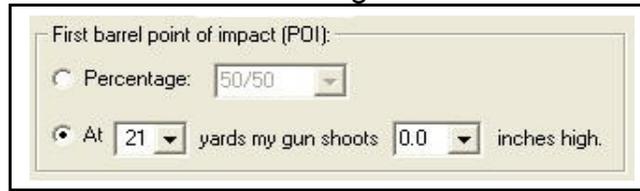
How a Skeet Shooter should set his Point of Impact...

Below is an image of the "Shooter's Information Details"



Please note I have selected a Skeet Choke, 1200 fps, 1.00 ounces, and #9 shot.

Below is a cut out image of the POI area.



Because Skeet is shot at such close range, I strongly suggest you pattern your Skeet gun at the average distance you break targets (around 21 yards). Therefore, the best way to enter your POI is to use the sentence method shown above. The sentence above reads, “**At 21 yards my gun shoots 0.0 inches high.**”

Note: The sentence method is normally defaulted to say the following; “At 40 yards my gun shoots 0.0 inches high.” And you are being asked to change it to something, which makes more sense for skeet shooting. To make sure you are setting the POI properly, go to the patterning board and determine exactly how high your gun shoots at 21 yards.

How to make the Alignment Shot...

The alignment shot for a Skeet Shooter will always be taken from Station 4. Remember, the mark on the floor (which is 82 inches for a 216 inch wall) should be directly below your shooting eyeball when you are in your shooting position.

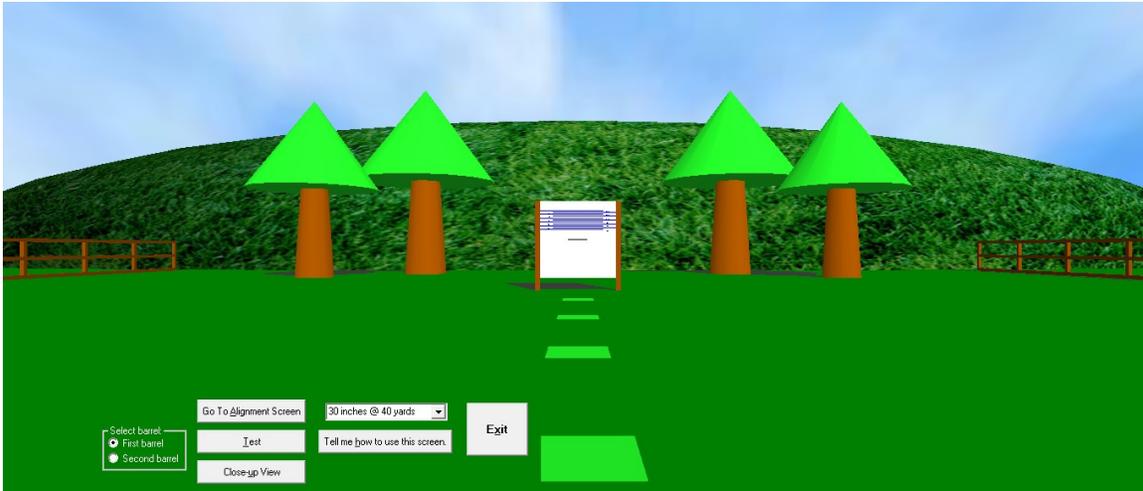
Another way to get the point across would be by ask yourself this question.

“If another person dropped a plumb line from my shooting eye when I am in my shooting stance would it be over the Station 4 mark on the floor?”

How to properly use the Patterning Board...

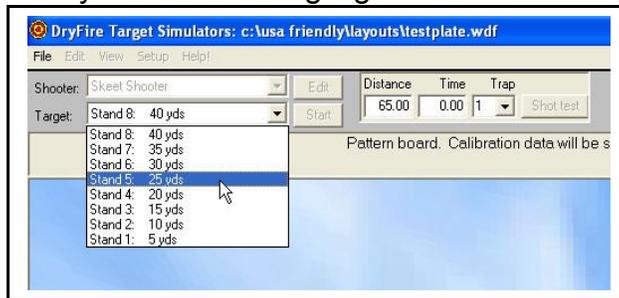
The information given below is not intended to be a complete explanation of the Patterning Board, but is intended to show you how to change the Patterning Board distance and how to change to a “Skeet” choke.

Below is an image of the Patterning Board when you first click on “Shoot the Patterning Board.” Because of the system defaults, you will very likely find the Patterning Board @ 40 yards and the defaulted choke to be one labeled “30 inches @ 40 yards.”

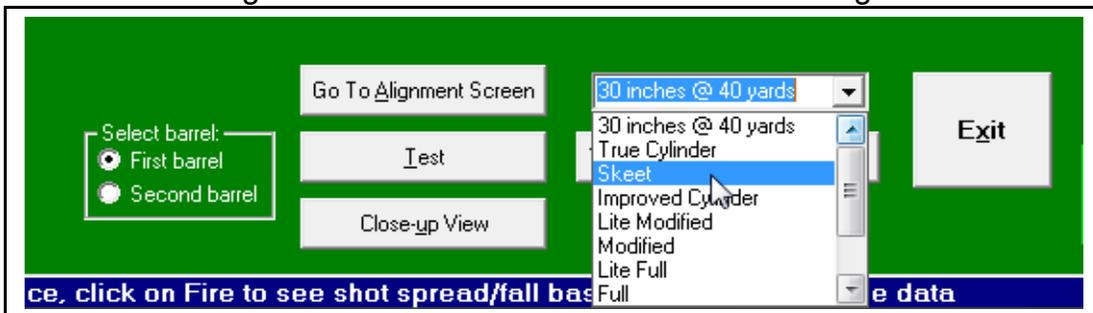


As a Skeet Shooter you should change the Patterning Board distance to 25 yards and select a “Skeet” choke.

To change the target distance, click the arrowhead to the right of the Target window and then move your cursor to highlight “**Stand 5: 25 yds**” and click.



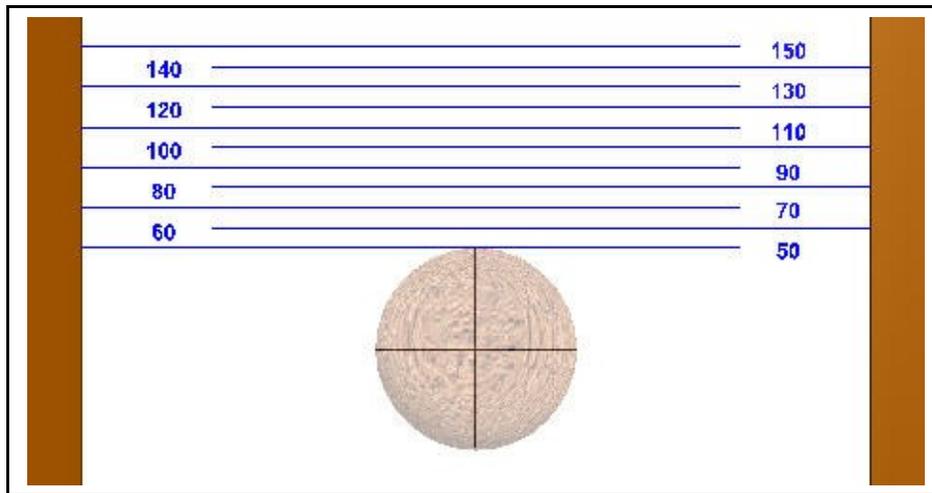
The cut out image below is from the bottom of the Patterning Board screen.



To change the choke from “**30 inches @ 40 yards**” to the “**Skeet**” choke, click the arrowhead to the right of the choke window, move your cursor to highlight the “Skeet” choke and then click.

The Patterning Board below shows the results of a shot taken with the Skeet choke at 25 yards. The two black lines, which make up the cross-hairs are

exactly 30 inches in length (in the simulation). The Skeet choke has created a perfect 30 inch pattern and is perfectly centered on the cross-hairs, a 50/50 POI.



Setting up for a Half Field Practice Session

Setting up for Half Field practice is very similar to what you have already learned in the Full Field setup. The following steps will help you with your physical setup.

1. Decide whether you are going to practice the left half, Stations 2, 3, and 4, or are you going to practice the right side, Stations 4, 5, and 6.
2. To practice the left side targets you will locate a High House silhouette or place a vertical piece of tape (to give a visual indication of where the High House mouth is located on the wall) on the far left side of your wall.
3. Measure 108 inches (9 feet) to the right of the High House mouth and put a vertical piece of tape to mark the location of the cross-over stake.
4. Measure and make a mark on the floor, 82 inches from the wall and perpendicular from the cross-over stake. This is the location of Station 4.
5. Measure and make a mark on the floor, 37 inches to the left of Station 4 and 82 inches from the wall. This is the location of Station 3.
6. Measure and make a mark on the floor, 94 inches to the left of Station 4 and 82 inches from the wall. This is the location of Station 2.
7. Physically locate your green DryFire unit 50 inches from the wall directly between the cross-over stake and Station 4. Set the height to 40 inches above the floor. The distance to the wall is measured from the center of

- the bubble level and the height is measured to the top surface of the bubble level.
8. Now, go to Page 4 of 24 and begin the Setup Procedure. Almost every thing in the procedure for the Full Field will be done on the Half Field with one variation and a one exception.
 - a. Variation: When you are adjusting the location of the cross-over stake for Station 5 Low and Station 6 low (on page 16 of 22) the first laser dot will be on the right side wall. This is not a problem; it is normal. Your task is to locate the second laser dot on the cross-over stake (your vertical piece of tape).
 - b. Exception: On Step 4 (page 17 of 22) you are making the Skeet House Mouth Adjustments. Because you are setting up for the Left Half Field, you will only make the **High House** adjustments (Station 2, 3, 4, 5, and 6). Do not even try the five (5) Low house adjustments.

Note: The first time you setup for the Right Half you will be able to make the Low house mouth adjustments.
 9. The physical setup for the Right Half (Stations 4, 5, and 6) is just opposite of the Left Half. Begin near your right wall and determine the location of the Low House. Then measure 108 inches to the left to locate the stake. Station 4 is perpendicular from the stake and 82 inches from the wall. Station 5 is 37 inches to the right of Station 4 and Station 6 is 94 inches to the right of Station 4. The green DryFire unit is 50 inches from the wall and directly between the cross-over stake and Station 4. Set the height to 40 inches above the floor. The distance to the wall is measured from the center of the bubble level and the height is measured to the top surface of the bubble level.

The End