The total coloring game involves two players taking turns coloring the elements (vertices and edges) of a graph $G$ such that no two adjacent or incident elements of the graph share a color. The first player (Alice) wins if all elements can be colored, while the second player (Bob) wins if some element cannot be colored. The total game chromatic number of $G$, denoted $\chi''_g(G)$, is the least number of colors for which Alice has a winning strategy on $G$. Recall that a graph is said to be $k$-bounded if it allows an orientation such that the maximum outdegree is $k$. We show for any $k$-bounded graph $G$ such that the maximum degree is $\Delta$, that $\chi''_g(G) \leq \Delta + 3k + 2$, by providing a winning strategy for Alice. This establishes bounds for the total game chromatic number of outerplanar graphs, and trees, as well as providing a bound for planar graphs, for which no bound had been previously established. (Received September 25, 2017)