WHAT IS CLAIMED IS:

1. An optical axis adjusting method for a laser processing apparatus including a laser beam applying unit, said laser beam applying unit including:

a laser oscillator for oscillating a laser and emitting a laser beam;

a plurality of optical components for guiding said laser beam generated from said laser oscillator to a processing point where a workpiece is to be processed by said laser beam;

a plurality of optical component holders for holding said plurality of optical components, respectively, each optical component holder having an adjusting mechanism for adjusting a position of said laser beam; and

a position detecting unit adapted to be provided at said processing point for detecting said position of said laser beam; and

a control unit connected to the position detecting unit and a display, and configured to control the laser beam applying unit,

said optical axis adjusting method comprising:

a position detecting step including ~~of~~ emitting said laser beam from said laser oscillator, applying said

laser beam to said processing point, and detecting a first~~said~~ position of said laser beam by using said position detecting unit set at said processing point;

a storing step including~~of~~ storing said first position of said laser beam as detected in said position detecting step as a reference position in a memory of the control unit; and

a component adjusting step including ~~r~~removing at least one of said optical components from a corresponding associated optical component holder, subsequently performing maintenance on the optical component or components removed, and then mounting the removed optical component or a replacement optical component on the associated optical component holder; and

an optical axis adjusting step, the optical axis adjusting step comprising

a beam position detecting step including emitting said laser beam from said laser oscillator, applying said laser beam to said processing point, and detecting a second position of said laser beam by using said position detecting unit set at said processing point, wherein said beam position detecting step is performed after performing the position detecting step, the storing step and the component adjusting step;

a deviation determining step including comparing the second position of said laser beam detected during the beam position detecting step with the reference position saved during the storing step by the control unit controlling the second position of said laser beam and the reference position to show on the display; and

an adjusting step including~~of~~ operating said adjusting mechanism of each optical component holder to adjust the second position of said laser beam to shift back to said reference position from any deviated position,

wherein the position detecting unit is configured by a power meter having a pointing function capable of detecting the position of the laser beam on the photodetecting surface, or is configured by a profiler.~~of each optical component holder in a case that the position of said laser beam is deviated from said reference position after performing maintenance of each optical component, and adjusting the position of said laser beam so that the position of said laser beam is shifted back to said reference position.~~

2. The optical axis adjusting method according to claim 1, wherein the laser processing apparatus includes

a chuck table that is seated upon a moveable plate, and further wherein the position detecting unit is positioned upon a holding surface of the chuck table during the position detecting step.

3. The optical axis adjusting method according to claim 1, wherein the laser processing apparatus includes a chuck table that is seated upon a moveable plate, and further wherein the position detecting unit is positioned upon the moveable plate of the chuck table during the position detecting step.