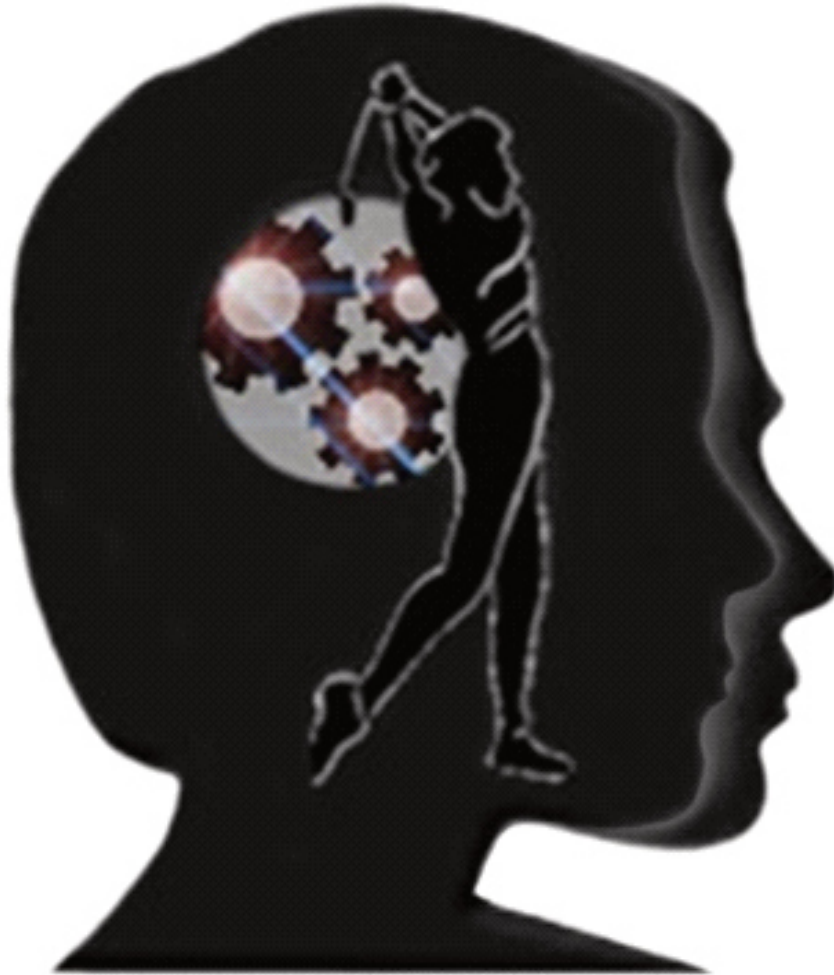


FULL SWING

# GOLF MECHANICS

*Service Manual*



TRADITIONAL GOLF FUNDAMENTALS

## 10 Major Movements

MARK GUY NZPGA



SCHOOL OF GOLF NZ



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## *Service Manual* **CONTENTS**



### **10 Major Movements**

1. GRIP
2. STANCE
3. ALIGNMENT
4. POSTURE
5. WAGGLE
6. BACKSWING
7. SWING PLANE
8. FORWARD SWING
9. IMPACT
10. SWING FINISH

SS: Shot-shaping / Making

SR: Shot Routine

MM: *Mind Mechanics for Golf*



## PREFACE



### Why & How I came to write a book / GOLF MECHANICS – Service Manual

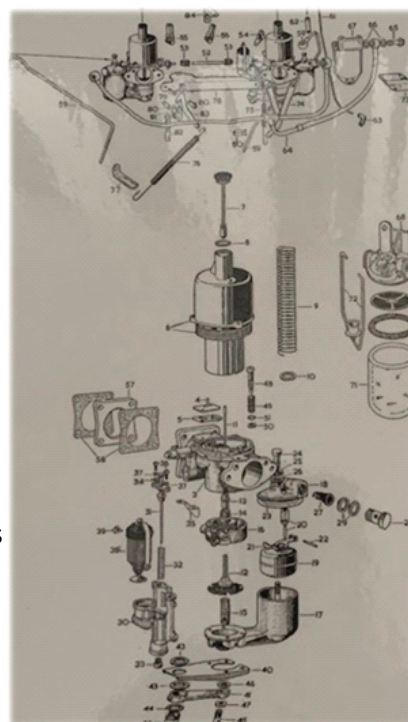
As a Jaguar owner of more than 30 years and regularly referring to its Service Manual (or at least our local Mechanic did), the

step-by-step procedures, detailed illustrations, diagrams, and explanations were a welcomed GUIDE to Servicing and Repairing the vehicle. The manual's layout of technical information was such that written text punctuated with '**exploding illustrations**' detailing the many components of each Part *caught my attention*. The practicality of the parallel between a Vehicle-owner having a Service Manual and a Golfer owning their Service Manual was enlightening. The *illustrations* are what a car mechanic would expect; however, not being a *qualified vehicle* technician, I was intrigued by minimal text and how such pictures could amplify one's mechanical understanding and grasp of the Part's inner workings. **This realization was like a 'lightbulb moment' for me, as I saw the potential for a similar approach in understanding the mechanics of golf.**

Naturally, there were many questions between one's Vehicle Mechanics and that of Golf Mechanics:

1. How do Components fit together?
2. How might each Component function independently?
3. What linkages do components have when working?
4. When connected, how do all the Components operate/perform in unison?

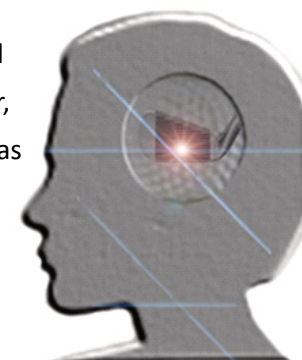
(This got me thinking!)



(**JAGUAR SERVICE MANUAL**) The doctrine of servicing with periodic maintenance and repair of a golfer's game involves devising a player pathway plan that helps manage and monitor practice and play. With instructional guidance, as a manual owner, one can significantly benefit from referencing Golf Mechanics (Full Swing).

## INTRODUCTION

Over the years, golf has seen significant improvements in ball & equipment, instruction, and coaching delivery. The use of cameras, mobile phones, videos, and computer technologies has greatly advanced golf education and learning. However, the most impactful innovation has been the introduction of Launch Monitors, such as TRACKMAN and similar devices. These tools provide a whole new educational platform, offering profound insights into the cause & effect outcomes in golf, and thereby further refining our understanding of Mechanics & Performances.



From the **AUTHOR** (make this Manual a welcomed addition to your Library)

### Having ONE'S very own SERVICE MANUAL

provides a valuable resource to better understand the mechanics and refer to tried & true traditional Major Movements of the game.

### What is golf about?

Playing golf is about achieving a controlled clubhead through impact with **educated hands** that command certainty over the shot's stroke of the ball. - MG.

### As a MANUAL first, book second.

In partnership with a recognized PGA Professional, I recommend working together to understand Golf Mechanics and personalize one's preferences through regular practice and play commitments.



Will the Game's Traditional Movements ever stray from those every good-golfer knows to be tried & true?

ANSWER – NOT VERY LIKELY - MG



## Historically

Throughout history, the golf swing has undergone various changes in style, approach, and method. Even to this day, golf continues to make subtle refinements to swing and technique. By comparing the many golf books written over time, one can see how the language and images used have evolved. However, the Major Movements associated with the fundamentals and swing technique have remained unchanged in every shot played. The golf terminology used in this manual is traditional and will always be so. The words and language employed intend to promote and uphold these traditions, preserving golfers' methods and practices when learning to play. By adhering to these traditions, you can improve your performance outcomes, making your game more enjoyable and rewarding.



### After reading this Manual (and I stress many times)

Learning to play golf can be challenging, especially when starting. However, this Service Manual aims to achieve more than technical perfection but to help one achieve mechanical certainty. By practising regularly with the help of this Manual and seeking professional instruction, golfers can simplify major movements and mechanics, learn how to learn and improve their skill & ability to play.

The Manual covers Ten Major Movements that are essential for every stroke, and having a good command of all of them is crucial. Golf Mechanics can be complex, but with practice and technical awareness, golfers can achieve a measured sense of sameness across all techniques.

Like any high-performance vehicle, golfers must undergo regular servicing & maintenance to examine their setup and moving parts. Regardless of skill level, interrogating the fundamentals and command of swing and stroke remains tied to the technical awareness demands of skilful training and performance capability.

Using this Manual to improve performance and game, one must consider one's current golfing aspirations and evaluate present skill levels. One can use Round Stats such as Fairways Hit and Green-in-Regulation as a performance measure of Fundamentals and Swing Technique. With practice and dedication, any golfer can confidently expect to achieve an accurate understanding of Traditional Golf Movements and, with practice, reach a mechanical level of certainty.



## Using the Service MANUAL

It is essential to adopt a teaching theory before learning golfing knowledge. The Service Manual, with its 'Teaching Theory', is your guide in developing appropriate golfing knowledge. Before heading off to the practice range, take a moment to quietly sit and 'visualize' your Full Swing, especially the Fundamental surrounding setup and the Address Position. When was the last time you reviewed your Swing Technique on video? What did you see or interpret, and how did the swing perform physically, mechanically, or technically?

## Using the Service Manual

Mental Training Skills can significantly influence imagining one's full swing and visualizing technical variations and skill techniques, such as adjusting the grip or the angle of the club. The Manual's Teachings are picture-oriented and aim to inform and inspire visual capture and recognition, supported by minimal text, images, and illustrations.

The golf Mechanics Philosophy takes a structured approach to training and learning, while also nurturing the Mental Skills necessary to develop a strong sense of Technical Awareness. The critical role of mental Rehearsal and Retention Skills in awareness training & development is underscored, showing how psychological preparation can inspire and enlighten a player before heading off to practice.

## AWARENESS TRAINING - Thinking in isolation

When it comes to Awareness Training, the Service Manual is a crucial tool. Its images and illustrations provide a detailed visualization of each major movement, aiding in the understanding of mandatory Technical Standards and Ranges.

To help you better understand, we recommend following the example below:

1. Choose a major movement and focus on a particular technical range's three dimensions.
2. Pay attention to the range's recognized technical standard.
3. Consider how compromises might hinder or influence the technical standard.
4. Envisage what the major movement is 'dependent' upon.
5. Picture what links the major movement with other movements.

For example, alignment depends on stance, particularly foot placement and positioning. Posture is linked with the swing plane, particularly the path and rotation incline angle.

We hope the information provided will assist you in enhancing your 'learning how to learn practices' and better understanding of Awareness Training. If you have any additional questions, please do not hesitate to reach out to a qualified PGA Teaching Professional familiar with this Service Manual.



**The key to unlocking one's Service Manual** is a commitment to regular practice and play using repeatable golf mechanics. It is akin to following a service manual for a car, which involves regular servicing (like tuning the engine) and maintenance (like changing the oil) across all major movements and performance methods. Your dedication to this process will lead to significant improvement in your game.

**KEY-01 Learning and improving in golf** starts with practising on the range. Regular instruction, practice, and play help enhance skills and technique over time. As you gain experience in golf mechanics, particularly the Major Movements, you'll develop a technical awareness for capturing and recognizing The Fundamentals (basic principles of the game such as grip, stance, and alignment) and Swing Technique (the correct way to swing the club for maximum power and accuracy).

Learning to practice and play golf is not just about the game; it's about building and maintaining technical awareness skills. By establishing a connected practice (training) and play (performance) environment, you're not just playing a game, you're actively contributing to the creation of a golfing (sports) learning culture. This culture, shaped by your dedication and passion, will help you perform and compete under tournament conditions and pressures, inspiring you to push your limits and achieve your best.



**KEY-02**

**Practice with instruction, guidance through *Training*.**

For those serious about improving their golf skills, it's essential to understand that it's not just about practice and play. Establishing a strong, two-way relationship with your coach is crucial. Seeking guidance from a recognized PGA Teaching Professional is a significant first step, but ongoing support and direction will elevate your game. It is essential to have a coach with a strong background in golf teaching and playing credentials to create a solid learning environment and maintain a well-structured training culture. When you have a professional coach or teaching mentor, you establish a bond of mutual trust and shared beliefs. The process of instruction and training through guidance is a two-way relationship. You must be coachable and receptive to the coach's communication, as this open-mindedness is critical to your learning. In turn, the coach needs to be a good listener and provide guidance.

**KEY-03**

**Learning Curve**

Learning to play golf and improve your skills can be expensive and time-consuming. Whether you are a beginner trying to lower your scores, or aspiring to become a professional golfer, progress can be unpredictable. Every golfer has had to learn and improve at some point, and the learning process often involves ups and downs. Improvement usually plateaus and re-plateaus, making each period an opportunity to reassess and refine one's training methods. At the heart of self-improvement is learning how to practice and train effectively. Professional instruction and resources like this manual can help you navigate the learning curve and steadily progress toward your goals.

**KEY-04**

**Spending Time (*staying-out*) on the Practice Range**

Dedicated golfers spend extended hours practicing and effectively refining their golf mechanics, eventually developing the necessary technical skills over time. Spending time on the practice range involves focusing on the fundamentals. A systematic approach to technique helps golfers stay connected to their preferred habits and routines, reflecting their dedication, motivation, and commitment to lasting development and improvement. Through ample practice, golfers are more likely to break and replace bad habits, maintain their current level of performance, and enhance their overall command and control across all methods and techniques. Regular practice enhances physical, technical, mental, and emotional resilience, promoting mechanical repeatability and consistency. This dedicated practice helps develop positive coping behaviours, playing strategies, and tactics to improve performance and competitive results.

**KEY-05**

**Natural Order of a Golf Stroke**

Every golf stroke consists of a series of interconnected movements that follow a specific 'natural order'. This 'natural order' refers to the sequence in which these movements are best performed to achieve the most effective and efficient stroke. These movements are not only mechanically linked but also technically connected. They are intertwined with one's shot routine and performance. It's important to note that if one movement is disrupted, it can jeopardize others and impact the overall assembly and swing function, underscoring the delicate balance of the golf stroke. Even golfers with limited knowledge or understanding of the shot routine will exhibit some sense of order in their early attempts.

The assembly of the ten major movements in a golf stroke is routine-based and demands a high level of technical awareness. Each movement must be executed with precision and skill, adding to the challenge and excitement of the game.

The process and assembly involving the Ten Major Movements are performed and executed in a specific natural order. This order is not just a guideline, but a necessity for a successful stroke. The golfer begins by gripping the club (Grip), then positions their feet with ball placement in mind (Stance) and checks the intended direction and aiming point (Alignment). Next, they assume a physical, athletic golfing pose (Posture), followed by gesturing the intended stroke (Waggle).



## Service Manual KEY

**Natural Order continued:** The golfer then initiates the takeaway to engage upper body rotation over the lower body (hips) (Backswing) and moves/turns on the intended path & incline angle (Swing Plane). This is followed by transitioning into a downward motion (Forward Swing), clubhead release, face-to-ball contact (IMPACT), and follow-through into a stable, balanced finish position (Swing Finish).

**IMPORTANT:** The unpacking and assembly of Major Movements comes with instructions on the geometry and arrangement of golf mechanics. These mechanics follow a learning process symptomatic of practice and training while being sensitive to systemic instruction and ongoing professional guidance.

### KEY-06 UNPACKING & ASSEMBLY of Golf Mechanics 10 Major Movements

The geometry and arrangement of golf mechanics follow the Service Manual's Construction and Maintenance symptomatic practice and training methods. At the same time, sensitivity to systemic learning & instruction and regular ongoing professional guidance are strongly encouraged to promote one's golf education and playing aspirations.

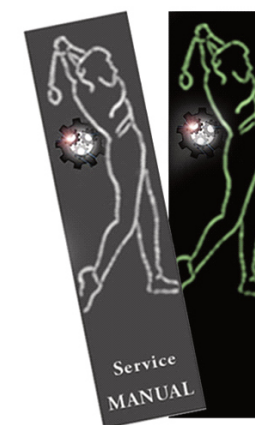
Major Movements are inherently tied to routine and performance and apply to all golf shots and swing methods. Whether teeing off and driving, playing down the fairway, pitching, chipping, or putting, assembly and application, despite entertaining individual preferences, function in the presence of all major movements. These movements, like a well-oiled machine, must demonstrate that repeatable actions have consistent outcomes in execution. Also, the correct technical standards drawn from the appropriate technical range will be exhibited. But what's more, the capture and recognition of the stroke's technical awareness will be validated, emphasizing the importance of understanding and recognizing your own technique.

The **10 Major Movements** have two distinct shot-routine phases: 1 to 5, the **Fundamentals** involving pre-shot set-up and address, and 6 to 10, the **Swing Technique** involving the execution of the shot routine.

*Review the following brief description:*

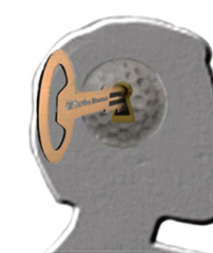
1. **Grip:** correctly holding the club in both hands (top hand / bottom hand)
  2. **Stance:** feet placement with ball position in mind
  3. **Alignment:** direction of body & club with the intended target / aiming-point
  4. **Posture:** physical structure and athletic pose at set-up over the ball
  5. **Waggle:** takeaway rehearsal mimicking stroke intentions
- 
6. **Backswing:** triggered takeaway, activation of upper rotation & shoulder-turn over hip-pivot and lower-body
  7. **Swing Plane:** shoulders incline tilt-angle at address, moving to on-plane back & forward swing motion
  8. **Forward Swing:** transition into the downswing and pre-release, to release-action and follow-through
  9. **IMPACT:** point of contact between clubface & ball, to beyond the impact-span
  10. **Swing Finish:** effective footwork moving to, target-side clearance, to upper rotation and shoulder-turn, through to stable recoil and balanced finishing pose.

## Service Manual KEY



**UNPACKING & ASSEMBLY** By merging the proper fundamentals and swing technique into your current approach to practice and play, you can achieve a high-performance golf swing that is mechanically sound and repeatable. This process holds the potential for significant improvement, as you unpack your Service Manual's 'ideal' Swing Model, overlay and mirror it with your own evolving golf swing.

When training or performing on the course, you can use your own perception of the ideal setup to capture and recognize the proper mechanics & movements with greater clarity and certainty. This process is straightforward and can be as easy as unpacking your personal ideal swing model and applying it to your game.



### KEY-7 Using 'key' to unlock LEARNING/Development & Improvement

As previously emphasized, the concept of 'How to Practice & Play' is pivotal in unlocking the potential of 'learning how to learn.' This is particularly crucial in the context of Golf Mechanics, where a comprehensive grasp of the Major Movements chain-of-command (1. Grip through to 10. Swing Finish) is essential for development and improvement. Regular practice combined with disciplined training methods can help increase your technical awareness of the necessary learning, development & improving structures. To help one establish a SERVICING approach to the capture & recognition of Golf Mechanics, it's crucial to identify and implement the following KEYS. This will empower you and put you in control of your learning and improvement process.



### KEY-8 Learning Structures

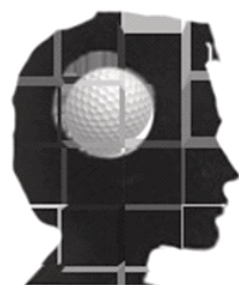
When someone starts playing golf, they usually focus on the mechanics of the game and their movements. However, for those who have been playing for a while, there are two approaches to improving their skills: Construction and Maintenance.

**Construction**, a dynamic learning and development process, offers a thrilling journey of Construction, Deconstruction, and Reconstruction. It's like 'peeking under the hood' to ensure change becomes permanent within growth, improvement, and confidence mechanisms, promising significant technical and mental golf improvement. Mastering this approach will bring a sense of accomplishment and a new level of confidence in your game.

**Maintenance**, on the other hand, is a player's ongoing commitment to regular checks, monitoring, renewal, and updating of their technical awareness, preferences, and routines. It's a testament to their dedication to refining, fine-tuning, and improving their overall physical, mental & psychological performance framework, requiring consistent effort and commitment.

*It's important to note that the term 'servicing' is a technical aspect closely associated with maintenance practices. While several acceptable alternatives exist, such as change, alter, adjust, modify, realign, or enhance, 'servicing' is typically used to refer to major movement reforms or simplifying technical awareness and routine preferences. Understanding this technicality is crucial in deciding when to prioritize construction, maintenance, or regular servicing, and it will make you feel more informed and knowledgeable about your game.*





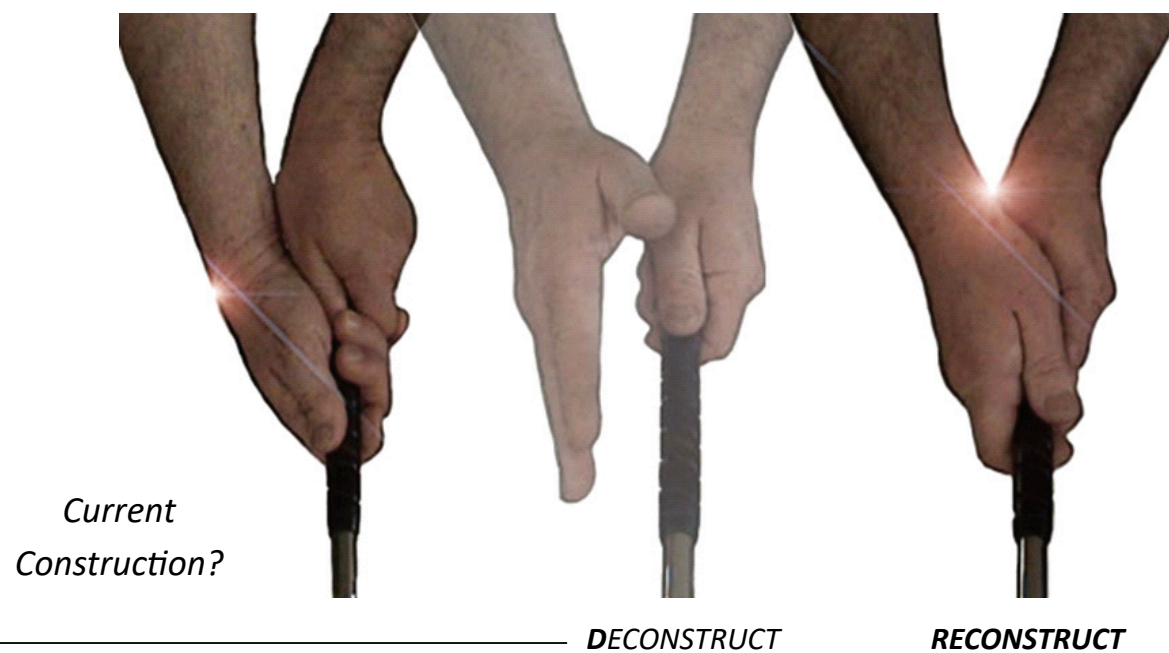
### KEY-09 The Construction Session/Lesson

Adopting a Constructive approach to practice sessions and golf lessons can yield significant benefits for beginners and experienced golfers alike. This approach, which focuses on the systematic structuring of the 10 Major Movements of golf, can lead to long-term improvement. By paying particular attention to a movement's technical ranges (the acceptable variations in executing a movement) and the assembly of technical standards (the set of criteria for executing a movement), golfers can feel confident in their progress and optimistic about their future performance.

Every practice session/lesson should begin by establishing the correct fundamentals and swing technique. This will enable the golfer to operate with a higher degree of technical awareness and a level of mechanical skill and certainty.

The Construction approach, whether it is for practice/training or receiving professional golf instruction, should follow a learning/development process of constructing, deconstructing and reconstructing. The role of the instructor in this process is not just crucial, but also supportive and guiding. To create (construct) is to reconnect with one's current status surrounding technical awareness and the process of revitalization involving one's shot routine. It is essential to manage a practice session's 'check-in-process' to reacquaint oneself with the major movements, technical standards and ranges, which requires the instructor's care and guidance in their assembly.

Example BELOW: Reviewing the cyclic approach to one's construction to deconstruct and reconstruct Major Movement 1 - the Grip, Strong to presenting a NEUTRAL position on the shaft is necessary. For instance, when deconstructing the grip, one might focus on the hand placement and pressure, and when reconstructing, one might practice adjusting the grip to achieve a neutral position.



Current  
Construction?

DECONSTRUCT

RECONSTRUCT

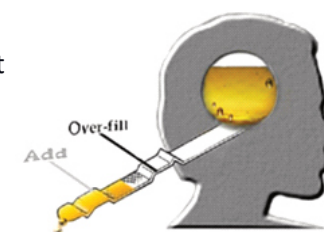


### KEY-10 The Maintenance Session/Lesson

The Maintenance approach to golf practice sessions and lessons is beneficial for experienced golfers who understand the basics, techniques, routines, and performance in general.

Maintenance sessions/lessons are like regular check-ups for a vehicle to ensure it is reliable, fit for purpose, and performs well on the open road. Unlike a regular practice session, which may focus on overall performance, a maintenance session/lesson is specifically designed to fine-tune a golfer's current major movements and technical standards. As part of the routine "maintenance check," golfers are

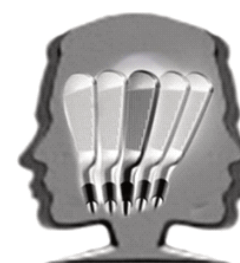
encouraged to reconnect with previous lessons/sessions to update their technical awareness preferences and routines. It's important to remember that the concept of Maintenance Practices is well-suited for refining, fine-tuning, and preserving form. While physical conditioning is crucial, the routine care of the fundamentals, swing technique, and routine provides a secure and stable playing platform for performing and competing.



### KEY-11 FORM Maintenance Pre-Round / Pre-Tournament

**While the role of Player Preferences & Experience is significant,** it's important to view Maintenance Pre-Round or Pre-Tournament as a crucial 'WARM-UP' in Preparation for playing a round of golf.

Maintaining form not only keeps one in the warm-up lane but also focuses on the rehearsal of 'key swing thoughts' while commanding a sense of Technical Awareness. This discipline of Maintenance TAPERS refinements of Major Movements across all fields: physical, mental, emotional & psychological, inspiring a sense of 'IN-FORM', motivation and dedication.



### KEY-12 Hit Vs **STROKE** – Is it a Hit or **STROKE** of the ball?

**Hit Vs *STROKE* – Is it a Hit or *STROKE* of the ball?**

The golf stroke involves compressing the ball against the clubface to make it bite, slide-roll, gain traction, bounce and separate. This creates complete spin through the impact-span interval, resulting in a backward rotational ball motion. This motion, known as backspin, is when the top of the ball spins towards the target, helping it stay in the air longer and travel further.



Hit Vs **STROKE** – continued

**Awareness Training** is crucial to understanding the ball's time on the clubface. This time is usually less when using a longer club, like a driver, but increases when using a more lofted club, such as a pitch wedge. The more time the ball spends on the clubface, the more it interacts with the grooves, creating greater backspin. It's worth noting that when using a putter, the head's attack angle should be neutral to positive launch angle when passing through the impact span and beyond. Although the intention is to impart forward spin or overspin, the time spent on the putter's face is equally essential to its stroking sensation and the capture of feel and touch, particularly in the hands and through the fingers.

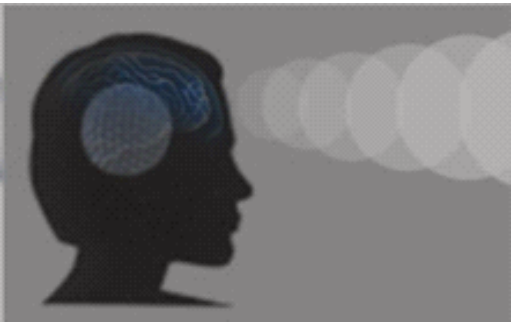


CONSIDER:

Adding up the score at the end of a round, one records the number of, \_ \_ \_ \_ \_ ?

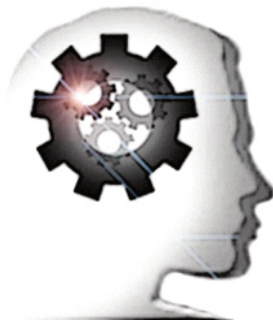
#7 SERVICE MANUAL

**Layout & Terminology Overview**



Traditional, higher-skilled golfers with playing experience are more likely to interpret the manual's technical writing, tone, and language in describing Traditional Golf Mechanics. Philosophical theories are incumbent on playing the game; though the Manual concentrates on Golf Mechanics, it

centres on Servicing the 10 Major Movements, strongly emphasising functional applications. It reaches across most performance skill platforms with a service focus on the physical, technical, mental, emotional, and physiological insights. While philosophical theories are essential, the primary emphasis of the Manual is on Servicing those movements' Technical Standards within a Technical Range.



#7-1 ASSEMBLY

Please note the following information: The Assembly of Golf Mechanics consists of 10 Major Movements, such as the backswing, downswing, and follow-through, explained in detail in KEY-05. Each movement has accompanying technical ranges presented in 3D format, as shown in #7-1. Each Range has a centred Technical Standard flanked by a Technical Compromise or variant on either side.

Understanding the nuanced differences between compromise and variant is crucial. When a technical standard is compromised, it can have a detrimental effect on other Major Movements and their Ranges. Conversely, a variant suggests a deliberate adjustment to the set-up (fundamentals), leading to a variation in swing (technique) and, consequently, shot trajectory, flight shape, and distance.

It is worth noting that each range dimension has a physical, technical, and mental composition that extends to one's arrangement of feel/visual sensations, visualization, and imagination. While not limited to these, studying interpretations critical to developing, training, and monitoring dimension awareness is as follows:

- **Action**                      *Sense of act, behaviour or performance*
- **Alignment**                  *Assessment of direction, orientation or arrangement*
- **Angle**                         *Measure of tilt, slant or incline*
- **Attitude**                      *Degree of intent, composure or pose*
- **Extension**                   *Measure of reach, arc or radius*
- **Influence**                   *Level of Stimulus, commitment or effect*
- **Movement**                 *Degree of motion, momentum or drive*
- **Position**                      *Accuracy of situation, location or setting*
- **Path**                          *Assessment of route, track or line*
- **Plane**                         *Assessment of incline, gradient or angle*
- **Response**                   *Evaluation of performance, reply or comeback*
- **Width**                        *Measure of separation, distance or span*

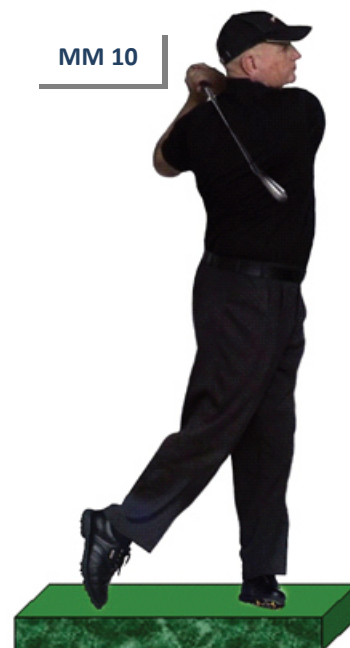




#7-1b

## ASSEMBLY in REVERSE

MM 10



Viewing the **Major Movements** in reverse order is highly instructive. It enhances one's visual understanding and helps the reader create a 'mind map' of the sequence of movements a golfer makes. This perspective illustrates the transition from the end of the swing back to the moment of gripping the club in preparation for the stroke.

Breaking down the swing is crucial, but it's equally essential to stress the role of a player's 'Maintenance & Servicing' regimen. This regimen fosters not just regular practice sessions, but a commitment to sustainable training, showing your dedication to the game.

With the end in mind, the **Swing Finish (10)** is not just a result of forward motion, it's a reflection of several key swing dynamics. These dynamics are crucial not just for understanding mechanical execution, but also for analyzing the physical demands associated with golfing athleticism. Your end pose, which requires consistent upkeep, self-analysis, and reflection, keeps you focused on the shot's positional outcome. Summarising in reverse: **Extension & Reach** (arms/hands), **Rotation & Turn** (upper body/shoulders), **Turn & Clearance** (target-side), **Weight Shift** (lower body), **Footwork, and Transfer** (feet). The Swing Finish or movement completion should naturally conclude with the following Swing Dynamics being captured, recognized, and acknowledged:

- ✓ **Stability** security over steadiness & permanency,
- ✓ **Balance** security over composure & poise

MM 9



Naturally, before completing the Swing Finish, a forward motion through the ball reflects its contact. While several fundamental swing dynamics are crucial, mechanical execution needs to interrogate the act of **Impact (9)** and parameters surrounding the shot's strike-force and stroke-factors. The contact should naturally culminate in several Impact Parameters (*Study 9. Impact*) being captured, recognised and acknowledged. These Impact Parameters and interaction between the ball & clubface operate through the 'Impact-span' duration. Summarising in reverse: **Stroke-factors** (includes separation & bounce off face, interaction between cover & grooves also, time-spent on the face, to first contact-point), **Strike-force** (involves clubhead-speed, acceleration, and thrust-reach / low-point).

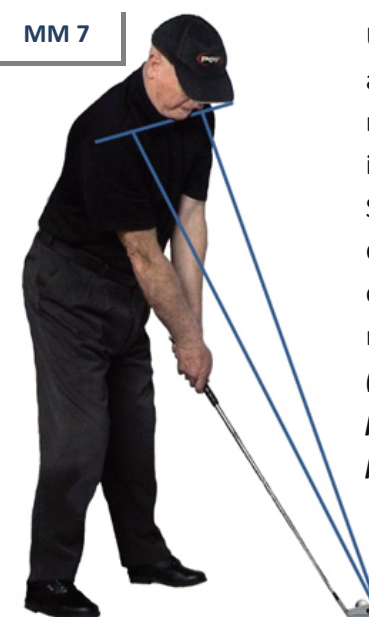
Logically, before Impact, a forward motion through and beyond the ball reflects swing momentum and a commitment to guarantee a measured tempo & rhythm, delivering an energy transfer. Shot execution needs to interrogate the act of a **Forward Swing (8)** and the dimensions surrounding the physical change in direction and what naturally culminates in several Technical Standards (*Study 8. Forward Swing*) captured, recognised and acknowledged. Summarising in reverse:

**Follow-through (released width from extension), Beyond-impact (low-point & thrust-reach), Release (includes attack-angle, joint unloading, top-hand let-go & bottom-hand takeover), Pre-release (involves club-lag, top-hand/wrist-cocked & bottom-hand/wrist-hinged - essentially joint loading), Downswing (characterized by drop-motion, with width & extension maintained), Transition (a measured pause, balanced collaboration between momentums to allow for a timely turn-around).**

MM 8



MM 7



Understandably, both forward & backward motions share an incline plane angle on which the hands & club operate below. It's crucial to recognise the required swing path and a commitment to guarantee that a measured tilt-incline or spine angle is adhered to on both backswing & downswing planes. Shot execution needs to interrogate the act of a **Swing Plane (7)** and the dimensions surrounding the physical change in direction and what naturally culminates in several Technical Standards (*Study 7. Swing Plane*) captured, recognised and acknowledged. Summarising in reverse: **Follow-through (under-plane), Impact (under-plane), Downswing (under-plane), Top (under-plane), Backswing (under, matching-plane), Setup (picture right; address-plane below)**

From the address position, a golfer's first of two motions back-away is activated through to the top of the backswing. It's crucial to recognise the swing positions and a commitment to guarantee that a measured upper-over-lower body rotation is adhered to and that a 'full' shoulder-turn results from the proper takeaway triggered via the hands. Shot execution needs to interrogate the act of a **Backswing (6)** and the dimensions surrounding its physical/mechanical activation and what naturally culminates in several Technical Standards (*Study 7. Swing Plane*) captured, recognised and acknowledged. Summarising in reverse: **Full** (top of swing), **3/4** (less than full), **1/2** (letter 'L'), **1/4** (takeaway).



MM 6



MM 5



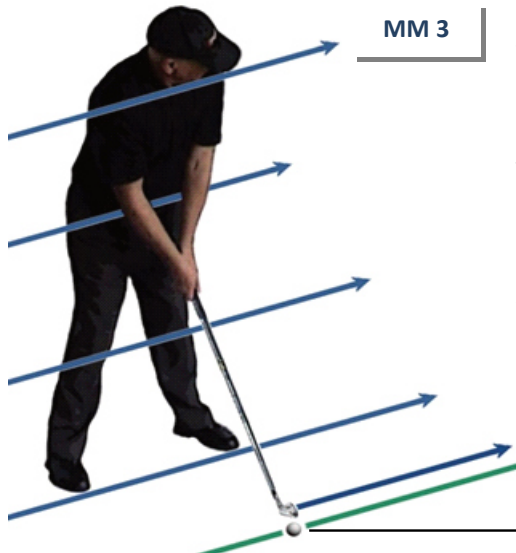
Before addressing the ball, waggling the club through the hands & wrists reflects the shot's intentions. This movement is essentially a rehearsal for the takeaway phase however, sensory awareness (*feel & touch*), visual and imaginative concepts help taper vision while narrowing concentration. The waggle acts as a sort of interlude between setting up, addressing the ball, triggering the takeaway and activating the backswing. Again, in reverse, paying attention and seeing how the clubface is presented and clubhead positioned over the ball, demonstrates that the necessary pre-conditions have been met towards addressing the ball. The transition from the return motion to the waggle's initial away movement involves one's athletic posture, which essentially governs a fluid back-and-forth motion with a sense of rhythm. Shot execution needs to interrogate the act of one's golf **Waggle** (5), the dimensions surrounding its physical/mechanical and 'personalised' construct, and what naturally culminates in several Technical Standards (*Study 5. Waggle*) captured, recognised and acknowledged. Summarising in reverse: **Clubface (presented angle (leading-edge), loft & lie), Clubhead (return balance (deadweight) pace, trajectory & path), Top-hand (position, angle, pressure, degree of control), Bottom-hand (position, angle, pressure, degree of influence), Upper-body (arms-controller, shoulders-attitude)**

Setting up over the ball reflects the golfer's physical/technical structure orchestrated through one's approach to preparation, here presented in reverse from the top down. It's crucial to recognise the physical structure and commitment to ensuring upper-over-lower body athleticism is adhered to when finalising postural readiness. Shot execution needs to interrogate the act of one's golf **Posture** (4), the dimensions surrounding its physical/mechanical construct, and what naturally culminates in several Technical Standards (*Study 4. Posture*) captured, recognised and acknowledged. Summarising in reverse: **Head (positioned & balanced), Shoulders (narrow-blades verses broadened shoulder-points), Back (spine-angle, lower-back distinction), Hips (forward-press (degree), joints tilt-press), Legs (thigh-pressure, weight-press (degree) Knees (flex, separation). Feet (width apart, also view Stance).**

MM 4

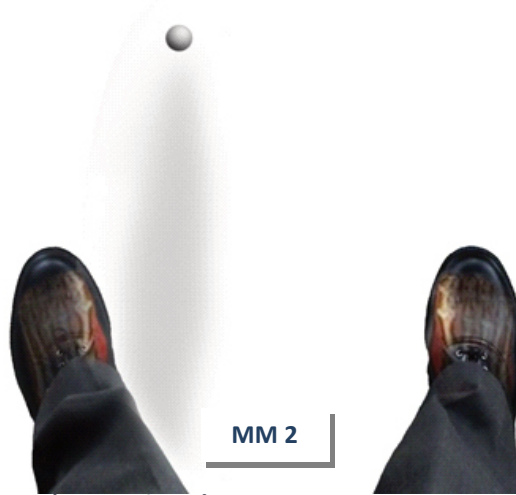


MM 3



Setup reflects the golfer's sense of direction however, one's approach to alignment, here presented in reverse from the top down, is crucial to ensuring the correct aiming-point is adhered to when finalising alignment recognition. Shot execution needs to interrogate the act of **Alignment** (3), the dimensions surrounding its physical/technical construct, and what naturally culminates in several Technical Standards (*Study 3. Alignment*) captured, recognised and acknowledged. Summarising in reverse: **Shoulders (point-to-point), Hips (side-to-side or pocket-to-pocket), Knees (cap-to-cap), Feet (toe-to-toe), Clubface (leading-edge).**

MM 2



Routine reflects the golfer stepping in, placement of the feet in accordance with ball position in mind also, the shot's situation, lie & ground condition and sense of any slope and wind. One's approach to Stance, here presented in reverse, is crucial to ensuring the correct 'footing' is adhered to when finalising feet placement and their positional recognition. Shot execution needs to interrogate the act of **Stance** (2), the dimensions surrounding its physical/technical construct, and what naturally culminates in several Technical Standards (*Study 2. Stance*) captured, recognised and acknowledged. Summarising in reverse: **Distance from Ball (separation / width), Back-foot (grounded pressure-setting & alignment, width-apart measure), Front-foot (ball-position relationship & setting, grounded pressure-setting & alignment).**

The pre-shot routine, which includes the golfer's hold of the club and the proper connections captured gripping the shaft/Grip, is a crucial aspect of the game. Hand placement, when done with the situation and shot selection in mind, is not just a prerequisite but a powerful tool that allows you to sense hand/wrist awareness, demonstrating control of the club. The command of the clubhead, which is critical to the game's 'stroke' play outcome, is in your hands. Your approach to Grip, presented here in reverse, is crucial to ensuring the correct 'connection' is adhered to when finalising hand placement and their positional relationship. Shot execution, when you interrogate the act of **Grip** (1), the dimensions surrounding its physical/technical construct, and what naturally culminates in several Technical Standards (*Study 1. Grip*) captured, recognised and acknowledged process. Summarising in reverse: **Bottom-hand (pressure-setting & alignment, connection-type), Top-hand (connection-type, alignment pressure-setting), Wrists (angle-setting & alignment).**

MM 1

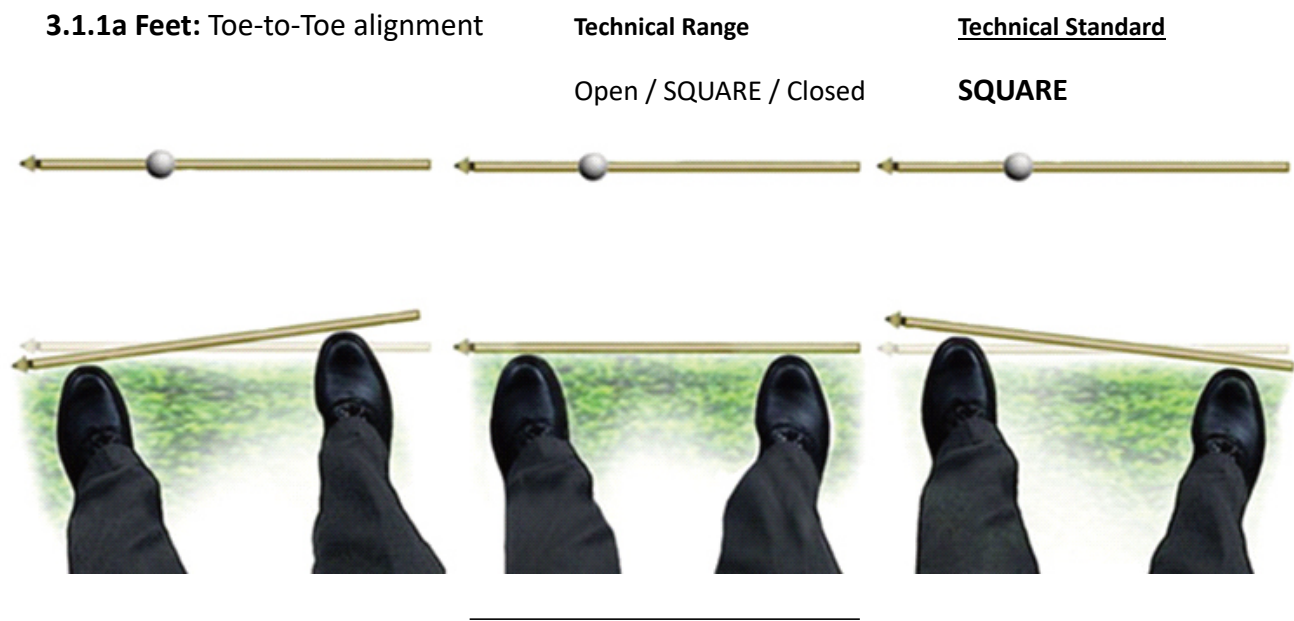




#7-2 Technical Range Dimension Explained

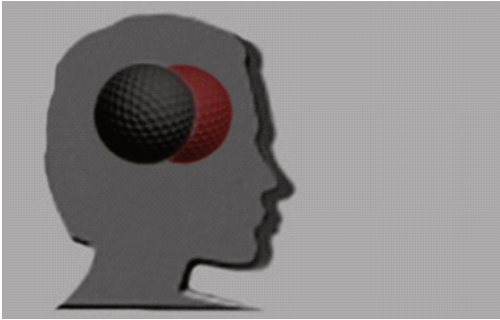
A **Technical Range** is a 3D way of looking at or describing a particular component of a specified Major Movement. Pivotal to understanding a Range is the assigned Technical Standard that determines the preferred component; however, those flanking such a Standard, though deemed ‘compromised’, can still be valuable. In fact, they can be quite beneficial, given the many playing variables or concessions around course situations & conditions. This understanding encourages an open-minded and flexible approach to the game. Understanding how these Ranges & Standards often overlap and interact across the Major Movements empowers you to take control of your Fundamentals and Swing Technique.

Technical Range - Example Major Movement 3. ALIGNMENT:



The **Technical Range**, a set of standards that you, as a player, are responsible for understanding and applying, includes a recommended Standard flanked by two Compromises. These Compromises, while they may position the Standard at risk, are within your control and understanding. The above Range, with its images illustrating possible and probable outcomes, is a tool that empowers you to promote Technical Awareness observations, capture, and recognition, and to identify linkages with other Ranges and Standards.

**For instance**, consider the Feet Toe-to-Toe Alignment (3.1.1a) example. The *observation* is that the feet are parallel with the intended target line. The *capture* stands square at the address, and the *recognition* follows suit from the ground up, ensuring that the knees, hips, and shoulders are aligned. Finally, moving to present the clubface aligned square.



**#7-3 Swing Dynamics**, influenced by one's preferences and intentions, play a pivotal role in determining swing and stroke outcomes. Understanding how these dynamics interact with the Fundamentals and Swing Technique or Major Movements empowers you to take control of your game.

Dynamic explained

**Width / Extension** The term 'width' in golf refers to the distance between the golfer's hands and their body. More precisely, it is the distance between the top hand and the non-target hip when the golfer takes the club back into the backswing. As the golfer moves into the forward swing, the width of the swing is determined by the Extension of the non-target shoulder and arm, and it continues into the bottom hand's reach beyond Impact and into the follow-through. For instance, a wider swing arc can generate more power, while a narrower arc can provide more control. Visualizing these concepts can help you understand their impact on your swing. Extension on the Backswing refers to the length of the target arm, which should be straight, and the Forward Swing Extension relates to the non-target shoulder's influence on the trailing arm's Extension, width and low-point reach of the bottom hand beyond Impact into the follow-through.

- **Arc / Radius** - the clubhead swing radius refers to the distance between the hands and the clubhead, with the arc being the width of the swing around the body.
- **Centeredness** - a key concept in golf, refers to the importance of maintaining a centred head position within the confines of barrel-like roundedness. This focus is crucial while swinging backwards and forward within a turn and rotational range of motion.
- **Stability and Balance** - are not just physical attributes, but also mental states that ensure you maintain a stable, centred, yet grounded position while moving in a steady circular motion. This sense of control is essential for a successful repeatable swing.
- **Tempo** - refers to the complete swing speed, precisely the rate of centrifugal core-body speed and its radial spread through the shoulders and outward of the arms, which propels hand speed, club acceleration, and clubhead speed.
- **Rhythm** - refers to the synchronization of body movements with a constant regulated swing pace.
- **Timing / TIMED** - in golf refers to synchronizing eight fundamental mechanisms, moments or flashes, between the backwards and forward swing movements. This synchronization is essential during the interlude or pause at the top of the swing and transitioning into concluding a timed stroke (refer to 8.2.7 for more details). Timing also refers to the merger of independent speeds experienced during the backswing and forward swing movements. This merger of speeds creates acceleration (velocity and thrust) and a rhythmical pace (motion), collectively bringing about a timed collision between the clubface and the ball.



#### #7-4) Awareness Training – Explained

Technical Awareness in golf refers to being mindful of the mechanics involved in playing the game, including the Major Movement Fundamentals (such as the grip, stance, and posture) and Swing

Technique (the sequence of movements that make up a player's shot routine). Technical awareness is essential for learning and teaching the game and crucial to a player's overall golf education. It involves training oneself to be conscious, mindful, and able to remember key performance and game elements.

One should be technically aware and trained to capture and recognize moments in the game, repeat and maintain consistency in their technique, understand the trajectory and flight of the ball, and simplify their approach to meet expectations. Training is incorporated into an established practice culture and plays alongside a routine of reading and experiencing the performance environment from capture to expectation.

The practice environment must incorporate training drills to monitor these critical aspects of technical awareness, which include:

- **Capture and Recognition:** seizing the moment and quickly acknowledging it
- **Repetition and Consistency:** maintaining the same technique and approach
- **Trajectory and Flight:** understanding the launch moment and shape of the shot
- **Simplicity and Expectation:** simplifying the approach and making judgments about outcomes.

By consistently practising technical awareness, players can unlock their service manual, achieve more significant performance outcomes, and score success on the golf course.



**IMPORTANT:** It is crucial to recognize the significance of 'Technical Awareness & Awareness Training' in establishing a culture that emphasizes individual learning while being attuned to and aligned with the Service Manual Environment. This connection makes you an integral part of a larger golf educational system, enhancing your sense of belonging and game purpose. Awareness Training has been incorporated throughout the text to illuminate the reader further and offer a deeper understanding of Technical Standards

and Ranges. This approach aims to foster a sense of awareness and acknowledgement of Golf Mechanics as they shadow your active participation, and preferably with professional support & guidance.



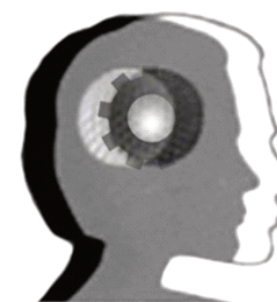
#### #7-5 Servicing Routine Basics – Explained

A proper shot routine involves more than just moving between shots. Although the methods may vary based on the type of shot, such as driving, pitching, or putting, all routines have a starting and finishing point. There are three distinct periods: pre-shot, shot, and post-shot. However, it may not always be practical or logical to try and perform these steps in one continuous sequence or flow, especially considering the range of

methods, techniques, and shot types involved.

Between shots, it's empowering to understand and personalize one's routines across all methods. This adaptability allows you to perform well, stay on course, and compete better. Considering the playing circumstances, game or match situation, and personal preferences, it's always a contentious issue on how best to occupy one's time between shots. However, there is no absolute right or wrong approach between shots and a routine's beginning & end. Take the time to consider performance behaviours and psychological effects when practising routine basics, preferably on the practice range under training awareness conditions.

#### #7-6 Dependents – Explained



**A Dependent** describes what a Major Movement relies upon to function correctly and operate within assigned Technical Standards/Ranges.

#### #7-7 Links – Explained



**A Link** describes the connections between Major Movements and relies upon functioning correctly and operating across other linked Technical Standards/Ranges.