

Draft Qualitative Requirements (QRs) of Corner Shot Weapon System for Glock Pistol)

1. **Aim of the document:** To lay down the qualitative requirements for a Corner Shot Weapons System for 9 mm 1A1 (ex-RFI, Kolkata)/ **9 mm Glock Pistol**.

2. **Introduction:** In order to enhance the potential of the in-service Pistol, there exists a requirement to make available a portable system to enable the user to see, aim and fire around corners. This would prevent/minimize exposure of the firer and enable him to detect and engage targets effectively, using traverse firing, during day and night. The Corner Shot Weapon System enables the user to see and fire around corners. The Corner Shot Weapon System consists of two jointed sections. The forward section holds Pistol along with camera and other features including tactical LED light, LASER device and other attachments. The rear section houses the operating features, monitor, controls and has a foldable butt. Suitable fore grip is to be provided to enable the firer to engage target located around the corner. This fore grip should also enable the firer to fire in front as per requirement, in the same posture. The Corner Shot Weapons System should provide a real time image of the target area, located around a corner to the user, with capability to aim and engage targets accurately during day and night. The rear part of the system should have a monitor for the camera and a trigger which activates the trigger mechanism of the mounted weapon i.e Pistol.

3. **Physical Characteristics:** requirements are as given below:-

a) **Weight:** Not more than 4 Kg (excluding Pistol) and including day/night camera, tactical LED light and LASER aiming device.

b) **Length:** Total length not more than 860 mm (without Pistol) and not more than 700 mm in folded butt position.

c) **transportability:-** Should be man-portable and facility to be carried on sling should be provided. It should be furnished with a water resistant carrying and storage case made of synthetic or other light material. The case must have foam inserts/other arrangements.

d) **Environmental tests:-** The Corner Shot Weapon System for Pistol should conform to the applicable specifications as given in JSS-5855-11:2009.

e) **Surface Finish and Colour:-** It should have a non reflecting surface, dull black in colour.

f) **Design :-** Equipment must be compact and ergonomically designed with smooth edges.

4. **Sighting Systems:** Should meet the relevant specifications as applicable in JSS-5855-11:2009

a) **Day colour camera:** Day Camera should have following capabilities

I. Zeroing Capability – facility to carry out zeroing of aiming graticule

II. day ranging capability – For a ‘Single Standing Human Target’ in clear day conditions, camera should have following range capabilities.

Detection Minimum 120 m

Recognition Minimum 50 m

Identification Minimum 25m

III. **Night Range Capability** – Day Camera be provided with IR illuminator to be capable of identifying ‘Single Standing Human Target’ at minimum 15m in an enclosed room with no light.

IV. **Detachability** - Detachable with arrangements to be attached/detached easily at night and be interchanged with night camera.

V. **Field of view** - The field of view should be 10-15 degrees (H and V).

b) Night Camera:-

I. Zeroing Capability - Facility to carry out zeroing of aiming graticule.

II. Range Capability - For a 'Single Standing Human Target' under Clear starlight night conditions (not more than 10^{-3} lux) and medium contrast

Detection Minimum 50m

Recognition Minimum 30m

Identification Minimum 15m

III. IR Capability - Provided with IR illuminator and be capable of identifying a 'Single Standing Human Target' at minimum 15m in an enclosed room with no light.

IV. Detachability - Detachable night camera with arrangements to be attached/detached easily at night and be interchanged with day camera.

v. **Reticle Pattern** Cross hair type.

VI **Field of View** - Horizontal field – 10 (Min)
Vertical field – 7.5 (Min)

c) **Power requirements** - System with re-chargeable battery pack (including Spare battery). Endurance of minimum 2.5 hours during continuous operation mode (less LED lights)

d) **Display Monitor:** Swivel mounted monitor with display of size 2.5 to 3.5 inches and minimum resolution 640W x 480 H. Brightness control facility in the monitor to be provided.

e) **Tactical LED Light** : Capability to detect **Single standing human target at not less than 15 m in an enclosed room with no other light**, through naked eye, and with facility to prevent camera blinding.

f) **LASER Indicator** : should have a visible LASER indicator with **Zeroing mechanism** for range not less than **15 m under clear starlight night** conditions (not more than 10^{-3} lux) for a 'Single Standing Human Target'.

5. Operational Parameter : The Corner Shot Weapons System should be adaptable to be used for in-service pistol without affecting the effective range and accuracy of the mounted pistol. operational parameters should be as per following.

a) **Pistol Detachability** - Pistol should be easily detachable to enable use of the weapon without Corner Shot Weapon System.

b) **Accessory Rail** - Picatiny system (Military Standard 1913)

c) **Traversing Angle** - Minimum $+65^\circ$ to -65° (manual operated) with facility to lock at extreme ends and at 0.

d) **Trigger Pull** - Between 3.0 to 4.0 Kg

e) **Trigger Safety** - Trigger system with applied and Mechanical safety mechanism

f) **Operating Temperature:**

Minimum -20°C to -10°C .

Maximum $+40^\circ\text{C}$ to $+45^\circ\text{C}$

g) **Storage Temperature** - -25°C to $+50^\circ\text{C}$

6. Accuracy Criteria - Group of 5/6 Rds when fired from a fixed rest at target placed at a range of 9 m should fall within prescribed rectangle of 51 mm (H) – 76 mm (V) with aiming point 16 mm above bottom of the rectangle.

Trial Directive of Corner Shot Weapon System for Glock Pistol)

1. AIM

Aim of this document is to formulate trial directive for evaluation for the corner shot Weapon System (CSWS) for 9 mm 1A1/Glock Pistol.

2. Introduction :-

Corner Shot Weapon System will be used by Special Forces in hostile situations and counter insurgency operations. It allows its operator to see and attack an armed target, without exposing himself for any counterattack.

3. Test Procedure and Acceptance Criteria :

The Integrated CSWS will be subjected to following Tests.

- a) Physical and Functional Parameter Testing
- b) Environmental Tests as per JSS 5855:11-2009
- c) Firing Trials

3.1 Physical and functional Parameter Testing :

Following physical and functional parameters will be Tested for Integrated CSWS Pistol version separately.

3.1.1 Overall Weight

The overall weight of Integrated CSWS will be checked as per following.

Table 1: Overall weight Inspection Procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Weight	a) Place the integrated CSWS (without Pistol) on weighing Scale (No parts of CSWS should be in contact of any vertical face of the scale or wall) b) Record the max weight reading 05 Nos of times	Max weight reading should be <4.0 kg.

3.12 Overall Length :

The overall length of integrated CSWS of Pistol will be checked as per following.

Table 2: Overall Length Inspection procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Overall Length	I. Butt Open: a) Place the integrated CSWS (without Pistol) on white paper as shown in figure. b) Mark both the extreme faces/points with the help of flat plates on white paper. c) Measure the max \perp ar distance between faces (length) with scale 05 Nos of times.	Max weight reading should be < 860 mm.
	II. Butt folded : a) Place the integrated CSWS with bull folded (Excluding Pistol) on white paper as shown in figure. b) Mark Both the extreme faces/points flat plates on white paper. c) Measure the max \perp ar distance between faces	Max weight reading should be <700 mm.

	(length) with scale 05 Nos of times.	
--	--------------------------------------	--

3.1.3 Trigger Pull :

This Test will be conducted for CWSS Pistol Versions to check for the trigger pull parameters of the CWSS in all three orientations (-650,00,+650)

Figure 3 : CSWS Trigger Mechanism

Table 4: Trigger Pull Test at three orientations

Test Parameter	Test Procedure	Acceptance Criteria
Trigger Pull	In straight alignment (0°) i. Take a Corner Shot Weapon System ii. Mount in-service 9mm Pistol with empty magazine iii. Ensure that CSWS is locked and aligned in straight axis (0 degree) iv. Place the catch safety at "F (Fire) position of the pistol mounted and hammer in cocked position. v. Pull the CSWS trigger with Trigger pull measuring device. vi. Measure and record the max value of trigger pull force by using Trigger pull measuring setup.	In all three orientation trigger pull should be in between 3.0 - 4.0 Kg
	Left position (-65°) i. Take a corner shot weapon system ii. Mount the in service 9mm pistol with empty magazine iii. Ensure that CSWS is locked and aligned in left side (-65 deg). iv. Place the catch safety at "F"(Fire) position of the pistol mounted and hammer in cocked position. v. Pull the CSWS trigger with Trigger pull measuring device vi. Measure and record the max value of trigger pull force by using Trigger pull measuring setup.	Max weight reading should be <700 mm.
	i) Travelling right Position (-65°) ii) Mount the in service 9mm pistol with empty magazine iii) Ensure that CSWS is locked and aligned in right axis (+65 degree) iv) Place the catch safety at "F" (Fire) position of the pistol mounted and hammer is cocked position. v. Pull the CSWS trigger with Trigger pull measuring device vi. Measure and record the max value of trigger pull force by using Trigger pull measuring setup	

3.1.4 Traverse Angle :

The Test will be conducted for CSWS Pistol Version to check for the traversing angle of the forearm of the CSWS. Free movement/proper functioning of the swivel arm on hinge, proper functioning of the locking and releasing mechanism is to be checked during the Test.

Table 5: Traverse Angle measurement procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Traverse angle at three orientations	a) In straight alignment (0°) : I. Take Integrated CSWS II. Place the CSWS on a fixed vice and hold rear stock. III. Select suitable parallel flat faces of Rear stock and fore stock. IV. Draw a straight line w.r.t. fore and Rear stock and faces. V. Check angle between lines	Angle between fore stock and rear stock should be 0°±0.5 deg
	b) In traversing left position (-65°) I. Take Integrated CSWS II. Take Integrated CSWS on a fixed vice and hold rear stock. III. Select suitable parallel flat faces of Rear stock and fore stock. IV. Draw a straight line w.r.t. fore and rear stock faces. V. Check angle between lines	Angle between fore stock and rear stock should be -65 ± 0.5 deg.
	c) In traversing left position (+65°) I. Take Integrated CSWS II. Place the CSWS on a fixed vice and hold rear stock III. Select suitable parallel flat faces of Rear stock and fore stock IV. Draw a straight line w.r.t. fore and rear stock faces. V. Check angle between lines.	Angle between fore stock and rear stock should be 65 ± 0.5 deg.

3.1.5 Quick Detachability of Weapon:

This Test will be conducted to Test the quick detachability of Pistol mounted on CSWS without use of any special tool.

Table 6: Quick Detachability Testing Procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Detachability	Remove Pistol manually from CSWS w/o any special tool/s.	Pistol should be able to easily detachable in less than One Minute

3.16 Colour and Surface Finish :

This Test will be carried out to verify the Colour and surface finish of CSWS Pistol Version.

Table 7 : Colour and surface finish Testing procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Colour and Surface Finish	Visual inspection	Should be a nonreflecting, Dull Black (Matt Finish) in Colour.

3.1.7 Trigger Safety Testing

Following procedure and criteria will be adopted for ensuring safeties of firer trigger of CSWS Pistol version. Pistol/UBGL will remain mounted (cocked and w/o loading ammunition) with CSWS during conduct of trigger safety Test.

Table 8 : Trigger safety Testing procedure		
Test Parameter	Test Procedure	Acceptance Criteria
I. Applied Safety	I. Place the CSWS on a fixed vice and hold rear stock. II. Put CSWS Firer trigger safety lever in " S" (Safe) position. III. Press firer trigger iv. Place safety lever in between "S" (Safe) and "F" (Fire) position on CSWS. V. Press firer trigger. vi. Press firer trigger with higher force manually vii. Repeat steps I to iii by putting Firer trigger safety lever in "F"(Fire) position.	a) Firer trigger should not operate when safety lever in "S" (Safe) position as well as in between "S" (Safe) and "F" (Fire) position. b) On application of higher trigger pull, trigger should not override safety lever and operate. c) Firer trigger should operate "ONLY" when safety lever in "FIRE" Position. d) Firer trigger on operation should allow functioning PISTOL/UBGL trigger when safety lever in "FIRE" mode
iii. Mechanical Safety	i. Place the CSWS on a fixed vice and hold rear stock. ii. Rotate fore stock using slider and lock mechanism.	Firer trigger should operate "OBLY" on three locked positions (-65,0, +65 degree) of Fore Stock.

3.1.8 Day Camera Testing :

Following parameters of day camera will be tested as per procedure given below.

Table 9 : Day Camera Testing procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Range Capability	i. Place the CSWS on a fixed vice and hold rear stock. ii. Switch ON Day Camera iii. Place the target at ranges for D (50m), R (30m) and I (15m) in day light conditions iv. See the target through LCD screen mounted on CSWS.	D: It should be able to detect the object from background at 50 m. R: Should be able to recognize the object class (animal, human, vehicle, boat etc) at 30m. I : Should be able to identify the object within one class (friend or foe) at 15m.
FOV	a) To be Verified from OEM certificate	a) The range of FOV for should be 10-15 deg. b) The tolerance allowed for the qualification of FOV is $\pm 5\%$.
Retention of Bore sight	a) Place the integrated CSWS on	a) Boresight should appear on

	<p>a fixed vice and hold.</p> <p>b) Switch on Day Camera and save graticule using operating switches.</p> <p>c) CSWS will be switched off and switched On Again</p>	<p>earlier saved position after switching “ON” CSWS.</p> <p>b) Boresight should maintain similar cross size.</p>
Night Capability with IR	<p>a) Place the integrated CSWS on a fixed vice in enclosed room with no light.</p> <p>b) Place a Human target at 15m distance ahead of CSWS.</p> <p>c) Switch on Day Camera and IR Illuminator.</p> <p>d) See the target through LCD screen</p>	<p>Single standing Human target should be indentified when viewed through LCD of CSWS at 15 m Range.</p>
Detachability	<p>Detach the Day Camera manually from Pica tiny rails on CSWS Fore Stock</p>	<p>The Day Camera should not require any tool while mounting/detaching on CSWS.</p>

3.1.9 Night Sight Testing :

Following parameters of Night sight of CSWS Pistol Versions will be tested as per procedure given below.

Table 10 : Night Camera Testing procedure

Test Parameter	Test Procedure	Acceptance Criteria
Range Capability	<p>i. Place the CSWS on a fixed vice and hold rear stock.</p> <p>ii. Switch ON Night Camera</p> <p>iii. Place the target at ranges for D (50m), R (30m) and I (15m) in clear starlight night conditions (not more than 10^{-3}Lux)</p> <p>iv. See the target through LCD screen mounted on CSWS.</p>	<p>D: It should be able to distinguish the object from background at 50 m.</p> <p>R: Should be able to classify the object class (animal, human, vehicle, boat etc) at 30m.</p> <p>I : Should be able to differentiate the object within one class (friend or foe) at 15m.</p>
	<p>i Place the CSWS UBGL on a fixed vice and hold rear stock .</p> <p>ii Switch ON Night camera</p> <p>iii. place the target at ranges for D (75m), R(50m) and I(30m) in the clear starlight night conditions (not more than 10^{-3}Lux)</p> <p>iv See the target through LCD screen mounted on CSWS.</p>	<p>D: It should be able to distinguish the object from background at 75 m.</p> <p>R: Should be able to classify the object class (animal, human, vehicle, boat etc) at 50 m.</p> <p>I: Should be able to differentiate the object within one class (friend or foe) t 30 m</p>
FOV	<p>a) To be verified from OEM certificate</p>	<p>a) The FOV should be 10 deg(H) and 7.5 deg(V).</p> <p>b) The tolerance allowed for the qualification of FOV is $\pm 5\%$</p>

Retention of Bore sight	<ul style="list-style-type: none"> a) Place the integrated CSWS on a fixed vice and hold. b) Switch on Day Camera and save graticule using operating switches. c) CSWS will be switched off and switched On Again 	<ul style="list-style-type: none"> a) Boresight should appear on earlier saved position after switching "ON" CSWS. b) Boresight should maintain similar cross size for all Zoom Positions.
Night Capability with IR	<ul style="list-style-type: none"> a) Place the integrated CSWS on a fixed vice in enclosed room with no light b) Place a Human target at 15m distance ahead of CSWS C) Switch on Day Camera and IR Illuminator. d) See the target through LCD screen 	Human target should be identified when viewed Through LCD of CSWS at 15 m Range
Detachability	Detach the Day Camera manually from Picatiny rails on CSWS Fore Stock	The Day Camera should not require any tool while mounting/detaching on CSWS.

3.1.10 RED LASER:

Following parameters of RED LASER of CSWS Pistol Version will be tested as per procedure given below.

Table 11 : RED LASER Testing Procedure

Test Parameter	Test Procedure	Acceptance Criteria
Range Capability	<ul style="list-style-type: none"> a) Place the integrated CSWS on a fixed vice under clear starlight night condition (not more 10^{-3} Lux) in dark tunnel b) Place a Human target at 15m distance ahead of CSWS c) Switch on Red LASER. d) See the LASER Dot on Human Target 	Should be able to see a Red Dot at 15 m for a single standing human target.
Zeroing with visible Laser Pointer	<ul style="list-style-type: none"> a) Place the integrated CSWS on a fixed vice b) Place a white target at 9m distance ahead of CSWS. c) Place a MBS inside muzzle end of PISTOL d) See the target I LCD screen 	Red laser should move horizontal and vertical on rotation of zeroing wheel accordingly

3.1.11 Illuminator:

Following parameters of IR illuminator will be tested as per procedure given below.

Table 12 : IR Illuminator Testing Procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Range Capability	<ul style="list-style-type: none"> a) Place the integrated CSWS on a fixed vice under clear starlight in enclosed room with no light. b) Place a Human target at 15m distance ahead of CSWS c) Switch on Illuminator d) See the target through LCD screen 	Should be able to identify a singly standing human target at 15 m range when seen with Day camera and LCD.

3.1.12 Tactical LED Torch :

Following parameters of LED Torch of CSWS Pistol Versions will be Tested as per procedure given below.

Table 13 : Tactical Torch Testing Procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Range Capability	<ul style="list-style-type: none"> a) Place the integrated CSWS on a fixed vice under clear starlight in enclosed room with no light. b) Place a Human target at 15m distance ahead of CSWS c) Switch on LED Torch d) See the target through Naked Eyes e) Switch on Day for checking of Camera Blindness when torch in ON. 	<ul style="list-style-type: none"> a) Should be able to detect a single standing human target at 15 m range when seen through Naked EYE b) Should not blind Day Camera when switched on.

3.1.13 LCD Screen

Following parameters of LCD of CWSS Pistol Versions will be Tested as per procedure given below.

Table 14 : LCD Screen Testing Procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Screen Size & Resolution	OEM certificate	
Sun light readability	<ul style="list-style-type: none"> a) Switch ON the Integrated CSWS under bright sunlight in the clear afternoon condition b) See and read text and graphics on LCD screen 	Following should be visible and able to read through naked eye <ul style="list-style-type: none"> a) Menu b) Graticule c) Battery Status d) Image

3.1.14 Li-ion Battery Testing:

Following parameters of Battery and its charger of CSWS Pistol Version will be Tested as per procedure given below.

Table 16 : Li-ion Battery and Charger Testing Procedure		
Test Parameter	Test Procedure	Acceptance Criteria
Fitment with CSWS	<p>a) Insert a fully charged battery in CSWS and lock.</p> <p>b) Repeat the above procedure in Flipped (about vertical axis) of Li-ion battery.</p> <p>c) Operate On-OFF switch after inserting battery</p>	<p>a) Battery should get inserted and locked with CSWS rear stock.</p> <p>b) Battery should not get inserted in flipped orientations.</p> <p>c) After successful battery insertion and locking the CSWS subsystems should function.</p>
Endurance Test	To Be verified from OEM	Total endurance of the battery should be min 2.5 hrs in all temperature as specified.

3.2 Environmental Testing as per JSS 5855:11-2009:

After conduct of Testing specified in para 3.1 the integrated CSWS Pistol Versions will be subject to Environmental Tests as described below :

NOTE : Environmental Test as per JSS5855-11:2009 given in following table to be conducted in sequence given below. OEM Test certificate to be obtained for following tests.

Table 18: Environmental Tests Details				
S/N	Test	Parameters	Remarks	
1	Vibration (Sinusoidal)	Frequency	10-150-10 Hz	<p>a) CSWS will be clamped rigidly at Butt, Pistol grip, slider in conventional firing orientation.</p> <p>b) Vibration will be given along and \perpar to Firing axis.</p>
		Amplitude	± 1.25 mm (± 0.5 ")	
		Acceleration	2 g	
		Sweep rate	1 Octave/min	
		Axis	X & Y	
		No. of sweep	10 sweep in each axis in "OFF" condition	
2	Bump	No of Bumps	1000 \pm 10	<p>a) CSWS will be clamped rigidly at Butt, Pistol grip, slider in conventional firing orientation.</p> <p>b) Bump/Shock will be given \perpar to Firing axis</p>
		Bump rate	1-3 bumps/second	
		Pulse Shape	Half Sine wave with 6m \pm 1 ms pulse during in "OFF" condition	
		Peat Acceleration	40 \pm 4g	
3	Shock	Acceleration	40g	
		Pulse Width	18ms(half Sine wave)	
		Axis	Both parallel	

			and Perpendicular to optical axis "OFF"	
			condition	
		No. of shocks	6/ Axis	
4	Sealing (For Sealed Units only)	Internal pressure	0.175 kg/cm ²	As per JSS 5855-11:2009
5	Cold (Low Temp)	Operating Temp & Duration	-20°C for 16 hours in "OFF" condition and switched on during last ½ an hour.	Wire link will be provided to switch on the system from outside of the chamber.
		Storage Temp & Duration	-30°C for 16 hours in "OFF" condition and switched ON and checked for function after recovery	
6	Dry Heat (High Temp)	Operating Temp & Duration	+55°C for 16 hours in "OFF" condition and switched ON during last ½ an hour	
		Storage Temp & Duration	+70°C for 16 hours in "OFF" condition. Switched ON and checked for function after recovery.	
7	Damp Heat	Temperature	+40°C±2,	
		Humidity (RH)	95-98%	
		Duration	16 hours in power off condition and power ON for last 30 minutes for performance check. Recovery in chamber for 8 hours.	
8	Thermal Shock (Rapid change of	Exposure for 3 hours at high temperature and then for 3 hours at		

	Temp)	low temperature after quick transfer within 3 to 5 minutes (1 cycle)									
		<table border="1"> <thead> <tr> <th>High Temp</th> <th>Low temp</th> <th>Cycle</th> </tr> </thead> <tbody> <tr> <td>55±2°C</td> <td>-20±2°C</td> <td>One</td> </tr> </tbody> </table>	High Temp	Low temp	Cycle	55±2°C	-20±2°C	One			
High Temp	Low temp	Cycle									
55±2°C	-20±2°C	One									
9	Low air pressure (Altitude)	<table border="1"> <tbody> <tr> <td>Temperature</td> <td>-20°C±3°C</td> </tr> <tr> <td>Altitude</td> <td>4160 m</td> </tr> <tr> <td>Air Pressure</td> <td>60 kpa</td> </tr> <tr> <td>Duration</td> <td>16hr</td> </tr> </tbody> </table>	Temperature	-20°C±3°C	Altitude	4160 m	Air Pressure	60 kpa	Duration	16hr	Integrated CSWS shall be subjected to this Test in its unpacked and switched off condition.
Temperature	-20°C±3°C										
Altitude	4160 m										
Air Pressure	60 kpa										
Duration	16hr										
10	Tropical exposure	7 cycles, RH not less than 95% Each cycle consisting of following <ul style="list-style-type: none"> • 12 hours at 40±2°C • 6 hours at 20±2°C • 6 hours for slow heating and cooling process to complete 24 hours. 									
11	Driving Rain	<p>a) Spraying with clean water for one hour using eight shower heads.</p> <p>b) Each Shower head should be at static pressure 200 kpa ± 15%.</p> <p>c) Spraying rate should be 450lt±10%.</p>									
12	Salt Corrosion	Exposure to salt mist for 2 hours followed by storage at 35±2°C with RH of 90% to 95%. No. of cycle – one Duration of each cycle – 24 hours.									
13	Dust	Exposure to an atmosphere consisting of dust particles of size 150 micron or less at 40±3°C for 01 hour, RH not exceeding 50%									
14	Drop Test	Carrying and storage case will be dropped with CSWS kept inside from a height of 1.5 m on set soil surface in four orientations.									
			Integrated CSWS shall be subjected to this Test in its unpacked and switched off condition.								

Restricted

Following functionalities of the CSWS should be checked after performing each of test specified in above table and confirmed in OEM certification.

- i. No physical damage should be observed after Test.
- ii. System should be functionally ok, it should be able to rotate, slide and lock as per desired orientations.
- iii. System should be able to switch on and off as desired.
- iv. All electronic subsystems viz Day/night camera, Red laser, IR, Torch, LCD display etc should be functionally ok after the Test.
- v. Bore sighting, image quality of camera, LED screen brightness should not change after the Test.

3.3 Firing Test:

After passing the environmental tests the integrated CSWS will be subjected to Firing trials. The CSWS will be kept in ON condition before firing.

S/N	Test	Procedure	Acceptance Criteria
1.	Weapon Fitment	a) Mount Pistol manually on Fore stock without using any tools. b) Perform Magazine fitment removal, weapon cocking operation, pistol inbuilt safety dry checks.	a) No visible play should be observed through naked eye. b) CSWS should allow all dry checks of Pistol mentioned in conventional manner.
2.	Zeroing and Accuracy trial	a) Perform Dry zeroing using Red Laser, MBS and Graticule provided in CSWS as per procedure attached in Appendix "A". b) Load and Fire 5 rds from filed magazine at target placed at 9 m Range in all three orientations (-65°, 0°, +65°).	5 out of 6 rds should hit the within a rectangle of 51mm (H) X 76 mm (V). The Aim point should be 16mm above the bottom of rectangle.