



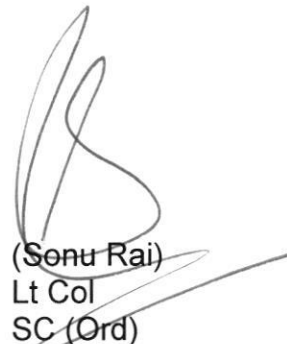
Government of India  
Ministry of Home Affairs  
Directorate General National Security Guard  
(Provisioning Branch/Ord Section)  
Mehram Nagar, Palam, New Delhi-110037  
Fax No. 011-25663258/25671639

P/604/19/389/Corner Shot /Prov/Ord/NSG/

Dated : 31 December 2021

**FORWARD OF FINAL QUALITATIVE REQUIREMENT (QRs) AND TRIAL DIRECTIVES (TDs) OF CORNER SHOT WEAPON SYSTEM FOR GLOCK PISTOL**

1. It is submitted that final QRs and TDs in respect of Corner Shot Weapon System for Glock Pistol duly signed by DG, NSG was forwarded to Dte Gen CRPF on 05 Nov 2020 for uploading on MHA Website. The same has not been uploaded in MHA website.
2. In view of the above, final QRs and TDs on the subject is forwarded herewith for uploading on MHA Website please.

  
(Sonu Rai)  
Lt Col  
SC (Ord)  
For IG (Prov)

**Encls** : As above

**Senior Technical Director, IT Cell, NIC, North Block, New Delhi**

**QRS SPECIFICATION OF CORNER SHOT WEAPON SYSTEM FOR GLOCK PISTOL**

S/No	Qualitative Requirements
1.	Aim of the document: To lay down the qualitative requirements for a Corner Shot Weapon System for <b>9 mm Glock Pistol</b> .
2.	<b>Introduction:</b> In order to enhance the potential of the in-service glock 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 Systems 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 weapons i.e Pistol.
3.	<b>Physical Characteristics: Requirements are as given below:</b>
a)	<b>Weight:</b> Less than 4 Kg (excluding Pistol) and including day/night camera, tactical LED light and LASER aiming device.
b)	<b>Length:</b> Total length not more than 860mm (without pistol) and not more than 700 mm in folded butt position (with tolerance of $\pm 10\%$ )
c)	<b>Transportability:-</b> 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. For water resistance it should comply as per JSS-0253-01 Standard.
d)	<b>Environmental tests:-</b> The Corner Shot Weapon System for Pistol should conform to the applicable specifications as given in JSS-5855-11:2009 Standards.
e)	<b>Surface Finish and Colour:</b> It should have a non reflecting surface, dull black in colour
f)	<b>Design:-</b> Equipment must be compact and ergonomically designed with smooth edges.

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**QRS SPECIFICATION OF CORNER SHOT WEAPON SYSTEM FOR GLOCK PISTOL**

S/No	Qualitative Requirements
<b>4.</b>	<b>Sighting Systems</b>
a)	<b>Day Colour Camera:</b> Day Camera should have following capabilities
i)	<b>Zeroing Capability:</b> Facility to carry out Zeroing of aiming graticule
ii)	<b>Day ranging capability:-</b> For a 'Single Standing Human Target' in clear day conditions, camera should have following range capabilities (without zooming) Detection Minimum 75 m Recognition Minimum 50 m Identification Minimum 25 m
iii)	<b>Night Range Capability -</b> Day Camera be provided with IR illuminator or be capable of identifying 'Single Standing Human Target' at minimum 20m in a dark enclosure or closed room with no light.
iv)	<b>Detachability -</b> Detachable with arrangements to be attached/detached easily at night and be interchanged with night camera.
v)	<b>Field of View -</b> The field of view should be 35-40 degrees (H and V)
vi)	<b>Resolution -</b> Equal to or greater than 2 mega pixel
vii)	<b>Digital Zoom -</b> 10 X
viii)	<b>Reticule Pattern -</b> Cross hair type
b)	<b>Night Camera -</b> Night Camera :- (Optional) user has to specify if additional night camera is required (I I tube based) in the tender document.
i)	<b>Zeroing Capability -</b> Facility to carry out zeroing of aiming graticule
ii)	<b>Range Capability -</b> For a 'Single Standing Human Target' under Clear starlight night conditions (not more than $10^{-3}$ lux) and medium contrast Detection Minimum 50 m Recognition Minimum 30 m Identification Minimum 15 m
iii)	<b>IR Capability -</b> Provided with IR illuminator and be capable of identifying a 'Single Standing Human Target' at minimum 15m in an dark room with no light.
iv)	<b>Detachability -</b> Detachable night camera with arrangements to be attached/detached easily at night and be interchanged with day camera
v)	Reticule Pattern - Cross hair type.
vi)	<b>Field of View - Horizontal field - 10° (min) Vertical field - 7.5° (min)</b>

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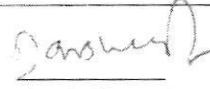
**QRS SPECIFICATION OF CORNER SHOT WEAPON SYSTEM FOR GLOCK PISTOL**

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	<p><b>c) Power requirements</b> – system with re-chargeable battery pack (including spare battery), Endurance of minimum 3 hours during continuous operation mode (without switching on tactical LED lights)</p>
	<p><b>d) Display Monitor:-</b> Swivel mounted monitor with display or size min 3.5 inches and minimum resolution 640W X 480 H. Brightness control facility in the monitor to be provided.</p>
	<p><b>e) Tactical LED Light :</b> Capability to detect Single standing human target at not less than 15 m in an enclosed room with no other light, through naked eye.</p>
	<p><b>f) LASER Indicator :</b> should have a visible LASER indicator with Zeroing mechanism for range not less than 15m under clear starlight night conditions (not more than <math>10^{-3}</math> lux) for a 'Single Standing Human Target'.</p>
5)	<p><b>Operational Parameter:</b> The Corner Shot Weapons Systems should be adaptable to be used for in-service glock pistol without affecting its functionality. Operational parameters should be as per following.</p>
	<p><b>a) Pistol Detachability</b> – Pistol should be easily detachable to enable use of the weapon without Corner Shot Weapon System</p>
	<p><b>b) Accessory Rail</b> – Picatinny system (Military Standard 1913) for day/night camera Attachment.</p>
	<p><b>c) Traversing Angle</b> – Minimum <math>+65^\circ</math> to <math>-65^\circ</math> (manual operated) with facility to lock at extreme ends at 0.</p>
	<p><b>d) Trigger Pull</b> – Between 2.5 Kg to 4 Kg</p>
	<p><b>e) Trigger Safety</b> – Trigger system with applied and Mechanical safety mechanism</p>
	<p><b>f) Operating Temperature :</b> Minimum <math>-20^\circ</math> C Maximum <math>+50^\circ</math> C</p>
	<p><b>g) Storage Temperature :</b> <math>-20^\circ</math> C to <math>+55^\circ</math> C</p>
6.	<p><b>Accuracy Criteria</b> – 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 <b>70 mm (H)</b> – <b>100 mm (V)</b> with aiming point <b>30 mm</b> above bottom of the rectangle.</p>
	<p><b>Life Cycle</b> – 6000 rds</p>
	<p><b>Training</b> – Firm should provide training of 05 personnel for maintenance and Operational Training free of cost at consignee location.</p>
	<p><b>Misc :-</b> Firm to provide technical literature/operational Manual and one additional re-chargeable battery.</p>

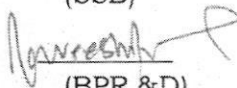
  
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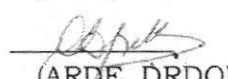
  
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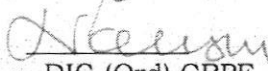
  
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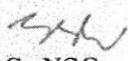
  
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SDG (Prov & Works)

Approved/Not Approved.

  
**DG NSG**  
 Director General  
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**Trial Directives 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 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 counter attack.

**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 ad functional parameters will be Tested for Integrated CSWS Piston Version separately.

**3.1.1 Overall Weight**

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

<b>Table 1 : Overall weight Inspection Procedure</b>			
Test Parameter	Test Procedure	Acceptance Criteria	Remarks
Weight	a) Place the integrated CSWS (without Pistol) on weighting 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	To be checked physically by BOOs

**3.1.2 Overall Length:**

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

<b>Table 2 : Overall Length Inspection Procedure</b>			
Test Parameter	Test Procedure	Acceptance Criteria	Remarks
Overall length	1. <b>Butt open:</b> a) Place the integrated CSWS (without pistol) on white paper. b) Mark both the extreme faces/points with the help of flat plates on white paper. c) Measure the distance between two marked points.	Max Length reading should be <860 mm	To be checked by physically by BOOs

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	<b>II. Butt folded :</b> a) Place the integrated CSWS with butt folded (without pistol) on white paper. b) Mark both the extreme faces/points with the help of flat plates on white paper. c) Measure the distance between two marked points.	Max Length reading should be < 700 mm	To be checked physically by BOOs.
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**3.1.2 Trigger Pull :**

This test will be conducted for CWSs Pistol Versions to check for the trigger pull parameters of the CSWS in all three orientations (-65°, 0°, +65°)

**Figure 3 : CSWS Trigger Mechanism**

<b>Table 4 : Trigger Pull Test at three orientations</b>			
<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>	<b>Remarks</b>
Trigger Pull	<b>In Straight alignment (0°)</b> i. Take a Corner Shot Weapon System ii. Mount in-service glock 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.	<b>In all three orientation trigger pull should be in between 2.5-4.0 Kg</b>	<b>To be checked at any govt. lab/govt approved lab by BOOs.</b>
	<b>Left position (-65°)</b> i. Take a Corner Shot Weapon System ii. Mount in-service glock 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.		
	<b>Traversing right position (+65°)</b> i. Mount the in-service glock Pistol with empty magazine ii. Ensure that CSWS is locked and aligned in right axis (+65 degree) iii. Place the catch safety at "F (Fire) position of the pistol mounted and hammer in cocked position. iv. Pull the CSWS trigger with Trigger pull measuring device v. Measure and record the max value of trigger pull force by using Trigger Pull measuring Setup.		

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### 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.

Test Parameter	Test Procedure	Acceptance Criteria	Remarks
Traverse angle at three orientations	<b>a) In Straight alignment (0°) :</b> 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 $0^{\circ} \pm 0.5 \text{ deg}$	To be checked at any Govt. Lab/govt approved lab by BOOs
	<b>b) In traversing left position (-65°)</b> 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 and faces. v) Check angle between lines	Angle between fore stock and rear stock should be $-65 \pm 0.5 \text{ deg}$	
	<b>c) In traversing right position (+65°)</b> 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 $65 \pm 0.5 \text{ deg}$	

### 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.

Test Parameter	Test Procedure	Acceptance Criteria	Remarks
Detachability	Remove Pistol manually from CSWS w/o any special tools	Pistol should be able to easily detach in less than One Minute	To be checked by BOOs

### 3.1.6 Colour, Surface Finish and Design :

This test will be carried out to verify the Colour, Surface finish and Design of CSWS Pistol Version.

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<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>
Colour and Surface Finish	Visual Inspection by BOOs	Should be a nonreflecting, Dull Black (Matt Finish) in Colour
Design	Visual Inspection by BOOs	Should be compact with smooth edges

**3.1.7 Trigger Safety Testing**

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

<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>	<b>Remarks</b>
1. Applied Safety	1. Place the CSWS on a fixed vice and hold rear stock. ii. Put CSWS safety lever in "S" (Safe) position. Iii. Press the trigger iv. Place safety lever in between "S" (Safe) and "F" (Fire) position on CSWS. v. Press the trigger. vi. Press the trigger with higher force manually. Vii. Repeat steps I to iii by putting safety lever in "F" (Fire) position	a) Trigger should be 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) CSWS trigger should operate "ONLY" when safety lever in "FIRE" position. d PISTOL should only fire when CSWS safety lever in fire mode.	To be checked at any Govt. Lab/govt approved lab by BOOs
ii. Mechanical Safety	I. Place the CSWS on a fixed vice and hold rear stock. ii. Rotate fore stock using slider and lock mechanism.	CSWS trigger should be able to operate "ONLY" on three locked positions (-65,0, +65 degree) of Fore Stock.	

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### 3.1.8 Day Camera Testing

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

<b>Table 9 :Day Camera Testing Procedure</b>			
<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>	<b>Remarks</b>
<b>1. Range Capability</b>	1. Place the CSWS on a fixed vice and hold rear stock. ii. Switch on Day Camera. iii. Set day camera at 1 x Zoom by control panel of CSWS. iv. Place the target at ranges for D (75m), R (50m) and 1 (25m) in day light conditions. v. See the target through LCD screen mounted on CSWS.	<b>D.</b> It should be able to detect the object from background at 75 m.  <b>R:</b> Should be able to recognize the object class (animal, human, vehicle boat etc) at 50m. <b>I :</b> Should be able to identify the object within one class (friend or foe) at 25m.	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>FOV and Zoom Position</b>	To be verified from OEM certificate	a) The FOV should be 35-40 deg. 10 X digital zoom	---
<b>Retention of Bore Sight</b>	a) Place the integrated CSWS on a fixed vice and hold. b) Switch on Day Camera and save graticule using operating switches at desired position at all zoom position. c) CSWS will be switched off and switched On Again.	a) Bore sight should appear on earlier saved position after switching "ON" CSWS. b) Bore sight should maintain similar cross size for all ZOOM positions.	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>Night Capability with IR</b>	a) Place the integrated CSWS on a fixed vice in a dark room with no light. b) Place a human target at 20 m distance ahead of CSWS. c) Switch on Day Camera and IR Illuminator. d) See the target through LCD Screen.	Single standing Human target should be identified when viewed through LCD of CSWS at 20 m Range	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>Detachability</b>	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.	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>Reticule Pattern</b>	----	Cross hair type	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>Resolution</b>	----	Equal to or greater than 2 mega pixel	Firm to provide OEM certificate

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### 3.1.9 Night sight Testing (Optional)

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

<b>Table 10 :Day Camera Testing Procedure</b>			
<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>	<b>Remarks</b>
<b>1. Range Capability</b>	1. Place the CSWS on a fixed vice and hold rear stock. ii. Switch ON Night Camera. Iii Place the target at ranges for D (50m), R (30m) and I (15m) in clear starlight night conditions (not more than 10 <sup>-3</sup> Lux) iv. See the target through LCD screen mounted on CSWS.	<b>D.</b> It should be able to distinguish the object from background at 50 m. <b>R:</b> Should be able to classify the object class (animal, human, vehicle, boat etc) at 30m. <b>I :</b> Should be able to differentiate the object within one class (friend or foe) at 15 m.	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>FOV</b>	OEM certificate	<b>Should comply the QR</b>	
<b>Night Capability with IR</b>	1. Place the integrated CSWS on a fixed vice in a dark room with no light. ii. Place a Human target at 15m distance ahead of CSWS iii .Switch on Night Camera and IR Illuminator. iv. See the target through LCD Screen	Human target should be identified when viewed through LCD of CSWS at 15 m Range	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>Detachability</b>	Detach the Night Camera manually from Picatiny rails on CSWS Fore Stock	The Night Camera should not require any tool while mounting/detaching on CSWS.	To be checked by BOOs
<b>Reticule Pattern</b>	---	Cross hair type	To be checked by BOOs

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### 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	Remarks
<b>1. Range Capability</b>	1. 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 15 m distance ahead of CSWS c) Switch on Red LASER. d) See the LASER Dot on Human Target.	Should be able to see a Read Dot at 25 m for a Single Standing Human Target	To be checked at any Govt. lab/Govt approved lab by BOOs
<b>Zeroing with visible Laser Pointer</b>	a) Place the integrated CSWS on a fixed vice b) Place a white target at 9 m distance ahead of CSWS. c) Place a (muzzle bore sight) MBS inside muzzle end of PISTOL d) see the target on LCD Screen e) MBS will be provided by the vendors.	Red laser should move in horizontal & vertical directions to coincide with Red dot of MBS	To be checked at any Govt. lab/Govt approved lab by BOOs.

### 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	Remarks
<b>Range Capability</b>	1. Place the integrated CSWS on a fixed vice under clear starlight in enclosed room with no light. ii. Place a human target at 15m distance ahead of CSWS. iii. Switch on illuminator. iv. See the target through LCD screen.	Should be able to identify a single standing human target at 15 m range when seen with Day Camera and LCD.	To be checked at any Govt. lab/Govt approved lab by BOOs

### 3.1.12 Tactical LED Torch.

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

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- Top center: A signature that appears to be "Ragob".
- Top right: A signature that appears to be "Ragob".
- Bottom left: A signature that appears to be "Dankar".
- Bottom center: A signature that appears to be "JS".
- Bottom right: A signature that appears to be "Anand".
- Far right: A signature that appears to be "B" with a checkmark.

<b>Table 13 : Tactical Torch Testing Procedure</b>			
<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>	<b>Remarks</b>
<b>1. Range Capability</b>	1. Place the integrated CSWS on a fixed vice under clear starlight in enclosed room with no light. b) Place a Human target at 15 m distance ahead of CSWS c) Switch on LED Torch. d) See the target through Naked Eyes. e) Switch on Day Camera for checking of Camera Blindness when torch is ON.	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.	To be checked at any Govt. lab/Govt approved lab by BOOs.

### 3.1.13 LCD Screen.

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

<b>Table 14 : LCD Screen Testing Procedure</b>		
<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>
<b>Screen Size &amp; Resolution</b>	To be verified from OEM datasheet	Size (3.5 inch, minimum), Resolution minimum (640 X 480)
<b>Text and Graphics display</b>	Switch ON the Integrated CSWS	Should display following as per the CSWS Versions a) Menu b) Graticule c) Battery Status
<b>Sun Light Readability</b>	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 a) Menu b) Graticule c) Battery Status d) Image (target)
<b>Brightness control facility</b>	To be checked by BOO.	---

### 3.1.14 Operating and ON-OFF Switch.

Following parameters of On-OFF Switch of CSWS Pistol Versions will be tested as given below.

<b>Table 15 : On/Off switch Testing procedure</b>		
<b>Test Parameter</b>	<b>Test Procedure</b>	<b>Acceptance Criteria</b>
<b>a) CSWS ON-OFF b) Menu navigation and control HOT KEY Operation</b>	a) Switch ON/OFF the operating Switch. b) Check Functions/using key/Hot key assigned in Keypad.	On-OFF and Operating switch should perform the function as laid down in specification.

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### 3.1.15 Li-ion Battery Testing

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

Test Parameter	Test Procedure	Acceptance Criteria
<b>Fitment with CSWS</b>	a) Insert a fully charged battery in CSWS and Lock. b) Repeat the above procedure in Flipped (about vertical axis) of Li-ion battery c) Operate On-OFF switch after inserting battery	a) Battery should get inserted and locked with CSWS rear stock b) Battery should not get inserted in flipped orientations c) After successful battery insertion and locking the CSWS subsystems should function.
<b>Endurance test</b>	Insert a fully charged battery in space made in CSWS and all subsystem (Excluding LED Torch) will be Switched ON	Total endurance of the battery should be min 3 hrs .

### 3.1.16

Test Parameter	Test Procedure	Acceptance Criteria	Remarks
<b>Operating Temperature</b>	Minimum	-20°C	Firm to provide certificate from any national/international accredited lab.
	Maximum	+50°C	
<b>Storage Temperature</b>	Minimum	-20° C	
	Maximum	+ 55° C	

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

Following tests has to be carried out:-

- i) Vibration
- ii) Bump
- iii) Shock
- iv) Humidity
- v) Low air pressure
- vi) Tropical exposure
- vii) Dust

3.2 Firm has to produce certificate from any national/international accredited lab for Environmental Testing as per JSS 5855: 11-2009.

Following functionalities of the CSWS should be checked after performing each of test as per JSS 5855:11-2009:

- 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 systems viz Day/night camera, Red laser, IR, Torch, LCD display etc should be functionally ok after the Test.
- v. Image quality of Camera, LED screen brightness should not change after the Test

*[Handwritten signatures and initials at the bottom of the page]*

### 3.3 Firing Test

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

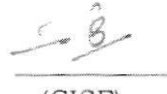
S/No	Test	Procedure	Acceptance criteria	Remarks
1.	Zeroing and Accuracy trial	For Zeroing : <ul style="list-style-type: none"> <li>Range 9 m</li> <li>Firing: Fixed shooting Rest</li> <li>Firing Orientation : 0°</li> <li>No of Rounds: 6</li> </ul>	5/6 rds should hit rectangle size of 70mm (H) X 100 mm (V) when fired at and aim point 30 mm above bottom line.	To be checked by BOOs at any govt lab/govt approved lab.
		For Accuracy <ul style="list-style-type: none"> <li>Range : 9 m</li> <li>Firing : from hand</li> <li>Firing Orientation : 0° - 65°, + 65°</li> <li>No of rounds : 6 Rds in each orientation</li> </ul>	5/6 rds fired should hit in a rectangle size of 100 mm (H) X 150 mm (V) when aimed at centre of rectangle.	

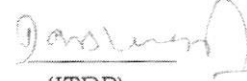
### 3.4

Test Parameter	Acceptance Criteria	Remarks
Carrying case	Water Proof as per JSS-0253-01 standard	Firm to provide certificate from any National/International accredited lab.
Life Cycle	6000 rds	OEM Certificate

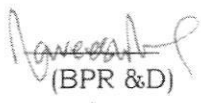
  
(BSF)

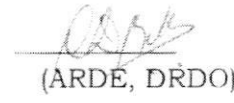
  
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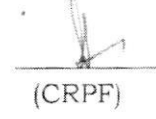
  
(CISF)

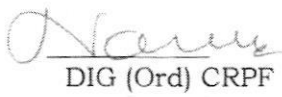
  
(ITBP)

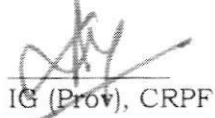
  
(NSG)

  
(BPR & D)

  
(ARDE, DRDO)

  
(CRPF)

  
DIG (Ord) CRPF

  
IG (Prov), CRPF

  
SDG (Prov & Works)

Approved/Not Approved.

  
DG, NSG

Director General  
राष्ट्रीय सुरक्षा गारद  
National Security Guard  
मेहरामनगर पालम, नई दिल्ली-37  
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