消防處
牌照及審批總區
香港九龍尖沙咀東部康莊道 1 號
消防處總部大廈 5 樓

FIRE SERVICES DEPARTMENT
LICENSING AND CERTIFICATION COMMAND
5/F, Fire Services Headquarters Building
No. 1 Hong Chong Road, Tsim Sha Tsui East
Kowloon, Hong Kong

本處檔號 OUR REF.: (13) in FP(LC) 314/07 Pt.10
來函檔號 YOUR REF.:
圖文傳真 FAX: (852) 2723 2197
電子郵件 E-MAIL: lcpolic2@hkfsd.gov.hk
電　　話 TEL. NO.: (852) 2733 7619

致：消防處通函收件人

先生／女士：

消防處通函第 3/2022 號
火警警報系統年檢核對表

本函旨在公布消防處推出年檢核對表，以協助註冊消防裝置承辦商(承辦商)為火警警報系統進行年檢。

火警警報系統年檢核對表（附件）是參考了海外相關專業團體刊發的守則及標準而制訂的，並已廣泛咨詢本地業界。此核對表詳細說明火警警報系統的年檢的最低要求。核對表及其附錄所列明的項目，如適用於有關建築物／處所的火警警報系統，均須予以檢查／測試。承辦商完成檢查後，必須填妥核對表，按適用情況標明經檢查／測試的項目是否符合《最低限度之消防裝置及設備守則》（**適用於有關建築物／處所的版本**）所訂明的標準／要求。

此外，承辦商必須確切遵守消防處通函第 4/2019 號內有關「**填妥年檢核對表**」和「**承辦商的職責與責任**」的原則和規定。承辦商務須留意，他們有最終責任證明該等消防裝置及設備處是否於有效操作狀態，並符合《最低限度之消防裝置及設備守則》訂明的要求，同時要確保相關的檢查、測試及保養依從《裝置及設備之檢查、測試及保養守則》所訂明的要求而進行。

/...2

為使業界有更多時間適應新的安排和做法，火警警報系統年檢核對表將於**二零二二年十二月一日**起生效，以讓業界有時間熟習使用。新安排將於實施後 12 個月進行檢討，本處正擬備核對表的中文版，不久後推出。與此同時，其他消防裝置及設備的核對表亦會陸續制訂，並適時公布。

如有查詢，請於辦公時間致電 2733 1567 與本處消防設備專責隊伍聯絡。

消防處處長

（黃嘉榮  代行）

連附件

二零二二年九月二十六日

Annual Inspection Checklist for Fire Alarm Systems

RFSIC Ref.: .....

Serial no. of FS 251: .....

Completion Date of Annual Inspection: .....

Building/Premises Address: .....

.....

The annual inspection is conducted in accordance with:-

(a) the appropriate version of the Code of Practice for Minimum Fire Service Installations and Equipment promulgated by the Director of Fire Services;

(b) the Code of Practice for Inspection, Testing and Maintenance of Installations and Equipment promulgated by the Director of Fire Services;

(c) the relevant requirements applicable to the system(s) installed in the building/premises; and

(d) the relevant Circular Letters promulgated from time to time by the Fire Services Department.

See Table I for the Major Equipment Inspection Record.

1.	**System Control Panel** (Please insert a "✓" in the appropriate box)			**Remarks**
	a.	The system is equipped with a F.S. control and indicating panel(s)	[ ]	Where applicable, parts of the fire alarm system that need inspection are listed in **Appendix I**.
	b.	The system is equipped with a repeater panel(s)	[ ]	Where applicable, parts of the fire alarm system that need inspection are listed in **Appendix II**.
	c.	The system is equipped with a mimic panel(s)	[ ]	Where applicable, parts of the fire alarm system that need inspection are listed in **Appendix III**.
	d.	The system is equipped with a set(s) of external charger and battery	[ ]	Where applicable, parts of the fire alarm system that need inspection are listed in **Appendix IV**.
	e.	The system has no F.S. control and indicating panel and the system is controlled by the fixed fire pump control panel	[ ]	Where applicable, parts of the fire alarm system that need inspection are listed in the Annual Inspection Checklist for Fire Hydrant/Hose Reel Systems.

Remarks: 1. "Yes" denotes compliance with the FSD's requirements. "No" denotes non-compliance with the FSD's requirements. "N/A" denotes not applicable. Please insert a "✓" in the appropriate box.

2. If there are any items found to be non-compliant with the FSD's requirements, please indicate its location in the "Remarks" column.

2.	**Manual Actuating Point** (manual call point/break glass unit/push button/manual switch)		**Yes**	**No**	**N/A**	**Remarks**
	a.	The manual actuating point(s) including the glass-fronted housing is/are intact, securely mounted, and free from undue deterioration.	[ ]	[ ]	[ ]	....

			Yes	No	N/A	Remarks
	b.	The manual actuating point(s) of the push button/manual switch type where applicable is/are properly labelled.	[ ]	[ ]	[ ]	....
	c.	The manual actuating point(s) of the manual call point/break glass type where applicable is/are properly marked with symbols in accordance with BS EN 54-11 or other standards acceptable to Director of Fire Services.	[ ]	[ ]	[ ]	....
	d.	The manual actuating point(s) is/are surface mounted/semi-recessed mounted with the front face proud of the mounting surface and free from obstruction to its/their free use.	[ ]	[ ]	[ ]	....
	e.	The manual actuating point(s) is/are installed at appropriate level(s) above the finished floor level.	[ ]	[ ]	[ ]	....
	f.	The provision of manual actuating point(s) is in accordance with the requirements.	[ ]	[ ]	[ ]	....
	g.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....

3.	**Fire Alarm Device**					
3.1	**Audio Warning Device/Audio Fire Alarm Device** (alarm sounder/alarm bell)					
	a.	The audio fire alarm device(s) is/are intact, securely mounted, and free from undue deterioration.	[ ]	[ ]	[ ]	....
	b.	The provision of audio fire alarm device(s) is in accordance with the requirements.	[ ]	[ ]	[ ]	....
	c.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....
3.2	**Visual Fire Alarm Flashing Red Light** (where provided)				[ ]	If N/A, go to 4
	a.	The visual fire alarm flashing red light(s) is/are intact, securely mounted, and free from undue deterioration.	[ ]	[ ]	[ ]	....
	b.	The visual fire alarm flashing red light(s) is/are properly labelled in terms of usage.	[ ]	[ ]	[ ]	....
	c.	The visual fire alarm flashing red light(s) is/are appropriately positioned and free from obstruction to the viewing effect by direct viewing of a flashing red light or by means of illumination of the surrounding area.	[ ]	[ ]	[ ]	....
	d.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....

Annual Inspection Checklist for Fire Alarm Systems

4.	Electrical Components, Cable and Cable Containment		Yes	No	N/A	Remarks
	a.	All power supply points, interfacing modules, isolating modules, marshalling/interfacing boxes and components where applicable are intact, securely mounted, properly labeled, and free from undue corrosion.	[ ]	[ ]	[ ]	....
	b.	For system required to comply with BS 5839-1:1988 and relevant circular letters, in applications in which prolonged operation (i.e. cables for connecting components like fire alarm devices, F.S. control and indicating panel(s), repeater panel(s), mimic panel(s) and/or power supply) is required where applicable, mineral-insulated copper-sheathed cables or cables complying with BS 6387 AWX/SWX or other fire resisting cables of the required fire resisting rating are used.	[ ]	[ ]	[ ]	....
	c.	For system required to comply with BS 5839-1:1988 and relevant circular letters, in applications in which prolonged operation is required where applicable, the cables are protected by embedding in plaster/concrete/soil and/or by enclosing inside fire resistant/underground cable duct.	[ ]	[ ]	[ ]	....
	d.	For system required to comply with BS 5839-1:2002+A2:2008 or BS 5839-1:2017 and relevant circular letters, the cables including the supports used for: (i) the critical signal paths (signal paths between fire alarm initiation points and fire alarm devices), (ii) the extra low voltage supply from an external power supply unit, (iii) the final circuit providing low voltage mains supply to the system, and (iv) the power supply to fire alarm devices where applicable, are fire resisting cables of the required fire resisting rating.	[ ]	[ ]	[ ]	....
	e.	Cables other than mineral-insulated copper-sheathed cables and steel-wire-armoured cables are appropriately protected against mechanically damage and rodent attack.	[ ]	[ ]	[ ]	....
	f.	All devices, components and wirings installed within or passing through area classified as potentially hazardous area where applicable, are of explosion protected type suitable for the particular area classification, and of the appropriate apparatus group and temperature class.	[ ]	[ ]	[ ]	....
	g.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....

Annual Inspection Checklist for Fire Alarm Systems

5.	**System Operation** Note: When the testing involves sounding of audio fire alarm device(s), each count of sounding should normally last for not more than 5 seconds and cease for not less than 5 seconds before the next count of test. In case of having a real fire during the testing, the sounding of audio fire alarm device(s) should normally be continuous and not be interrupted (other than when the system is interlocked with an audio/visual advisory system). In this way, the occupiers would be able to distinguish between real fire alarm and system testing.					
			Yes	**No**	**N/A**	**Remarks**
	a.	The manual actuating point(s) is/are tested to be capable of operating freely and in efficient working order.	[ ]	[ ]	[ ]	....
	b.	Upon activation of a manual actuating point, all fire alarm devices within the corresponding alarm zone(s) are actuated.	[ ]	[ ]	[ ]	....
	c.	The delay if any between activation of a manual actuating point and operation of the fire alarm devices within the corresponding alarm zone(s) is within 3 seconds.	[ ]	[ ]	[ ]	....
	d.	For place of public entertainment, within the corresponding alarm zone(s) where an emergency alert system is required according to relevant licensing requirement if applicable, the music or other sound and visual images/effects produced by the music and video systems is/are suppressed and at the same time produce visible and audible warning signals upon activation of the manual actuating point.	[ ]	[ ]	[ ]	....
	e.	The fire alarm zoning arrangement for fire alarm devices, is correct and rectified where necessary.	[ ]	[ ]	[ ]	....
	f.	The audio fire alarm device(s) is/are capable of producing the required sound pressure level at designated location(s)	[ ]	[ ]	[ ]	....
	g.	The visual fire alarm flashing red light(s) where provided is/are capable of attracting the attention of the intended viewers either by direct viewing or by means of illumination of the surrounding.	[ ]	[ ]	[ ]	....
	h.	The flash rate of the visual fire alarm flashing red light(s) where provided is within the range of 30 to 120 flashes per minute (0.5 Hz to 2 Hz).	[ ]	[ ]	[ ]	....
	i.	In any open communication area, visual fire alarm flashing red lights installed within the same field of view from any point in the area where applicable are synchronized.	[ ]	[ ]	[ ]	....
	j.	For system **without** a F.S. control and indicating panel, upon activation of a manual actuating point, the fire alarm devices within the corresponding alarm zone(s) operate continuously until the activated manual actuating point(s) is/are reset.	[ ]	[ ]	[ ]	....

Annual Inspection Checklist for Fire Alarm Systems

6.	**Documentation** (where provided)				[ ]	If N/A, skip 6
	a.	Legible as-built system schematic diagram(s) is/are displayed at the pump room/enclosure.	[ ]	[ ]	[ ]	....
	b.	Legible as-built system schematic diagram(s) is/are displayed adjacent to the F.S. control and indicating panel.	[ ]	[ ]	[ ]	....
	c.	Legible as-built zoning schedule is provided to the F.S. control and indicating panel.	[ ]	[ ]	[ ]	....
	d.	A log book is provided inside the fire control centre/F.S. control room or near a status panel at the main entrance/caretaker's counter as applicable of the building when there is no fire control centre/F.S. control room.	[ ]	[ ]	[ ]	....

Note:

This checklist specifies the minimum requirements for annual inspection for fire alarm systems. Incomplete inspections or inspections not conducted in full accordance with this checklist shall not be recognised as properly completed annual inspections.

Authorized Signatory of RFSIC:

_____ (Name in Full) _____ (Signature)

_____ (Date)

Registered Fire Service Installation Contractor:

_____ (FSD/RC No.) _____ (Company Name)

_____ (Company Stamp)

Annual Inspection Checklist for Fire Alarm Systems

Table I Sheet No. _____ of _____

Major Equipment Inspection Record

Building/Premises Address: _____

Building/Block Name: _____

Item	Location		Building/Premises being Served	Remarks	Serving as Main Panel	
1.	F.S. Control and Indicating Panel				Yes	No
	a.				[ ]	[ ]
	b.				[ ]	[ ]
	c.				[ ]	[ ]
	d.				[ ]	[ ]
	e.				[ ]	[ ]
2.	Repeater Panel					
	a.					
	b.					
3.	Mimic Panel					
	a.					
4.	External Charger and Battery					
	a.					
	b.					
	c.					
	d.					
	e.					

Remark: Use additional Sheets when necessary.

Appendix I

F.S. Control and Indicating Panel

Remarks: 1. Appendix I is only applicable to fire alarm systems equipped with a F.S. control and indicating panel(s). If not applicable, skip this Appendix.

2. "Yes" denotes compliance with the FSD's requirements. "No" denotes non-compliance with the FSD's requirements. "N/A" denotes not applicable. Please insert a "✓" in the appropriate box. If there are any items found to be non-compliant with the FSD's requirements, please indicate its location in the "Remarks" column.

A1.	**F.S. Control and Indicating Panel**					
A1.1	Panel Installation		**Yes**	**No**	**N/A**	**Remarks**
	a.	The panel(s) is/are intact, securely mounted, properly labelled and free from undue corrosion.	[ ]	[ ]	[ ]	....
	b.	The control buttons, switches and indicators are properly labelled in terms of usage.	[ ]	[ ]	[ ]	....
	c.	The control buttons and switches are tested to operate properly and are in the correct positions.	[ ]	[ ]	[ ]	....
	d.	The indicator(s), where provided, is/are tested to operate properly and are in proper status.	[ ]	[ ]	[ ]	....
	e.	The built-in alarm buzzer, where provided, is tested to operate properly.	[ ]	[ ]	[ ]	....
	f.	The fire alarm devices zoning arrangement, where applicable, is in accordance with the requirements.	[ ]	[ ]	[ ]	....
	g.	The fuse(s) in the power supply circuit and control circuit as applicable, are of the correct ratings and intact.	[ ]	[ ]	[ ]	....
	h.	The circuit board(s), relay(s), timer(s), interface module(s), switch(es), circuit breaker(s), indicator(s), terminal block(s) and other components, where applicable, and the wirings inside the F.S. control and indicating panel(s) are intact, properly wired and free from any sign of damage/overheating and undue deterioration.	[ ]	[ ]	[ ]	....
	i.	For system equipped with a direct telephone link (DTL) connection, the "Power On" amber indicator and the "Normal" green indicator at the DTL fire signal box are lit and free from any "Fire Alarm" indication.	[ ]	[ ]	[ ]	....
	j.	The battery(ies), where provided, is/are intact, within its/their nominal design life and free from swelling, electrolyte creepage, cracking, scorch mark, denting, leakage, unusually high temperature, undue corrosion and loose connections.	[ ]	[ ]	[ ]	....
	k.	The battery(ies), where provided, is/are marked with the date (month/year) of installation, and battery(ies) which has/have exceeded its/their nominal design life (deem as 4 years if unknown) are replaced with secondary batter(ies) having a nominal design life of not less than 4 years.	[ ]	[ ]	[ ]	....

			Yes	No	N/A	Remarks
	l.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....
A1.2	Panel Operation					
	a..	Upon activation of a manual actuating point, an audio alarm and a visual fire alarm zone indication are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	....
	b.	Upon activation of a manual actuating point, an audio alarm and a visual fire alarm zone indication are properly given at the repeater panel(s) where provided.	[ ]	[ ]	[ ]	....
	c.	Upon activation of a manual actuating point, an audio alarm and a visual fire alarm zone indication are properly given at the mimic panel(s) where provided.	[ ]	[ ]	[ ]	....
	d.	Upon activation of a manual actuating point, the fire alarm devices within the corresponding alarm zone(s) operate continuously.	[ ]	[ ]	[ ]	....
	e.	When audio fire alarm device(s) is/are required to sound, upon pressing of the "alarm mute/silence" switch at the F.S. control and indicating panel, the operation of audio fire alarm device(s) within the building is suspended.	[ ]	[ ]	[ ]	....
	f..	After the operation of the audio fire alarm devices are suspended by pressing the "alarm mute/silence" switch, when a manual actuating point from a new zone is activated, the fire alarm devices within the alarm zone(s) corresponding to the newly activated manual actuating point operate properly.	[ ]	[ ]	[ ]	....
	g.	Upon activation of a manual actuating point, the visual fire alarm zone indication at the F.S. control and indicating panel is lit until the activated manual actuating point is reset and the "Reset" button at the F.S. control and indicating panel are pressed.	[ ]	[ ]	[ ]	....
	h.	Upon activation of a manual actuating point, the visual fire alarm zone indication at the repeater panel(s) where provided is lit until the activated manual actuating point and the F.S. control and indicating panel are reset.	[ ]	[ ]	[ ]	....
	i.	Upon activation of a manual actuating point, the visual fire alarm indication at the mimic panel(s) where provided is lit until the activated manual actuating point and the F.S. control and indicating panel are reset.	[ ]	[ ]	[ ]	....
	j.	Upon activation of the "Evacuate" button where provided at the F.S. control and indicating panel, all fire alarm devices connected in the system are actuated.	[ ]	[ ]	[ ]	....
	k.	For system equipped with a DTL connection, upon activation of a manual actuating point, the "Fire Alarm" red indicator at the DTL fire signal box is lit and the fire alarm signal is verified to be properly transmitted to the Service Provider.	[ ]	[ ]	[ ]	....

			Yes	No	N/A	Remarks
	l.	Upon activation of a manual actuating point, a fire alarm signal is properly transmitted to the control panel(s) of other fire service installation(s) where applicable.	[ ]	[ ]	[ ]	....
	m.	Upon activation of a manual actuating point, a fire alarm signal is properly transmitted for interface with other installation(s) where applicable.	[ ]	[ ]	[ ]	....
A1.3	**Circuit Integrity Test** (applicable to system equipped with propriety made F.S. control and indicating panel)				[ ]	If N/A, skip A1.3
	a.	For panel equipped with short circuit monitoring, upon simulating a short circuit in the zone/loop circuit(s), audio and visual fault warning signals are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	....
	b.	For panel equipped with short circuit monitoring, upon simulating a short circuit in the zone/loop circuit(s), audio and visual fault warning signals are properly given at the repeater panel(s) where provided.	[ ]	[ ]	[ ]	....
	c.	Upon simulating an open circuit in the zone/loop circuit(s), audio and visual fault warning signals are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	....
	d.	Upon simulating an open circuit in the zone/loop circuit(s), audio and visual fault warning signals are properly given at the repeater panel(s) where provided.	[ ]	[ ]	[ ]	....
	e.	Upon simulating a short circuit in the fire alarm device circuit(s), audio and visual fault warning signals are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	....
	f.	Upon simulating a short circuit in the fire alarm device circuit(s), audio and visual fault warning signals are properly given at the repeater panel(s) where provided.	[ ]	[ ]	[ ]	....
	g.	Upon simulating an open circuit in the fire alarm device circuit(s), audio and visual fault warning signals are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	....
	h.	Upon simulating an open circuit in the fire alarm device circuit(s), audio and visual fault warning signals are properly given at the repeater panel(s) where provided.	[ ]	[ ]	[ ]	....
	i.	For system required to comply with BS 5839-1:2002+A2:2008 or BS 5839-1:2017 and relevant circular letters, upon activation of a manual actuating point, the audio fire alarm device located in the vicinity of the F.S. control and indicating panel or at the external wall as applicable is in full working order even if there is a short circuit fault affecting the operation of other audio fire alarm device(s).	[ ]	[ ]	[ ]	....

			Yes	No	N/A	Remarks
	j.	For system required to comply with BS 5839-1:2002+A2:2008 or BS 5839-1:2017 and relevant circular letters, upon activation of a manual actuating point, the audio fire alarm device located in the vicinity of the F.S. control and indicating panel or at the external wall as applicable is in full working order even if there is an open circuit fault affecting the operation of other audio fire alarm device(s).	[ ]	[ ]	[ ]	.....
	k.	For system required to comply with BS 5839-1:2002+A2:2008 or BS 5839-1:2017 and relevant circular letters, upon simulating a short circuit fault in the power supply circuit(s) where provided for connecting fire alarm devices, audio and visual fault warning signals are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	.....
	l.	For system required to comply with BS 5839-1:2002+A2:2008 or BS 5839-1:2017 and relevant circular letters, upon simulating a short circuit fault in the power supply circuit(s) where provided for connecting fire alarm devices, audio and visual fault warning signals are properly given at the repeater panel.	[ ]	[ ]	[ ]	.....
	m.	For system required to comply with BS 5839-1:2002+A2:2008 or BS 5839-1:2017 and relevant circular letters, upon simulating an open circuit fault in the power supply circuit(s) where provided for connecting fire alarm devices, audio and visual fault warning signals are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	.....
	n.	For system required to comply with BS 5839-1:2002+A2:2008 or BS 5839-1:2017 and relevant circular letters, upon simulating an open circuit fault in the power supply circuit(s) where provided for connecting fire alarm devices, audio and visual fault warning signals are properly given at the repeater panel.	[ ]	[ ]	[ ]	.....
	o.	For system required to comply with BS 5839-1:2002+A2:2008 and relevant circular letters, upon simulating a short circuit in the zone/loop circuit(s), the loss of protection is limited to not more than one floor plus a maximum of five devices (manual actuating point(s) and/or fire alarm device(s)) on the floor immediately above and five devices on the floor immediately below that floor.	[ ]	[ ]	[ ]	.....
	p.	For system required to comply with BS 5839-1:2017 and relevant circular letters, upon simulating a short circuit in the zone/loop circuit(s), the loss of protection is limited to not more than one floor.	[ ]	[ ]	[ ]	.....
	q.	Upon simulating a short circuit fault in the communication circuit(s) for connecting repeater panel(s) and/or other panel(s), audio and visual fault warning signals are properly given at the F.S. control and indicating panel.	[ ]	[ ]	[ ]	.....

			Yes	No	N/A	Remarks
	r.	Upon simulating an open circuit fault in the communication circuit(s) for connecting repeater panel(s) and/or other panel(s), audio and visual fault warning signals are properly given at the repeater panel and other panel(s) as applicable.	[ ]	[ ]	[ ]	....

Appendix II

Repeater Panel

Remarks: 1. Appendix II is only applicable to fire alarm systems equipped with a repeater panel(s). If not applicable, skip this Appendix.

2. "Yes" denotes compliance with the FSD's requirements. "No" denotes non-compliance with the FSD's requirements. "N/A" denotes not applicable. Please insert a "✓" in the appropriate box. If there are any items found to be non-compliant with the FSD's requirements, please indicate its location in the "Remarks" column.

A2.	Repeater Panel		Yes	No	N/A	Remarks
	a.	The panel(s) is/are intact, securely mounted, properly labelled and free from undue corrosion.	[ ]	[ ]	[ ]	....
	b.	The control buttons, switches and indicators where provided are properly labelled in terms of usage.	[ ]	[ ]	[ ]	....
	c.	The control buttons and switches where provided are tested to operate properly and are in the correct positions.	[ ]	[ ]	[ ]	....
	d.	The indicator(s), where provided, is/are tested to operate properly and are in proper status.	[ ]	[ ]	[ ]	....
	e.	The built-in alarm buzzer, where provided, is tested to operate properly.	[ ]	[ ]	[ ]	....
	f.	The fuse(s) in the power supply circuit and control circuit as applicable, are of the correct ratings and intact.	[ ]	[ ]	[ ]	....
	g.	The circuit board(s), relay(s), timer(s), interface module(s), switch(es), circuit breaker(s), indicator(s), terminal block(s) and other components, where applicable, and the wirings inside the repeater panel(s) are intact, properly wired and free from any sign of damage/overheating and undue deterioration.	[ ]	[ ]	[ ]	....
	h.	The battery(ies), where provided, is/are intact, within its/their nominal design life and free from swelling, electrolyte creepage, cracking, scorch mark, denting, leakage, unusually high temperature, undue corrosion and loose connections.	[ ]	[ ]	[ ]	....
	i.	The battery(ies), where provided, is/are marked with the date (month/year) of installation, and battery(ies) which has/have exceeded its/their nominal design life (deem as 4 years if unknown) are replaced with secondary batter(ies) having a nominal design life of not less than 4 years.	[ ]	[ ]	[ ]	....
	j.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....

Appendix III

Mimic Panel

Remarks: 1. Appendix III is only applicable to fire alarm systems equipped with a mimic panel(s). If not applicable, skip this Appendix

2. "Yes" denotes compliance with the FSD's requirements. "No" denotes non-compliance with the FSD's requirements. "N/A" denotes not applicable. Please insert a "✓" in the appropriate box. If there are any items found to be non-compliant with the FSD's requirements, please indicate its location in the "Remarks" column.

A3.	Mimic Panel		Yes	No	N/A	Remarks
	a.	The panel(s) is/are intact, securely mounted, properly labelled and free from undue corrosion.	[ ]	[ ]	[ ]	....
	b.	The control buttons, switches and indicators where provided are properly labelled in terms of usage.	[ ]	[ ]	[ ]	....
	c.	The control buttons and switches where provided are tested to operate properly and are in the correct positions.	[ ]	[ ]	[ ]	....
	d.	The indicator(s), where provided, is/are tested to operate properly and are in proper status.	[ ]	[ ]	[ ]	....
	e.	The built-in alarm buzzer, where provided, is tested to operate properly.	[ ]	[ ]	[ ]	....
	f.	The fuse(s) in the power supply circuit and control circuit as applicable, are of the correct ratings and intact.	[ ]	[ ]	[ ]	....
	g.	The circuit board(s), relay(s), timer(s), interface module(s), switch(es), circuit breaker(s), indicator(s), terminal block(s) and other components, where applicable, and the wirings inside the mimic panel(s) are intact, properly wired and free from any sign of damage/overheating and undue deterioration.	[ ]	[ ]	[ ]	....
	h.	The battery(ies), where provided, is/are intact, within its/their nominal design life and free from swelling, electrolyte creepage, cracking, scorch mark, denting, leakage, unusually high temperature, undue corrosion and loose connections.	[ ]	[ ]	[ ]	....
	i.	The battery(ies), where provided, is/are marked with the date (month/year) of installation, and battery(ies) which has/have exceeded its/their nominal design life (deem as 4 years if unknown) are replaced with secondary batter(ies) having a nominal design life of not less than 4 years.	[ ]	[ ]	[ ]	....
	j.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....

Appendix IV

External Charger and Battery

Remarks: 1. Appendix IV is only applicable to fire alarm systems equipped with a set(s) of external charger and battery. If not applicable, skip this Appendix.

2. "Yes" denotes compliance with the FSD's requirements. "No" denotes non-compliance with the FSD's requirements. "N/A" denotes not applicable. Please insert a "✓" in the appropriate box. If there are any items found to be non-compliant with the FSD's requirements, please indicate its location in the "Remarks" column.

A4.	External Charger and Battery		Yes	No	N/A	Remarks
	a.	The charger(s) is/are intact, securely mounted, properly labelled and free from undue corrosion.	[ ]	[ ]	[ ]	....
	b.	All control button(s), switch(es), indicator(s) and meter(s) where provided are properly labeled in terms of usage.	[ ]	[ ]	[ ]	....
	c.	The reading(s) on the voltmeter(s)/ammeter(s), where provided, is/are within the acceptable range.	[ ]	[ ]	[ ]	....
	d.	The indicator(s), where provided, is/are in proper status.	[ ]	[ ]	[ ]	....
	e.	The fuse(s) in the charger(s) is/are of the correct rating and intact.	[ ]	[ ]	[ ]	....
	f.	The circuit board(s), relay(s), timer(s), interface module(s), switch(es), circuit breaker(s), indicator(s), terminal block(s) and other components, where applicable, and the wirings inside the charger(s) are intact, properly wired and free from any sign of damage/overheating and undue deterioration.	[ ]	[ ]	[ ]	....
	g.	The charger(s) operate(s) properly and is/are free from unusual loud noise, abnormally high temperature and evidence of damage.	[ ]	[ ]	[ ]	....
	h.	The battery(ies) is/are intact, within its/their nominal design life and free from swelling, electrolyte creepage, cracking, scorch mark, denting, leakage, unusually high temperature, undue corrosion and loose connections.	[ ]	[ ]	[ ]	....
	i.	The battery(ies) is/are properly labeled in terms of usage and marked with the date (month/year) of installation, and battery(ies) which has/have exceeded its/their nominal design life (deem as 4 years if unknown) are replaced with secondary batter(ies) having a nominal design life of not less than 4 years.	[ ]	[ ]	[ ]	....
	j.	For unsealed type battery(ies) where applicable, the battery terminals are covered with a protective gel.	[ ]	[ ]	[ ]	....
	k.	For unsealed type battery(ies) where applicable, the electrolyte levels are correct with battery plates submerged, and low electrolyte level cell(s) if any is/are topped with distilled or de-ionized water to the correct level.	[ ]	[ ]	[ ]	....
	l.	For unsealed type battery(ies) where applicable, the densities of the electrolyte are tested by a hydrometer to be correct, and battery(ies) with low density electrolyte where applicable is/are replaced.	[ ]	[ ]	[ ]	....

			Yes	No	N/A	Remarks
	m.	The steady state float charge voltage(s) to the battery(ies) is/are measured (with the charger supply and the quiescent load remain connected but without fire alarm signal) to be within the range as recommended by the battery manufacturer and the charger(s) having voltage outside the range if any is/are repaired/replaced.	[ ]	[ ]	[ ]	....
	n.	Having the battery supply to the system disconnected and with the maximum alarm load triggered, the output voltage(s) of the charger(s) is/are not less than 95% of the nominal voltage, and charger(s) with lower voltage level if any is/are rectified/replaced. (Dummy load test may be carried out in lieu of actual full alarm load test).	[ ]	[ ]	[ ]	....
	o.	Having the charger supply disconnected and with the maximum alarm load triggered, the battery(ies) is/are momentarily load tested. The output voltage from the battery(ies) after the initial voltage dip becomes steady and battery(ies) having continuous fast voltage dip to below the level as recommended by the battery manufacturer if any is/are replaced. (Dummy load test may be carried out in lieu of actual full alarm load test).	[ ]	[ ]	[ ]	....
	p.	Upon simulation of a mains power supply failure to the charger(s), the audio and/or visual fault warning device(s) where provided at the charger(s) is/are actuated.	[ ]	[ ]	[ ]	....
	q.	The charger status indicator(s) where provided on the charger(s) and/or the F.S. control and indicating panel as appropriate is/are tested to be in working order by simulating the respective scenarios.	[ ]	[ ]	[ ]	....
	r.	Upon simulation of a battery low voltage condition, the audio and/or visual fault warning device(s), where provided at the charger(s), is/are actuated.	[ ]	[ ]	[ ]	....
	s.	The battery status indicator(s) where provided on the charger(s) and/or the F.S. control and indicating panel as appropriate is/are tested to be in working order by simulating the respective scenarios.	[ ]	[ ]	[ ]	....
	t.	The cables and cable containment are intact, securely mounted, properly wired, and free from undue deterioration.	[ ]	[ ]	[ ]	....