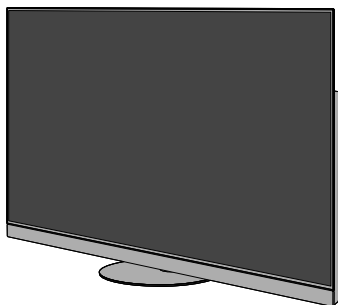


使用說明書 OLED 電視機

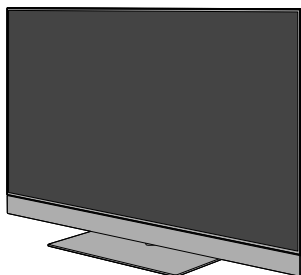
Z90BGH 系列

中文

English



(影像：TV-65Z90BGH)



(影像：TV-48Z90BGH)

有關描述詳情請參閱下文：

- 有關觀看廣播的設定，以及有關節目指引、錄製、畫質、音質等設定：

🏠 > [⚙️] (在螢幕上) > [設備和軟件] > [Panasonic eHELP]

- 有關 Amazon、Fire TV 及 Alexa 的相關項目：

🏠 > [⚙️] (在螢幕上) > [說明] (需要互聯網連接)

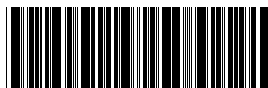
請注意：上述內容如有變更恕不另行通知。(截至 2025 年 2 月)

感謝您購買 Panasonic 的產品。

請在使用本產品之前，仔細閱讀本說明書，並保存以供日後參考。

使用前請仔細閱讀本說明書的“安全注意事項”。

本說明書裡的影像僅為示意圖。



X41G65MV03704B

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- 有關如何安裝電視機，請參閱單獨的資料頁。
- 示意圖可能視乎型號和國家而有所不同。
- 本電視機為 Panasonic 產品，與 Amazon.com, Inc. 或任何 Amazon 附屬公司並無關聯。
- 您可能需要登入 Amazon 帳戶以使用部分網上服務。
- 該等服務可能隨時變更或撤回，亦可能不適用於所有國家、地區及語言。此外，該等服務可能無法以 4K、HDR、UHD、HLG、DOLBY VISION 或 DOLBY ATMOS 提供，並可能需要另行訂閱、協議及收費。
- 由於 Fire TV 操作系統、畫面及其他 Fire TV 體驗可能隨時更新，因此本手冊所示的圖像、導航指示、功能表選項的標題及位置可能與您在螢幕上看到的有別。
- 本文件基於截至 2025 年 2 月當時為準的資訊而製作。

HDMI、HDMI High-Definition Multimedia Interface 等詞彙、HDMI 商業外觀及 HDMI 標識均為 HDMI Licensing Administrator, Inc. 的商標或註冊商標。

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Bluetooth® 文字商標和標誌是 Bluetooth SIG, Inc. 所擁有的註冊商標，Panasonic Holdings Corporation 僅在授權下使用該些商標。其他商標和商品名稱均屬於其各自的所有者。

YouTube 和 YouTube 標誌皆為 Google LLC 的商標。

Amazon、Alexa、Fire 及所有相關標誌皆為 Amazon.com, Inc. 或其附屬公司的商標。

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重要聲明

請勿長時間顯示影像的任何靜止部分

在該等情況下，影像的靜止部分會在螢幕上黯淡地保留（“影像殘存”）。此情況不視作故障，故不在保養範圍內。

- 典型的靜止影像部分：
 - 相同區域持續顯示的靜止影像（例如：頻道號碼、頻道標誌、其他標誌或標題影像等）
 - 以 4:3 或 16:9 長寬比觀看的靜止或動態圖片等
 - 電視遊戲
- 設定 [標誌亮度控制] 至 [最大] 以避免影像殘存。
[Panasonic eHELP] (按目的搜尋 > 觀看 > 獲得最佳圖像 > 畫面設定)
- 為了避免出現影像殘存，當顯示無動態影像時，螢幕可能會變暗。這不是故障。當顯示活動影像時，螢幕亮度將恢復之前的水平。
- 務必使用遙控器或電源按鍵來關閉電視機的電源，以執行面板維護。面板維護期間，LED 燈會變為橙色。（第 12 頁）維護會在必要時進行。
- 針對 4:3 影像，設定長寬比為 [4:3 全屏]。詳情請參閱 [Panasonic eHELP] (按目的搜尋 > 觀看 > 獲得最佳圖像 > 選擇寬高比)。
- 如需更多資訊
➡ “面板維護”（第 12 頁）

數碼地面廣播功能備註

- 數碼廣播的相關功能僅於接收到數碼地面廣播服務的地區方為有效。請諮詢您本地 Panasonic 經銷商有關接收範圍。
- 視國家、地區、廣播機構和服務供應商而定，不是所有功能都有效。
- 此電視機涵蓋了數碼廣播規格所制定之性能。但不能擔保可支援日後的數碼廣播服務。

互聯網應用程式、語音控制功能由其各自的服務供應商提供，可能隨時變更、中斷或終止。

Panasonic 對服務的可用性或持續性不承擔任何責任，也不給予任何保證。

Panasonic 不保證由其他製造商出產的周邊設備的操作和性能，而我們對於使用其他製造商所出產的周邊設備在操作和/或性能上導致的損失不承擔任何責任。

損壞

- 除本地條例認可責任的情況外，Panasonic 對錯誤使用或使用產品所導致的故障，以及使用此產品導致的其他問題或損壞恕不負責。
- Panasonic 對天災所導致的數據損失等恕不負責。
- 客戶另行準備的外部裝置不在保養範圍內。客戶需自行負責處理該等裝置儲存的數據。Panasonic 對該等數據的濫用情況恕不負責。

客戶資訊的處理

客戶的個人資料可能被廣播組織或應用程式供應商記錄在本電視機上。在維修、搬運或丟棄本電視機之前，遵循以下程序清除記錄在本電視機中的所有資訊。

➡ [重設為原廠設定] (第 14 頁)

客戶資訊可能被供應商透過第三方提供的應用程式收集在本電視機或網站上。請事先確認供應商的條款和條件等。

- 對於透過第三方提供的應用程式在本電視機或網站上收集或使用客戶資訊的行為，Panasonic 將不承擔任何責任。
- 輸入信用卡號碼、姓名等時，要特別注意供應商的可信度。
- 註冊資訊可能被記錄在供應商的伺服器等之中。在維修、搬運或丟棄本電視機之前，確保根據供應商的條款和條件等清除資訊。

安全注意事項

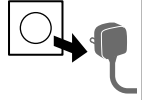
為了避免觸電、火災、損壞或受傷的風險，請遵循以下的警告和注意事項：

■ 電源插頭和電源線

< 警告 >

如果發現任何異常現象，請立即拔出電源插頭。

- 電源插頭類型視乎國家 / 地區而定。



- 將電源插頭完全插入電源插座。
- 斷開電源線時，請務必先將電源插頭從電源插座上拔下。
- 若要完全關閉裝置，您必須將電源插頭從電源插座拔出。因此，電源插頭應隨時位於易於接觸到的位置。
- 清理電視機時拔出電源插頭。
- 手濕時切勿觸摸電源插頭。



- 切勿損壞電源線。
 - 切勿將重物放置在電源線上。



- 切勿將電源線放在高溫物體附近。



- 切勿拉拽電源線。拔出電源插頭時，請握緊插頭將其拔出。



- 電源線插入電源插座時，切勿移動電視機。
- 切勿過度纏繞、彎曲或拉伸電源線。
- 切勿使用損壞的電源插頭或電源插座。
- 確保電視機沒有擠壓電源線。
- 請勿使用本電視機提供以外的任何電源線。

使用此設備或任何其他設備錄製或播放內容可能需要相關版權或相關內容的版權所有人的允許。**Panasonic** 無權和沒有將相關版權授權予您，並明確否認任何權力、能力或意圖代表您獲取相關許可。這是您的責任以確保您遵守您的國家的相關版權法令以使用此設備或任何其他設備。請參閱相關法規以獲取更多有關法令的資訊，或聯絡您要錄製或播放的內容的版權所有人。

本產品是以 **AVC** 專利組合許可證為基礎進行授權，以供消費者用於個人用途或其不會就以下原因而獲取報酬的其他用途：(i) 遵照 **AVC** 標準 (“**AVC** 影像”) 對影像執行編碼和 / 或 (ii) 對由參加個人活動之消費者所編碼的 **AVC** 影像和 / 或取自有權提供 **AVC** 影像的影像提供者的 **AVC** 影像執行解碼。如被用於任何其他用途，均不擔保或暗指任何授權。

其他資訊可向 **MPEG LA, L.L.C.** 獲得。

請參閱 <http://www.mpegla.com>

Panasonic 及其附屬公司對於 **USB** 設備和 **USB** 設備與 **Panasonic** 產品的 **USB** 端口之間的通訊性能不作任何形式的陳述或擔保，並明確否認任何及所有明示或默示或其他形式的擔保，包括但不限於特定目的適用性的任何默示擔保，任何數據的丟失，以及 **USB** 設備與 **Panasonic** 產品的 **USB** 端口之間的數據通訊之操作或性能導致的任何默示擔保。

只允許豎直搬運。



此標記表明產品在交流電壓下操作。



此標記表明產品在直流電壓下操作。

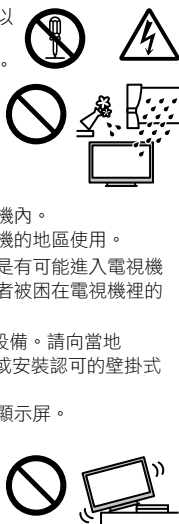


此標記表示具有功能接地的等級 II 設備，其產品不需要與電氣接地系統建立安全連接（接地）。

■ 當心

< 警告 >

- 切勿取下蓋子和自行改裝電視機以免接觸帶電部件而有觸電危險。內部沒有可供使用者維修的備件。
- 切勿讓電視機暴露於雨水或放置在潮濕環境中。切勿將電視機暴露在滴水或濺水的環境下，也不要將盛有水的容器（如花瓶等）放在電視機上方。
- 切勿將異物經由通風口放入電視機內。
- 如果電視機在昆蟲容易進入電視機的地區使用。例如小蒼蠅、蜘蛛、螞蟥等昆蟲是有可能進入電視機的，可能會造成電視機的損壞或者被困在電視機裡的可見區域，比如螢幕裡。
- 切勿使用未經認可的底座 / 安裝設備。請向當地 Panasonic 經銷商諮詢設置服務或安裝認可的壁掛式支架。
- 請避免任何猛烈外力碰撞或擠壓顯示屏。
- 確保兒童不爬上電視機。
- 切勿將電視機放置在傾斜或不穩定之處，和確保電視機不要伸出底座邊緣。



警告穩定性危險

電視機可能翻倒，造成嚴重人身傷害或死亡。可以通過採取如下簡單的預防措施以避免許多傷害，尤其是對兒童的傷害：

- 始終使用電視機製造商推薦的機殼或底座或安裝方法。
- 始終使用能安全支撐電視機的傢俱。
- 始終確保電視機不會懸伸出支撐傢俱的邊緣。
- 始終教導兒童不要攀爬傢俱接觸電視機或其遙控器以避免危險。
- 始終將電視機的連接線和電纜佈好線，以免絆倒、拉扯或纏住他人。
- 切勿將電視機放置在不穩定的位置。
- 切勿在未將傢俱和電視機固定在合適支撐物的情形下將電視機放置在高大的傢俱上（如櫥櫃或書櫃）。
- 切勿將電視機放置在織物或其他材料上，使其介於電視機和支撐傢俱之間。
- 切勿將玩具和遙控器等可能誘使兒童攀爬的物品，放在電視機頂或放置電視機的傢俱上。

如果現有的電視機將留存並已重新放置，以上的注意事項同樣適用。

- 此電視機是為室內使用而設計。
- 此電視機是為台式使用而設計。
- 切勿將電視機置於陽光直射以及其他熱源之處。



任何時候請將蠟燭或其他明火遠離此產品以避免火蔓延



■ 窒息 / 哽塞危險

< 警告 >

- 本產品包裝可能會導致窒息，某些部件非常小，可能對幼兒構成哽塞危險。請將這類部件遠離幼兒可及的範圍。

■ 底座

< 警告 >

- 請勿拆卸或改裝底座。

< 注意 >

- 請勿使用本電視機提供以外的任何底座。
- 如果底座已產生彎曲或物理損壞，請勿使用。如果發生此情況，請立即聯繫您最鄰近的 **Panasonic** 經銷商。
- 設定期間，確保所有螺絲均已擰緊。
- 確保電視機在安裝底座時沒有承受任何擠壓。
- 確保兒童不爬上底座。
- 自底座安裝或取下電視機時需要至少兩個人。
- 按照指定程序安裝或取下電視機。
- 穩固插入底座，否則在安裝電視機時可能會脫落。

■ 無線電波

< 警告 >

- 切勿在任何醫療機構或有醫療設備的地方使用此電視機和遙控器。無線電波可能會干擾醫療設備，可能導致設備故障而發生意外。
- 切勿在任何自動控制設備如自動門或火災警報器附近使用電視機和遙控器。無線電波可能會干擾自動控制設備，可能導致設備故障而發生意外。
- 在有心臟起搏器的地方，將之保持離電視機和遙控器至少 **15 cm** 的距離。無線電波可能會干擾起搏器的操作。
- 切勿以任何方式拆卸或改裝電視機和遙控器。

■ 內置無線區域網

< 注意 >

- 切勿使用內置無線區域網連接任何您沒有使用權的無線網絡 (**SSID***)。該些網絡可能由於搜索的結果而列出。然而，使用該些網絡可能會被視為非法存取。
***SSID** 是用於識別特定傳輸無線網絡的名稱。
- 切勿將內置無線區域網置於高溫、陽光直射或潮濕之處。
- 通過無線電波傳輸和接收的資料可能會被攔截和監視。
- 內置無線區域網使用 **2.4 GHz**、**5 GHz** 和 **6 GHz** 頻率波段。在使用內置無線區域網時為了避免無線電波干擾造成的故障或緩慢反應，將電視機遠離其他使用 **2.4 GHz**、**5 GHz** 和 **6 GHz** 信號的設備，如其他無線區域網設備、微波爐和手提電話。
- 出現靜電等等造成的問題時，電視機可能自我保護而停止操作。如遇此情況，拔除電源插頭以關閉電視機的電源，然後將電源插頭插到電源插座中，以開啟電視機的電源。

■ Bluetooth® 無線技術

< 注意 >

- 電視機和遙控器使用 **2.4 GHz** 無線頻率 **ISM** 波段 (**Bluetooth®**)。為了避免無線電波干擾造成的故障或緩慢反應，將電視機和遙控器遠離這些設備，例如其他無線區域網設備、其他 **Bluetooth®** 設備、微波爐、手提電話以及使用 **2.4 GHz** 信號的設備。

■ 通風

< 注意 >

請在電視機周圍留下足夠的空間 (至少 10 cm) 以避免過多的熱量，熱量可能導致某些電子部件過早故障。

- 不該讓諸如報紙、桌布、窗簾等堵塞通風口。



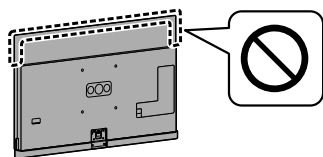
- 無論有否使用底座，時時確保電視機底部的通風口沒有被堵塞，並有足夠的空間以確定充足的通風。

■ 搬運電視機

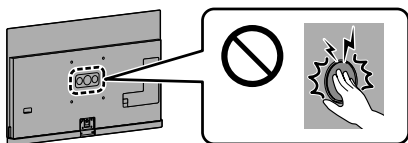
< 注意 >

搬運電視機前，拔掉所有電纜。

- 移動電視機至少需要兩人，以防止電視機傾覆或掉落所造成的傷害。
- 搬運電視機時，不可握住如下圖所示的螢幕部位。這可能會造成故障或損壞。



- 請勿對本電視機正面的揚聲器部件施加猛力。
- 只允許豎直搬運。將顯示屏朝上或朝下時搬運電視機，可能會導致內部電路損壞。
 - 請勿將電視機暫時放在地板上或桌上。
 - 如須組裝底座，務必在從紙盒中取出電視機前，先安裝好底座。
- 請勿對本電視機背面的低音揚聲器施加猛力。



- 電視機設有底部開關等零件，請勿將電視機碰撞地面等，以免對該等零件造成損壞。



- 確保不會刮花或打破電視機。

■ 當長時間沒有使用時

< 注意 >

只要電源插頭插入帶電的電源插座中，即使在關閉模式中，電視機仍會消耗一些電量。

- 長時間不使用電視機時，請將電源插頭自牆壁插座拔下。

■ 使用環境

< 注意 >

- 本設備適用於熱帶氣候。

■ 音量過高

< 注意 >

- 使用耳機時，請勿使雙耳對住過高的音量。否則，可能會造成無法挽回的傷害。
- 如果耳朵聽到鼓聲，請調低音量或暫時停止使用耳機。



■ 遙控器的電池

< 警告 >

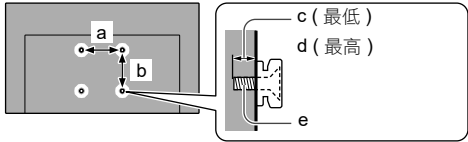
- 請將電池放在遠離兒童接觸範圍的地方，以免其吞下。如果意外吞下，可能會造成嚴重不良身體影響。如果您懷疑兒童吞下了電池，請立即求醫。

< 注意 >

- 電池安裝不當會造成電解液洩漏、電池腐蝕及爆炸。
- 只以相同或相等類型的電池替換。
- 切勿混用新舊電池。
- 切勿混用不同類型的電池 (示例：“鹼性”和“錳”電池) 。
- 切勿使用充電電池 (鎳鎘等等) 。
- 切勿燃燒或毀壞電池。
- 切勿將電池放置在陽光直射、火焰或其他高溫場所附近。
- 務必正確地廢棄電池。
- 將電池從長時間不使用的本機取出以避免電解液洩漏、電池腐蝕及爆炸。

安裝壁掛式支架

請聯繫您當地的 Panasonic 經銷商以購買推薦壁掛式支架。



	a	b	c	d	e
	mm				-
42吋機型	300	300	10	14	M6
48吋機型	300	300	10	14	M6
55吋機型	300	300	10	20	M6
65吋機型	300	300	10	20	M6

<警告>

- 使用其他壁掛式支架，或自行安裝壁掛式支架將遭受人身傷害或產品損壞的可能性。為了維持本機的性能和安全，請務必要求您的經銷商或特許承包商安裝壁掛式支架。任何因沒有專業人士協助安裝的損傷將不會得到賠償。
- 請仔細閱讀選購件隨附的說明書，務必採取措施防止電視機跌落。
- 安裝時請小心處理電視機，因為受到碰撞或其他外力可能導致產品損壞。
- 安裝壁掛式支架於牆上時請當心。掛起支架前請確保牆內沒有電纜或導管。
- 從牆上拆卸不再使用的電視機以避免墜落和傷害。

連接

有關連接詳情，請參閱 [Panasonic eHELP] 及單獨的資料頁。

- 連接或卸下任何電纜前，請務必切斷本機與電源插座的連接。
- 將電視機遠離電器設備（視頻設備等等）或帶有紅外線傳感器的設備。否則，影像 / 聲音可能失真或其他設備的操作可能被干擾。
- 亦請閱讀相連接設備的說明書。

基本連接

■ 影音設備

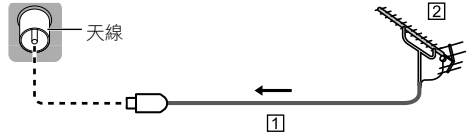
(DVD 錄影機 / 藍光錄影機、機頂盒等)

- 詳情請參閱 [Panasonic eHELP] (按目的搜尋 > 觀看 > 基礎 > 基本連接)。

■ 天線

(用於收看數碼 / 模擬廣播)

電視



① RF 電纜

② 天線

- 將 RF (天線) 電纜遠離電源線以避免和減低電源干擾。
- 切勿把 RF 電纜壓在電視機下面。
- 為獲得最佳畫質和音效，需要使用天線、合適的電纜 (75 Ω 同軸) 和合適的終端插頭。
- 如果使用公用天線系統，牆壁天線插座和電視機之間的連接可能會需要合適的連接電纜和插頭。
- 您當地的電視維修服務中心或經銷商可能會協助您獲得貴地區特定的合適天線系統和附件。
- 涉及天線安裝、現有系統升級或所需配件，以及所產生的成本等任何事項均由您自行解決。

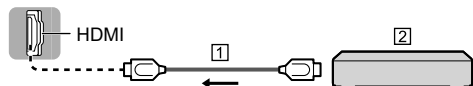
■ 網絡

如要使用互聯網服務，需提供寬頻網絡環境。

- 若您沒有任何寬頻網絡服務，請諮詢您的零售商尋求協助。
- 準備互聯網環境以作有線連接或無線連接。
- 首次使用電視機時，網絡連接的設定開始。
- ➡ (第 10 頁)
- 詳情請參閱 [Panasonic eHELP] (按目的搜尋 > 網絡 > 網絡連接)。

連接 4K / HDR 相容設備

電視



① HDMI 電纜

② 4K / HDR 相容設備

- 使用 4K 相容電纜將 4K 相容設備連接至 HDMI 終端，即可觀看 4K 格式的內容。
- 當 HDMI 輸入的影像或聲音未能正常播放時選擇 [模式 1]。
- 支援 HDR 不會提高電視機面板的峰值亮度功能。

■ [HDMI 自動設定]

連接 4K 相容設備時以擴展的色域更精確地複製影像，並以高幀率讓影像更流暢。視乎連接到的設備而定選擇模式。

[模式 1]：

相容性更佳。當 HDMI 輸入的影像或聲音未能正常播放時選擇 [模式 1]。

[模式 2]：

適用於具有精準輸出擴展色域影像功能的 4K 相容設備。

[模式 3]：

適用於具備輸出高幀率影像功能的 4K 相容設備。

(此模式適用於 HDMI 1 和 2)

- 要更改模式

1. 選擇連接到設備的 HDMI 輸入模式。
2. 在 [HDMI 自動設定] 中更改模式。



> [圖像] > [HDMI 設定] > [HDMI 自動設定]

- 有關支持格式的信息，請參閱 [Panasonic eHELP] (按目的搜尋 > 觀看 > 4K 解像度 > HDMI 自動設定)。

其他連接

■ 耳機 / 重低音揚聲器

將 [耳機插孔] (🎧) > [⚙️] (在螢幕上) > [顯示和音訊] > [音訊輸出] 設定為 [連接]。

- 要使用耳機，將 [音訊輸出模式] 設定為 [耳機] 或 [電視機揚聲器和耳機]。
- 要使用重低音揚聲器，將 [音訊輸出模式] 設定為 [電視機揚聲器和重低音揚聲器]。

■ USB HDD (錄製用)

- 使用 USB 2 端口連接 USB HDD。
- 詳情請參閱 [Panasonic eHELP] (按目的搜尋 > 錄製)。

初始設定

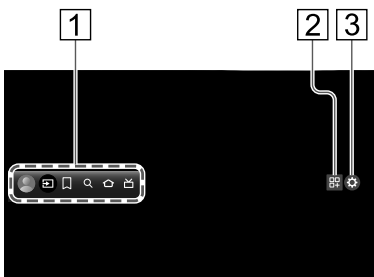
首次開啟電視機時會顯示設定畫面。請依照螢幕上的指示操作。

- 1 選擇語言
- 2 選擇電視模式
 - 家居使用建議選擇【主頁】。
- 3 將遙控器配對電視機
 - 遙控器會自動完成配對。
- 4 啟用網絡
 - 選擇【啟用】以連接至互聯網，或在無須連接時選擇【停用】。
 - 如使用無線連接，請選擇要連接的存取位置。要稍後設定，可按下遙控器上的  按鍵以略過。
 - 使用有線連接時會自動建立互聯網連接。
- 5 以 Amazon 帳戶登入
 - 要使用與 Amazon、Fire TV 和 Alexa 相關的功能，您需要使用 Amazon 帳戶登入。備註：如沒有互聯網連接，將略過此步驟。
 - 您可以使用智能電話、QR 碼或遙控器登入。請依照螢幕上的指示操作。
- 6 掃描電視頻道
 - 選擇【開始自動設置】以開始掃描。
- 7 家長控制 (PIN 碼)

- 規格等可能視乎軟件更新而隨時變更。
- 您需要互聯網連接來登入 Amazon 帳戶，然後方可使用語音控制及影片串流等一系列不同服務。
- 使用各項該等內容及服務可能須另行訂閱、協議及收費。
- 如您設定了 PIN 碼，當您嘗試存取部分功能表、服務及內容等時，系統可能會要求您輸入 PIN 碼。

■ 主頁

“主頁”是電視節目、應用程式及已連接設備的入口位置。按下  即可顯示主頁，讓您輕鬆存取下列所有功能(範例)。



① 設定檔 / 輸入 / 我的內容 / 搜尋 / 主頁 / 直播

- 舉個例子，如要觀看電視 -

選擇  後，按下遙控器上的 ▼ 字，並以 ◀▶ 選擇頻道

② 應用程式

③ 設定

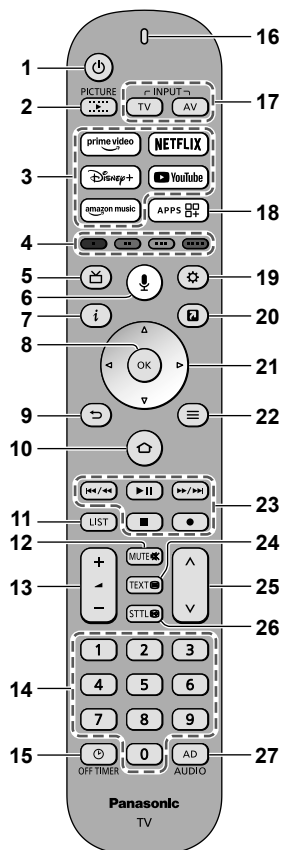
- 顯示選擇電視機進階設定的畫面。
- 詳情請參閱 [Panasonic eHELP] (按目的搜尋 > 功能 > Home)。

< 備註 >

- 如 [沒有訊號關閉] ( >  (在螢幕上) > [偏好設定] > [節能模式]) 設定為【開】(原廠設定)，而且在 10 分鐘內未接收到任何信號，也未執行任何操作，電視機將進入待機模式。
- 重新調諧所有頻道
 - ➡  >  (在螢幕上) > [電視直播] > [廣播選項] > [調校目錄] > [自動調諧]
- 要稍後新增可用的電視信號模式
 - ➡  >  (在螢幕上) > [電視直播] > [廣播選項] > [設置電視訊號]
- 初始化全部設定
 - ➡ [重設為原廠設定] (第 14 頁)

識別控制位置

遙控器



1 []: 切換電視機待機的開啟或關閉狀態

2 觀賞模式

3 串流服務

4 色彩按鍵
(紅 - 綠 - 黃 - 藍)

5 電視指南

6 Alexa 語音按鍵

- 長按並對住咪高峰說話以使用語音控制。

7 資訊

8 OK

9 返回

10 主頁 (第 10 頁)

11 頻道列表

12 靜音開啟 / 關閉

13 音量增加 / 降低

14 數字按鍵

15 關機定時器

16 咪高峰

LED 指示燈

- 使用遙控器時會亮起不同顏色的指示燈。

17 選擇輸入模式

18 應用程式列表

19 目錄

- 在螢幕上顯示圖像、螢幕、聲音等快速設定。

20 我的應用程式 (指定最愛的應用程式。)

21 光標按鍵

22 功能表選項

23 內容、連接設備等的操作

24 圖文

- 本機型不使用此按鍵。

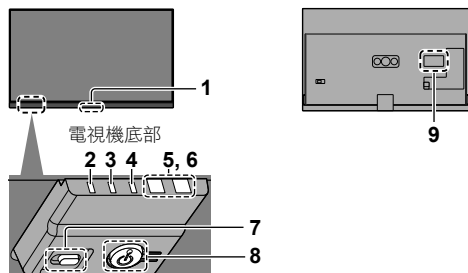
25 頻道上 / 下

26 字幕

27 音訊說明

- 本機型不使用此按鍵。

指示燈 / 控制面板



1 咪高峰 (第 12 頁)

2 咪高峰 LED

紅色： 電視機咪高峰已關閉

3 LED 指示燈

- 亮起不同顏色的指示燈。

4 電源 LED

紅色： 待機

綠色： 開

- 取決於環境亮度，LED 的亮度會自動調整為易於觀看的水平。

橙色： 待機，一些功能（錄製功能等）啟用或面板維護進行中

5 遙控器信號接收窗（用於紅外線通訊）

- 請勿在電視機遙控器信號接收窗和遙控器之間放置任何物體。

6 環境感應器

- 當 [自動亮度] 和 [自動白平衡] (⚙️ > [圖像] > [環境感應器]) 設定為 [開] 時，會感應環境照明情況以調整畫面。

7 咪高峰開啟 / 關閉按鍵

- 開啟 / 關閉電視機的咪高峰。

8 電源按鍵

- 按下按鍵以開機。
- 電視機開機後，按下按鍵以顯示操作指引。

每次按下電源按鍵時，項目選擇會在關閉電源、輸入*、音量增加 / 降低、頻道上 / 下和退出之間切換，長按約 2 秒即可啟用項目操作。

- * 當出現輸入選擇清單時，按下按鍵以選擇輸入。長按按鍵以確認。
- 要使用電視機上的按鍵關閉電源（待機模式），請在選擇了關閉電源時長按電源按鍵約 2 秒。

- 若要完全關閉裝置，您必須將電源插頭從電源插座拔出。

- [⏻]：待機 / 開啟（電視機底部）

9 型號銘牌

面板維護

務必使用遙控器或電源按鍵來關閉電視機的電源，以執行面板維護。面板維護會自動開始，需時約 10 分鐘。面板維護期間，LED 燈會變為橙色。維護會在必要時進行。

- 面板維護期間，避免觸摸螢幕及對螢幕施加任何壓力。（例如：擦拭螢幕等）

Amazon Alexa - 虛擬（語音）助理

本電視機配備咪高峰，讓您以免提形式使用 Alexa。您可以解放雙手，透過語音控制即可暢享內容，包括使用搜尋、播放、暫停、快進及更多其他功能。現在您可以放下遙控器，單憑人聲即可觀賞心水電影及電視節目。在房間內說出“Alexa”，Alexa 便會對您的要求作出回應。

- 部分 Alexa Skills 功能可能不適用於所有國家 / 地區或所有語言並可能隨時變更。
- Alexa 有否回應取決於您的聲量 / 語調及環境噪音。
- 要執行搜尋及其他功能，此設備必須連接至互聯網。

如何關閉咪高峰？

Alexa 設計旨在保障您的私隱。例如：您可以滑動電視機底部的咪高峰開關，以開啟 / 關閉咪高峰。設定為 OFF 時，咪高峰的電源將會關閉，您會看到電視機正面亮起紅色的 LED 燈，此時即使您說出喚醒詞，電視機亦不會錄製或將語音要求串流至雲端。

- 即使電視機本身的咪高峰電源關閉，您仍能使用附件的遙控器來使用 Alexa。

Bluetooth® 設備

配對 Bluetooth® 設備

本電視機支援 Bluetooth® 通訊。

已在本電視機上登記（配對）的 Bluetooth® 設備可以連接至本電視機（與之通訊）。

- 在本電視機上登記（配對）Bluetooth® 設備時，請將設備放在距離電視機 50 cm 以內的地方。
- 不可在本電視機上登記（配對）不相容的 Bluetooth® 設備。
- 若您已在本電視機上登記（配對）且已啟用 Bluetooth® 功能的設備，之後在另一部設備上登記及使用，則可能無法在本電視機上使用。若發生此情況，請在本電視機上重新登記該設備。

- 您可以在本電視機上登記支援 A2DP 的 Bluetooth® 音訊設備。基於無線技術的性質使然，影像和音訊播放之間可能出現延遲。
同一時間無法使用超過一部支援 A2DP 的音訊設備。
- 詳情請參閱 [Panasonic eHELP] (按目的搜尋 > 功能 > 藍牙裝置)。

配對遙控器

電視機和遙控器之間的傳輸可使用 Bluetooth® 無線技術或紅外線通訊功能。

由於語音控制 (第 11 頁) 使用 Bluetooth® 無線技術，因此需要在電視機上登記 (配對) 遙控器。

- 購買後首次使用遙控器時，當您插入電池後將遙控器指向遙控器信號接收窗時，若按下任何按鍵，遙控器便會自動登記 (配對)。
- 登記時，請將遙控器對準電視機上的遙控器信號接收窗，距離在約 50 cm 以內。
- 若遙控器中的電池電量不足，可能無法正確完成登記。

■ 登記遙控器

依下列程序選擇 [新增遙控器]，然後依照螢幕上的指示操作：

⊕ > [⚙] (在螢幕上) > [遙控器和 Bluetooth 設備] > [Alexa 語音遙控] > [新增遙控器]

如配對 Bluetooth 遙控器時遇到問題，請重設並再試一次。

- 1 同時長按下方顯示的按鍵約 12 秒。



- 2 鬆開按鍵並等待 5 秒。
- 3 拆除電池並重新裝回。

< 備註 >

- 若已在電視機上登記 (配對) 遙控器，兩者則會透過 Bluetooth® 通訊。使用 Bluetooth® 通訊時，您無需將遙控器對準電視機的遙控器信號接收窗。

常見問題解答

維修或尋求協助之前，請先遵循下列簡單的準則解決問題。

- 詳情請參閱 [Panasonic eHELP] (支援 > 常見問題解答)。
- 嘗試重啟電視機。
 - ⊕ > [⚙] (在螢幕上) > [設備和軟件] > [重啟]
 - 長按電視機上的電源按鍵 15 秒或以上。

開啟電視機後需要幾秒鐘才會顯示影像

- 開啟電視機時，會執行面板調整。這不是故障。

電視機沒有開啟

- 檢查是否已將電源線插入電視機和電源插座。

電視機進入待機模式

- 啟動自動電源待機功能。

遙控器無法或間歇運作

- 遙控器是否已透過 Bluetooth® 與電視機進行配對？
 - ➡ (第 13 頁)
- 電池安裝是否正確？
- 電池電量過低。更換電池。
- 當 LED 閃爍橙色時，由於系統正在啟動，此時遙控器無法操作。您可等待 LED 轉為長亮紅色後使用遙控器。
- 將遙控器直接指向電視機的遙控器信號接收窗 (信號接收窗約 7 m 和 30 角度內)。^{*}
- 遠離陽光放置電視機或避免其他強光源照射到電視機遙控器信號接收窗上。^{*}

^{*} 使用紅外線通訊時

沒有顯示圖像

- 檢查電視機是否已開啟。
- 檢查是否已將電源線插入電視機和電源插座。
- 檢查是否選擇了正確的輸入模式。
- [亮度級別] 或 [對比度] 是否設定為最低？
 - ➡ [⚙] > [圖像] > [亮度]
- 檢查所有所需的電纜和連接是否均已牢固就位。

顯示異常影像

- 本電視機內置自我檢測功能。對圖像或聲音問題進行診斷。
 - ➡  >  (在螢幕上) > [設備和軟件] > [電視機自我測試]
- 拔除電源插頭以關閉電視機的電源，然後將電源插頭插到電源插座中，以開啟電視機的電源。
- 如果問題持續，初始化所有設定。
 - ➡  >  (在螢幕上) > [設備和軟件] > [重設為原廠設定]
 - 初始化期間，您可以選擇刪除或保留已錄製的節目。

當設備通過 HDMI 連接時來自外部設備的影像或聲音異常

- 將 [HDMI 自動設定] 設定為 [模式 1]。➡ (第 9 頁)

連接的 HDMI 設備沒有聲音

- 將連接的 HDMI 設備的音訊輸出格式設定為 PCM。

語音控制功能無法運作

- 遙控器是否已透過 Bluetooth® 與電視機進行配對？
 - ➡ (第 13 頁)
- 檢查網絡連接和設定。
- 電視機上的咪高峰按鍵是否設定為關閉？
 - ➡ (第 12 頁)

電視機部件變熱

- 電視機部件可能變熱。這些溫度上升不會對性能或質素造成任何問題。

用手指推動時，顯示屏輕微移動並發出噪音

- 在面板周圍有小空隙，以防止損壞面板。這不是故障。

關於詢問

- 請聯絡當地的 Panasonic 經銷商尋求協助。
如果您詢問時電視機未在現場，我們將無法回答有關需要目視確認本電視機本身的連接、現象等的內容。

LED 燈變成橙色

- 面板維護可能進行中。
當電視機在面板維護完成前開啟 / 關閉，電視機會進入待機模式，LED 燈會再次變成橙色。
- 面板維護期間，避免觸摸螢幕及對螢幕施加任何壓力。(例如：擦拭螢幕等)
- 如需更多資訊
 - ➡ “面板維護”(第 12 頁)

保養

首先將電源插頭從電源插座上拔下。

顯示屏、機殼、底座

日常維護：

用軟布輕輕擦拭顯示屏表面、機殼或底座，清除灰塵和手印。

頑固污物：

- (1) 首先清除表面上的塵埃。
- (2) 可用軟布浸上清水或用 100 倍水稀釋的中性洗滌劑。
- (3) 盡量擰乾布。(請注意，勿讓液體進入電視機內部，因為可能導致產品故障。)
- (4) 仔細濕擦並擦去頑固污垢。
- (5) 最後抹乾所有濕氣。

< 注意 >

- 不要用硬布擦拭或者過於用力擦拭，否則會刮劃表面。
- 小心不要使表面接觸驅蟲劑、溶劑、稀釋劑或其他揮發性物質。這會降低表面質量或者導致外漆脫落。
- 顯示屏表面經過特殊處理，極易損壞。切勿用指甲或其他硬物敲擊或刮劃表面。
- 切勿使機殼和底座長時間接觸橡膠或塑料物品。這會降低表面質量。

電源插頭

定期用乾布清潔電源插頭。潮濕和灰塵可能引起火災或觸電。

規格

■ 電視

機型號碼

42吋機型	: TV-42Z90BGH
48吋機型	: TV-48Z90BGH
55吋機型	: TV-55Z90BGH
65吋機型	: TV-65Z90BGH

電源

交流電 220-240 V，50/60 Hz

額定功耗

42吋機型	: 200 W
48吋機型	: 246 W
55吋機型	: 380 W
65吋機型	: 507 W

待機電源消耗

0.50 W

可見螢幕尺寸 (對角線)

42吋機型	: 106 cm
48吋機型	: 121 cm
55吋機型	: 139 cm
65吋機型	: 164 cm

顯示解析度

3,840 (寬) × 2,160 (高)

面板

OLED 面板

聲音

揚聲器輸出
60 W (15 W × 2 + 30W × 1)
耳機 / 重低音揚聲器
3.5 mm 立體聲迷你插孔 × 1

連接端子

HDMI 1/2/3/4 輸入

A 型連接器

HDMI 1 :

4K144Hz、VRR (可變更新率)、NVIDIA® G-SYNC® 相容、AMD FreeSync™ Premium、內容類型、深色、x.v.Colour™

HDMI 2 :

4K144Hz、VRR (可變更新率)、NVIDIA® G-SYNC® 相容、AMD FreeSync™ Premium、內容類型、eARC (增強音訊返回頻道)/ARC (音訊返回頻道)、深色、x.v.Colour™

HDMI 3/4 :

4K、內容類型、深色、x.v.Colour™

- 本電視機支援“HDAVI Control 5”功能。

ETHERNET

10BASE-T / 100BASE-TX

- 使用遮蔽式雙絞線 (STP) LAN 電纜。

USB 1/2/3

USB 1/3 直流電 $\overline{\text{III}}$ 5 V，最高 500 mA [高速 USB (USB 2.0)]

USB 2 : 直流電 $\overline{\text{III}}$ 5 V，最高 900 mA [超高速 USB (USB 3.0)]

DIGITAL AUDIO OUT

PCM / 杜比音效，光纖

接收系統 / 頻帶名稱

數碼

DTMB

模擬

PAL I

天線輸入

VHF / UHF

操作環境

溫度

0 °C - 40 °C

濕度

20 % - 80 % RH (非冷凝)

內置無線區域網

標準規範和頻段

IEEE802.11ax : 6 GHz 頻段

IEEE802.11a/n/ac/ax : 5 GHz 頻段

IEEE802.11b/g/n/ax : 2.4 GHz 頻段

安全性

WPA3-SAE (AES)

WPA2-PSK (TKIP/AES)

WPA-PSK (TKIP/AES)

WEP (64 位/128 位)

Bluetooth® 無線技術*

標準規範和頻段

Bluetooth® 5.3 : 2.4 GHz 頻段

- * 不是所有 Bluetooth® 兼容設備都可用於本電視機。同時可使用多達 5 個設備。

< 備註 >

- 設計及規格如有更改，恕不另行通知。顯示的重量與尺寸皆為近似值。
- 有關開放源碼軟件的信息，請參閱 [Panasonic eHELP] (按目的搜尋 > 請先閱讀 > 使用前 > 許可證)。
- TV 42Z90BGH / TV 48Z90BGH / TV 55Z90BGH / TV 65Z90BGH 符合中國地面電視傳輸國家標準 (GB20600-2006) 模式 -C=3780。



客戶記錄

型號和序號位於設備側面或設備背面的型號銘牌上。建議將此序號記在下方的空白處，並妥善保存本手冊與購買收據，以便在產品遭竊或遺失，或在需要保證服務時，可用為協助識別的永久購買記錄。

型號

序號

Panasonic Entertainment & Communication Co., Ltd.

網站：<http://www.panasonic.com>

中文

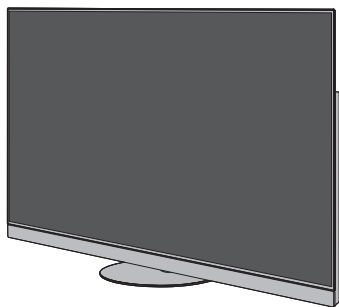
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中國印製

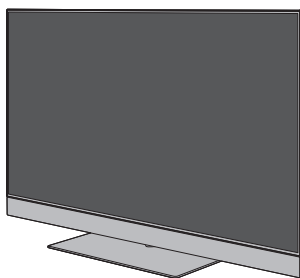
Operating Instructions OLED TV

English

Z90BGH series



(image: TV-65Z90BGH)



(image: TV-48Z90BGH)

Refer to the following for more detailed descriptions:

- For settings to view broadcasts and for settings of programme guides, recording, image quality, sound quality, etc.:

[Home] > [Settings] (on the screen) > [Device & Software] > [Panasonic eHELP]

- For Amazon, Fire TV, and Alexa related items:

[Home] > [Settings] (on the screen) > [Help] (internet connection required)

Please be advised that the above may be changed without notice. (as of February, 2025)

Thank you for purchasing this Panasonic product.

Please read these instructions carefully before operating this product and retain them for future reference.

Please carefully read the "Safety Precautions" of this manual before use.

The images shown in this manual are for illustrative purposes only.

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Be Sure to Read

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Connections	8
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Identifying Controls	11
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- Refer to the separate sheet for information about how to install the TV.
- Illustrations shown may be different between models and countries.
- This television is a product of Panasonic, which is not affiliated with Amazon.com, Inc. or any Amazon affiliate.
- You may need to be signed into an Amazon account in order to access certain online services.
- Certain services are subject to change or withdrawal at any time, may not be available in all countries, areas and languages, or in 4K, HDR, UHD, HLG, DOLBY VISION or DOLBY ATMOS and may require separate subscriptions, agreements and fees.
- Because the Fire TV operating system, screen and other Fire TV experiences may be updated at any time, the images, navigation instructions, titles and location of menu options shown in this manual may be different from what you see on the screen.
- This document has been created based on information current as of February 2025.

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Important Notice

Do not display any still part of the image for a long period

In such cases the still part of the image remains dimly on the screen ("image retention"). This is not considered a malfunction and is not covered by the warranty.

- Typical still image parts:
 - Still images shown continuously on the same area (ex. channel number, channel logo, other logos or title image, etc.)
 - Still or moving pictures viewed in 4:3 or 16:9 aspect ratio, etc.
 - Video games
- Set [Logo Luminance Control] to [Max] to avoid image retention.
[Panasonic eHELP] (Search by Purpose > Watching > For best picture > Screen Settings)
- To avoid image retention, the screen may become dim when the motionless image is displayed. This is not a malfunction. The brightness of the screen returns to the previous level when the active image is displayed.
- Be sure to turn the TV off with the remote control or Power button to perform the panel maintenance.
During the panel maintenance, LED turns to orange. (p. 12) The maintenance works as necessary.
- Set aspect ratio to [4:3 Full] for 4:3 image. For details, refer to [Panasonic eHELP] (Search by Purpose > Watching > For best picture > Aspect).
- For more information
➡ **"Panel maintenance" (p. 12)**

Notice for Digital terrestrial broadcasting functions

- Function related to Digital broadcasting will work in the areas where the digital terrestrial broadcasting services are received. Consult your local Panasonic Dealer with coverage areas.
- Not all the features are available depending on the country, area, broadcaster and service provider.
- This TV has the capability for Digital broadcasting specifications. But future Digital broadcasting services cannot be guaranteed.

Internet apps, voice control function are provided by their respective service providers, and may be changed, interrupted, or discontinued at any time.

Panasonic assumes no responsibility and makes no warranty for the availability or the continuity of the services.

Panasonic does not guarantee operation and performance of peripheral devices made by other manufacturers; and we disclaim any liability or damage arising from operation and/or performance from usage of such other maker's peripheral devices.

Damages

- Excepting cases where responsibility is recognised by local regulations, Panasonic accepts no responsibility for malfunctions caused by misuse or use of the product, and other problems or damages caused by use of this product.
- Panasonic accepts no responsibility for the loss, etc., of data caused by disasters.
- External devices separately prepared by the customer are not covered by the warranty. Care for the data stored in such devices is the responsibility of the customer. Panasonic accepts no responsibility for abuse of this data.

Handling of customer information

Customer's personal information may be recorded on this TV by broadcasting organization or application provider. Before repairing, transferring or discarding this TV, erase all the information recorded on this TV according to the following procedure.

➡ [Reset to Factory Defaults] (p. 14)

Customer information may be collected by provider via application provided by third parties on this TV or website. Please confirm the terms and conditions etc. of provider in advance.

- Panasonic will not be held responsible for collecting or using customer information via application provided by third party on this TV or website.
- When entering your credit card number, name, etc., pay special attention to the trustworthiness of the provider.
- Registered information may be registered in the server etc. of provider. Before repairing, transferring or discarding this TV, be sure to erase the information according to the terms and conditions etc. of provider.

The recording and playback of content on this or any other device may require permission from the owner of the copyright or other such rights in that content. Panasonic has no authority to and does not grant you that permission and explicitly disclaims any right, ability or intention to obtain such permission on your behalf. It is your responsibility to ensure that your use of this or any other device complies with applicable copyright legislation in your country. Please refer to that legislation for more information on the relevant laws and regulations involved or contact the owner of the rights in the content you wish to record or playback.

This product is licensed under the AVC patent portfolio license for the personal use of a consumer or other uses in which it does not receive remuneration to (i) encode video in compliance with the AVC Standard ("AVC Video") and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use.

Additional information may be obtained from MPEG LA, L.L.C.

See <http://www.mpegla.com>

Panasonic and its affiliates make no representations or warranties of any kind with respect to the USB devices and the performance of communication between the USB devices and the USB port of Panasonic products, and expressly disclaims any and all warranties, whether express or implied or otherwise, including without limitation any implied warranty of fitness for a particular purpose, any loss of data, and any implied warranties arising from course of dealing or course of performance of data communication between the USB devices and the USB port of Panasonic products.

Transport only in upright position.



This mark indicates the product operates on AC voltage.



This mark indicates the product operates on DC voltage.



This mark indicates a Class II equipment with functional earthing wherein the product does not require a safety connection to electrical earth (ground).

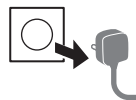
Safety Precautions

To help avoid risk of electrical shock, fire, damage or injury, please follow the warnings and cautions below:

■ Mains plug and lead

<Warning>

If you detect anything unusual, immediately remove the mains plug.



- Mains plug type may vary depending on the country.

- Insert the mains plug fully into the mains socket.
- When disconnecting the mains lead, be absolutely sure to disconnect the mains plug from the mains socket first.
- To turn Off the apparatus completely, you must pull the mains plug out of the mains socket. Consequently, the mains plug should be easily accessible at all times.
- Disconnect the mains plug when cleaning the TV.
- Do not touch the mains plug with wet hands.



- Do not damage the mains lead.

- Do not place a heavy object on the lead.



- Do not place the lead near a high temperature object.



- Do not pull on the lead. Hold onto the mains plug body when disconnecting the plug.



- Do not move the TV with the lead plugged into a mains socket.
- Do not twist the lead, bend it excessively or stretch it.
- Do not use a damaged mains plug or mains socket.
- Ensure the TV does not crush the mains lead.
- Do not use any mains lead other than that provided with this TV.

■ Take care

<Warning>

- Do not remove covers and never modify the TV yourself as live parts are accessible and risk of electric shock when they are removed. There are no user serviceable parts inside.  
- Do not expose the TV to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.  
- Do not insert foreign objects into the TV through the air vents.
- If the TV is used in an area where insects may easily enter the TV.
It is possible for insects to enter the TV, such as small flies, spiders, ants, etc. which may cause damage to the TV or become trapped in an area visible on the TV, e.g. within the screen.
- Do not use an unapproved pedestal / mounting equipment. Be sure to ask your local Panasonic dealer to perform the setup or installation of approved wall-hanging brackets.
- Do not apply any strong force or impact to the display panel.
- Ensure that children do not climb on the TV.
- Do not place the TV on sloping or unstable surfaces, and ensure that the TV does not hang over the edge of the base.  

Warning Stability Hazard

A TV may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- ALWAYS use cabinets or stands or mounting methods recommended by the manufacturer of the TV.
- ALWAYS use furniture that can safely support the TV.
- ALWAYS ensure the TV is not overhanging the edge of the supporting furniture.
- ALWAYS educate children about the dangers of climbing on furniture to reach the TV or its controls.
- ALWAYS route cords and cables connected to your TV so they cannot be tripped over, pulled or grabbed.
- NEVER place a TV in an unstable location.
- NEVER place the TV on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the TV to a suitable support.
- NEVER place the TV on cloth or other materials that may be located between the TV and supporting furniture.
- NEVER place items that might tempt children to climb, such as toys and remote controls, on the top of the TV or furniture on which the TV is placed.

If the existing TV is going to be retained and relocated, the same considerations as above should be applied.

- This TV is designed for indoor use.
- This TV is designed for table-top use.
- Do not expose the TV to direct sunlight and other sources of heat.  

**To prevent the spread of fire,
keep candles or other open
flames away from this product at
all times**



■ Suffocation / Choking Hazard

<Warning>

- The packaging of this product may cause suffocation, and some of the parts are small and may present a choking hazard to young children. Keep these parts out of reach of young children.

■ Pedestal

<Warning>

- Do not disassemble or modify the pedestal.

<Caution>

- Do not use any pedestal other than the one provided with this TV.
- Do not use the pedestal if it becomes warped or physically damaged. If this occurs, contact your nearest Panasonic dealer immediately.
- During setup, make sure that all screws are securely tightened.
- Ensure that the TV does not suffer any impact during installation of the pedestal.
- Ensure that children do not climb onto the pedestal.
- Install or remove the TV from the pedestal with at least two people.
- Install or remove the TV according to the specified procedure.
- Insert the pedestal firmly, otherwise it may come off when setting up the TV.

■ Radio waves

<Warning>

- Do not use the TV and the remote control in any medical institutions or locations with medical equipment. Radio waves may interfere with the medical equipment and may cause accidents due to malfunction.
- Do not use the TV and the remote control near any automatic control equipment such as automatic doors or fire alarms. Radio waves may interfere with the automatic control equipment and may cause accidents due to malfunction.
- Keep at least 15 cm away from the TV and the remote control if you have a cardiac pacemaker. Radio waves may interfere with the operation of the pacemaker.
- Do not disassemble or alter the TV and the remote control in any way.

■ Built-in wireless LAN

<Caution>

- Do not use the built-in wireless LAN to connect to any wireless network (SSID*) for which you do not have usage rights. Such networks may be listed as a result of searches. However, using them may be regarded as illegal access.

*SSID is a name for identifying a particular wireless network for transmission.

- Do not subject the built-in wireless LAN to high temperatures, direct sunlight or moisture.
- Data transmitted and received over radio waves may be intercepted and monitored.
- The built-in wireless LAN uses 2.4 GHz, 5 GHz and 6 GHz frequency bands. To avoid malfunctions or slow response caused by radio wave interference when using the built-in wireless LAN, keep the TV away from other devices that use 2.4 GHz, 5 GHz and 6 GHz signals such as other wireless LAN devices, microwave ovens, and mobile phones.
- When problems occur due to static electricity, etc., the TV might stop operating to protect itself. In this case, turn off the TV by unplugging the mains plug, then turn on by inserting the mains plug into the mains socket.

■ Bluetooth® wireless technology

<Caution>

- The TV and the remote control use the 2.4 GHz radio frequency ISM band (Bluetooth®). To avoid malfunctions or slow response caused by radio wave interference, keep the TV and the remote control away from the devices such as other wireless LAN devices, other Bluetooth® devices, microwaves, mobile phones and the devices that use 2.4 GHz signal.

■ Ventilation

<Caution>

Allow sufficient space (at least 10 cm) around the TV in order to help prevent excessive heat, which could lead to early failure of some electronic components.

- Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths and curtains.



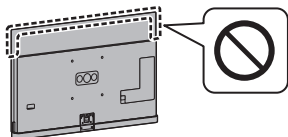
- Whether you are using a pedestal or not, always ensure the vents at the bottom of the TV are not blocked and there is sufficient space to enable adequate ventilation.

■ Moving the TV

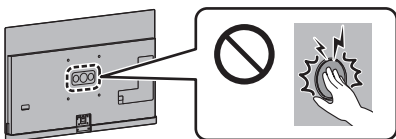
<Caution>

Before moving the TV, disconnect all cables.

- At least two people are required to move the TV to prevent injury that may be caused by the tipping or falling of TV.
- Do not hold the screen part as shown below when moving the TV. This may cause malfunction or damage.



- Do not apply any strong force to the speaker parts on the front of this TV.
- Transport only in upright position. Transporting the TV with its display panel facing upwards or downwards may cause damage to the internal circuitry.
 - Do not place the TV temporarily on the floor or desk.
 - If the pedestal requires assembly, be sure to assemble the pedestal before removing the TV from the carton.
- Do not apply strong force to the woofer on the back of this TV.



- There are parts such as switches on the bottom of the TV, so take care not to cause impacts to these by bumping on the floor, etc.



- Make sure not to scratch or break the TV.

■ When not in use for a long time

<Caution>

This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live mains socket.

- Remove the mains plug from the wall socket when the TV is not in use for a prolonged period of time.

■ Use conditions

<Caution>

- This appliance is intended for use in tropical climates.

■ Excessive volume

<Caution>

- Do not expose your ears to excessive volume from the headphones. Irreversible damage can be caused.
- If you hear a drumming noise in your ears, turn down the volume or temporarily stop using the headphones.



■ Battery for the Remote Control

<Warning>

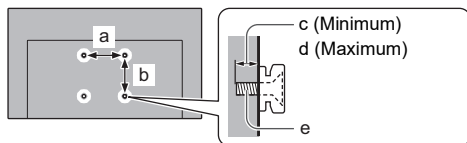
- Keep the batteries out of reach of children to prevent swallowing. Adverse physical effects can result if accidentally swallowed. If you suspect a child has swallowed one, seek medical attention immediately.

<Caution>

- Incorrect installation may cause battery leakage, corrosion and explosion.
- Replace only with the same or equivalent type.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable batteries (Ni-Cd, etc.).
- Do not burn or break up batteries.
- Do not expose batteries to excessive heat such as sunshine, fire or the like.
- Make sure you dispose of batteries correctly.
- Remove the battery from the unit when not using for a prolonged period of time to prevent battery leakage, corrosion and explosion.

Installing the wall-hanging bracket

Please contact your local Panasonic dealer to purchase the recommended wall-hanging bracket.



	a	b	c	d	e
	mm				—
42-inch model	300	300	10	14	M6
48-inch model	300	300	10	14	M6
55-inch model	300	300	10	20	M6
65-inch model	300	300	10	20	M6

<Warning>

- Using other wall-hanging brackets, or installing a wall-hanging bracket by yourself have the risk of personal injury and product damage. In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licensed contractor to secure the wall-hanging brackets. Any damage caused by installing without a qualified installer will void your warranty.
- Carefully read the instructions accompanying optional accessories, and be absolutely sure to take steps to prevent the TV from falling off.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.
- Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
- To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

Connections

Refer to [Panasonic eHELP] and the separate sheet for details about connections.

- Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any cables.
- Keep the TV away from electronic equipment (video equipment, etc.) or equipment with an infrared sensor, otherwise distortion of image / sound may occur or operation of other equipment may be affected.
- Please also read the manual of the equipment being connected.

Basic connections

■ AV devices

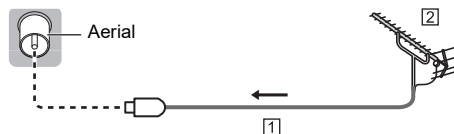
(DVD Recorder / Blu-ray Recorder, Set top box, etc.)

- For details, refer to [Panasonic eHELP] (Search by Purpose > Watching > Basic > Basic connection).

■ Aerial

(For viewing digital / analogue broadcasts)

TV



① RF cable

② Aerial

- Keep RF (aerial) cable away from the mains lead to avoid and minimise mains interference pickup.
- Do not place the RF cable under the TV.
- An aerial, correct cable (75 Ω coaxial) and correct terminating plug are required to obtain optimum quality picture and sound.
- If a communal aerial system is used, you may require the correct connection cable and plug between the wall aerial socket and the TV.
- Your local Television Service Centre or dealer may be able to assist you in obtaining the correct aerial system for your particular area and the accessories required.
- Any matters regarding aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the customer.

■ Network

A broadband network environment is required to be able to use internet services.

- If you do not have any broadband network services, please consult your retailer for assistance.
- Prepare the internet environment for wired connection or wireless connection.
- Setup of the network connection will start when first using the TV. ➔ (p. 10)
- For details, refer to [Panasonic eHELP] (Search by Purpose > Network > Network connections).

Connections for 4K / HDR compatible equipment

TV



① HDMI cable

② 4K / HDR compatible equipment

- Connect the 4K compatible equipment to HDMI terminal using a 4K compatible cable and you can watch content in 4K format.
- Set to [Mode1] when the image or sound in HDMI input is not played properly.
- Supporting HDR does not increase the peak brightness capabilities of the TV panel.

■ [HDMI Auto Setting]

Reproduces the image more precisely with the expanded colour gamut and more smoothly with the high frame rate when connecting the 4K compatible equipment. Select the mode depending on the equipment.

[Mode1]:

For better compatibility. Set to [Mode1] when the image or sound in HDMI input is not played properly.

[Mode2]:

For the 4K compatible equipment that has the function to output the image precisely with the expanded colour gamut.

[Mode3]:

For the 4K compatible equipment that has the function to output the high frame rate image.

(This mode is valid in HDMI 1 and 2)

- To change the mode
 1. Select the HDMI input mode connected to the equipment.
 2. Change the mode in [HDMI Auto Setting].

 > [Picture] > [HDMI Settings] > [HDMI Auto Setting]

- For information about the valid format, refer to [Panasonic eHELP] (Search by Purpose > Watching > 4K resolution > HDMI Auto Setting).

Other connections

■ Headphones / Subwoofer

Set [Headphone Jack] ( > ) (on the screen) > [Display & Audio] > [Audio Output] to [Connect].

- To use headphones, set [Audio Output Mode] to [Headphone] or [TV Speaker and Headphone].
- To use subwoofer, set [Audio Output Mode] to [TV Speaker and Sub Woofer].

■ USB HDD (for recording)

- Use USB 2 port for connecting the USB HDD.
- For details, refer to [Panasonic eHELP] (Search by Purpose > Recording).

Initial Setup

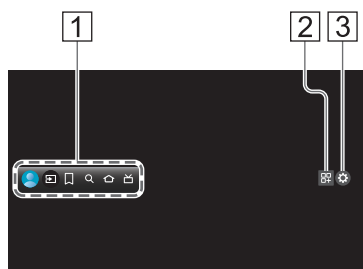
A setup screen is displayed when you turn the TV on for the first time. Follow the on-screen guidance.

- 1 Choose Your Language
- 2 Select TV mode
 - It is recommended to select [Home] for home use.
- 3 Pair Your Remote with your TV
 - Pairing of the remote control is completed automatically.
- 4 Enable Network
 - Select [Enable] to connect to the internet or select [Disable] when connection is not required.
 - When connecting wirelessly, select the access point to be connected to. To set up later, you can press the **[WIFI]** button on the remote control to skip.
 - When using a wired connection, the internet connection is established automatically.
- 5 Sign In with Your Amazon Account
 - To use Amazon, Fire TV, and Alexa related functionality, you will need to sign into your Amazon account. Note that this step is skipped if there is no internet connection.
 - You can sign in with a smartphone, a QR code, or the remote control. Follow the on-screen guidance.
- 6 Scan for TV channels
 - Select [Start Auto Setup] to start the scan.
- 7 Parental Controls (PIN code)
 - Specifications, etc. are subject to change due to software updates.
 - You will need an internet connection to sign into your Amazon account in order to use a variety of services such as voice controls and video streaming services.
 - Separate subscriptions, agreements and fees may be required to use each content and service.
 - If you set a PIN code, you may be asked to enter your PIN code when you try to access some menus, services, content, etc.

■ Home

"Home" is a gateway to the TV programmes, applications and connected devices. Home is displayed by pressing

[Home] and it provides you an easy way to access all the features as shown below (example).



① Profile / Inputs / My Stuff / Find / Home / Live

- For example: to watch TV -

After selecting **[TV]**, press **▼** on the remote control and select the channel with **◀▶**

② Applications

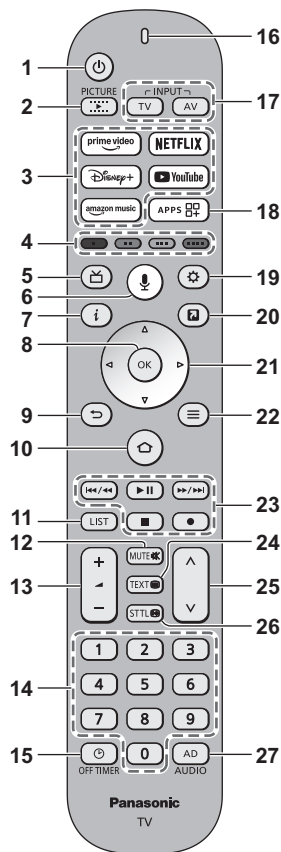
③ Settings

- Display the screen for making advanced settings for the TV.

- For details, refer to [Panasonic eHELP] (Search by Purpose > Functions > Home).

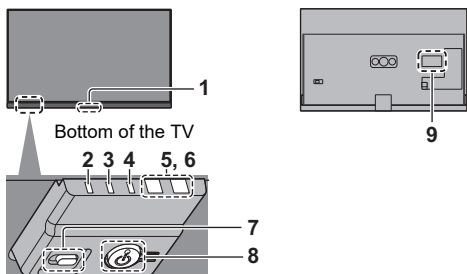
<Note>

- The TV goes into Standby mode when no signal is received and no operation is performed for 10 minutes if [No signal Power off] (**[Power]** > **[Settings]** (on the screen) > [Preferences] > [Eco mode]) is set to [ON] (factory setting).
- To retune all channels
 - ➔ **[Home]** > **[Settings]** (on the screen) > [Live TV] > [Broadcast Options] > [Tuning Menu] > [Auto Tuning]
- To add the available TV signal mode later
 - ➔ **[Home]** > **[Settings]** (on the screen) > [Live TV] > [Broadcast Options] > [Set up TV Signals]
- To initialise all settings
 - ➔ [Reset to Factory Defaults] (p. 14)



- 1 : Switches TV On or Off (Standby)
- 2 Viewing mode
- 3 Streaming Service
- 4 Coloured buttons
(red-green-yellow-blue)
- 5 TV Guide
- 6 Alexa Voice Button
 - Press and hold the button and speak into the microphone to use voice controls.
- 7 Information
- 8 OK
- 9 Return
- 10 Home ➡ (p. 10)
- 11 Channel list
- 12 Sound Mute On / Off
- 13 Volume Up / Down
- 14 Numeric buttons
- 15 Off Timer
- 16 Microphone
 - LED indicator
 - Lights in different colours when using the remote control.
- 17 Input mode selection
- 18 Applications list
- 19 Menu
 - Display quick settings for Picture, Screen, Sound, etc. on the screen.
- 20 MY APP (Assigns a favourite application.)
- 21 Cursor buttons
- 22 Options Menu
- 23 Operations for contents, connected equipment, etc.
- 24 Teletext
 - This button is not used for this model.
- 25 Channel Up / Down
- 26 Subtitles
- 27 Audio Description
 - This button is not used for this model.

Indicator / Control panel



1 Microphones ➔ (p. 12)

2 Mic LED

Red: Microphone on the TV is off

3 LED INDICATOR

- Lights in different colours.

4 POWER LED

Red: Standby

Green: On

- Depending on the ambient brightness, adjusts the brightness of LED to easy-to-view levels automatically.

Orange: Standby with some functions (recording, etc.) active or panel maintenance in progress

5 Remote control signal receiver (for infrared communication)

- Do not place any objects between the TV remote control signal receiver and remote control.

6 Ambient sensor

- Senses ambient lighting conditions to adjust the picture when [Auto Brightness] and [Auto White Balance] (⚙️ > [Picture] > [Ambient Sensor]) are set to [On].

7 Microphone on/off switch

- Switches the microphone on the TV on/off.

8 Power button

- Press the button to turn on.
- When the TV is on, press the button to display the operation guide.
The item selection switches between Power Off, Inputs*, Volume Up-Down, Channel Up-Down, and Exit each time you press the Power button, and pressing and holding for about 2 seconds enables item operation.
- * Press the button to select the input when the input selection list appears. Press and hold the button to confirm.
- To Power Off (Standby) with the button on the TV itself, press and hold the Power button for about 2 seconds while Power Off is selected.

- To turn Off the apparatus completely, you must pull the mains plug out of the mains socket.

- [⏻]: Standby / On (Bottom of the TV)

9 Model name plate

Panel maintenance

Be sure to turn the TV off with the remote control or Power button to perform the panel maintenance. The panel maintenance automatically starts, and it takes approx. 10 minutes. During the panel maintenance, LED turns to orange. The maintenance works as necessary.

- During panel maintenance, avoid touching and exerting any pressure on the screen. (e.g. wiping the screen, etc.)

Amazon Alexa - virtual (voice) assistant

This TV has microphones so you can use Alexa hands-free. Enjoy hands-free voice control of content, including search, play, pause, fast forward, and more. Now you can put down the remote and dive straight into your favourite movies and TV shows with just the sound of your voice. From across the room, say, "Alexa," and Alexa will respond to your request.

- Certain Alexa Skills and features may not be available in all countries or languages, and are subject to change at any time.
- Whether Alexa responds or not depends on the volume/tone of your voice and the ambient noise.
- To perform searches and other functions, this device needs to be connected to the internet.

How to turn off the microphones?

Alexa is designed to protect your privacy. For example, you can slide the Microphone switch on the bottom of the TV to turn off or on the microphones. When set to OFF, power will be disconnected from the microphones, you will see a red LED on the front of your TV, and the TV cannot record or stream audio requests to the cloud even if you say the wake word.

- Even with the microphones on the TV itself OFF, you can still use Alexa with the supplied remote control.

Bluetooth® device

Pairing Bluetooth® devices

This TV supports Bluetooth® communications.

Bluetooth® devices that have been registered (paired) with this TV can connect to (communicate with) this TV.

- When registering (pairing) a Bluetooth® device with this TV, move the device within 50 cm of the TV.
- It is not possible to register (pair) Bluetooth® devices that are not compatible with this TV.
- If a Bluetooth® enabled device that you have registered (paired) with this TV is then registered and used on another device, it may then be made unavailable for use with this TV. Register the device on this TV again if this occurs.

- You can register Bluetooth® audio devices that support A2DP on this TV. Due to the characteristics of wireless technology, there will be some delay between the playback of video and audio.
It is not possible to use more than one audio device that supports A2DP simultaneously.
- For details, refer to [Panasonic eHELP] (Search by Purpose > Functions > Bluetooth devices).

Pairing the remote control

Either Bluetooth® wireless technology or the infrared communication function can be used for the transmissions between the TV and the remote control.

Since voice controls (p. 11) use Bluetooth® wireless technology, the remote control needs to be registered (paired) with the TV.

- When using the remote control for the first time after purchase, when you press any button while pointing the remote control at the remote control signal receiver with batteries inserted, the remote control is automatically registered (paired).
- When registering, face the remote control at the remote control signal receiver on the TV, within about 50 cm.
- Registration may not be completed correctly if the batteries in the remote control are running low.

■ Registering a remote control

Select [Add New Remote] with the following procedure and follow the on-screen guidance:

 >  (on the screen) > [Remotes & Bluetooth Devices] > [Voice Remotes with Alexa] > [Add New Remote]

If you have problems in pairing the Bluetooth remote control, you need to reset it and try again.

- 1 Press and hold the buttons shown below simultaneously for about 12 seconds.



- 2 Release the buttons and wait 5 seconds.
- 3 Remove the batteries and insert them back.

<Note>

- If the remote control is registered (paired) with the TV, they communicate via Bluetooth®. You will not need to face the remote control at the TV's remote control signal receiver when Bluetooth® communication is used.

FAQs

Before requesting service or assistance, please follow these simple guides to solve the problem.

- For details, refer to [Panasonic eHELP] (Support > FAQs).
- Try restarting the TV.
 -  >  (on the screen) > [Device & Software] > [Restart]
 - Press and hold the Power button on the TV for 15 seconds or more.

It takes several seconds to display the image after turning the TV on

- When turning the TV on, the panel adjustment is performed. It is not a malfunction.

The TV does not switch on

- Check the mains lead is plugged into the TV and the mains socket.

The TV goes into Standby mode

- Auto power standby function is activated.

The remote control does not work or is intermittent

- Has the remote control been paired with the TV via Bluetooth®? ➔ (p. 13)
- Are the batteries installed correctly?
- The batteries may be running low. Replace them with new ones.
- Operation of the remote control is not possible due to system startup when the LED is blinking orange. You can use the remote control after the LED turns constant red.
- Point the remote control directly at the TV's remote control signal receiver (within about 7 m and a 30 degree angle of the signal receiver).*
- Situate the TV away from sunshine or other sources of bright light so they do not shine on the TV's remote control signal receiver.*

* When infrared communication is used

No image is displayed

- Check the TV is turned on.
- Check the mains lead is plugged into the TV and the mains socket.
- Check the correct input mode is selected.
- Is [Luminance Level] or [Contrast] set to the minimum?
 - ➔  > [Picture] > [Brightness]
- Check all required cables and connections are firmly in place.

An unusual image is displayed

- This TV has a built-in Self Test. Makes a diagnosis of picture or sound problems.

➔  >  (on the screen) > [Device & Software] > [TV Self Test]

- Turn off the TV by unplugging the mains plug, then turn on by inserting the mains plug into the mains socket.
- If the problem persists, initialise all settings.

➔  >  (on the screen) > [Device & Software] > [Reset to Factory Defaults]

- When initialising, you can choose whether to delete or keep the recorded programmes.

The image or sound from external equipment are unusual when the equipment is connected via HDMI

- Set [HDMI Auto Setting] to [Mode1]. ➔ (p. 9)

No sound is produced from the connected HDMI equipment

- Set the audio output format of the connected HDMI equipment to PCM.

Voice control function does not work

- Has the remote control been paired with the TV via Bluetooth®? ➔ (p. 13)
- Check the network connections and settings.
- Is the microphone switch on the TV set to off? ➔ (p. 12)

Parts of the TV become hot

- Parts of the TV may become hot. These temperature rises do not pose any problems in terms of performance or quality.

When pushed with a finger, the display panel moves slightly and makes a noise

- There is a little gap around the panel to prevent damage to the panel. This is not a malfunction.

About the inquiry

- Please contact your local Panasonic dealer for assistance.

If you make an inquiry from a place where this TV is not present, we cannot answer about contents that require visual confirmation for connection, phenomenon, etc. of this TV itself.

LED turns to orange

- Panel maintenance may be in progress.
LED turns to orange again in standby mode when the TV is turned on / off before the panel maintenance is completed.
- During panel maintenance, avoid touching and exerting any pressure on the screen. (e.g. wiping the screen, etc.)
- For more information
➔ "Panel maintenance" (p. 12)

Maintenance

First, remove the mains plug from the mains socket.

Display panel, Cabinet, Pedestal

Regular care:

Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to remove dirt or fingerprints.

For stubborn dirt:

- (1) First clean the dust from the surface.
- (2) Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water).
- (3) Wring out the cloth firmly. (Please note, do not let liquid enter the TV inside as it may lead to product failure.)
- (4) Carefully wipe moisten and wipe away the stubborn dirt.
- (5) Finally, wipe away all the moisture.

<Caution>

- Do not use a hard cloth or rub the surface too hard, otherwise this may cause scratches on the surface.
- Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals. Moisture and dust may cause fire or electrical shock.

Specifications

TV

Model No.

- 42-inch model : TV-42Z90BGH
- 48-inch model : TV-48Z90BGH
- 55-inch model : TV-55Z90BGH
- 65-inch model : TV-65Z90BGH

Power source

AC 220-240 V, 50 / 60 Hz

Rated power consumption

- 42-inch model : 200 W
- 48-inch model : 246 W
- 55-inch model : 380 W
- 65-inch model : 507 W

Standby power consumption

0.50 W

Visible screen size (diagonal)

- 42-inch model : 106 cm
- 48-inch model : 121 cm
- 55-inch model : 139 cm
- 65-inch model : 164 cm

Display resolution

3 840 (W) × 2 160 (H)

Panel

OLED panel

Sound

- Speaker output**
60 W (15 W × 2 + 30 W × 1)
- Headphones / Subwoofer**
3.5 mm stereo mini jack × 1

Connection terminals

- HDMI 1 / 2 / 3 / 4 input**
TYPE A Connectors
HDMI 1:
4K144Hz, VRR (Variable Refresh Rate), NVIDIA® G-SYNC® Compatible, AMD FreeSync™ Premium, Content Type, Deep Colour, x.v.Colour™
- HDMI 2:
4K144Hz, VRR (Variable Refresh Rate), NVIDIA® G-SYNC® Compatible, AMD FreeSync™ Premium, Content Type, eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel), Deep Colour, x.v.Colour™
- HDMI 3 / 4:
4K, Content Type, Deep Colour, x.v.Colour™
- This TV supports "HDAVI Control 5" function.

ETHERNET

- 10BASE-T / 100BASE-TX
- Use Shielded Twist Pair (STP) LAN cable.

USB 1 / 2 / 3

- USB 1 / 3: DC === 5 V, Max. 500 mA [Hi-Speed USB (USB 2.0)]
- USB 2: DC === 5 V, Max. 900 mA [SuperSpeed USB (USB 3.0)]

DIGITAL AUDIO OUT

PCM / Dolby Audio, Fibre optic

Receiving systems / Band name

Digital
DTMB

Analogue
PAL I

Aerial input

VHF / UHF

Operating conditions

- Temperature**
0 °C - 40 °C
- Humidity**
20 % - 80 % RH (non-condensing)

Built-in wireless LAN

- Standard compliance and Frequency band**
IEEE802.11ax: 6 GHz band
IEEE802.11a/n/ac/ax: 5 GHz band
IEEE802.11b/g/n/ax: 2.4 GHz band

- Security**
WPA3-SAE (AES)
WPA2-PSK (TKIP/AES)
WPA-PSK (TKIP/AES)
WEP (64 bit/128 bit)

Bluetooth® wireless technology*

- Standard Compliance and Frequency band**
Bluetooth® 5.3: 2.4 GHz band

* Not all the Bluetooth® compatible devices are available with this TV. Up to 5 devices can be used simultaneously.

<Note>

- Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.
- For information about the open source software, refer to [Panasonic eHELP] (Search by Purpose > Read first > Before use > Licence).
- TV-42Z90BGH / TV-48Z90BGH / TV-55Z90BGH / TV-65Z90BGH complies with China Terrestrial Television National Standard (GB20600-2006) Mode-C=3780.



Customer's Record

The model number and serial number are located on the side of the unit or the model name plate on the rear of the unit. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number

Serial Number

Panasonic Entertainment & Communication Co., Ltd.
Web Site: <http://www.panasonic.com>

English