

POTTER GTSM Synchronization Control Module Instruction Manual

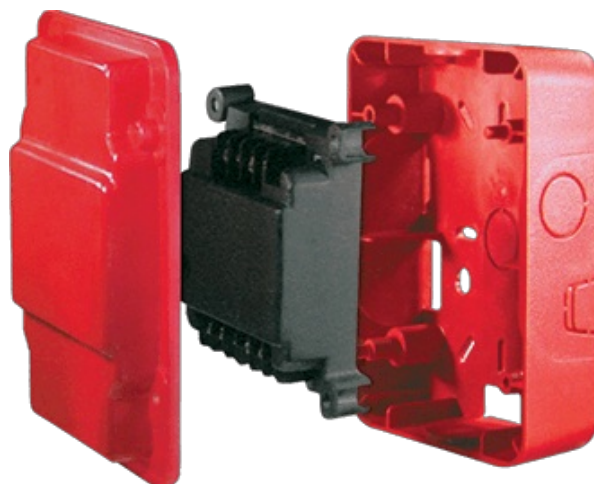
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POTTER GTSM Synchronization Control Module



INTRODUCTION

- The Potter Electric Model GTSM control module is designed to provide an easy way to synchronize multiple strobes and horn/strobes using only two wires. The GTSM is compatible with the LFH-24 Series, FEP/SEP Series, SPKSTR-24WLP (strobe) Series, SPKSTR-24CLP (strobe) Series, CSPKSTR-AL-WP (strobe) Colored Lens Series, CSPKSTR-AL (strobe) Colored Lens Series, CS-24 (strobe only) Series, CCS-24 (strobe only) Colored Lens Series, S24-177 (strobe only) Series, S-24-WP/SLP-24-WP (strobe only) Series, CS-24W-WP/CSLP-24W-WP (strobe only) Colored Lens Series, S-24 (strobe only) Series et CS-24W (strobe only) Colored Lens Series. The control module has the capability to synchronize multiple horn signals with a code 3 temporal pattern, a code 4 temporal pattern and the ability to silence the horn while allowing the strobes to continue to flash. By incorporating the control module as shown in the following drawing, the module will control the power to the units to produce the synchronized operation.

NOTICE: WHEN USING TWO WIRE OPERATION AND WHEN SWITCHES ARE PRESENT ON THE SIGNALS, SWITCHES 1 AND 2 ON THE SIGNALS MUST BE IN THE ON POSITION.

SWITCHES ON THE SIGNALS ARE IN THESE POSITIONS WHEN SHIPPED FROM THE FACTORY.

FEATURES OF THE GANGABLE GTSM CONTROL MODULE

- Slave control modules' sync input is wired to the master control module's output as an ordinary signal. This allows the user to determine which module will act as the master and which module(s) will act as the slave(s).
- Electrically isolated control module sync input allows slave control modules to be connected across separate power supplies and panels.
- Wiring between sync modules to maintain synchronized operation (sync + and – terminals) is supervised.
- Sync input terminals and horn input terminals present a load of 7mA at 24VDC to the power supply. Slave control module's sync terminals are connected to the output terminals of the master sync control module in the same manner as an ordinary signal.
- Loss of sync signal on slave module failsafe mode. If a control module set up as a slave loses the sync signal from the master, the slave module will revert to independent operation.
- The horns on zones controlled by a slave module may be independently muted via the horn input on the slave module. If the master control module receives a mute signal, then all slave modules and their corresponding zones are placed into mute mode.
- Staggered zone power up with synchronization is possible. If any slave module receives power after the master sync module, all units will re-sync with the master module within four seconds.
- A green LED status indicator will flash once every four seconds if zone 1 is operational. The LED will flash twice every four seconds if zones 1 and 2 are operational.
- See table in Class B wiring diagrams for master synchronization input operation

WARNING

- THE MASTER CONTROL MODULE MUST BE POWERED AT THE SAME TIME OR PRIOR TO THE POWERING OF THE SLAVE MODULES FOR PROPER OPERATION.
- DO NOT USE THE GTSM WITH MHT-1224, EH-24/HS24-177, HS-24, COLORED LENS SERIES CHS-24,

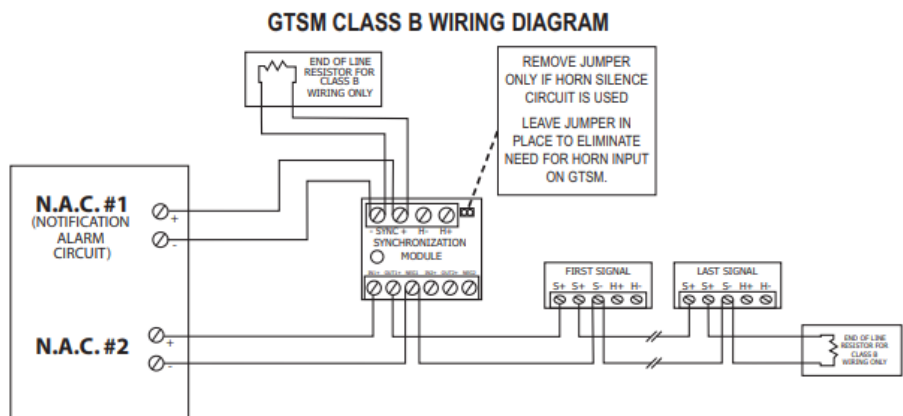
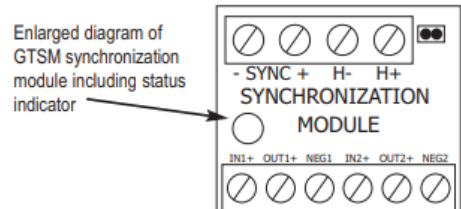
HS-24-WP/HSLP-24-WP, COLORED LENS SERIES CHS-24-WP/ CHSLP-24-WP, CHS-24, COLORED LENS SERIES CCHS-24.

- IF ONLY ONE SET OF INPUT TERMINALS ARE USED, THEY MUST BE IN1+, OUT1+, AND NEG1 FOR THE CONTROL MODULE TO OPERATE.

Master Synchronization Module Sound Output Settings		
Sound	Input	Operation
Temporal 3	SYNCH+	Input must have 24 VDC power from F.A.C.P. to produce Temporal 3 sound output
Temporal 4	SYNCH+	Input must have zero voltage from F.A.C.P. to produce Temporal 4 sound output

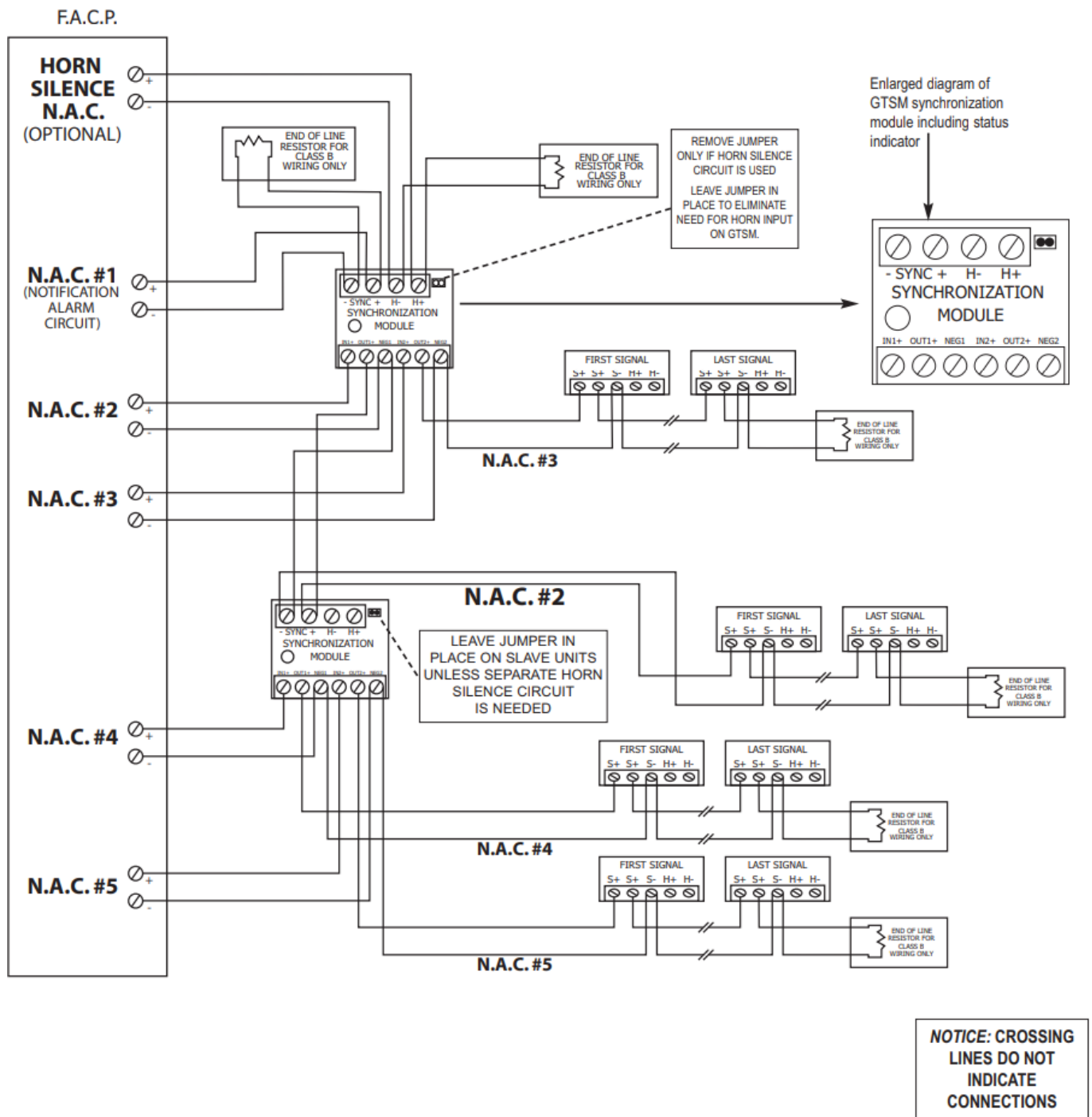
Master Synchronization Module Sound Output Settings		
Sound	Input	Operation
Temporal 3	SYNCH+	Input must have 24 VDC power from F.A.C.P. to produce Temporal 3 sound output
Temporal 4	SYNCH+	Input must have zero voltage from F.A.C.P. to produce Temporal 4 sound output

IN1 and NEG1 must have 24 VDC power from fire alarm control panel output to operate.



NOTICE: CROSSING LINES DO NOT INDICATE CONNECTIONS

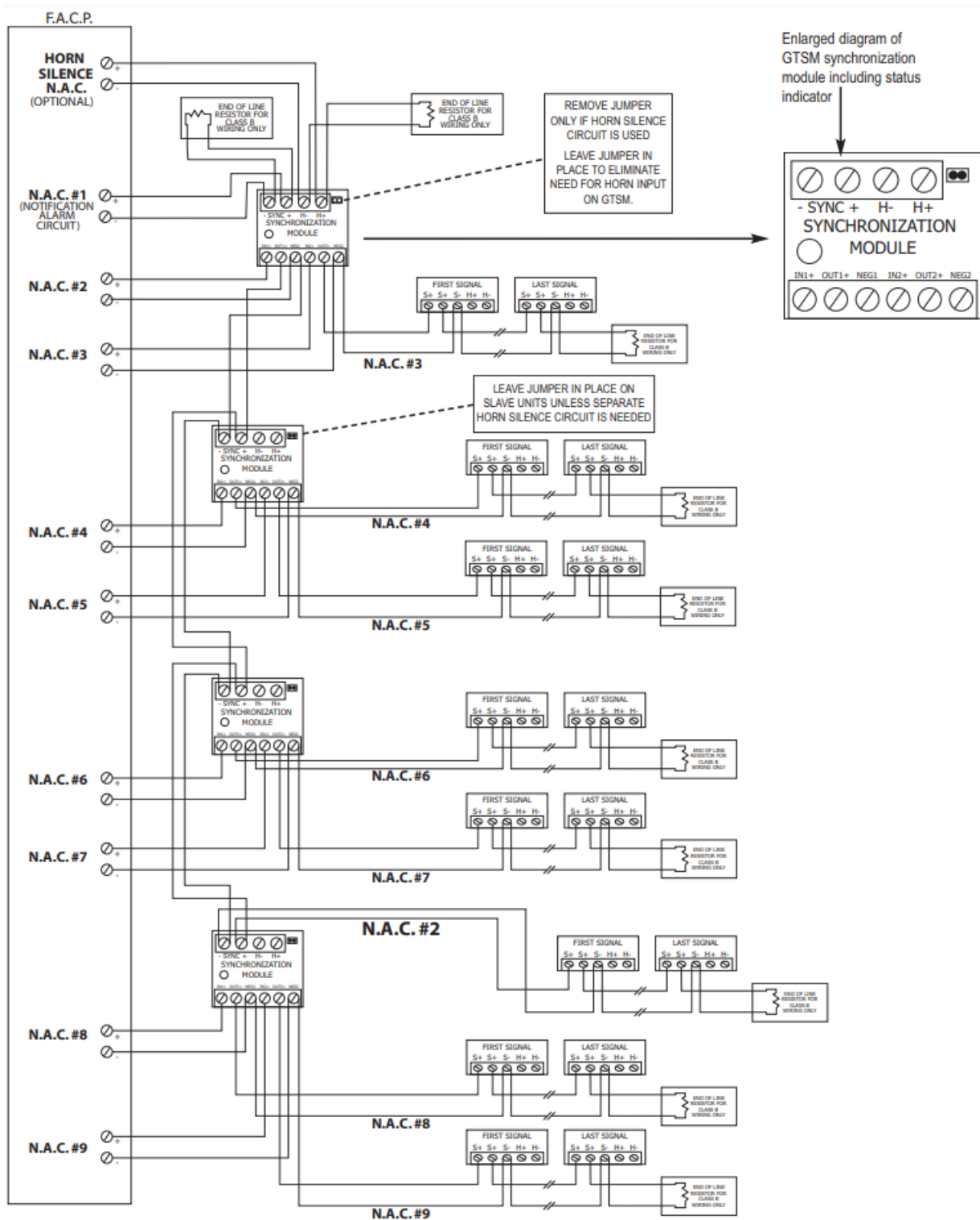
GTSM WIRING FOR MULTIPLE CLASS B CIRCUITS AND USE OF A SLAVE MODULE



Synchronization Module Sound Output Settings

	NAC 1	NAC 2	NAC 3	NAC 4	NAC 5
Temporal 3	ON	ON	ON	ON	ON
Temporal 4	OFF	ON	ON	ON	ON

GTSM WIRING FOR MULTIPLE CLASS B CIRCUITS AND USE OF A SLAVE MODULE



Synchronization Module Sound Output Settings

	NAC 1	NAC 2	NAC 3	NAC 4	NAC 5
Temporal 3	ON	ON	ON	ON	ON
Temporal 4	OFF	ON	ON	ON	ON

ELECTRICAL SPECIFICATIONS

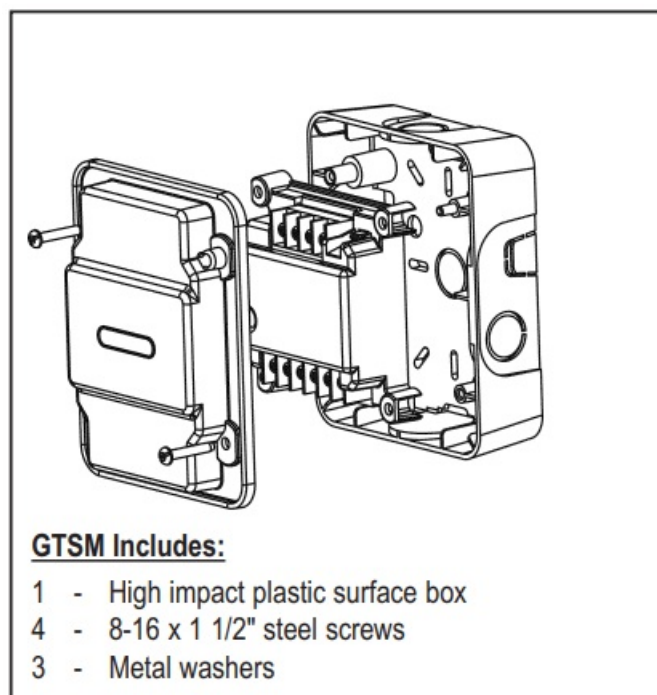
	Regulated 24VDC Max. Operating Current	Regulated 24VFWR Max. Operating Current
GTSM	45 mA	47 mA

NOTICE: DC VOLTAGE RANGE LIMITS: 16-33V. FWR VOLTAGE RANGE LIMITS: 16-33V. THIS PRODUCT WAS ONLY TESTED TO THE STATED VOLTAGE RANGE(S); DO NOT APPLY 80% AND 110% OF THIS RANGE FOR SYSTEM OPERATION. UNITS HAVE BEEN TESTED TO 0°C, 49°C AND 93% HUMIDITY.
CAUTION: The GTSM is to be connected only to circuits that provide continuously applied voltage. Do not use this module on coded or interrupted circuits in which the voltage is cycled on and off.

- The GTSM has terminals which can accept wire sizes from #12 to #18AWG with two wires per terminal.
- The GTSM control module must be placed before the signals in the loop which are intended to be synchronized and/or controlled.
- The horn input terminals on the GTSM presents a load of 7mA to the NAC. When wired in the two wire configuration, the load for both the strobe and horn current are placed solely on the strobe signal circuit.

WARNING

- DO NOT USE LOOPED WIRE UNDER THE TERMINALS. BREAK WIRE RUN TO PROVIDE SUPERVISION OF CONNECTION.
- DO NOT EXCEED 10 OHMS OF RESISTANCE BETWEEN SIGNALS OR 20 SIGNALS PER LOOP.
- DO NOT EXCEED 3 AMPS CONTINUOUS OR 5 AMPS PEAK LOAD CURRENT.
- THIS APPLIANCE WILL NOT OPERATE WITHOUT ELECTRICAL POWER. AS FIRES FREQUENTLY CAUSE POWER INTERRUPTIONS, POTTER ELECTRIC SUGGESTS YOU DISCUSS FURTHER SAFEGUARDS WITH YOUR LOCAL FIRE PROTECTION SPECIALIST.



NOTICE:

- DO NOT OVER-TIGHTEN SCREWS OR DAMAGE TO BACK BOX MAY OCCUR
- INTENDED FOR INDOOR USE ONLY
- CONDUIT AND SURFACE RACEWAY KNOCKOUTS INCLUDED
- USE REINFORCEMENT WASHERS WHEN INSTALLING CONDUIT

ADDITIONAL INSTRUCTIONS FOR GTSM: CAN/ULC

PRODUCT INFORMATION

This appliance is listed in compliance with CAN/ULC S525 and/or CAN/ULC S526. This appliance is intended for use in fire alarm systems and is to be installed in accordance with this manual, the National Building Code of Canada, CAN/ULC S524 and local codes that provide standards on notification appliances for protective signaling systems. Wiring is to be in accordance with CSA C22.1 Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations, Sec. 32.

LIMITED WARRANTY

- For a period of 60 months from the date of manufacture (or as long as required by applicable law), Potter Electrical Signal Company, LLC warrants to you the original purchaser that your appliance will be free from defects in workmanship and materials under normal use and service.
- This warranty does not apply and is void if damage or failure is caused by: accident, abuse, misuse, abnormal use, faulty installation, liquid contact, fire, earthquake or other external cause; operating the appliance outside Potter Electrical Signal Company, LLC's published guidelines; or service, alteration, maintenance or repairs performed by anyone other than Potter Electrical Signal Company, LLC. This warranty also does not apply to: consumable parts, such as batteries; cosmetic damage, including but not limited to scratches or dents; defects caused by normal wear and tear or otherwise due to the normal aging of the appliance, or if any serial number has been removed or defaced from the appliance.
- TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL, WRITTEN, STATUTORY, EXPRESS OR IMPLIED. POTTER ELECTRICAL SIGNAL COMPANY, LLC DISCLAIMS ALL STATUTORY AND IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS TO THE EXTENT PERMITTED BY LAW. TO THE EXTENT SUCH WARRANTIES CANNOT BE DISCLAIMED, SUCH IMPLIED WARRANTIES SHALL APPLY ONLY FOR THE WARRANTY PERIOD SPECIFIED ABOVE. PLEASE NOTE THAT SOME STATES (COUNTRIES AND PROVINCES) DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY (OR CONDITION) LASTS. SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE EXTENT PERMITTED BY LAW, POTTER ELECTRICAL SIGNAL COMPANY, LLC WILL NOT BE LIABLE FOR ANY DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR ARISING IN CONNECTION WITH THE SALE, USE OR REPAIR OF THE APPLIANCE, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE, LOSS OF REVENUE, LOSS OF ACTUAL OR ANTICIPATED PROFITS, LOSS OF THE USE OF MONEY, LOSS OF BUSINESS, LOSS OF OPPORTUNITY, LOSS OF GOODWILL, AND LOSS OF REPUTATION. THE MAXIMUM LIABILITY OF POTTER ELECTRICAL SIGNAL COMPANY, LLC SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE PAID BY YOU FOR THE APPLIANCE. PLEASE NOTE THAT SOME STATES (COUNTRIES AND PROVINCES) DO NOT ALLOW THE

EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

- If a defect in workmanship or materials causes your appliance to become inoperable within the warranty period, you must return the appliance to Potter Electrical Signal Company, LLC postage prepaid to: Potter Electrical Signal Company, LLC, 1609 Park 370, Hazelwood MO 63042. You must prove to the satisfaction of Potter Electrical Signal Company, LLC the date of purchase of your appliance. You must also enclose a return address. Warranty service may only be performed by Potter Electrical Signal Company, LLC personnel at Potter Electrical Signal Company, LLC's facilities in Hazelwood, Missouri. You must also pack the appliance to minimize the risk of it being damaged in transit. If we receive an appliance in a damaged condition as the result of shipping, we will notify you and you must seek a claim with the shipper.
- If you submit a valid claim to Potter Electrical Signal Company, LLC during the warranty period, Potter Electrical Signal Company, LLC will, at its option, repair your appliance or furnish you with a new or rebuilt appliance without charge to you except for postage required to return the appliance to us. Potter Electrical Signal Company, LLC will not reimburse you for repairs or replacement parts provided by other parties. Your repaired or replacement appliance will be returned to you free of charge and it will be covered under the warranty for the balance of the warranty period, if any. When a product or part is replaced, any replacement item becomes your property and the replaced item becomes property of Potter Electrical Signal Company, LLC. For additional warranty and product information go to www.pottersignal.com.
- THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE (OR BY COUNTRY OR PROVINCE). BY THIS WARRANTY, POTTER ELECTRICAL SIGNAL COMPANY, LLC DOES NOT LIMIT OR EXCLUDE YOUR RIGHTS EXCEPT AS ALLOWED BY LAW. TO FULLY UNDERSTAND YOUR RIGHTS, YOU SHOULD CONSULT THE LAWS OF YOUR COUNTRY, PROVINCE OR STATE.

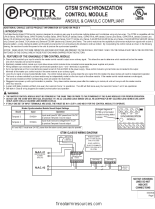
Important Notice

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firealarmresources.com

Documents / Resources



POTTER GTSM Synchronization Control Module [pdf] Instruction Manual
GTSM Synchronization Control Module, GTSM, Synchronization Control Module, Control Modul
e, Module

References

- [🔥 Fire Alarm Resources | Download fire alarm documents](#)
- [📄 Potter Electric: Fire Alarms & Fire Sprinkler Systems](#)