LTC 8713 Series

Security Systems

EN

Instruction Manual

Alarm Port Expanders

BOSCH

Important Safeguards

1. **Read, Follow, and Retain Instructions** - All safety and operating instructions should be read and followed before operating the unit. Retain instructions for future reference.
2. **Heed Warnings** - Adhere to all warnings on the unit and in the operating instructions.
3. **Attachments** - Attachments not recommended by the product manufacturer should not be used, as they may cause hazards.
4. **Installation Cautions** - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only manufacturer-recommended accessories, or those sold with the product. Mount the unit per the manufacturer's instructions. Appliance and cart combination should be moved with care. Quick stops, excessive force, or uneven surfaces may cause the appliance and cart combination to overturn.
5. **Cleaning** - Unplug the unit from the outlet before cleaning. Follow any instructions provided with the unit. Generally, using a damp cloth for cleaning is sufficient. Do not use liquid cleaners or aerosol cleaners.
6. **Servicing** - Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
7. **Damage Requiring Service** - Unplug the unit from the main AC power source and refer servicing to qualified service personnel under the following conditions:
   - When the power supply cord or plug is damaged.
   - If liquid has been spilled or an object has fallen into the unit.
   - If the unit has been exposed to water and/or inclement weather (rain, snow, etc.).
   - If the unit does not operate normally, when following the operating instructions. Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may result in damage, and require extensive work by a qualified technician to restore the unit to normal operation.
   - If the unit has been dropped or the cabinet damaged.
   - If the unit exhibits a distinct change in performance, this indicates that service is needed.
8. **Replacement Parts** - When replacement parts are required, the service technician should use replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electrical shock or other hazards.
9. **Safety Check** - Upon completion of servicing or repairs to the unit, ask the service technician to perform safety checks to ensure proper operating condition.
10. **Power Sources** - Operate the unit only from the type of power source indicated on the label. If unsure of the type of power supply to use, contact your dealer or local power company.
    - For units intended to operate from battery power, refer to the operating instructions.
    - For units intended to operate **with External Power Supplies**, use only the recommended approved power supplies.
    - For units intended to operate with a limited power source, this power source must comply with EN60950. Substitutions may damage the unit or cause fire or shock.
    - For units intended to operate at 24VAC, normal input voltage is **24VAC**. Voltage applied to the unit's power input should not exceed 30VAC. User-supplied wiring, from the 24VAC supply to unit, must be in compliance with electrical codes (Class 2 power levels). Do not ground the 24VAC supply at the terminals or at the unit's power supply terminals.
11. **Coax Grounding** - If an outside cable system is connected to the unit, ensure that the cable system is grounded. U.S.A. models only - Section 810 of the National Electrical Code, ANSI/NFPA No.70, provides information regarding proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
12. **Grounding or Polarization** - This unit may be equipped with a polarized alternating current line plug (a plug with one blade wider than the other). This safety feature allows the plug to fit into the power outlet in only one way. If unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact an electrician to arrange replacement of the obsolete outlet. Do not defeat the safety purpose of the polarized plug.
    Alternately, this unit may be equipped with a 3-wire grounding plug (a plug with a third pin, for grounding). This safety feature allows the plug to fit into a grounding power outlet only. If unable to insert the plug into the outlet, contact an electrician to arrange replacement of the obsolete outlet. Do not defeat the safety purpose of the grounding plug.
13. **Lightning** - For added protection during a lightning storm, or when this unit is left unattended and unused for long periods of time, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power line surges.

For Indoor Product

1. **Water and Moisture** - Do not use this unit near water - for example, in a wet basement, in an unprotected outdoor installation or in any area classified as a wet location.
2. **Object and Liquid Entry** - Never push objects of any kind into this unit through openings, as they may touch dangerous voltage points or short out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the unit.
3. **Power Cord and Power Cord Protection** - For units intended to operate with 230VAC, 50Hz, the input and output power cord must comply with the latest versions of IEC Publication 227 or IEC Publication 245.
   Power supply cords should be routed so they are not likely to be walked on or pinched. Pay particular attention to location of cords and plugs, convenience receptacles, and the point of exit from the appliance.
4. **Overloading** - Do not overload outlets and extension cords; this can result in a risk of fire or electrical shock.

For Outdoor Product

Power Lines - An outdoor system should not be located in the vicinity of overhead power lines, electric lights or power circuits, or where it may contact such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching power lines or circuits, as this contact might be fatal. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.

For Rack-mount Product

1. **Ventilation** - This unit should not be placed in a built-in installation or rack, unless proper ventilation is provided, or the manufacturer's instructions have been adhered to. The equipment must not exceed its maximum operating temperature requirements.
2. **Mechanical Loading** - Mounting of the equipment in a rack shall be such that a hazardous condition is not achieved due to uneven mechanical loading.

Safety Precautions

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN!

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates the presence of uninsulated "dangerous voltage" within the product's enclosure. This may constitute a risk of electric shock.

The user should consult the operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

Power Disconnect. Units with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. The power cord is the main power disconnect for all units.

FCC & ICES INFORMATION

(U.S.A. and Canadian Models Only)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and ICES-003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer, or an experienced radio/TV technician for help.

Intentional or unintentional changes or modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such changes or modifications could void the user's authority to operate the equipment.The user may find the following booklet, prepared by the Federal Communications Commission, helpful: How to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Sécurité

ATTENTION

RISQUE D'ÉLECTROCUTION.
NE PAS OUVRIR !

ATTENTION : POUR ÉVITER TOUT RISQUE D'ÉLECTROCUTION, N'ESSAYEZ PAS DE RETIRER LE CAPOT (OU LE PANNEAU ARRIÈRE). CET APPAREIL NE CONTIENT AUCUN COMPOSANT SUSCEPTIBLE D'ÊTRE RÉPARÉ PAR L'UTILISATEUR. CONFIEZ LA RÉPARATION DE L'APPAREIL À DU PERSONNEL QUALIFIÉ.

Ce symbole signale que le produit renferme une « tension potentiellement dangereuse » non isolée susceptible de provoquer une électrocution.

Ce symbole invite l'utilisateur à consulter les instructions d'utilisation et d'entretien (dépannage) reprises dans la documentation qui accompagne l'appareil.

Attention : l'installation doit exclusivement être réalisée par du personnel qualifié, conformément au code national d'électricité américain (NEC) ou au code d'électricité local en vigueur.

Coupure de l'alimentation. Qu'ils soient pourvus ou non d'un commutateur ON/OFF, tous les appareils reçoivent de l'énergie une fois le cordon branché sur la source d'alimentation. Toutefois, l'appareil ne fonctionne réellement que lorsque le commutateur est réglé sur ON. Le débranchement du cordon d'alimentation permet de couper l'alimentation des appareils.

Sicherheitshinweise

VORSICHT

ELEKTRISCHE SPANNUNG.
NICHT ÖFFNEN!

VORSICHT: UM EINEN ELEKTRISCHEN SCHLAG ZU VERMEIDEN, IST DIE ABDECKUNG (ODER RÜCKSEITE) NICHT ZU ENTFERNEN. ES BEFINDEN SICH KEINE TEILE IN DIESEM BEREICH, DIE VOM BENUTZER GEWARTET WERDEN KÖNNEN. LASSEN SIE WARTUNGSARBEITEN NUR VON QUALIFIZIERTEM WARTUNGSPERSONAL AUSFÜHREN.

Das Symbol macht auf nicht isolierte „gefährliche Spannung" im Gehäuse aufmerksam. Dies kann zu einem elektrischen Schlag führen.

Der Benutzer sollte sich ausführlich über Anweisungen für die Bedienung und Instandhaltung (Wartung) in den begleitenden Unterlagen informieren.

Achtung! Die Installation sollte nur von qualifiziertem Kundendienstpersonal gemäß jeweils zutreffender Elektrovorschriften ausgeführt werden.

Unterbrechung des Netzanschlusses. Geräte mit oder ohne Netzschalter haben Spannung am Gerät anliegen, sobald der Netzstecker in die Steckdose gesteckt wird. Das Gerät ist jedoch nur betriebsbereit, wenn der Netzschalter (EIN/AUS) auf EIN steht. Wenn das Netzkabel aus der Steckdose gezogen wird, ist die Spannungszuführung zum Gerät vollkommen unterbrochen.

Precauciones de Seguridad

ATTENZIONE

PERICOLO DI SCOSSA ELETTRICA.
NON APRIRE.

PRECAUCIÓN: PARA DISMINUIR EL RIESGO DE DESCARGA ELÉCTRICA, NO RETIRE LA CUBIERTA (NI LA PARTE POSTERIOR). NO EXISTEN PIEZAS DE RECAMBIO EN EL INTERIOR DEL EQUIPO. EL PERSONAL DE SERVICIO CUALIFICADO SE ENCARGA DE REALIZAR LAS REPARACIONES.

Este símbolo indica que existen puntos de tensión peligrosos sin aislamiento dentro de la cubierta de la unidad. Estos puntos pueden constituir un riesgo de descarga eléctrica.

El usuario debe consultar las instrucciones de funcionamiento y mantenimiento (reparación) en la documentación que se suministra con el aparato.

Atención: la instalación la debe realizar únicamente personal cualificado de conformidad con el National Electric Code o las normas aplicables en su país.

Desconexión de la alimentación. Las unidades con o sin interruptores de encendido/apagado reciben alimentación eléctrica siempre que el cable de alimentación esté conectado a la fuente de alimentación. Sin embargo, la unidad sólo funciona cuando el interruptor está en la posición de encendido. El cable de alimentación es la principal fuente de desconexión de todas las unidades.

Veiligheidsmaatregelen

VOORZICHTIG

GEVAAR VOOR ELEKTRISCHE SCHOK. NIET OPENEN!

VOORZICHTIG: OPEN DE BEHUIZING OF DE ACHTERKANT VAN HET APPARAAT NIET. ZO VERMINDERT U HET RISICO OP ELEKTRISCHE SCHOKKEN. IN HET APPARAAT BEVINDEN ZICH GEEN ONDERDELEN DIE U ZELF KUNT REPAREREN. LAAT SERVICE EN ONDERHOUD UITVOEREN DOOR GEKWALIFICEERD PERSONEEL.

Dit symbool geeft aan dat er binnen in het apparaat ongeïsoleerde, gevaarlijke spanning aanwezig is die mogelijk elektrische schokken kan veroorzaken.

De gebruiker dient de bedienings- en onderhoudsvoorschriften te raadplegen in de documentatie die werd meegeleverd met het apparaat.

Attentie: het apparaat mag alleen door gekwalificeerd personeel worden geïnstalleerd. De installatie dient in overeenstemming met de nationale elektrische richtlijnen of de van toepassing zijnde lokale richtlijnen te worden uitgevoerd.

Spanning uitschakelen. Apparatuur met of zonder aan-uitschakelaar staat onder spanning zolang de stekker is aangesloten op de wandcontactdoos. De apparatuur is uitsluitend in werking als de aan-uitschakelaar aan staat. Het netsnoer is de "hoofdschakelaar" voor alle apparatuur.

Medidas de Segurança

CUIDADO

RISCO DE CHOQUE ELÉCTRICO. NÃO ABRIR!

CUIDADO: PARA REDUZIR O RISCO DE CHOQUE ELÉCTRICO, NÃO RETIRE A TAMPA (OU A PARTE POSTERIOR). NO INTERIOR, NÃO EXISTEM PEÇAS QUE POSSAM SER REPARADAS PELO UTILIZADOR. REMETA A ASSISTÊNCIA PARA OS TÉCNICOS QUALIFICADOS.

Este símbolo indica a presença de "tensão perigosa" não isolada dentro da estrutura do produto, o que pode constituir risco de choque eléctrico.

O utilizador deve consultar as instruções de funcionamento e manutenção (assistência) nos documentos que acompanham o aparelho.

Atenção: a instalação deve ser executada apenas por técnicos qualificados da assistência, de acordo com o código eléctrico nacional ou os códigos locais aplicáveis.

Corte de corrente. As unidades com ou sem interruptores ON-OFF (ligar/desligar) recebem corrente sempre que o fio de alimentação está introduzido na fonte de alimentação; contudo, a unidade apenas está operacional quando o interruptor ON-OFF está na posição ON. O fio de alimentação destina-se a desligar a corrente em todas as unidades.

Sicurezza

ATTENZIONE

PERICOLO DI SCOSSA ELETTRICA. NON APRIRE.

ATTENZIONE: PER RIDURRE IL RISCHIO DI SCOSSE ELETTRICHE NON RIMUOVERE LA COPERTURA (O IL PANNELLO POSTERIORE). L'UNITÀ NON CONTIENE COMPONENTI INTERNI RIPARABILI DALL'UTENTE. PER QUALSIASI INTERVENTO, RIVOLGERSI A PERSONALE TECNICO QUALIFICATO.

Questo simbolo indica la presenza di "tensione pericolosa" non isolata all'interno del contenitore del prodotto. Ciò comporta un potenziale rischio di scosse elettriche.

Si consiglia di consultare le istruzioni operative e di manutenzione (interventi tecnici) contenute nella documentazione fornita con il dispositivo.

Attenzione: l'installazione deve essere effettuata esclusivamente da personale tecnico qualificato in conformità con il National Electrical Code o con le normative locali vigenti.

Scollegamento dell'alimentazione. Le unità dotate o sprovviste di interruttori ON-OFF vengono alimentate quando si inserisce il cavo nella presa dell'alimentazione. L'unità è tuttavia in funzione solo quando l'interruttore ON-OFF si trova nella posizione ON. Il cavo di alimentazione costituisce il dispositivo di scollegamento dell'alimentazione principale per tutte le unità.

Zasady Bezpieczeństwa

UWAGA

NIEBEZPIECZEŃSTWO PORAŻENIA PRĄDEM ELEKTRYCZNYM. NIE OTWIERAĆ!

PRZESTROGA: ABY ZMNIEJSZYĆ RYZYKO PORAŻENIA ELEKTRYCZNEGO, NIE NALEŻY ZDEJMOWAĆ POKRYWY GÓRNEJ (ani tylnej). WEWNĄTRZ URZĄDZENIA NIE MA ŻADNYCH ELEMENTÓW, KTÓRE MOGĄ BYĆ NAPRAWIANE SAMODZIELNIE PRZEZ UŻYTKOWNIKA. SERWIS NALEŻY ZLECAĆ WYKWALIFIKOWANYM PRACOWNIKOM OBSŁUGI.

Ten symbol wskazuje na obecność nieizolowanego „niebezpiecznego napięcia" we wnętrzu urządzenia. Napięcie to grozi porażeniem elektrycznym.

Użytkownik powinien zapoznać się z instrukcjami obsługi i konserwacji (serwisu), zamieszczonymi w dokumentacji towarzyszącej urządzeniu.

Uwaga: Instalacja może być wykonywana wyłącznie przez wykwalifikowanych pracowników obsługi, zgodnie z zasadami kodeksu National Electrical Code lub innych obowiązujących norm.

Odłączanie zasilania Niezależnie od wyposażenia w wyłącznik zasilania, prąd do urządzenia jest doprowadzany zawsze, gdy przewód zasilania jest podłączony do źródła zasilania; jednak urządzenie działa tylko wtedy, gdy wyłącznik zasilania jest włączony. Przewód zasilania jest głównym wyłącznikiem zasilania we wszystkich urządzeniach.

Table of Contents

1 UNPACKING

Unpack carefully. This is electronic equipment and should be handled carefully.

Check for the following items:

- Verify the unit model number.
- One (1) cable assembly with 9-pin D-sub connectors.

If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper. If any items are missing, notify your Bosch Security Systems, Inc. Sales Representative or Customer Service.

The shipping carton is the safest container in which the unit may be transported. Save it for possible future use.

2 SERVICE

If the unit ever needs repair service, the customer should contact the nearest Bosch Security Systems, Inc. Service Center for authorization to return and shipping instructions.

Service Centers

USA: Phone: 800-366-2283 or 717-735-6638
fax: 800-366-1329 or 717-735-6639
CCTV Spare Parts
Phone: 800-894-5215 or 408-956-3853 or 3854
fax: 408-957-3198
e-Mail: BoschCCTVparts@ca.slr.com
Canada: 514-738-2434
Europe, Middle East & Asia Pacific Region:
32-1-440-0711

For additional information, see www.boschsecuritysystems.com.

WARNING: Electrostatic-sensitive device. Use proper CMOS/ MOSFET handling precautions to avoid electrostatic discharge.

NOTE: Grounded wrist straps must be worn and proper ESD safety precautions observed when handling the electrostatic-sensitive printed circuit boards.

3 DESCRIPTION

The LTC 8713 Series Alarm Port Expanders are used to interface multiple LTC 8540/00 Alarm Interface Units with an the Allegiant® series matrix switcher/controller system.

A single LTC 8713 Series Alarm Port Expander supports up to four LTC 8540/00 Alarm Interface Units. This provides the capability for up to 256 alarm input points. Multiple LTC 8713 units may be combined to provide up to 1024 alarm input points using up to sixteen LTC 8540/00 units. The actual number of units that can be used in a system depends upon the model of the Allegiant system being used. See Alarm Capacities table listing maximum number of LTC 8713 series units and LTC 8540/00 units that can be used with each Allegiant series system model.

3.1 Alarm Capacities

Allegiant System Model[1]	Maximum Number of Alarms	Maximum Number of LTC 8713	Maximum Number of LTC 8540/00
LTC 8500	128	1	2
LTC 8600	512	3	8
LTC 8800	1024	5	16
LTC 8900	1024	5	16

[1]The capacities shown apply to Allegiant CPU modules containing software revision 7.1 or later.

For each LTC 8540/00 unit used in an "alarm expanded configuration", one 12 VDC to 15 VDC, 5 W power supply[1] (not included) is required.

Each LTC 8540/00 unit is supplied with a single interface cable. This cable is used to connect a single LTC 8540/00 unit to one of the four expansion ports on the LTC 8713 Series Alarm Port Expander. The cable supplied with the LTC 8713 Series Alarm Port Expander must be used to connect the "SYSTEM" port on the LTC 8713 series unit to the "ALARM" port on the Allegiant series system. In certain configurations, the cable from one LTC 8713 series unit can be connected to an expansion port of a second LTC 8713 series unit that is being used as an "alarm expander hub". See typical applications under ILLUSTRATIONS.

[1]A TC120PS power supply may be used for 120 VAC, 50/60 Hz operation or a TC220PS power supply for 220-240 VAC, 50/60 Hz operation.

4 INSTALLATION

4.1 Power

Model No.	Rated Voltage[1]	Voltage Range	Nominal Power[2]
LTC 8713/60	120 VAC, 50/60 Hz	105 to 130	10 W
LTC 8713/50	220-240 VAC, 50/60 Hz	198 to 264	10 W

[1]The model number and operating voltage are shown on the bottom of the unit. These units are supplied with grounded power cords; grounding must not be defeated.

[2]At rated voltage.

4.2 Mounting

These units are supplied as desk top units. For rack mounting, the LTC 9101/00 rack-mount kit is available. These units are half-rack units.

4.3 Cover Removal

Removal of the cover and adjustment of internal controls should only be performed by qualified service personnel – not user serviceable. The unit should always be unplugged before removing the cover and remain unplugged while the cover is removed.

The cover is fastened to the chassis by two screws on the bottom near the rear of the unit. Disassembly is as shown.

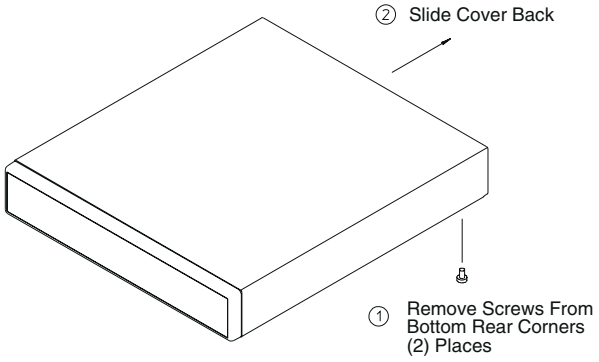


Figure 1 Cover Removal

4.4 DIP Switch Settings

The LTC 8713 Series Alarm Port Expander communicates with the Allegiant series main bay and the LTC 8540/00 Alarm Interface Unit via RS-232 communications. The LTC 8713 Series Alarm Port Expander contains internal DIP switches which can be used to set the communication parameters. The cover must be removed if the DIP switches need to be changed from their factory default settings. See Cover Removal. The following table summarizes the DIP switch settings and their associated features. Note that after changing any of the DIP switch settings, the AC power must be turned off and on before the changes can take effect.

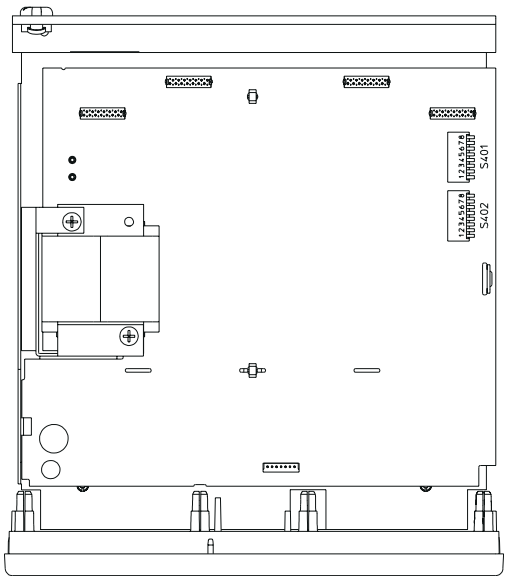


Figure 2 Location of DIP Switches

4.4.1 DIP Switch Settings

S402 DIP Switch: These settings must match those on the LTC 8540/00 Alarm Interface Unit.

Switch Number			Function
1	2	3	Baud Rate[1]
Off	Off	Off	19200 (Factory Default Setting)
Off	Off	On	9600
Off	On	Off	4800
Off	On	On	2400
On	Off	Off	1200
On	Off	On	600
On	On	Off	Reserved
On	On	On	Reserved
4			Handshaking
Off			Disable
On			Enable (Factory Default Setting)
5	6		Alarm Port Expander Mode
OFF	OFF		Alarm Port Expander
OFF	ON		Reserved
ON	OFF		Alarm Port Expander Hub
ON	ON		Reserved
7	8		Reserved

[1]Note that the default baud rate for LTC 8540/00 units starting with serial No. 1500 changed from 1200 to 19200.

S401 DIP Switch: These settings must match the "ALARM" Port settings on the Allegiant series main bay.

Switch Number			Function
1	2	3	Allegiant® System Baud Rate[1]
Off	Off	Off	19200 (Factory Default Setting)
Off	Off	On	9600
Off	On	Off	4800
Off	On	On	2400
On	Off	Off	1200
On	Off	On	57600 (Recommended for Hub Mode)
On	On	Off	Reserved
On	On	On	Reserved
4			Handshaking
Off			Disable (Factory Default Setting)
On			Enable
5			Stop Bits
Off			1 Stop Bit (Factory Default Setting)
On			2 Stop Bit
6	7	8	Reserved

[1]Allegiant default baud rate changed from 1200 to 19200 with release of CPU software revision 7.1.

1. Make sure power is turned OFF on the

Allegiant series main bay and the LTC 8713 Series Alarm Port Expander. Make sure that the external power supply used to power the LTC 8540/00 Alarm Interface unit is not connected to a wall outlet.

2. Using the cable supplied with the LTC 8540/00 Alarm Interface Unit, connect one end of the cable to "PORT 1" on the rear of LTC 8713 Series Alarm Port Expander. Connect the other end of the cable to the "RS-232" port on the LTC 8540/00.
3. Similarly, repeat step 2 for each LTC 8540/00 Alarm Interface Unit.
4. Using the cable supplied with the LTC 8713 Series Alarm Port Expander, connect one end of the cable to the connector marked "SYSTEM" on the LTC 8713 Series. Connect the other end of the cable to the connector marked "ALARM" on the Allegiant series system.

   In this configuration, 256 alarms can be configured using one LTC 8713 series unit and four LTC 8540/00 units. A LTC 8713, configured as an alarm port expander hub, may be used to extend the number of alarms to 1024. The LTC 8713 Series units can be configured as an alarm port expander hub via DIP switches S402-5 and S402-6. See Typical LTC 8713 Series Alarm Port Expander Application For More Than 256 Alarms under ILLUSTRATIONS. Note that when using the LTC 8713 as an alarm port expander hub, the baud rate must be set to 57600 via DIP switches S401-1 through S401-3. Refer to the applicable Allegiant system installation instructions to configure its alarm port to the 57600 baud rate.

5 OPERATION

1. Connect the external power to the LTC 8540/00 Alarm Interface Units. The power LED on the LTC 8540/00 Alarm Interface Units should be on.
2. Turn on the Allegiant Series main bay and the LTC 8713 Series Alarm Port Expander. The power LED on the LTC 8713 Series unit should be on.
3. Note that the system Tx LEDs on the front panel of the LTC 8713 Series indicate whenever alarm data is being sent to the Allegiant series unit from the LTC 8713 Series. The system Rx LEDs indicate when alarm data is being received from the Allegiant series unit. This data consists of "alarm verification" and "relay action" data. Both types of data are sent to the LTC 8713 unit immediately after the Allegiant series unit receives alarm data. This data will also be sent back and forth on an occasional basis to maintain current system status.
4. The "alarm" port Rx LEDs will indicate when alarm data is being received from the corresponding LTC 8540 Series Alarm Interface Unit. The "alarm" port Tx LEDs indicate that "alarm verification" data and "relay action" data is being sent to the respective LTC 8540/00 unit. This data will also be sent back and forth on an occasional basis to maintain current system status.

6 ILLUSTRATIONS

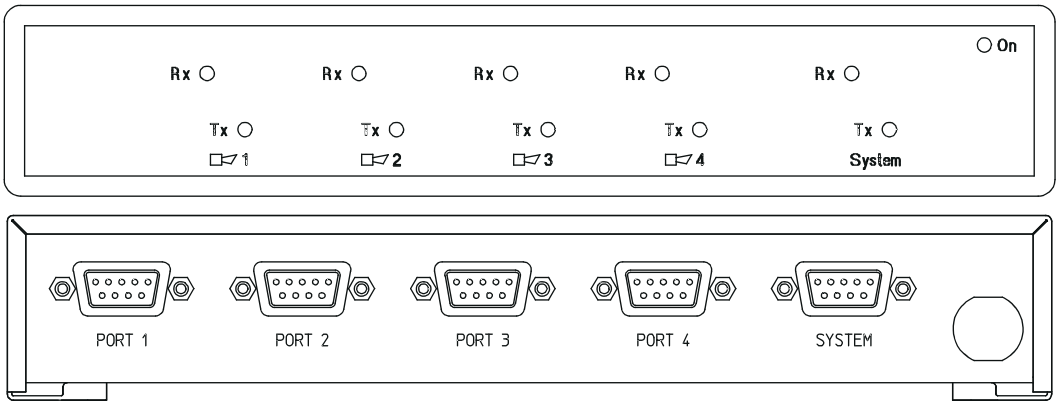
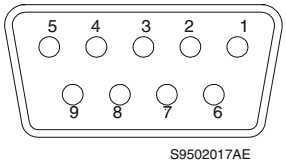
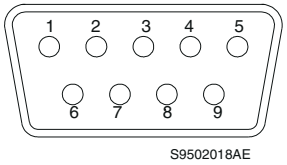


Figure 3 LTC 8713 Series - Front and Back Panels



Ports 1 Through 4 - Female 9-pin D-Sub Connector

Pin	Function
1	RTS
2	Tx (Transmit)
3	Chassis Ground
4	Data Ground
5	Data Ground
6	Rx (Receive)
7	CTS
8	NC (No Connection)
9	NC (No Connection)



System Port - Male 9-pin D-Sub Connector

Pin	Function
1	Chassis Ground
2	Rx (Receive)
3	Tx (Transmit)
4	CTS
5	RTS
6	Data Ground
7	Data Ground
8	NC (No Connection)
9	NC (No Connection)

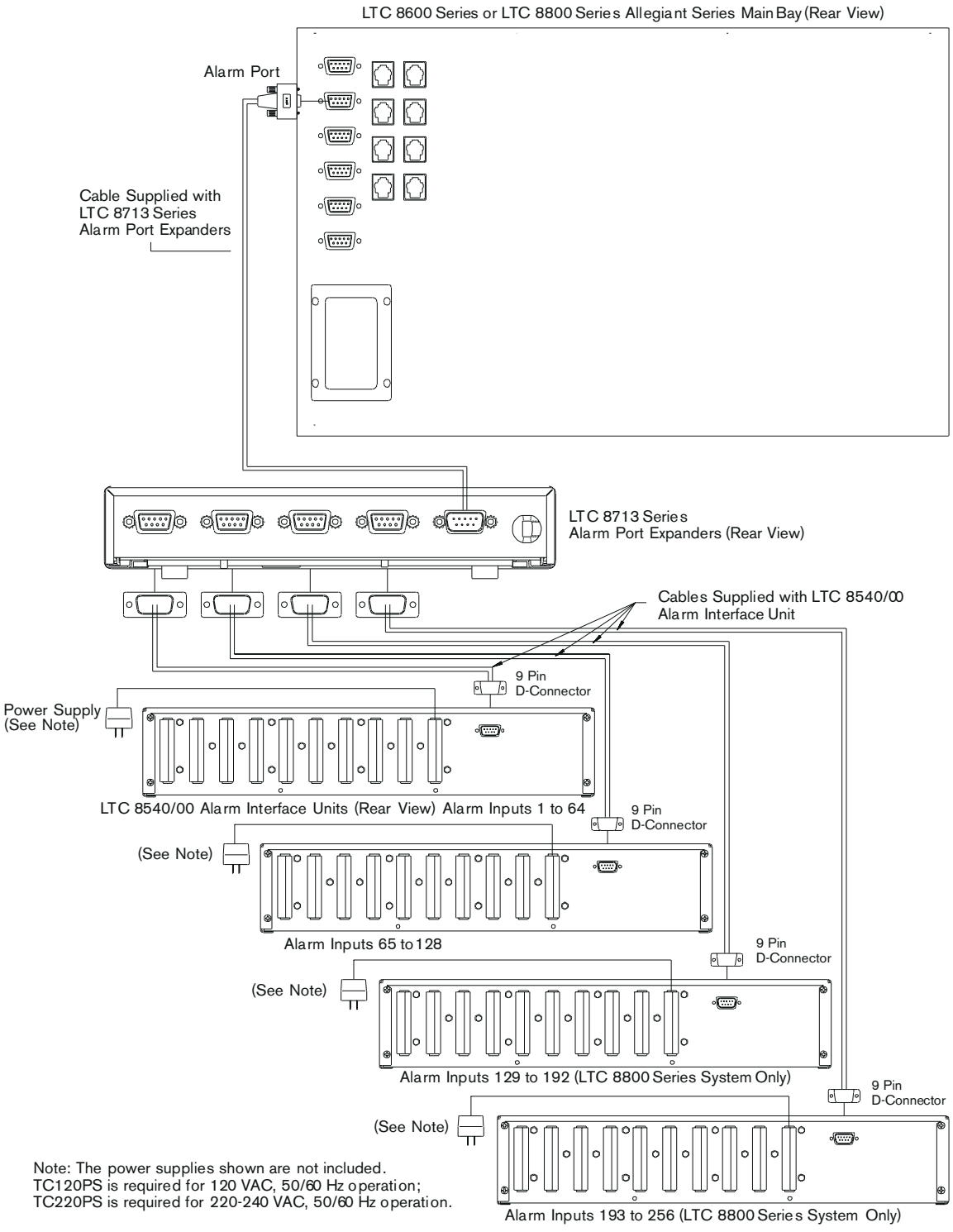


Figure 4 Typical LTC 8713 Series Alarm Port Expander Application for up to 256 Alarms

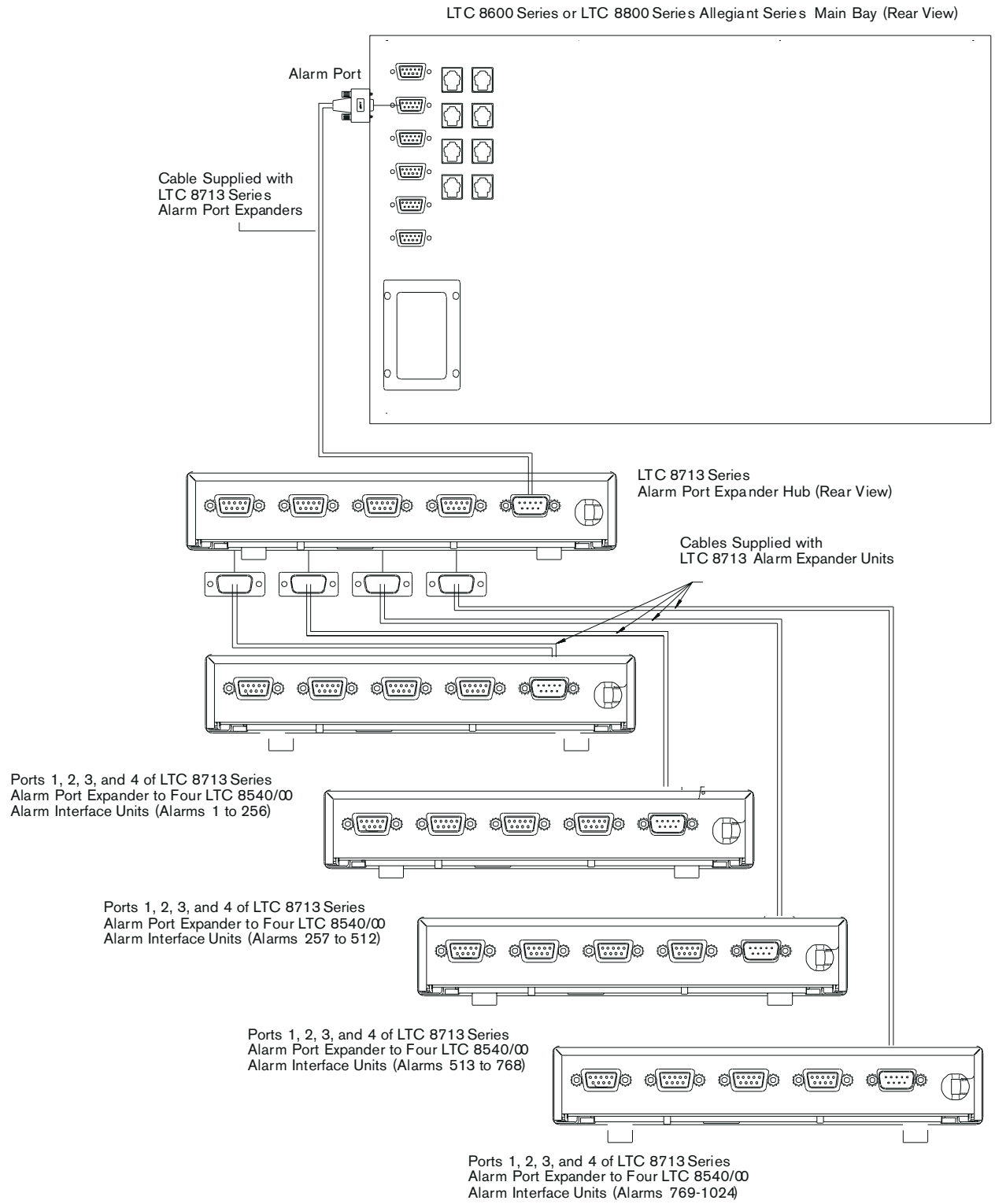


Figure 5 Typical LTC 8713 Series Alarm Port Expander Application for more than 256 Alarms

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3935 890 04712 04-06 | February 04, 2004 | Data subject to change without notice.

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