



**MegaPower™ LT  
Matrix Switcher/Controller System**

**ADMPLT16  
ADMPLT32  
ADMPLT16C2  
ADMPLT16C3  
ADMPLT32C2  
ADMPLT32C3**

Installation and Operation Instructions

## Notice

The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

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## Important Information

Before proceeding, please read and observe all instructions and warnings contained in this manual. Retain this manual with the original bill of sale for future reference and, if necessary, warranty service.

When unpacking your new American Dynamics product, check for missing or damaged items. If any item is missing, or if damage is evident, **DO NOT INSTALL OR OPERATE THIS PRODUCT.** Contact your dealer for assistance.

### NOTE

This product is supplied with a printed English manual. The manual is also provided in other languages (French, Spanish and German) on the included CD.

## For your Records

Complete the following product purchase information. The factory requests this information when contacted for technical support. It is also valuable in case of loss or theft.

Purchase Date: \_\_\_\_\_

Serial Number: \_\_\_\_\_

**⚠ WARNING**

INSTALLATION IS ONLY TO BE CARRIED OUT BY COMPETENT, QUALIFIED AND EXPERIENCED PERSONNEL. WIRE IN ACCORDANCE WITH COUNTRY OF INSTALLATION NATIONAL WIRING REGULATIONS.

ACCESS CAN ONLY BE GAINED BY SERVICE PERSONS. THERE ARE NO USER-ACCESS AREAS. ACCESS BY SERVICE PERSONS CAN ONLY BE GAINED BY THE USE OF AN APPROPRIATE TOOL.

THE EQUIPMENT SUPPLIED WITH THIS MANUAL IS DESIGNED FOR USE IN GENERAL PURPOSE CCTV INSTALLATION AND HAS NO OTHER FUNCTION. DO NOT EXCEED THE VOLTAGE AND TEMPERATURE LIMITS GIVEN IN THE SPECIFICATIONS. ONLY USE YOUR MATRIX IN A CLEAN, DRY, DUST-FREE ENVIRONMENT.

TO REDUCE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

THE MEGAPOWER LT MUST ONLY BE POWERED BY THE CLASS 2 INSULATED UL LISTED 15 WATT LPS SUPPLY (MP-PSU) PROVIDED.

POWER ISOLATION MUST BE PROVIDED VIA THE: PLUG; APPLIANCE COUPLER; ISOLATING SWITCH; CIRCUIT BREAKER, OR AN EQUIVALENT ELECTRICAL DEVICE IN CLOSE PROXIMITY TO THE EQUIPMENT.

A 3 AMP FUSE IN THE UK PLUG PROVIDES PROTECTION AGAINST OVERLOAD AND SHORT CIRCUIT. IN AREAS WHERE A UK PLUG IS NOT APPROPRIATE, SIMILAR PROTECTION MUST BE PROVIDED IN THE INSTALLATION.

**Electrical Safety**

British Standard BSEN60950:2001 Safety of information technology equipment Including electrical business equipment.

Underwriters Laboratories Inc. UL1950 Safety of information technology equipment, including electrical business equipment.

Canadian Standards Association CAN/CSA C22.2 No. 950-95.

**Radio Frequency Emissions**

British Standard EN50081-1:1992 Electromagnetic compatibility - Emission. Part 1. Residential, commercial and light industry.

British Standard BSEN55022:1998 Limits and methods of measurement of radio disturbance characteristics of information technology equipment.

**Immunity**

British Standard BSEN50130-4 Alarm Systems Part 4 Electromagnetic compatibility Product family standard: Immunity requirements for components of fire, intruder and social alarm systems.

**EU Conformance Statement**

A Declaration of Conformity in accordance with the above EU standards has been made and is on file with the manufacturer. The manufacturer declares that the product supplied with this document is compliant with the provisions of the EMC Directive 89/336 EEC, the Low Voltage Directive LVD 73/23 EEC, the CE Marking Directive 93/68 EEC and all associated amendments.

**Regulatory Notices**

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.

**⚠ AVERTISSEMENT**

L'INSTALLATION NE SAURAIT ÊTRE EFFECTUÉE QUE PAR UN PERSONNEL QUALIFIÉ ET EXPÉRIMENTÉ. BRANCHER ET RACCORDER EN CONFORMITÉ AVEC LES RÉGLEMENTATIONS EN VIGUEUR DANS LE PAYS OÙ EST INSTALLÉE L'UNITÉ.

L'ACCÈS NE PEUT ÊTRE OBTENU QUE PAR LES TECHNICIENS DE MAINTENANCE. L'ACCÈS DOIT ÊTRE STRICTEMENT INTERDIT À TOUT UTILISATEUR. L'ACCÈS PAR LES TECHNICIENS DE MAINTENANCE NE PEUT ÊTRE EFFECTUÉ QU'À L'AIDE D'UN OUTIL APPROPRIÉ.

L'ÉQUIPEMENT FOURNI AVEC LE PRÉSENT MANUEL EST CONÇU POUR ÊTRE UTILISÉ DANS LE CADRE GÉNÉRAL DE LA SURVEILLANCE PAR CAMÉRA À CIRCUIT FERMÉ (CCTV) ET N'A AUCUNE AUTRE FONCTION. NE PAS DÉPASSER LES SEUILS DE TENSION ET DE TEMPÉRATURE INDIQUÉS DANS LES CARACTÉRISTIQUES TECHNIQUES. N'UTILISER L'UNITÉ MATRIX QU'EN ENVIRONNEMENT PROPRE, SEC ET EXEMPT DE POUSSIÈRE.

POUR RÉDUIRE LES RISQUES D'ÉLECTROCUTION, NE PAS DÉPOSER LE COUVERCLE. AUCUN COMPOSANT NE PEUT ÊTRE RÉPARÉ PAR L'UTILISATEUR. FAIRE APPEL À UN TECHNICIEN DE MAINTENANCE COMPÉTENT.

POUR PRÉVENIR TOUT RISQUE D'INCENDIE OU D'ÉLECTROCUTION, NE PAS EXPOSER CETTE UNITÉ À LA PLUIE NI À L'HUMIDITÉ.

L'UNITÉ MEGAPOWERTM DOIT ÊTRE ALIMENTÉE PAR LE GROUPE DE CLASSE 2 UL ISOLÉ 15 WATTS (MP-PSU) FOURNI.

L'ISOLATION DOIT ÊTRE ASSURÉE PAR LE BIAIS DE LA PRISE, DU COUPLEUR DE L'UNITÉ, DU COMMUTATEUR ISOLANT, DU FUSIBLE PI DE TOUT DISPOSITIF ÉLECTRIQUE ÉQUIVALENT À PROXIMITÉ RAPPROCHÉE DE L'UNITÉ.

UN FUSIBLE DE 3 A DANS LA PRISE BRITANNIQUE ASSURE LA PROTECTION CONTRE LES SURCHARGES ET LES COURTS-CIRCUITS. DANS LES PAYS OÙ UNE PRISE BRITANNIQUE NE CONVIENT PAS, UNE PROTECTION SIMILAIRE DOIT ÊTRE APPORTÉE LORS DE L'INSTALLATION.

**Sécurité électrique**

Norme britannique BSEN60950:2001 : sécurité des équipements informatiques, notamment les équipements électriques commerciaux.

Underwriters Laboratories Inc. UL1950 – Sécurité des équipements informatiques, y compris les équipements électriques à usage professionnel.

Canadian Standards Association CAN/CSA C22.2 No. 950-95.

**Émission de fréquences radio**

Norme européenne EN50081-1:1992 – Compatibilité électromagnétique - Émissions. Section 1. Usage résidentiel, commercial et industriel limité.

Norme britannique BSEN55022:1998 : limites et méthodes de mesure des caractéristiques de perturbation radio des équipements informatiques.

**Immunité**

Norme britannique BSEN50130-4 : systèmes d'alarme, 4e partie, compatibilité électromagnétique Norme de famille de produits : caractéristiques d'immunité des composants des systèmes anti-incendie, anti-intrusion et d'alarme sociaux.

**Déclaration de conformité UE**

Une déclaration de conformité aux normes ci-dessus de l'Union européenne a été réalisée et est conservée chez le constructeur. Le constructeur déclare le produit accompagnant ce document conforme aux dispositions de la Directive 89/336 de la CEE sur la compatibilité électromagnétique, de la directive LVD 73/23 de la CEE sur les basses tensions et de la Directive 93/68 de la CEE et ses modifications sur la marque CE.

**Avis réglementaires**

Cet équipement est conforme au paragraphe 15 des réglementations de la FCC. Son utilisation est sujette aux deux conditions suivantes : (1) cet équipement ne doit pas générer d'interférences nuisibles et (2) cet équipement doit accepter les interférences éventuelles, notamment les interférences susceptibles de provoquer un fonctionnement indésirable.

**⚠️ ACHTUNG**

DIE INSTALLATION DARF NUR VON KOMPETENTEM, QUALIFIZIERTEM UND ERFAHRENEM PERSONAL AUSGEFÜHRT WERDEN. DIE VERKABELUNG MUSS GEMÄSS DER AM INSTALLATIONSORT GELTENDEN, NATIONALEN VERKABELUNGSVORSCHRIFTEN ERFOLGEN.

DER ZUGRIFF IST NUR DEM WARTUNGSPERSONAL MÖGLICH. ES SIND KEINE BENUTZERZUGÄNGLICHEN BEREICHE VORHANDEN. DER ZUGRIFF DURCH DAS WARTUNGSPERSONAL IST NUR MIT HILFE EINES GEEIGNETEN WERKZEUGS MÖGLICH.

DIE ZUSAMMEN MIT DIESEM HANDBUCH GELIEFERTE AUSTRÜSTUNG IST FÜR DEN GEBRAUCH IN ALLGEMEINEN CCTV-ANLAGEN KONZIPERT UND DIENT KEINEM ANDEREN ZWECK. DIE IN DEN TECHNISCHEN DATEN ANGEGEBENEN SPANNUNGS- UND TEMPERATURGRENZEN DÜRFEN NICHT ÜBERSCHRITTEN WERDEN. DIE SCHALTMATRIX DARF NUR IN EINER SAUBEREN, TROCKENEN UND STAUBFREIEN UMGEBUNG VERWENDET WERDEN.

UM DAS RISIKO VON STROMSCHLAG ZU REDUZIEREN, DARF DIE ABDECKUNG NICHT ENTFERNT WERDEN. DAS GERÄT ENTHÄLT KEINE DURCH DEN BENUTZER WARTBARE TEILE. WARTUNGSARBEITEN DÜRFEN NUR VON QUALIFIZIERTEM WARTUNGSPERSONAL DURCHGEFÜHRT WERDEN.

ZUM SCHUTZ GEGEN BRAND- ODER STROMSCHLAGEGFAHR DARF DAS GERÄT KEINEM REGEN ODER FEUCHTIGKEIT AUSGESETZT WERDEN.

DAS MEGAPOWER-LT-SYSTEM DARF NUR ÜBER DIE MITGELIEFERTE, ISOLIERTE, UL-GELISTET 15-WATT-VERSORGUNG (MP-PSU) GESPEIST WERDEN.

DIE STROMVERSORGUNG MUSS MITTELS DES FOLGENDEN UNTERBROCHEN WERDEN KÖNNEN: STECKER; GERÄTEKUPPLUNG; TRENNSCHALTER; SICHERUNG ODER EINE GLEICHWERTIGE ELEKTRISCHE VORRICHTUNG IN DER NÄHE DER AUSTRÜSTUNG.

EINE IM BRITISCHEN NETZSTROMSTECKER UNTERGEBRACHTE 3-AMPERE-SICHERUNG SICHERT DIE AUSTRÜSTUNG GEGEN ÜBERLASTUNG UND KURZSCHLUSS. WO EIN BRITISCHER STECKER NICHT ANGEBRACHT IST, MUSS EIN ÄHNLICHER SCHUTZ ÜBER DIE INSTALLATION ERFOLGEN.

**Elektrische Sicherheit**

British Standard BSEN60950:2001 – Sicherheit von informationstechnischer Ausrüstung, einschließlich elektrischer Geschäftsausrüstung.

Underwriters Laboratories Inc. UL1950 Sicherheit von informationstechnischer Ausrüstung, einschließlich elektrischer Geschäftsausrüstung.

Canadian Standards Association CAN/CSA C22.2 No. 950-95.

**Funkfrequenzemissionen**

Euronorm EN50081-1:1992 Elektromagnetische Kompatibilität – Emission. Teil 1. Wohnbereiche, kommerzielle und leichtindustrielle Umgebungen.

British Standard BSEN55022:1998 – Messgrenzen und -verfahren für Funkstörungscharakteristiken von informationstechnischer Ausrüstung.

**Immunität**

British Standard BSEN50130-4 – Alarmsysteme, Teil 4, elektromagnetischer Kompatibilitätsstandard für die Produktgruppe: Immunitätsanforderungen für Komponenten von Feuer-, Einbruchs- und öffentlichen Alarmsystemen.

**EU-Konformitätserklärung**

Eine Konformitätserklärung gemäß der o. g. EU-Standards ist erfolgt und liegt beim Hersteller vor. Der Hersteller erklärt, dass das mit diesem Dokument gelieferte Produkt die Anforderungen der Richtlinie für elektromagnetische Kompatibilität 89/336 EEC, der Richtlinie für Niederspannung LVD 73/23 EEC, der CE-Kennzeichnungsrichtlinie 93/68 EEC und aller diesbezüglichen Änderungen erfüllt.

**Aufsichtsbehördliche Hinweise**

Dieses Gerät entspricht Teil 15 der FCC-Richtlinien. Der Betrieb ist vorbehaltlich der beiden folgenden Bedingungen gestattet: (1) dieses Gerät darf keine schädlichen Störungen verursachen, und (2) dieses Gerät muss alle Störungen akzeptieren, einschließlich solcher, die den Betrieb beeinträchtigen könnten.

## **AVVERTENZA**

L'INSTALLAZIONE DEVE ESSERE ESEGUITA ESCLUSIVAMENTE DA PERSONALE COMPETENTE, ESPERTO E QUALIFICATO. COLLEGARE I CAVI IN CONFORMITÀ ALLE SPECIFICHE NAZIONALI DI INSTALLAZIONE.

L'ACCESSO È CONSENTITO SOLTANTO AL PERSONALE ADDETTO ALLA MANUTENZIONE. NON ESISTONO AREE ACCESSIBILI DA PARTE DELL'UTENZA. IL PERSONALE ADDETTO ALLA MANUTENZIONE PUÒ ACCEDERE SOLO UTILIZZANDO UNO STRUMENTO APPROPRIATO.

L'APPARECCHIO CUI QUESTO MANUALE SI RIFERISCE È DESTINATO ALL'USO IN INSTALLAZIONI GENERICHE PER TV A CIRCUITO CHIUSO E NON HA ALCUNA ALTRA FUNZIONE. NON SUPERARE I LIMITI DI VOLTAGGIO E TEMPERATURA INDICATI NELLE SPECIFICHE. USARE L'APPARECCHIO ESCLUSIVAMENTE IN AMBIENTI PULITI, NON UMIDI E NON POLVEROSI.

PER RIDURRE IL RISCHIO DI SHOCK ELETTRICI, NON RIMUOVERE IL COPERCHIO. L'INTERNO NON CONTIENE PARTI CHE L'UTENTE POSSA RIPARARE. RIVOLGERSI A TECNICI DI ASSISTENZA QUALIFICATI.

PER EVITARE IL RISCHIO DI INCENDI O SHOCK, NON ESPORRE L'APPARECCHIO ALLA PIOGGIA O ALL'UMIDITÀ.

IL SISTEMA MEGAPOWER LT DEVE ESSERE ALIMENTATO ESCLUSIVAMENTE CON L'ALIMENTATORE ISOLATO DI CLASSE 2 (CERTIFICATO UL) A 15 WATT (MP-PSU) ACCLUSO.

PER L'ISOLAMENTO ELETTRICO, SERVIRSI DI: SPINA, ACCOPPIATORE DEL DISPOSITIVO, INTERRUTTORE ISOLANTE, INTERRUTTORE DI CIRCUITO O DI UN DISPOSITIVO ELETTRICO EQUIVALENTE, INSTALLATO VICINO ALL'APPARECCHIO,

ALL'INTERNO DELLA SPINA DI TIPO BRITANNICO È PRESENTE UN FUSIBILE DA 3 AMPERE, CHE PROTEGGE DA SOVRACCARICHI E CORTI CIRCUITI. NEI PAESI IN CUI TALE SPINA NON È UTILIZZABILE, AL MOMENTO DELL'INSTALLAZIONE SI DEVE PREVEDERE UNA PROTEZIONE ANALOGA.

### **Sicurezza elettrica**

Standard britannico BSEN60950:2001 per la sicurezza delle apparecchiature informatiche, incluse le apparecchiature elettriche aziendali.

Underwriters Laboratories Inc. UL1950 per la sicurezza delle apparecchiature informatiche, incluse le apparecchiature elettriche aziendali.

Associazione standard canadesi CAN/CSA C22.2 No. 950-95.

### **Emissioni in radiofrequenza**

Standard europeo EN50081-1:1992, compatibilità elettromagnetica - emissioni. Parte 1. Installazioni residenziali, commerciali e dell'industria leggera.

Standard britannico BSEN55022:1998 per i limiti e i metodi di misurazione delle interferenze radio caratteristiche delle apparecchiature informatiche.

### **Inalterabilità**

Standard britannico BSEN50130-4 per i sistemi di allarme, parte 4, standard di compatibilità elettromagnetica per la tipologia di prodotti: requisiti di immunità per sistemi di allarme antincendio, anti-intrusione e di tipo sociale.

### **Dichiarazione di conformità UE**

In base agli standard UE summenzionati, è stata emessa una Dichiarazione di conformità che è archiviata nella sede del produttore. Il produttore dichiara che il prodotto fornito col presente documento è conforme alle prescrizioni della direttiva EMC 89/336 CEE, della direttiva sul basso voltaggio LVD 73/23 CEE, della direttiva sul marchio CE 93/68 CEE e di tutte le relative modifiche.

### **Avvisi normativi**

Questo dispositivo è conforme alle norme FCC, parte 15. Il funzionamento è soggetto alle due condizioni seguenti: (1) Il dispositivo non deve causare interferenze dannose; (2) il dispositivo deve sostenere le interferenze in ingresso, incluse quelle che potrebbero determinare un funzionamento non desiderato.

**⚠ ADVERTENCIA**

LA INSTALACIÓN DEBERÁ SER REALIZADA EXCLUSIVAMENTE POR PERSONAL COMPETENTE, CUALIFICADO Y CON EXPERIENCIA. LAS CONEXIONES ELÉCTRICAS SE REALIZARÁN EN CONFORMIDAD CON LA NORMATIVA NACIONAL EN MATERIA DE CABLEADO DE CADA PAÍS.

ACCESO SÓLO AUTORIZADO AL PERSONAL DEL SERVICIO TÉCNICO. NO HAY ZONAS DE ACCESO PARA USUARIOS. EL PERSONAL DEL SERVICIO TÉCNICO SOLAMENTE PODRÁ ACCEDER MEDIANTE EL USO DE UNA HERRAMIENTA ADECUADA.

EL EQUIPO QUE SE SUMINISTRA JUNTO CON ESTE MANUAL ESTÁ DISEÑADO PARA USO EN INSTALACIONES DE CCTV (CIRCUITO CERRADO DE TELEVISIÓN) DE PROPÓSITO GENERAL Y NO TIENE OTRA FUNCIÓN. NO SUPERE LOS LÍMITES DE TENSIÓN Y TEMPERATURA INDICADOS EN LAS ESPECIFICACIONES. USE LA MATRIZ SOLAMENTE EN UN AMBIENTE LIMPIO, SECO Y SIN POLVO.

CON EL FIN DE REDUCIR EL RIESGO DE DESCARGA ELÉCTRICA, EVITE RETIRAR LA CUBIERTA. EN EL INTERIOR NO HAY NINGÚN COMPONENTE QUE PUEDA SER REPARADO POR EL USUARIO. CUALQUIER REPARACIÓN DEBE SER REALIZADA POR PERSONAL DE SERVICIO DEBIDAMENTE CUALIFICADO.

PARA EVITAR RIESGO DE INCENDIO O DESCARGA ELÉCTRICA, NO EXPONGA ESTE EQUIPO A LA LLUVIA O A LA HUMEDAD.

EL MEGAPOWERTM DEBE ALIMENTARSE EXCLUSIVAMENTE CON LA FUENTE DE ALIMENTACIÓN (MP-PSU) DE 15 VATIOS, CON AISLAMIENTO INCLUIDA EN LA LISTA UL DE CLASE 2, QUE SE SUMINISTRA CON EL EQUIPO.

EL AISLAMIENTO DE LA ALIMENTACIÓN DEBE REALIZARSE POR MEDIO DE: CONECTOR; ACOPLADOR DEL EQUIPO; CONMUTADOR DE AISLAMIENTO; DISYUNTOR, O UN DISPOSITIVO ELÉCTRICO EQUIVALENTE SITUADO MUY PRÓXIMO AL EQUIPO.

EN EL CONECTOR DEL REINO UNIDO, UN FUSIBLE DE 3 A PROPORCIONA PROTECCIÓN CONTRA SOBRECARGA Y CORTOCIRCUITO. EN LOS LUGARES EN QUE NO SE PUEDEN UTILIZAR CONECTORES DEL REINO UNIDO, SE DEBE EMPLEAR UNA PROTECCIÓN SIMILAR EN LA INSTALACIÓN.

**Seguridad eléctrica**

British Standard BSEN60950:2001 Seguridad de equipos informáticos, incluidos equipos eléctricos de uso empresarial.

Underwriters Laboratories Inc. UL1950 Seguridad de equipos informáticos, incluidos equipos eléctricos de uso empresarial.

Canadian Standards Association CAN/CSA C22.2 N° 950-95.

**Emisión de radiofrecuencia**

European Standard EN50081-1:1992 Compatibilidad electromagnética - Emisión. Parte 1. Residencial, comercial e industria ligera.

British Standard BSEN55022:1998 Límites y métodos de medición de características de interferencias de radio para equipos informáticos.

**Inmunidad**

British Standard BSEN50130-4, Parte 4 de sistemas de alarma (Alarm Systems), estándar de compatibilidad electromagnética para familia de productos: Requisitos de inmunidad para componentes de sistemas de alarma antiincendios, contra intrusión y sociales.

**Declaración de Conformidad de la UE**

Se ha realizado la Declaración de conformidad en cumplimiento de las normas de la UE indicadas más arriba. El fabricante es el depositario de dicha declaración. El fabricante declara que el producto suministrado con esta documentación cumple las normas estipuladas por la Directiva sobre EMC 89/336 CEE, la Directiva sobre baja tensión LVD 73/23 CEE, la directiva sobre Marca CE 93/68 CEE y todas las enmiendas asociadas a éstas.

**Avisos sobre cumplimiento de la legislación**

Este dispositivo cumple la parte 15 de las normas de la FCC. Su utilización está sujeta a las siguientes dos condiciones: (1) Este equipo no puede provocar interferencias nocivas, y (2) este equipo debe aceptar cualquier interferencia recibida, incluidas las interferencias que puedan provocar un funcionamiento no deseado.

**⚠ WAARSCHUWING**

DE INSTALLATIE DIEN ALLEEN TE WORDEN UITGEVOERD DOOR DESKUNDIG, GEKWALIFICEERD EN ERVAREN PERSONEEL. INSTALLEER VOLGENS DE TER PLEKKE GELDENDE AANSLUITRICHTLIJNEN.

TOEGANG ALLEEN MOGELIJK DOOR SERVICEPERSONEEL. GEEN TOEGANG VOOR EINDGEBRUIKERS. SERVICEMEDEWERKERS KUNNEN ALLEEN TOEGANG VERKRIJGEN MET BEHULP VAN DAARVOOR GESCHIKT GEREEDSCHAP.

DE BIJ DEZE HANDLEIDING GELEVERDE APPARATUUR IS ONTWERPEN VOOR GEBRUIK IN ALGEMENE CCTV-INSTALLATIES EN HEEFT VERDER GEEN ANDERE FUNCTIE. STEL DE APPARATUUR NIET BLOOT AAN VOLTAGES EN TEMPERATUREN BOVEN DE AANGEGEVEN LIMIT. GEBRUIK UW MATRIX ALLEEN IN EEN SCHONE, DROGE, STOFVRIJE OMGEVING.

OM DE KANS OP ELEKTRISCHE SCHOKKEN TE VERMIJDEN, DIEN U DE KAP NIET TE VERWIJDEREN. HET APPARAAT BEVAT GEEN ONDERDELEN DIE DOOR DE GEBRUIKER KUNNEN WORDEN GEREPAREERD. LAAT ONDERHOUD UITVOEREN DOOR GEKWALIFICEERD ONDERHOUDSPERONEEL.

OM DE KANS OP BRAND OF ELEKTRISCHE SCHOKKEN TE VERMIJDEN, DIEN U DIT APPARAAT NIET AAN REGEN OF VOCHT BLOOT TE STELLEN.

DE MEGAPOWERT LT MAG ALLEEN WORDEN AANGESLOTEN OP DE MEEGELEVERDE, GEÏSOLEERDE (KLASSE-2), UL-GOEDGEKEURDE 15-WATT VOEDING (MP-PSU).

DE STROOMISOLATIE DIEN TE WORDEN VERZORGD VIA DE STEKKER, DE APPARAATAANSLUITINGEN, EEN ISOLEERSCHAKELAAR, EEN STROOMONDERBREKER OF EEN ANDER ELEKTRISCH APPARAAT IN DE NABIJHEID VAN DE INSTALLATIE.

IN GROOT-BRITTANNIË WORDT DE BESCHERMING TEGEN OVERBELASTING EN KORTSLUITING GEREGELD VIA EEN ZEKERING VAN 3 AMPÈRE IN DE STEKKER. IN GEBIEDEN WAAR EEN BRITSE STEKKER NIET GESCHIKT IS, DIEN T VOOR GELIJKWAARDIGE BESCHERMING TE WORDEN GEZORGD IN DE INSTALLATIE ZELF.

**Elektrische beveiliging**

Voldoet aan richtlijn BSEN60950:2001, de veiligheidsnorm voor IT- en elektrische apparatuur van British Standards.

Voldoet aan richtlijn UL1950, de veiligheidsnorm voor IT- en elektrische apparatuur van Underwriters Laboratories Inc.

Voldoet aan richtlijn CAN/CSA C22.2 No. 950-95 van de Canadian Standards Association.

**Radiofrequentiestraling**

Voldoet aan richtlijn EN50081-1:1992 inzake elektromagnetische compatibiliteit - Straling. Deel 1. Woonwijken, bedrijven en lichte industrie.

Voldoet aan richtlijn BSEN55022:1998, de norm inzake de grenzen van en methoden voor het meten van radiostoringskenmerken van IT-apparatuur van British Standards.

**Immunititeit**

Voldoet aan BSEN50130-4, deel 4 van de richtlijn voor de elektromagnetische compatibiliteit van alarmsystemen: immuniteitsvereisten voor onderdelen in brand-, inbraak- en sociale alarmsystemen.

**Verklaring van EU-conformiteit**

Er is overeenkomstig de bovenstaande EU-standaards een conformiteitsverklaring opgesteld die kan worden opgevraagd bij de fabrikant. De fabrikant verklaart dat het bij dit document meegeleverde product voldoet aan de voorwaarden van EMC-richtlijn 89/336 EEC, Laagspanningsrichtlijn LVD 73/23 EEC, CE-richtlijn 93/68 EEC en alle aanverwante wijzigingen.

**Regelgevende opmerkingen**

Dit apparaat voldoet aan deel 15 van de FCC-richtlijnen. Werking is onderhevig aan de volgende twee voorwaarden: (1) Dit apparaat mag geen schadelijke straling veroorzaken, en (2) dit apparaat moet storingen die worden opgevangen kunnen verwerken, inclusief storingen die ongewenste werking kunnen veroorzaken.



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## Chapter 1: Layout and Installation

This chapter describes the layout of the MegaPower LT. It also describes the procedure that should be followed to unpack, mount, connect and install the unit.

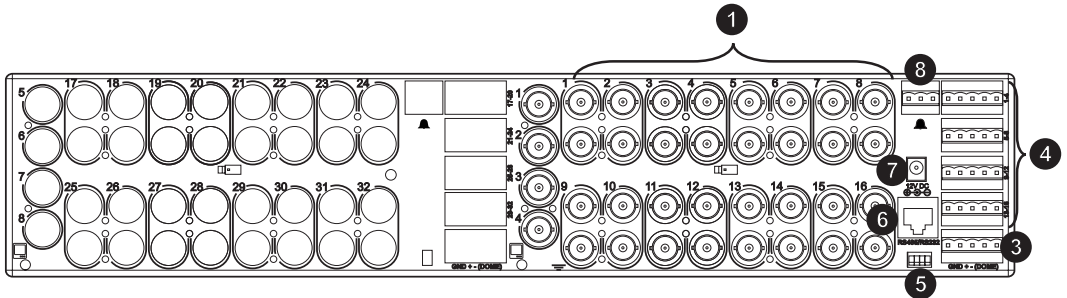
### Layout and Connections

The MegaPower LT is a matrix to which video sources and monitor can be connected. By connecting a keyboard to the MegaPower LT, the matrix can be used to manage the display of the video sources on the monitors.

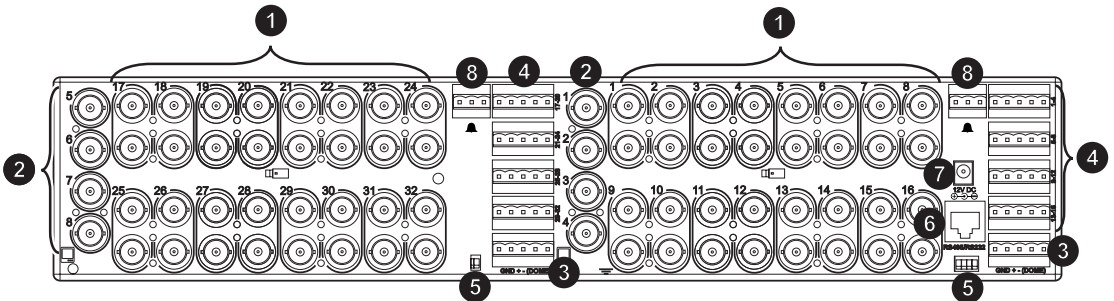
Alarm inputs and auxiliary outputs can also be connected to the MegaPower LT, and their operation can also be controlled using a connected keyboard.

The MegaPower LT stores a menu system through which all connected devices can be configured.

#### MegaPower LT (16x4)



#### MegaPower LT (32x8)



### **1 Video Inputs**

The 32x8 unit has 32 video input connections. The 16x4 unit has 16 video input connections. They are BNC loop-through connectors with automatic termination. Each connector is labelled on the unit.

### **2 Video Outputs**

The 32x8 unit has 8 video output connections. The 16x4 unit has 4 video output connections. Connect output connector 1 to monitor 1, output connector 2 to monitor 2, etc. Each connector is labelled on the unit.

### **3 Dome Control**

The unit has a connection for RS485 Sensornet dome cameras. Up to 32 dome cameras can be looped from this connection. See page 7 for more details.

### **4 Alarm Inputs**

The alarm input connectors are of a plug assembly type. Each plug has one ground connection and four alarm input connections. The MegaPower LT 32x8 can have up to 32 alarm inputs while the MegaPower LT 16x4 can have up to 16. See page 9 for more details.

### **5 Dip Switches**

These dip switches are used for RS485 network and dome camera control biasing and termination. See page 10 for more details.

### **6 Remote Keyboard**

The unit can be connected to RS232 and RS485 remote keyboards via a RJ45 connector. It provides an upload/download function for UTC and matrix devices.

### **7 Power Connection**

The unit is powered via the supplied UL listed, class 2 LPS 12V DC power supply. Cable retention is provided.

### **8 Auxiliary Outputs**

The auxiliary output connector is of a plug assembly type. There are a maximum of two voltage-free output relays available, providing normally-open and normally-closed contacts (maximum rating 24V, 2A resistive load). See page 9 for more details.

## **IMPORTANT NOTE**

In the event of power interruption, the MegaPower LT will lose current camera and monitor selections and revert to its default settings upon reconnection of the supply.

All monitor and camera pairings must be re-entered if required. However, any tours or views that were active do not need to be re-entered as they will restart.

If this recovery action is not sufficient for the application, it is recommended that the unit and its associated equipment is supplied from a secure and uninterruptible power supply.

## Unpacking

The packaging should contain the following items. Check all product codes on the label. If you have an incorrect item or it is damaged then inform your supplier and the carriers immediately. If the equipment is incorrect or damaged, do not attempt to use it.

- The MegaPower LT unit
- MP-PSU power supply unit
- UK cable and plug - plug to BS1363 fitted with a 3 Amp standard fuse and IEC C7
- USA cable and plug - UL listed 18 AWG SPT cable with USA NEMA 1-15 P plug and IEC C7
- Standard mainland European cable and plug - UL listed 18 AWG SPT cable with 2 pin EUROPLUG EN 50075 2.5 A 250 Volt plug and IEC C7
- 7 foot/2 meters long category 5 connecting cord terminated with RJ45 connectors (MP-CBL)
- Two mounting brackets with screws
- These instructions and a CD holding the manual in other languages
- ADCC0200 keyboard (ADMPLT16C2 and ADMPLT32C2 only)
- ADCC0300 keyboard (ADMPLT16C3 and ADMPLT32C3 only)

Kits are available (ADCCACPSN and ADCCACPSP) when multiple network keyboards are used. This kit includes:

- MP-KMI Keyboard Matrix Interface
- 7 foot/2 meters long category 5 connecting cord terminated with RJ45 connectors (MP-CBL)
- MP-PSU power supply unit

For multiple network keyboard installations, Belden network cable (Belden 8761 or equivalent single twisted pair, screened, 22 AWG) may be required. This is to be provided by the installer.

## Installation Guidelines

Installation of all CCTV equipment is to be carried out to national or international electrical codes. For a more detailed reference, refer to:

- United States - National Fire Protection Association (NFPA70), United States National Electrical Code.
- Canada - Canadian Electrical Code, part 1, CSA C22.1.
- Other Countries - International Electromechanical Commission (IEC) 60364, Part 1 through Part 7.

## Mounting the Unit

All models of the MegaPower LT unit are equipped with mounting holes and are supplied with screws and brackets for the optional fitting to a suitable rack or wall. Should the unit be mounted, particular attention should be paid to ensure that the specification of the equipment is not compromised. In particular, airflow, access, power isolation, weight and any possible contamination should be considered, as should the potential for any abuse that may lead to an operational malfunction or safety violation.

When choosing a suitable location for the unit, ensure:

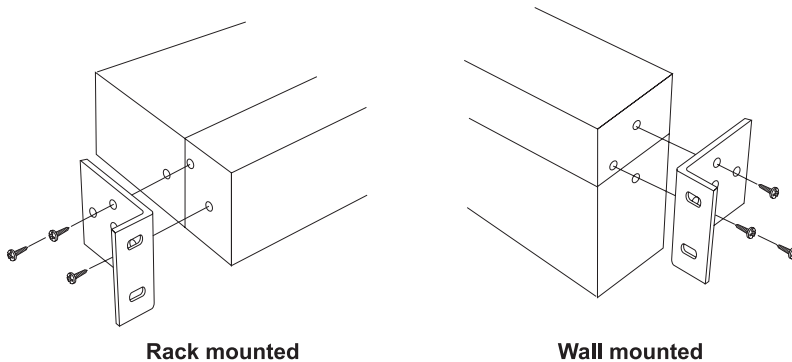
- An electrical output socket with overload and short circuit protection is located within a suitable distance for the included MP-PSU power supply.
- The power supply cord cannot become pinched or trapped under a heavy object. The power cord should be routed so that it is not likely to be walked on.

When fixing the MegaPower LT into a either a 19" rack or onto a wall:

1. Fix the mounting brackets with the screws supplied. See the diagrams shown below for guidance.
2. Screw the bracket mounted MegaPower LT into a either a 19" rack or onto a wall.

### △ CAUTION

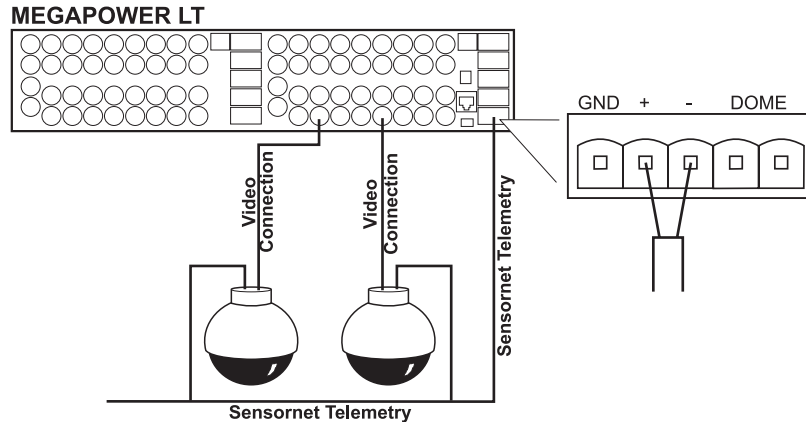
- Screws used to fix the MegaPower LT into either a 19" rack or onto a wall must be of a suitable size and strength.
- When fixing the MegaPower LT onto a wall, the wall must be durable enough to take the weight of the unit.



## SensorNet Dome Connections

Video inputs that use UTC (AD Up-the-Cable) communication protocol communicate with the MegaPower LT through the video BNC connection. However, video inputs using SensorNet telemetry control (i.e., typically SensorNet dome cameras) require a second connection. For this reason, a telemetry connection is provided for SensorNet dome cameras (two on MegaPower LT 32x8).

Connect SensorNet dome cameras to the MegaPower LT as shown in the figure below. Up to 32 data connections can be looped from this connection.



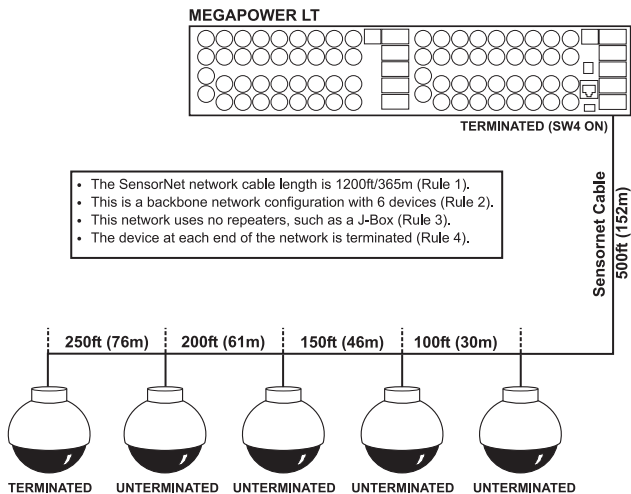
### NOTES

- The distance from the MegaPower LT to the last dome must not exceed 3300 feet/ 1000 meters. If star wiring is used, this distance will be greatly reduced.
- It may be necessary to terminate the dome control connection using a dip switch on the MegaPower LT. See page 8 for more details.
- SensorNet dome cameras must be addressed in the menu system. See page 16 for more details.

## SensorNet Termination and Wiring

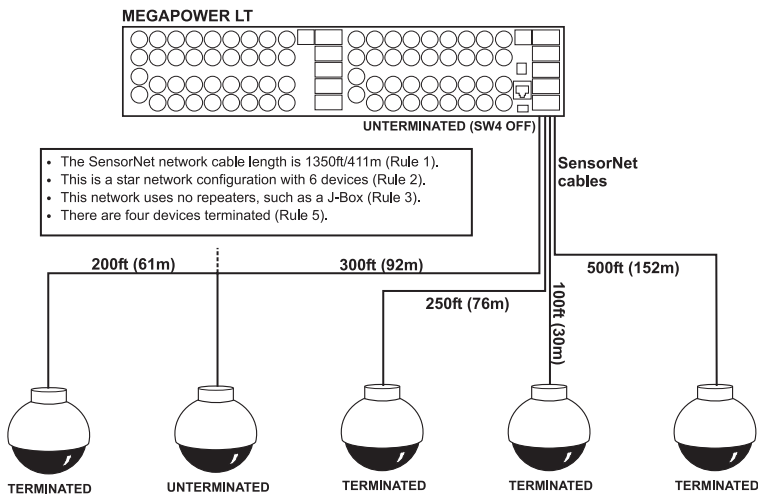
The following rules must be observed when working with a SensorNet network:

1. Each SensorNet link has a maximum length of 3300 feet/1000 meters (using AWG 22 unshielded twisted-pair cable).
2. There can be a maximum of 32 devices in each SensorNet link.
3. There can be a maximum of 4 repeaters in the path of any 2 devices in a network.
4. In a backbone network configuration, there must always be 2 terminations, one at each end of the network.
5. In a star network configuration, there must be no more than 4 terminations.
6. Receivers on SensorNet devices will operate satisfactorily at signal levels between 5V and 0.3V (differential peak-to-peak).



- The SensorNet network cable length is 1200ft/365m (Rule 1).
- This is a backbone network configuration with 6 devices (Rule 2).
- This network uses no repeaters, such as a J-Box (Rule 3).
- The device at each end of the network is terminated (Rule 4).

SensorNet Backbone Network Configuration



- The SensorNet network cable length is 1350ft/411m (Rule 1).
- This is a star network configuration with 6 devices (Rule 2).
- This network uses no repeaters, such as a J-Box (Rule 3).
- There are four devices terminated (Rule 5).

SensorNet Star Network Configuration

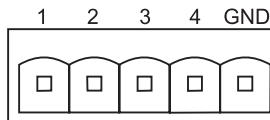


## Alarm Input Connections

Each model of MegaPower LT has the same number of alarm inputs as camera inputs. The alarm inputs are located on removable five way-terminal blocks, with each plug holding four alarm input connections and one ground connection. The MPLT senses physically connected alarms (via dry contacts). These inputs can be individually configured in the menu system as normally-open or normally-closed contacts.

To connect alarm inputs:

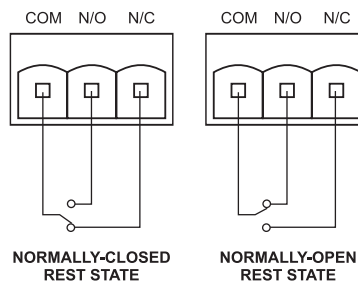
1. Remove the required five-way terminal block.
2. Connect each terminal to an alarm relay, with connections made as labelled in the diagram below:
3. Group the returns and lead them into the ground connection.
4. Return the five-way terminal block to its position on the MegaPower LT.



In the menu system, the alarm input connections are normally-closed by default. If connecting normally-open alarms, ensure that the alarm input sense is re-configured in the menu system (see page 34).

## Auxiliary Output Connections

MegaPower LT 16x4 models have one auxiliary output and MegaPower LT 32x8 models have two. To connect an auxiliary output, remove the three-way terminal block and connect alarm or auxiliary equipment in one of the relay configurations shown below:



The auxiliary output will operate in the rest state until it is triggered, at which point it will switch to the active state. Once connected, an auxiliary output can be added to alarm responses in the menu system so that when an alarm or event occurs, the auxiliary output will switch to the active state (see page 35).

## Dip Switch Settings

### Keyboard Dip Switches

Keyboard have built in network termination and biasing. For most small to medium sized installations, it should not be necessary to change the switches from their default settings. Large installations may require network biasing and/or terminating. Please refer to your keyboard handbook for details.

### MegaPower LT Dip Switches




The MegaPower LT dip switches are used for RS485 network and dome camera control biasing and termination. For most small to medium sized installations, it should not be necessary to change the switches from their default settings. Large installations may require network biasing and/or terminating. The default setting for all four switches is **OFF** (down).

There is one dome control dip switch to be set on the MegaPower LT 16x4, but the user must set two dome control dip switches on the MegaPower LT 32x8.

Network Setting	Switch 1	Switch 2	Network Setting	Switch 3	Dome Control	Switch 4
Biased	ON	ON	Terminated	ON	Terminated	ON
Not Biased	OFF	OFF	Not Terminated	OFF	Not Terminated	OFF

## Setting the Keyboard ID

Before a user can program the MegaPower LT using the built-in menu system, the connected keyboard must be given an ID and the baud rate must be set correctly. Each keyboard in the system needs to have a unique ID. ID's are from 1 to 8, with ID 1 having the highest priority. To change the ID of a connected keyboard, follow the steps below:

1. Connect the power to the keyboard.
2. Within 5 seconds of connecting the power, press the SHIFT () and MENU ESCAPE () keys simultaneously.
3. The LCD display on the keyboard will display:  
Special Config
4. Within 5 seconds, press the REVERSE PLAY () key.
5. At the "Enter keyboard address" prompt, use the number keys to enter the keyboard address required (default is 1).
6. Press the ENTER key.
7. Move on to **Setting the Keyboard Baud Rate**.

---

## Setting the Keyboard Baud Rate

The current keyboard baud rate setting can be seen when the keyboard is powered up. Optimum performance of the MegaPower LT is achieved by setting the keyboard baud rate to 19200. To change the baud rate of a connected keyboard, follow the steps below:

1. Connect the power to the keyboard.
2. Within 5 seconds of reconnecting the power, press the SHIFT (⇧) and MENU ESCAPE (⌘) keys simultaneously.
3. The LCD display on the keyboard should display:  
Special Config
4. Within 5 seconds, press the REWIND (⏮) key.
5. At the "1=RS485 2=RS232" prompt, select the required mode and then press the ENTER key. It should be noted that the default is RS485.
6. The LCD display will show the first baud rate options. Use the 0 key to toggle through the available options.
7. Press the number key for the desired baud rate.

### NOTE

Reducing the baud rate from the optimum setting will reduce the number of keyboards that can perform telemetry operations at any one time.

## Chapter 2: The Menu System

The menu system is used to program the MegaPower LT as required using the keyboard. This chapter give details about how to use the menu system. Menu operation and navigation is documented for RS485 keyboards. RS232 keyboard functionality may differ.

---

### Status Levels

There are three different user status levels, two of which have access to the menu system.



**Operator** – only operates the system. No menu access allowed.

**Supervisor** – is able to modify settings within the Supervisor menu.


**Administrator/Installer** – has access to all menu items.

### Menu Navigation

A keyboard joystick can be used to navigate the menu system. In general, a menu item is selected and edited as follows:

1. Use Joystick Up/Down movements to move between menu items. The currently selected menu item will flash.
2. Use the ENTER key or Joystick Right to select a menu item.
3. In the resulting screen, use:
  - The Joystick Up/Down movement to move through the menu items in a screen.
  - The Joystick Left/Right to toggle through and select the options for a menu item.
  - The numerical keys to input numerical data.
  - The SHIFT () key held down whilst using Joystick Up/Down movements to change between capital letters and lower-case.
  - The MENU ESCAPE () key to return to the previous menu.

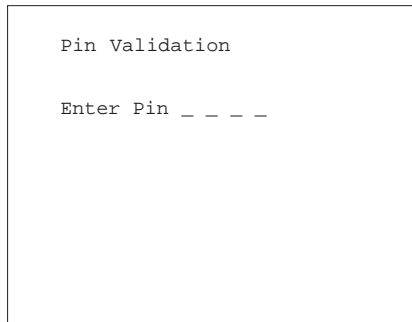
#### NOTES

- When menu items are being edited, automatic functions (e.g. alarms and tours) cease operating.
- Menus can be displayed on any monitor, however only one monitor can display the menus at once.
- Any operation calling for the use of the SHIFT () key requires this key to be held down whilst another key is pressed. This is the same way in which the SHIFT key operates on a PC keyboard.
- When making changes in a screen, use the Joystick Down command to scroll through the fields, completing each one in turn. Scrolling back up the screen after changes have been made will cause the changes to be lost.

## Entering the Menu System

To enter the menu system, follow the steps below:

1. Select a monitor by entering the monitor number and pressing the MONITOR (M) key.
2. In multi-matrix networks it is also necessary to select a unit. To do this, enter the address of the unit, then hold down the SHIFT (⇧) key and press the SITE SELECT (S) key.
3. Press the SHIFT (⇧) key and the MENU (M) key together.
4. A screen will be displayed prompting for a password.



5. Enter the pin number using the numerical keys.

The factory default pin numbers for the:

- Supervisor menu is 0, 0, 0, 0.
- Administrator menu is 1, 7, 7, 6.

PIN INVALID is displayed if an incorrect pin number is entered.

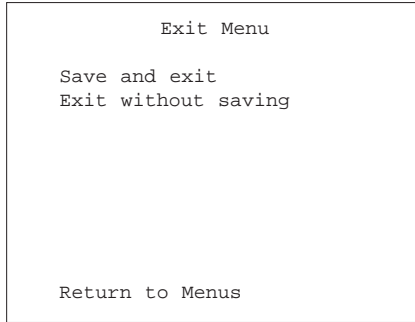
Once the pin number has been correctly entered, the **Administrator** menu or **Supervisor** menu is displayed.

### NOTES

- It is strongly advised that you change the default passwords as soon as possible in order to maintain system security. See page 18.
- If a password is lost, a recovery system is available. See **Password Recovery** on page 46.
- Only RS-485 Mode will provide different User Levels, i.e.: Admin, Supervisor, etc. RS-232 Keyboards (ADCC300 & ADCC1100 enter MPLT Menus w/o Password. (Keyboard Password required for security). RS-232 Keyboard (ADCC200) does not allow MPLT Menu Entry.

## Saving and Exiting

It is important to know how to save changes in the menu system before they are made.



To save changes to the menu system, follow the steps below:

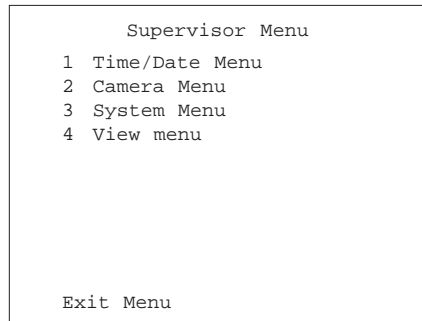
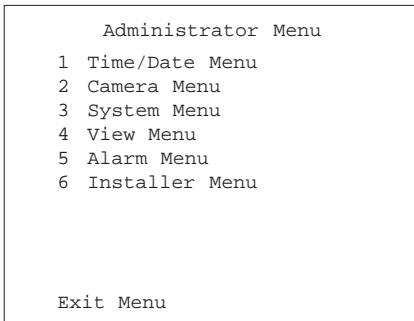
1. Select the **Return to** option at the bottom of each screen until the **Administrator** menu or **Supervisor** menu is displayed.
2. Select the **Exit Menu** option at the bottom of the screen to enter the **Exit** menu (see figure above).
3. Either:
  - Select **Save and exit** to save changes made and then exit the menu system.
  - Select **Exit without saving** to exit the menu system without saving the changes made.

### ⚠CAUTION

If the menus are left idle for 180 seconds or over the menu will time out without saving.

## Administrator and Supervisor Menus

Users with Administrator status level have access to alarm and installation features as well as all the functions available to the Supervisor.



## Time/Date Menu

The **Time/Date** menu is used to program the time and date, and to select whether daylight saving time should be implemented in the system.

```
1 Time/Date Menu
1.1 Time format :12H
1.2 Date format :mmddy
1.3 Set time    :12:00:00
1.4 Set date   :21:06:02
1.5 DST       :FORWARD

Apply new time and date

Return to Menu
```

### Programming the Time and Date

To program the time and date, follow the steps below:

1. In the **Supervisor** menu or **Administrator** menu, select the **Time/Date Menu** option.
2. In the **Time/Date** menu, move to the **Time format** option.
3. Use the right joystick command to select **24H** or **12H**. Note that in 12 hour format, a.m. times are displayed **09.54 AM** and p.m. times are displayed **09.54 PM**.
4. Move to the **Date format** option.
5. Use the right joystick command to select **mmddy**, **ddmmyy** or **yymmdd**. The default is **mmddy**.
6. Move to the **Set time** option. The hours parameter is automatically selected.
7. With the hours parameter selected, use the number keys to enter the desired hour in a two digit format, i.e. 02, 13, etc. Advance the cursor to the minutes parameter using the right joystick command and then use the number keys to input the minutes. The time in this field should always be entered in 24 hour format regardless of how the time will actually be shown on-screen.
8. Move to the **Set date** option.
9. Use the numeric keys to enter the day, month and year. Use the right joystick command to move between each part of the date. The date should be entered in the format that is currently selected in the **Date format** field.
10. When the required changes have been made, select the **Apply new time and date** option.
11. To leave the menu, select the **Return to Menu** option.

### DST (Daylight Saving Time)

The **DST** menu item is used to select **BACK** or **FORWARD** on the day prior to the time change. The system will then put the clock back or forward by an hour the next time the time reaches 2 a.m. After the time change has been made, the **DST** option then automatically resets to **NONE**.

#### NOTE

The unit has a battery-backed clock that retains the correct time, date and all other programmed data in the event of a loss of power.

## Camera Menu

The **Camera** menu is used to:

- Give each camera input a title.
- Inputs can be enabled or disabled. Disabling the video input will disable camera selection from a keyboard.
- Define the communication type that will be used with each input.

```
      2 Camera Menu
Input number C1
Title
CAMERA 01
Input           :ENABLE
Communication   :UTC
Physical address :891
Channel         :A

Return to Menu
```

### Configuring Camera Options

To configure camera options, follow the steps below:

1. In the **Supervisor** menu or **Administrator** menu, select the **Camera Menu** option.
2. In the **Camera** menu, move to the **Input number** option.
3. Using the number keys, enter the number of the video input to be edited.
4. Move to the **Title** option. Press enter key to start editing camera title. Press enter key when editing is complete.
5. Use the joystick to amend the title. To do this, select the character to be edited using left/right joystick commands and edit the selected character using up/down joystick commands. Use the SHIFT (⇧) key in conjunction with up/down joystick commands to change between upper and lower case characters.
6. Move to the **Input** option.
7. Use the right joystick command to either **Enable** or **Disable** the camera video input.



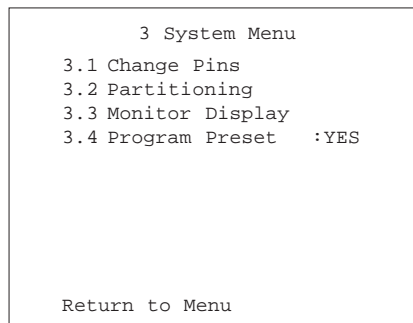
8. Move to the **Communication** option.
9. Use the right joystick command to select either **OFF**, **UTC**, **SNET** or **SNET-V** (for SDU7 and above). Select **UTC** when AD Up-the-Cable (UTC) protocol is to be used to communicate with the camera input or select **SNET** where Sensornet telemetry control is to be used. Select **OFF** if the input does not use either of these communication protocols.
10. If the **Communication** option is set to **SNET**, it is necessary to set an address for the video input in the **Physical Address** field. The address that is entered must match the input's local address (e.g., the address set inside the dome camera). It does not need to match the video input number.  
If the **Communication** option is set to **UTC**, the **Physical address** field will be disabled and the address is automatically set to **891**. Note that if a connected dome camera is using UTC communication, the dome camera address must be set locally to **891**.
11. The **Channel** option is only enabled when the **Communication** option is set to **SNET**. This field should be set to **A** for MPLT 16 or **A** and **B** for MPLT 32. Verify that the dome data connection is made to the correct port on the rear of the MPLT.
12. Once amendments are complete, select the **Return to Menu** option.

#### NOTES

- Video loss can only be reported on the selected camera.
- The feature will disable automatically if the video signal is changed.

## System Menu

The **System** menu is used to change pin numbers, set up partitioning and to configure monitor displays. It is also used to enable and disable the **Program Preset** feature.



### Enabling and Disabling the Program Preset Feature

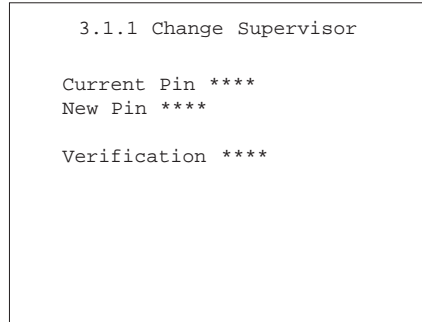
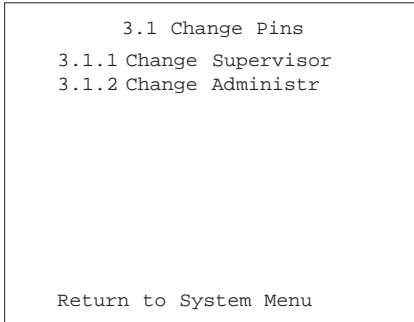
The **Program Preset** feature allows the installer the restrict users from altering preset positions once installation has been completed.

To enable or disable the **Program Preset** feature, follow the steps below:

1. In the **System** menu, use the up/down joystick to move to **Program Preset**.
2. Use the right joystick command to enable (select **Yes**) or disable (select **No**) the **Program Preset** feature.

## Changing Pin Numbers

The **Change Pins** screen is used to change administrator and supervisor pin numbers.



To change a pin number, follow the steps below:

1. In the **System** menu, select the **Change Pins** option.
2. In the **Change Pins** screen, select either the **Change Supervisor** or **Change Administr** option depending on which pin number is to be changed. The relevant screen is displayed.
3. In the **Current Pin** field, enter the pin number that is currently used to gain access to the menu system. The cursor automatically moves to the **New Pin** field.
4. Enter the new four-digit pin number. The cursor automatically moves to the **Verification** field.
5. Re-enter the new pin number.

At this point, if all fields have been completed correctly, the pin number will be changed. If an incorrect pin number has been entered at any point during the procedure (e.g., either the current pin number has been entered incorrectly or the entries in the **New Pin** and **Verification** fields do not match), or if the user does not have the necessary access privileges, an error message is displayed. At this point, the user will have to press the ENTER key to return to the **Change Pins** screen.

### NOTES

- It is strongly advised that the factory set default pin numbers are changed as soon as possible in order to maintain system security. The default Installer pin number is 1776. The default Supervisor pin number is 0000.
- The Administrator can change both the Administrator pin number and the Supervisor pin number. The Supervisor can only change the supervisor pin number.
- If a password is lost, a recovery system is available. See **Password Recovery** on page 40.

## Setting Up Partitioning

The **Partitioning** screen is used to define which keyboards can access which monitors, cameras and control receivers. The way in which access to monitors, cameras or control receivers is granted is exactly the same, but with a different sub-menu used in each instance.

```

3.2 Partitioning
3.2.1 Keyboard/Monitor
3.2.2 Keyboard/Camera
3.2.3 Keyboard/Control

Return to System Menu

```

```

3.2.1 Keyboard/Monitor
Monitor           :1
Keyboard 1       :ALLOWED
Keyboard 2       :ALLOWED
Keyboard 3       :ALLOWED
Keyboard 4       :ALLOWED
Keyboard 5       :ALLOWED
Keyboard 6       :ALLOWED
Keyboard 7       :ALLOWED
Keyboard 8       :ALLOWED

Return to Partitioning

```

```

3.2.2 Keyboard/Camera
Camera           :1
Keyboard 1       :ALLOWED
Keyboard 2       :ALLOWED
Keyboard 3       :ALLOWED
Keyboard 4       :ALLOWED
Keyboard 5       :ALLOWED
Keyboard 6       :ALLOWED
Keyboard 7       :ALLOWED
Keyboard 8       :ALLOWED

Return to Partitioning

```

```

3.2.3 Keyboard/Control
Control          :1
Keyboard 1       :ALLOWED
Keyboard 2       :ALLOWED
Keyboard 3       :ALLOWED
Keyboard 4       :ALLOWED
Keyboard 5       :ALLOWED
Keyboard 6       :ALLOWED
Keyboard 7       :ALLOWED
Keyboard 8       :ALLOWED

Return to Partitioning

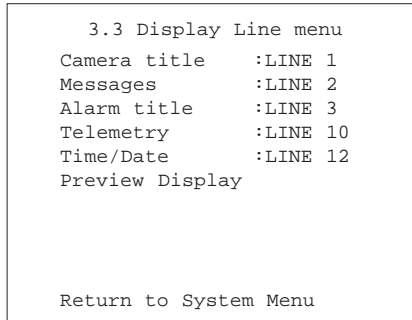
```

To grant access to a keyboard for a particular component, follow the steps below:

1. In the **System** menu, select the **Partitioning** option.
2. In the **Partitioning** screen, select **Keyboard/Monitor**, **Keyboard/Camera** or **Keyboard/Control** as relevant. The relevant screen is displayed.
3. In the first field (titled either **Monitor**, **Camera** or **Control** depending on the sub-menu) select the monitor, camera or control receiver to which access is to be granted or denied. Use the number keys to do this.
4. Move to the required **Keyboard** field.
5. Use the right joystick command to assign access status as either **Allowed** or **Denied**.
6. Repeat steps 4 and 5 until all keyboards listed have an access status assigned.
7. Select the **Return to Partitioning** option to return to the **Partitioning** screen, where further access rights can be assigned.

## Configuring Monitor Displays

The **Display Line Menu** screen is used to specify the display settings for any monitors that are connected to the MegaPower LT. The user can specify on which line on-screen information is displayed.



To change the position of on-screen information, follow the steps below:

1. In the **System** menu, select the **Monitor Display** option.
2. In the **Display Line Menu** screen, move to the item of on-screen information whose position is to be changed. The options available are **Camera title**, **Messages**, **Alarm title**, **Telemetry** and **Time/Date**.
3. Use the right joystick command to toggle through the available screen positions. These are **LINE 1** through to **LINE 12** (i.e., line 1 is at the top of the screen, line 12 is at the bottom of the screen) and **OFF**. If **OFF** is selected, this item of information will not be displayed on-screen.
4. Repeat steps 2 and 3 to change the position of each item. It should be noted that if one item of information is already positioned on a certain line, this line will be not available for other items.
5. To view the current display settings, select **Preview Display**.
6. When the display settings are set as required, exit the menu by selecting **Return to System Menu**.

## View Menu

A view is the simultaneous display of a specific preset position on a specific camera. A view can also be a pattern, which is a series of movements that have been programmed into a dome camera.

The **View** menu is used to program these views, with a storage limit of 128 views.

```
4 View Menu
4.1 View Set Up
4.2 Tour Set Up
4.3 Tour Link Set Up

Return to Menu
```

Each view is given a unique identifying number which is used to recall it. Each view can also be assigned a text title, which can be displayed on-screen. The menu is also used to program tours and to initiate tour links.

### Programming Views


Views are programmed using the **View Set Up** screen.

```
4.1 View Set Up
View number 001
Title
VIEW 01
Input number 01
Preset number 001
Pattern number 00

Return to View Menu
```


To program a view, follow the steps below:

1. In the **View** menu, select the **View Set Up** option.
2. In the **View Set Up** screen, use the numeric keys to select a **View number**. This number acts as a unique identifier and will be the number entered on a keyboard to recall the view.
3. Move to the **Title** option. This field is used to specify a title for the view.

4. Use the joystick to amend the title. To do this, select the character to be edited using left/right joystick commands and edit the selected character using up/down joystick commands. Use the SHIFT () key in conjunction with up/down joystick commands to change between upper and lower case characters.
5. Move to the **Input number** option.
6. Using the numeric keys, select the video source that is to be used.
7. Move to the **Preset number** option. This option is used when the video source is a PTZ camera or dome camera that has been programmed with preset positions.
8. Use the numeric keys to enter the number of the required preset position.
9. If required, move to the **Pattern number** option. This item is used when the video source is a dome camera that has been programmed with patterns.
10. If a pattern is to be used, use the numeric keys to enter the number for the required dome pattern. If a pattern is assigned to a view, the **Preset number** field automatically reverts to a the preset number **0**.
11. Once amendments are complete, select the **Return to View Menu** option.

### **Using a Keyboard to Recall Views**

Once views have been programmed to the MegaPower LT, they can be recalled using a connected keyboard. To do this, follow the steps below:

1. Using the numeric keys, enter the required view number.
2. Press the MULTISCREEN () key.

## Programming Tours

The **Tour Set Up** screen can be used to program up to 16 tours, which can be recalled on any monitor. Each tour can consist of up to 16 steps, each step being either a fixed camera position or a programmed view from a PTZ or dome camera. It is also possible to specify the period of time (or dwell time) each step is displayed for.

```

4.2 Tour Set Up
Tour number 01
ID:CAM:DWL   ID:CAM:DWL
01:C01:02    09:C09:02
02:V01:02    10:C10:02
03:C03:02    11:C10:02
04:C04:02    12:V02:02
05:C05:02    13:C13:02
06:C06:02    14:C14:02
07:V128:02   15:C15:02
08:V096:02   16:V025:02
Return

```

To program a tour, follow the steps below:

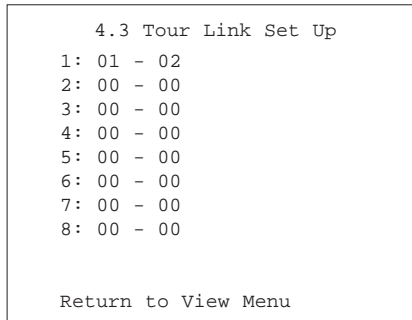
1. In the **View** menu, select the **Tour Set Up** option.
2. In the **Tour Set Up** screen, move to the **Tour number** item.
3. Enter a **Tour Number** using the numeric keys. Valid tour numbers are 1 to 16.  
If a tour has already been allocated with this tour number, the details of the tour are displayed and can be amended at this point.
4. Use up/down joystick commands to move to the step ID that is to be edited (numbered 1 to 16).
5. Once the step ID is selected, the details can be changed. First, press the FUNCTION (F) key to select the type of input to be used; either a fixed camera (C) or a programmed view position (V). Once the correct letter is displayed, use the numeric keys to enter the ID number of the required fixed camera or view position.
6. Use either the right joystick command or the ENTER key to move to the dwell time parameter for the selected step.
7. Using the numeric keys, enter the dwell time (in seconds) for this step of the tour.
8. Use the down joystick command or the ENTER key to move to the next step in the tour.
9. Repeat steps 4 to 8 to edit all the steps in the tour.
10. Once all steps in the tour have been programmed, select another tour by returning to the **Tour Number** field or leave the screen by selecting the **Return** menu item.

### NOTE

A view or camera number of **000** can be entered in any position of the tour. This is used to mark the end of the tour. When the tour is running and this position is reached, the tour will return to the start.

## Linking Tours Together

The **Tour Link Set Up** screen is used to link two tours together to make a single tour with up to 32 positions. Up to eight tour links can be made.




To create a tour link, follow the steps below:

1. In the **View** menu, select the **Tour Link Set Up** option.
2. In the **Tour Link Set Up** screen, use the down joystick command to select one of the eight tour link numbers.
3. Using the numeric keys, enter the number of the first tour to be displayed.
4. Use the right joystick command or the ENTER key to move to the right half of the field.
5. Using the numeric keys again, enter the number of the second tour to be linked to the end of the first tour.
6. Use the right joystick or the ENTER key to move to the next tour link number.
7. Repeat steps 2 to 6 to create any further tour links.
8. Once amendments on this screen are complete, select the **Return to View Menu** option.

## Using a Keyboard to Recall Tours

Once tours have been programmed to the MegaPower LT, they can be recalled using a connected keyboard. To do this, follow the steps below:

1. Using the numeric keys, enter the number of the tour to be recalled.
2. Press the SEQUENCE () key.



---

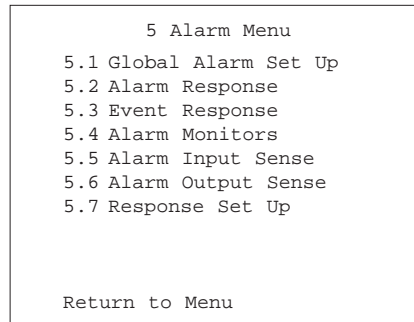
## Cancelling a Tour

A tour is cancelled when:

- A camera is called to display on the monitor.
- A telemetry command for the monitor is issued.
- An alarm is triggered. The tour is re-enabled automatically when the alarm is cleared.

## Alarm Menu

The **Alarm** menu is only available to users with the installer privileges, and it is used to specify every aspect of alarm operation.



The **Alarm** menu is used to specify the contact type for each individual alarm input, whether that be normally-open or normally-closed. It is also used to create responses, which can be linked to the triggering of an alarm input or the receipt of a network event from another matrix. For example, when an alarm input is triggered, a response can be created that sends a message to the MegaPower LT telling it to switch to a preset position on a specified camera, to activate one or more of the auxiliary outputs, to generate an audible sound from the keyboards or to generate a network event that can be sent to other units in the network.

Using this menu, it is also possible to specify alarm monitors (i.e., monitors that specifically show pictures when alarms are triggered) and global alarm settings.

## Configuring Global Alarm Settings

The **Global Alarm Set Up** screen is accessed by selecting the **Global Alarm Set Up** option from the **Alarm** menu. It is used to control the overall alarm setup, how responses are reset and the state the system returns to when all responses are clear.


```
5.1 Global Alarm Set Up
Display mode      :SWITCH
Response mode    :ACK
End action       :NONE
Timeout          :020s
Transp. T/O mode :005s

Return to Alarm Menu
```


### Response Modes

In this screen, the user can choose from five different **Display mode** settings, which are used to define how triggered alarms, and hence triggered responses, appear on monitors. However, these modes operate differently depending on the selected **Response mode**. The available response modes are **ACK** (Acknowledge), **TRANSP** (Transparent) and **TIMEOUT**:


#### ACK - Acknowledge Alarm Responses

The response is active from the time the alarm is triggered to the time it is manually cleared by an operator (by selecting the monitor displaying the response and pressing the ALARM ACKNOWLEDGE  key).

#### TRANSP - Transparent Alarm Responses

The response is active until it is manually cleared (by pressing the ALARM ACKNOWLEDGE  key) or until the alarm contacts return to their resting state. The **Transp. T/O Mode** menu item is used to specify the minimum time (between 2 and 99 seconds) which a transparent alarm's response is displayed for when the contacts reset immediately.

#### TIMEOUT - Timeout Alarm Responses

The response is active until it is manually cleared (by pressing the ALARM ACKNOWLEDGE  key) or until the timeout period specified in the **Timeout** menu item expires (between 2 and 99 seconds). The timeout operates regardless of whether the alarm contacts have returned to their resting state or not.

## Display Modes

The five display modes operate differently depending on the response mode that has been selected. The available display modes are:

### NONE

No change to the monitor display is made when an response is triggered.

### LAST - Last In First Out

In this display mode, each response is displayed on all alarm monitors (according to the settings made in the **Alarm Monitor** screen, see overleaf). The next response to be triggered replaces the current one (on all the monitors), although in **Transparent** or **Timeout** response mode, the respective timeout periods must have passed first. This minimum timeout is intended to ensure that no triggered responses disappear immediately without being observed.

In **Acknowledge** response mode, previously triggered responses disappear when a new one arrives. This can lead to a response not being carried out. The currently displayed response is cancelled regardless of whether the alarm contacts are still active.

### STACK

As each triggered response arrives it is shown on the next available alarm monitor (according to the settings made in the **Alarm Monitor** screen, see overleaf). Once all the alarm monitors are full, the next response is placed in a queue. When a response is cleared it is replaced by the next one in the queue.

### SWITCH

The first triggered response is shown on all the alarm monitors. Once it is cleared, the next response is displayed on all alarm monitors.

### ROTATE

Only to be used in **Acknowledge** response mode. This option switches the triggered response to all available alarm monitors. If multiple responses are triggered, each response is displayed in a cycling sequence. In each cycle, each response is displayed for the length of time defined in the **Transp. T/O mode** menu item. In addition, auxiliary outputs are disabled.

### End Action

The **Global Alarm Set Up** screen also has a menu item titled **End action**. This option is used to set what the system does once all alarms (and therefore responses) have been cleared. This can be set to **RETURN** or **NONE**. **RETURN** will return the monitors to their pre-alarm states when all alarms are cleared. **NONE** will leave the monitors in their alarm state. This will also switch off any tours running prior to the alarm condition.

## Specifying Alarm Monitors

The **Alarm Monitor** screen is used to set which monitors will display triggered alarms.

```
5.4 Alarm Monitors
Monitor 1      :DISPLAY
Monitor 2      :NO DISPLAY
Monitor 3      :NO DISPLAY
Monitor 4      :NO DISPLAY
Monitor 5      :NO DISPLAY
Monitor 6      :NO DISPLAY
Monitor 7      :NO DISPLAY
Monitor 8      :NO DISPLAY

Return to Alarm Menu
```

To specify alarm monitors, follow the steps below:

1. In the **Alarm** menu, select the **Alarm Monitors** option.
2. In the **Alarm Monitor** screen, use up/down joystick commands to move to the monitor that is to be used to display alarms.
3. Using the right joystick command, select **DISPLAY** to display alarms on this monitor (or **NO DISPLAY** to not).
4. Repeat steps 2 and 3 to set all monitors as required.
5. Once selections on this screen are complete, select the **Return to Alarm Menu** to return to the previous menu.

## Configuring Alarm Inputs

Using the **Alarm Input Sense** screen, it is possible to configure each connected alarm input as either a normally-open contact (**N/O**) or a normally-closed contact (**N/C**). This is useful when working with different types of alarm detectors.

```
5.5 Alarm Input Sense
Alarm Number  01:N/C
              02:N/O
              03:N/O
              04:N/O
              05:N/O
              06:N/O
              07:N/O
              08:N/O

Return to Alarm Menu
```

To configure alarm inputs, follow the steps below:

1. In the **Alarm** menu, select the **Alarm Input Sense** option.
2. In the **Alarm Input Sense** screen, use the numeric keys to enter the number of the alarm input to be configured and press the ENTER key to jump to it. The up/down joystick commands can also be used to move through the inputs.
3. Using the right joystick command, select **N/O** to configure the alarm input as a normally-open contact or select **N/C** to configure it as a normally-closed contact.
4. Repeat steps 2 and 3 to set all alarm inputs as required.
5. Once selections on this screen are complete, select the **Return to Alarm Menu** to return to the previous menu.

### **Configuring Auxiliary Outputs**

Auxiliary outputs can be connected to the MegaPower LT in a normally-open or a normally-closed rest state. An auxiliary output will operate in a rest state until it is triggered, at which point it will switch to the active state.

Once connected, an auxiliary output can be added to alarm responses so that when an alarm or event occurs, the auxiliary output will switch to the active state (see page 36).

The **Alarm Output Sense** menu is reserved for future use. Currently, changing the settings in this menu will have no effect on the operation of the MegaPower LT.

## Creating Responses

Using the **Response Set Up** screen it is possible to create responses, which can be linked to the triggering of an alarm input or the receipt of a network event from another matrix.

```
5.7 Response Set Up
Response number :01
Title          :
RESPONSE 1
Switch to camera      :01
Camera preset       :00
Generate event      :255
Activate relays     :1 ONLY
Generate sound      :SHORT

Return to Alarm Menu
```

For example, when an alarm input is triggered, a response can be programmed for the MPLT to output a message to an alarm monitor, switch to a preset position on a specified camera, activate one or more of the auxiliary outputs, generate an audible sound from the keyboards or to generate a network event that can be sent to other units in the network. Up to 32 responses can be programmed to respond to up to 32 alarms or up to 255 events.

To program/change response settings, follow the steps below:

1. In the **Alarm** menu, select the **Response Set Up** option.
2. In the **Response Set Up** screen, use the numeric keys to enter the **Response number** to be programmed/changed.
3. Move to the **Title** option. This field is used to specify a title for the response.
4. Use the joystick to amend the title. Highlight the title so it flashes, then select the keyboard enter key, select the character to be edited using left/right joystick commands and edit the selected character using up/down joystick commands. Use the SHIFT (⇧) key in conjunction with up/down joystick commands to change between upper and lower case.
5. Move to the **Switch to camera** option.
6. Use the numeric keys to enter the camera input to be displayed on the alarm monitor when the response is triggered. Enter **0** if no camera input is to be displayed.
7. Move to the **Camera preset** option.
8. Use the numeric keys to enter the preset number that the camera is to move to when the response is triggered. Enter **0** if no preset is to be recalled.
9. Move to the **Generate event** option.
10. Use the numeric keys to enter which network event is to be generated when the response is triggered. Enter **0** if no event is to be generated.
11. Move to the **Activate relays** option.

12. Specify whether either of the auxiliary outputs should be activated when the response is triggered. The options available are **1 ONLY**, **2 ONLY**, **1 AND 2** or **NONE** (MPLT 32 only); **1 ONLY** (MPLT 16).
13. Move to the **Generate sound** option.
14. Select the urgency of the keyboard beep which will sound on all connected keyboards when the response is triggered. The options are **NONE**, **SHORT**, **MEDIUM** and **LONG**.
15. Once all selections have been made, repeat steps 2 to 14 to program further responses or select **Return to Alarm Menu** to return to the previous menu.

#### NOTE

On exiting the **Response Set Up** screen, the MegaPower LT checks to ensure that a response loop has not been created in the menu, which could lock the matrix into permanent alarm status. If a loop is found (for example, response number 3 has been programmed to generate network event number 55, which has been programmed to trigger response 3 in the **Event Responses** screen), a warning message is displayed and the user must return to the **Response Set Up** screen to remove the loop.

### Mapping Responses to Alarms

Once responses have been created, they can be mapped to alarms. This means that when an alarm input is triggered, a response to that alarm will be triggered. This is achieved using the **Alarm Responses** screen:

```

5.2 Alarm Responses
Alarm:Response 01:005
                02:005
                03:006
                04:007
                05:008
                06:009
                07:010
                08:011

Return to Alarm Menu

```

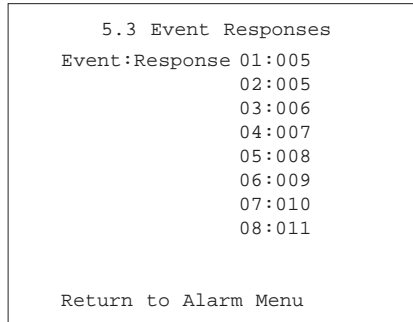
To assign a response to an alarm, follow the steps below:

1. In the **Alarm** menu, select the **Alarm Response** option.
2. In the **Alarm Responses** screen, use the numeric keys to enter the number of the alarm input that is to be mapped to a response and press the ENTER key to jump to it. The up/down joystick commands can also be used to move through the inputs.
3. Use the numeric keys to enter the desired Response Number 1 to 16 (MPLT 16), 1 to 32 (MPLT 32) for that alarm input. Enter **0** if no response is to be triggered.
4. Repeat steps 2 and 3 to specify further mappings.
5. When programming has been completed, select the **Return to Alarm Menu** option to return to the previous menu.

## Mapping Responses to Events

An event is a message that can be sent from an MPLT either as a broadcast message or an alarm. A response to the event can be activated by any MPLT on the RS485 network.

Once responses have been created, they can also be mapped to events. This means that when an event is received from another matrix, a response to that event will be triggered. This is achieved using the **Event Response** screen:



To assign a response to an event, follow the steps below:

1. In the **Alarm** menu, select the **Event Response** option.
2. In the **Event Responses** screen, use the numeric keys to enter the number of the event that is to be mapped to a response and press the ENTER key to jump to it. The up/down joystick commands can also be used to move through the events.
3. Use the numeric keys to enter the desired Response Number (1 to 32) for that event. Enter **0** if no response is to be triggered.
4. Repeat steps 2 and 3 to specify further mappings.
5. When programming has been completed, select the **Return to Alarm Menu** option to return to the previous menu.



---

## Programming an Alarm: A Summary

The process of programming an alarm can be quite complicated due to the number of menu screens that need to be used. It is also important to note that there are global settings which affect the operation of ALL alarms (e.g., global alarms set up, alarm monitors) and individual settings, where alarms are configured one by one.

To program alarms, follow the steps below:

1. Configure the global alarm settings. To do this, select the **Global Alarm Set Up** option from the **Alarm** menu. The **Global Alarm Set Up** screen is displayed (page 26), in which the user can specify response and display modes for all alarms.
2. From the **Alarm** menu, select the **Alarm Monitors** option. In the **Alarm Monitors** screen (page 28), specify which system monitors will display alarms and which will not.
3. Return to the **Alarm** menu and select the **Alarm Input Sense** option. In the **Alarm Input Sense** screen (page 28), configure each individual alarm input as normally-open or normally-closed.
4. Return to the **Alarm** menu once more and select the **Response Set Up** menu option. In the **Response Set Up** screen (page 30), create alarm responses that can be triggered when alarm inputs are activated. Each response can consist of an alarm camera and preset, specifies whether auxiliary outputs should be triggered and whether sounds or network events should be generated.
5. Once any required alarm responses have been created, it is necessary to link alarm inputs and responses to each other. To do this, select the **Alarm Response** option from the **Alarm** menu. In the **Alarm Responses** screen (page 31), specify which individual response will be triggered when each individual alarm input is activated.  
If the user has programmed response 1 for alarm input 1, response 2 for alarm input 2, etc, there is no need to change the settings in this menu.
6. It is also possible to specify that responses should be triggered by network events from other matrices. To do this, select the **Event Response** option from the **Alarm** menu. In the **Event Responses** screen (page 38), specify which individual response will be triggered when each individual event is received by the MegaPower LT.

## Installer Menu

The **Installer** menu allows access to configuration options unavailable to users with Supervisor status. It is used to configure system options, keyboard priorities and to run the dome ping function.

```
6 Installer Menu
S/W Ver 1.xx
6.1 System Options
6.2 Keyboard Priority
6.3 Dome Ping
    VPSynch: DISABLED
Save to User Defaults
Restore User Defaults
Restore Factory Defaults

Return to Menu
```

## Configuring System Options

The **System Options** screen allows the installer to configure the unit address and baud rate settings. Options are available for both RS485 and RS232 networks.

```
6.1 System Options
ADNET
Unit ID      :09
Baud Rate   :19200
RS232 Setting
Baud Rate   :38400
Data Bit    :8
Parity      :NONE
Stop        :1

Return to Menu
```

### ADNET RS485

- The **Unit ID** as required for RS485 multi-matrix operation is programmable between 1-32. The default ID is 09.
- The RS485 **Baud Rate** can be defined as **9600** or **19200**. Optimum performance can be achieved by setting the baud rate to **19200** and therefore this is the default setting. However, if the MegaPower LT is be connected to an existing ADNet RS485 network with other compatible multiplexers, the baud rate must be set to operate at **9600** baud rate.

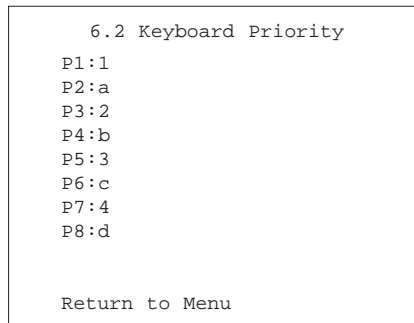
**RS232**

- The RS232 **Baud Rate** can be defined as **1200, 2400, 4800, 9600, 14400, 19200** and **38400**. Optimum performance can be achieved by setting the baud rate to **9600** and therefore this is the default setting.
- The **Data Bit** is configurable to **5, 6, 7** or **8**. The default setting is **8**.
- The **Parity** default is **NONE**, but can also be configured to **ODD** or **EVEN**.
- The **Stop** bit is configurable between **1, 1.5** and **2**. The default setting is **1**.

RS232 defaults: 9600, 8 data bits, 1 stop bit, parity = none.

**Assigning Keyboard Priorities**

Using the **Keyboard Priority** screen, it is possible to assign each keyboard a priority level. This feature is useful, for example, if two keyboards try to take control of a camera at the same time. In this instance, the keyboard with the highest priority would gain control.



To assign keyboard priority, follow the steps below:

1. In the **Installer** menu, select the **Keyboard Priority** option.
2. In the **Keyboard Priority** screen, move to the desired priority level. P1 is the highest priority and P8 is the lowest.
3. Using the right joystick command, select the Keyboard ID number/letter to which this priority level is to be assigned. RS485 keyboards ID numbers range from **1** to **8**, while RS232 keyboards have an address range **a** to **d**. It is also possible to leave a priority level unassigned by selecting the **UNASSIGNED** option.
4. Repeat steps 2 and 3 to make further alterations.
5. Once amendments on this screen are complete, select the **Return to Menu** option.

**NOTE**

- Default priorities are: P1:1, P2:2, P3:3, etc. P8:8. RS232 keyboards have no priority until manually assigned within the menu.

## Running a Dome Ping

A ping is a function that verifies that an input from a dome camera is present and that the camera is able to respond to settings made in these menus. A dome ping can be carried out using the **Dome Ping Menu** screen.

```
6.3 Dome Ping Menu
Input number 01
Title
CAMERA 01
Start Ping
TX      00000000
PASS   00000000
FAIL   00000000
UNSENT 00000000

Return to Menu
```

To run a ping, follow the steps below:

1. In the **Installer** menu, select the **Dome Ping** option.
2. In the **Dome Ping Menu** screen, use the numeric keys to enter the required **Input Number**. The title for that input number will be displayed in the **Title** field.
3. Use the down joystick command to move to the **Start Ping** option.
4. Press the ENTER key. The text now changes to **Stop Ping**.

A decimal counter starts. Four counters are shown:

- The **TX** counter will increment every time a ping is transmitted by the unit.
- The **PASS** counter will increment every time the ping is answered with the correct response from the dome camera.
- The **FAIL** counter will increment every time the ping is answered with the incorrect response from the dome camera.
- The **UNSENT** counter will increment every time the ping cannot be sent to the dome camera.

If the **FAIL** and **UNSENT** counters remain at zero then communication between the MegaPower LT and the dome camera is excellent. If the **FAIL** and **UNSENT** counters increment on numerous occasions then communication between the MegaPower LT and the dome camera is poor.

5. Press the ENTER key on the **Stop Ping** option to stop the ping.
6. Select the **Return to Menu** option to return to the previous menu.

## Vertical Phase Synchronisation

The **Installer** menu has an synchronisation option which, if enabled, will cause the MegaPower LT to transmit a vertical phase signal to all video inputs. This signal can be used by compatible cameras to synchronise.

To enable this option, use the down joystick command to move to the **VPSynch** option and use the right joystick command to set the parameter to **Enabled**.

### △CAUTION

## Saving and Restoring Defaults

**The feature can only be used if all Cameras connected to the MPLT require VP Synch. If not, a visible Synch Pulse will roll through video of cameras not requiring pulse.**

The **Installer** menu has an option which allows users to save their system settings to flash memory. This can be done by selecting the **Save to User Defaults** option. This is useful if the configuration of the system is changed in error in the future. The user can then restore the saved defaults using the **Restore Saved Defaults** option.

There is also a **Restore Factory Defaults** option which when selected, returns the MegaPower LT to factory settings.

### △CAUTION

**Restore Factory Defaults will erase any previously saved programming (i.e. there will be no user programming to restore).**

```
6 Installer Menu
S/W Ver 1.xx
6.1 System Options
6.2 Keyboard Priority
6.3 Dome Ping
    VPSynch: DISABLED
Save to User Defaults
Restore User Defaults
Restore Factory Defaults

Return to Menu
```

To select any of these options, use the down joystick command to move to the required option and press the ENTER key to select it.

## Appendix A: Factory Defaults

Though restoring the factory default settings should only be regarded as a last resort, it may be necessary. Restoring the factory default settings will erase any setting the user has made to the system with the exception of the saved user defaults.

The factory defaults are as follows:

### Time/Date Menu

NTSC	24Hr -MM/DD/YY
PAL	24Hr -DD/MM/YY
DST	None

### Camera Menus

Camera Titles	Camera 01 - Camera 32
Input	Enabled
Communication	UTC

### System Menus

Administrator PIN	1776
Supervisor PIN	0000
Partitioning	All keyboards to all camera, monitors, PTZ (Allowed)
Program Preset	Yes

### Monitor Displays

Camera Title	Line 1
Message	Line 3
Alarm Title	Line 5
Telemetry	Line 11
Time/Date	Line 12

### View Menus

View Titles	View 01 - View 128
Views 1-128	Camera 01, Preset 01, Pattern 00
Tour 1-16	Camera 1-16 Dwell 5 seconds per camera

**Alarm Menus**

Display Mode	Switch
Response Mode	Acknowledge
End Action	None
Time Out Time	020s
Transparent Time out time	005s
Alarm to response	1-1 to 32-32; (1-1 to 16-16 for MPLT 16)
Event to response	All off.
Alarm Monitor	Monitor 1 Display, 2-8 No Display (2-4 for MPLT 16)
Alarm Input Sense	1-32 N/C (1-16 for MPLT 16); Defaults as N/O
Alarm Output Sense	1 and 2 N/O

**Response Set Up Screen**

Titles	Alarm 01-Alarm 32 (1-16 for MPLT 16); Sound = none
Switch to camera	01-01 through to 32-32
Camera Preset	00
Generate Event	00
Activate Relay	1 only
Generate Sound	Short








**Installer Menu Default Settings**

RS485	Unit ID 9, Baud rate 19,200
RS232	Baud rate 9600, Data bits 8, Stop bits 1, Parity none
Keyboard priority	RS485 ID 1
	RS485 ID 2
	RS485 ID 3
	RS485 ID 4
	RS485 ID 5
	RS485 ID 6
	RS485 ID 7
	RS485 ID 8

## Appendix B: Password Recovery

A password recovery system is provided so that a password can be recovered in the event of a password being forgotten.

To use the password recovery system to enter the menu system:

1. Select a monitor by entering the monitor number and pressing the MONITOR () key.
2. Press the SHIFT () key and the MENU () key. The menu access screen is now displayed prompting for a password.
3. Press the FUNCTION () key.
4. Simultaneously press the MENU (), MULTISCREEN () and FREEZE () keys. A 4-digit number is generated and displayed on the monitor.
5. Telephone your supplier immediately where you will be asked for this number.
6. You will be provided with a randomly generated temporary password that complements this number. Enter this password and press the ENTER key (can only be used once).
7. You will now have access to the installer menu system where you must use the **System** menu to re-create your own passwords.



## Appendix C: Specifications

### Telemetry

American Dynamics Up The Cable (UTC) and Sensornet telemetry control for Tyco Security Products-Video Systems.

### Video

Connector type	BNC
Bandwidth /Frequency response	$\pm 0.5$ dB to 6 MHz
S/N Ratio	-60dB (Vp-p vs. Vrms noise)
Cross Talk	
Adjacent channel	-45dB (at 3.58 MHz)
Input to input	-55dB (at 3.58 MHz)
Differential delay	$\pm 1.0^\circ$
Differential phase	$\leq 0.5^\circ$
Differential Gain	$\leq 1.5\%$
Tilt	$\leq 0.5\%$
Loop through with automatic termination	

### Alarm Input

MegaPower LT 32x8	32 Inputs
MegaPower LT 16x4	16 Inputs
Connectors type	Plug assembly
1 ground connection for every 4 alarm inputs	

### Auxiliary Output

The auxiliary output connector is of a plug assembly type. There are a maximum of two voltage free output relays available, providing normally-open and normally-closed contacts.

### Dip Switches

The dip switches are used for RS485 network and dome camera control biasing and termination.

### Remote Keyboard

This connects to RS232 and RS485 remote keyboards and is a single RJ45 connector type. It provides an upload/download function for the UTC and matrix devices.

### Power Source

Class 2 LPS 12V DC source. Cable retention provided.

### Physical Specifications

Dimensions:	Height = 90mm (Unit 2u)
	Width = 445mm
	Depth = 185mm

Weight: 3.5Kg

19" rack mount adapter / wall mount adapter is available.

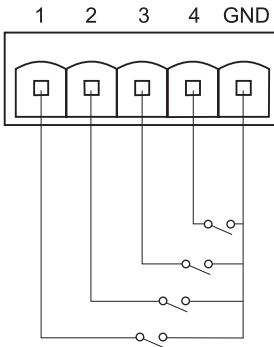
## Appendix D: Alarms

No	Description	N/O N/C
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

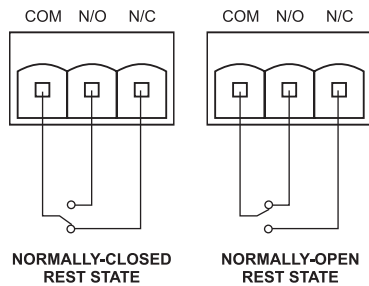
### ALARM INPUTS

No	Description	N/O N/C
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

### ALARM INPUT CONNECTIONS



### ALARM OUTPUT CONNECTIONS



---

## Appendix E: Keyboard Installation Addendum

### RS-232 PROTOCOL

UP to four RS-232 controllers can be connected to the MPLT (requires AD2081 Rs-232 port expander). Controllers can be ADDTE, AD2088, ADC200/300, or ADCC1100 keyboards.

- A maximum of 1000 feet @ 1200 baud
- Repeat Mode must be set to OFF
- Use recommended BELDEN cable 88102 (plenum)
- Use recommended BELDEN cable 9729 (non-plenum)

**Note:** RS232 range is specified with the recommended cable types and at 1200 baud only.

### RS-485 Protocol Guideline

- Up to eight RS-485 controllers can be connected to the MPLT. Only ADCC200 or ADCC300 keyboard supports RS-485 protocol.
- A maximum of 3300 feet @ 1200 baud.
- One shielded twisted pair, 22 AWG, BELDEN cable 8761 (plenum)
- One shielded twisted pair, 22 AWG, BELDEN cable 8760 (non-plenum)
- Requires biasing/termination on RS-485 network such as matrix, keyboard or dome.
- Bi-directional data flow
- Up to three matrixes can be daisy chained

### SENSORNET Protocol Guideline

- Up to 32 Sensornet devices per Sensornet link can be connected to the MPLT. Sensornet devices include other MPLT's or domes.
- Maximum of four repeaters in a Sensornet network.
- Use recommended BELDEN cable 88442 (plenum)
- Use recommended BELDEN cable 9407 (non-plenum)
- Follow Sensornet termination rules (8000-0970-01)

### AD UTC Protocol Guideline

- Supports ULTRA 7 vers.1.05 or higher dome control via coax cable
- Bi-directional communication capability
- Data rate of 38400 BPS or greater
- Maximum of 2300 feet (700 metres)

**Configuring the AD2088 keyboard baud rate:**

1. Turn the key to MENU
2. Press the “F1” button
3. The word BAUD should be displayed on the keyboard LED screen
4. Use the “NEXT” or “LAST” button to change to the desired baud rate (1200, 2400, 4800, 9600, 19200, or 38400)
5. When done, turn the key back to "OPERATE"

**CHANGING REPEAT MODE TO OFF ON THE AD2088 KEYBOARD:**

1. Turn the key to “MENU”, and then press the “F1” button
2. The word “BAUD” should be displayed. Press the “PROG” button BUTTON UNTIL YOU SEE “AUTO RPT = AUTO or ON”.
3. USE THE “NEXT” OR “LAST” BUTTON TO CHANGE IT TO “OFF”
4. TURN THE KEY BACK TO “OPERATE”







**Configuring the ADTTE Touch Tracker baud rate:**

1. Press the “+” button to enter programming mode
2. Enter 1200 and press F1 for 1200 baud (baud rate can be 1200, 2400, or 9600)
3. Press the “-” button to exit programming mode

**CHANGING REPEAT MODE TO OFF ON THE ADTTE TOUCH TRACKER:**




1. Press the “+” button to enter programming mode
2. Enter 200, F1
3. Press the “-” button to exit programming mode

**Configuring the ADCC200/300 keyboard baud rate:**

1. Setting the protocol:
  - a. Access SPECIAL CONFIG MENU by pressing SHIFT  and  within 5 seconds of applying power to the keyboard.
  - b. Press the VCR RECORD  button
  - c: Press number 1 FOR RS-485 OR 2 for RS-232 and then press the ENTER button
2. Setting the ADCC200/300 baud rate:
  - a. Access SPECIAL CONFIG MENU by pressing SHIFT  and  within 5 seconds of applying power to the keyboard.
  - b. Press the VCR REWIND  button
  - c: Press number 1 FOR RS-485 OR 2 for RS-232 and then press the ENTER button

- Enter    1=1200 baud + ENTER button  
          2=2400 baud + ENTER button (or 0 + ENTER to see next page)  
          3=4800 baud + ENTER button  
          4=9600 baud + ENTER button (or 0 + ENTER to see next page)  
          5=19200 baud + ENTER button  
          6=38400 baud + ENTER button (or 0 + ENTER to see next page)  
          7=57600 baud + ENTER button

**Changing the repeat mode to off on the ADCC200/300 keyboard:**

1. Access SPECIAL CONFIG MENU by pressing SHIFT  and  within 5 seconds of applying power to the keyboard.
2. Press the TELEMETRY  button
3. Select 2 for “MAKE/BREAK” and press the “ENTER” button (ADCC1100 OR ADCC200/300 must be set to repeat mode = off referred to as “MAKE/BREAK” )

**Configuring the ADCC1100 keyboard baud rate:**

1. Press the PROGRAM tab key
2. Press the NEXT soft key
3. Press the BAUD soft key to cycle the baud rate (1200, 2400, 4800, 9600, 19200, or 38400)
4. Press the OPERATE tab key to return to normal mode

**Changing the repeat mode to off on the ADCC1100 keyboard:**

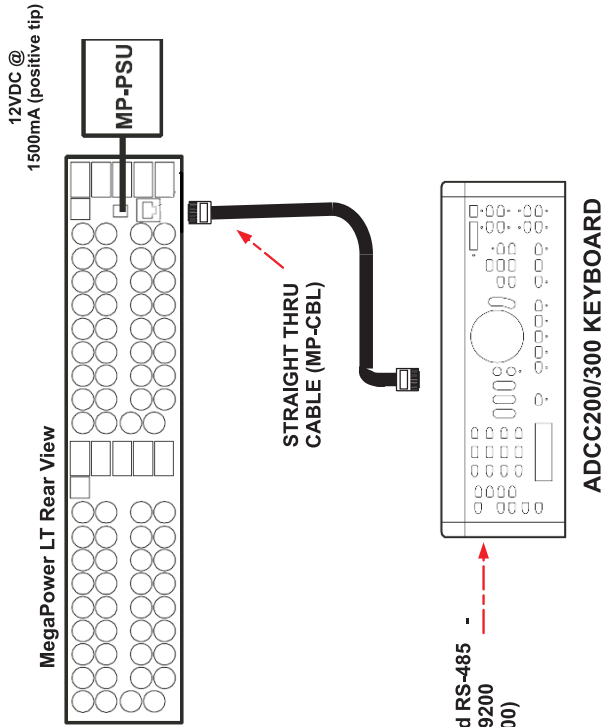
1. Press the PROGRAM tab key
2. Press the NEXT soft key
3. Select “MP48” soft key for repeat mode OFF or “AD1024” for repeat mode ON (ADCC1100 or ADCC200/300 must be set to repeat mode = OFF)
4. Press the OPERATE tab key to return to normal mode

---

## Appendix F: Connection Diagrams

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**MEGAPOWER LT TO ADCC200/300 (RS-485 LESS THAN 7 FEET)  
[SINGLE KEYBOARD CONNECTION]**

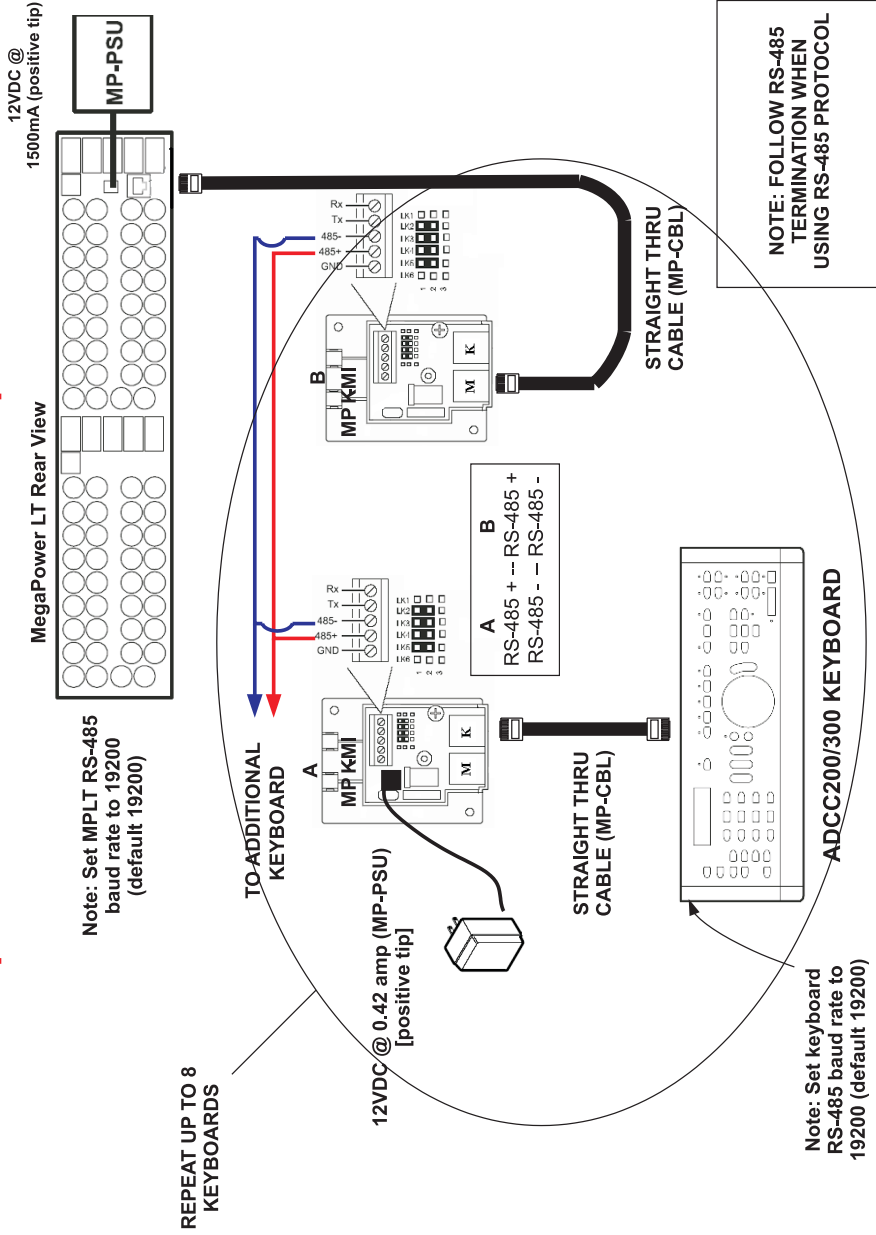


Note: Set MPLT RS-485  
baud rate to 19200  
(default 19200)

Note: Set keyboard RS-485  
baud rate to 19200  
(default 19200)

NOTE: FOLLOW RS-485  
TERMINATION WHEN  
USING RS-485 PROTOCOL

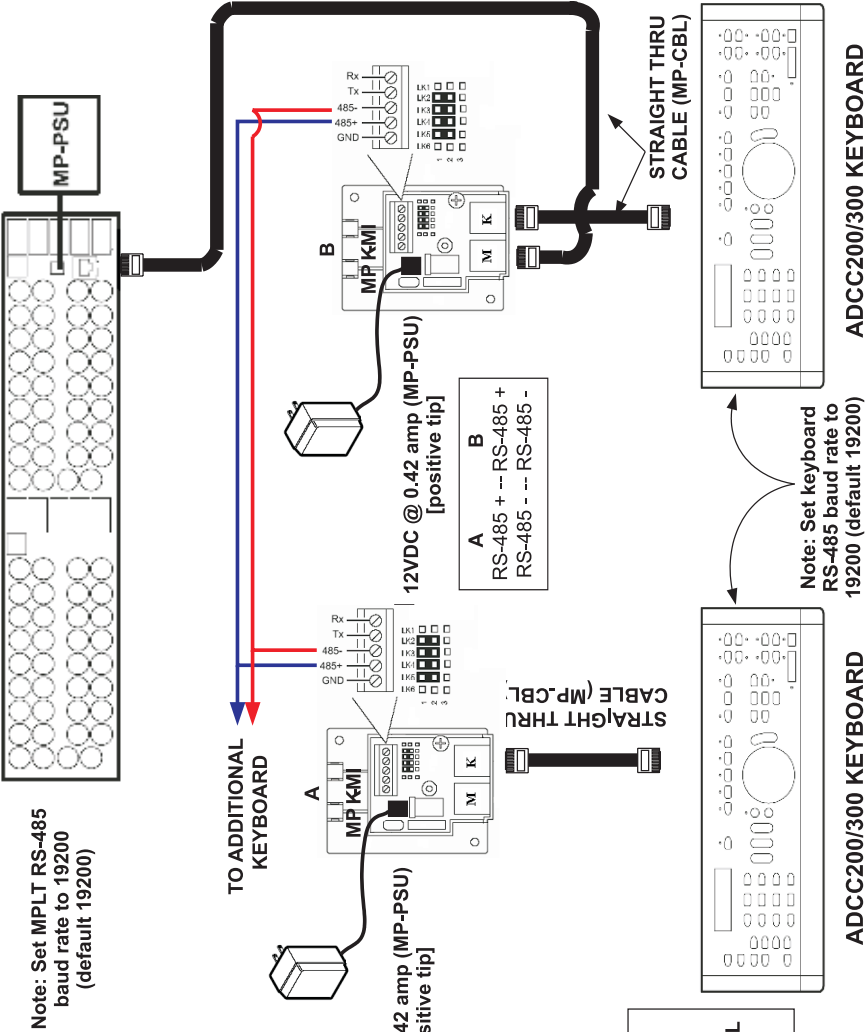
**MEGAPOWER LT TO ADCC200/300 (RS-485 LESS THAN 7 FEET [3300 FEET MAX])  
[SINGLE OR MULTIPLE KEYBOARD CONNECTION]**





**MEGAPOWER LT TO ADCC200/300 (RS-485 LESS THAN 7 FEET)  
[SINGLE OR MULTIPLE KEYBOARD CONNECTION]**

12VDC @  
1500mA (positive tip)



Note: Set MPLT RS-485  
baud rate to 19200  
(default 19200)

12VDC @ 0.42 amp (MP-PSU)  
[positive tip]

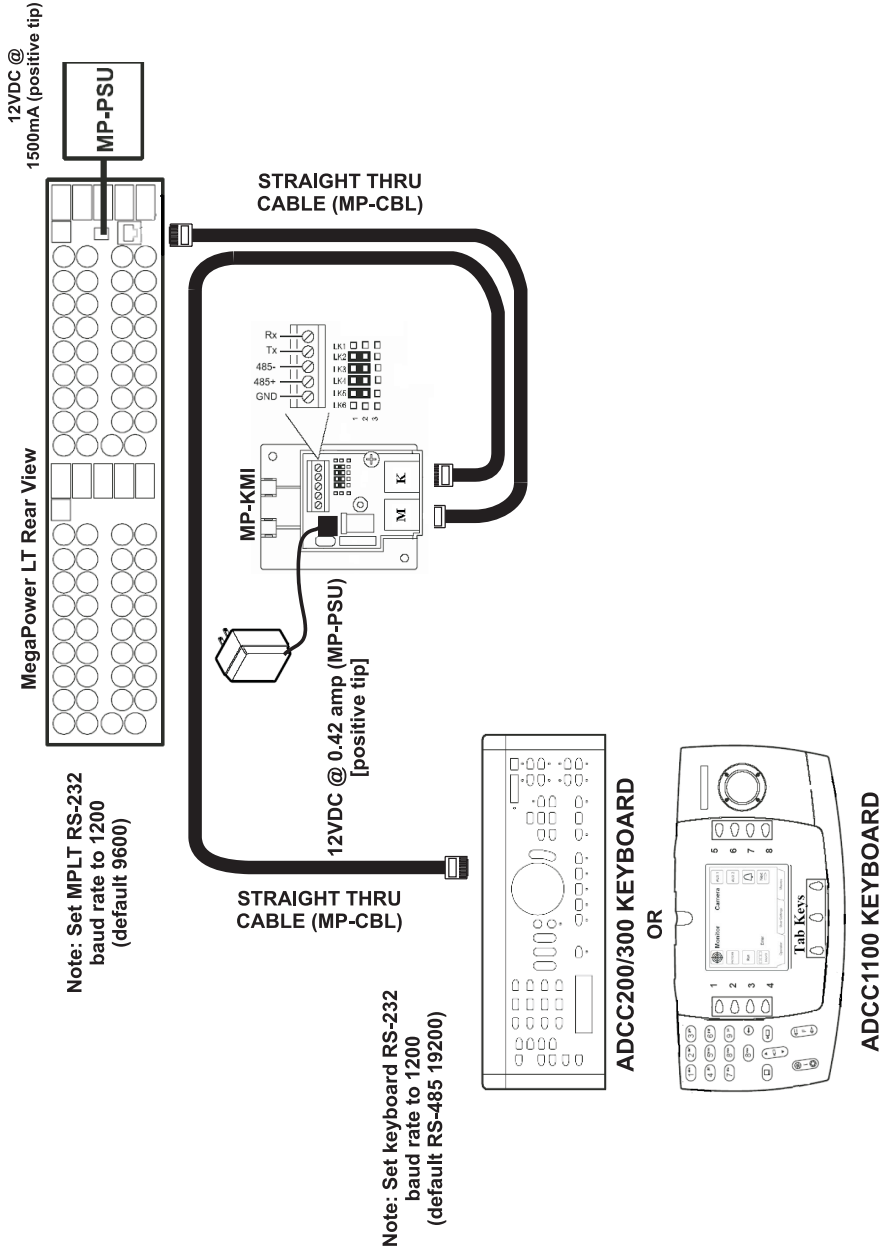
**A**  
RS-485 + -- RS-485 +  
RS-485 - -- RS-485 -

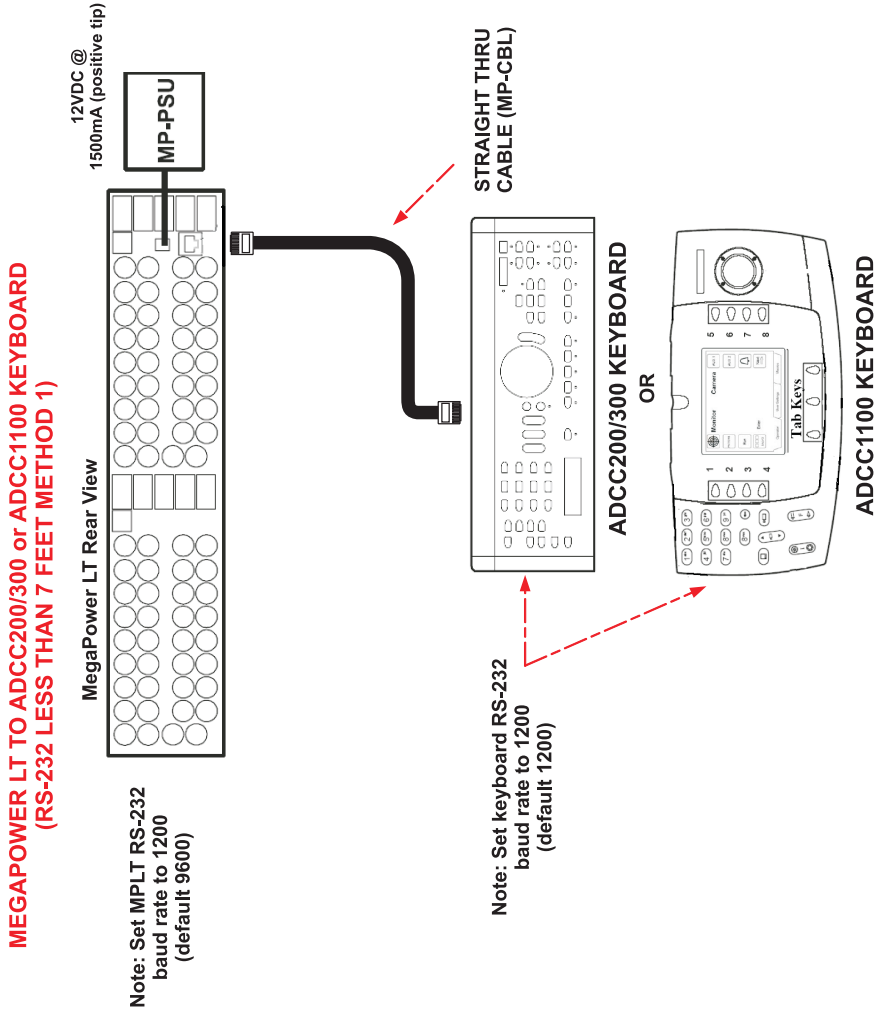
12VDC @ 0.42 amp (MP-PSU)  
[positive tip]

Note: Set keyboard  
RS-485 baud rate to  
19200 (default 19200)

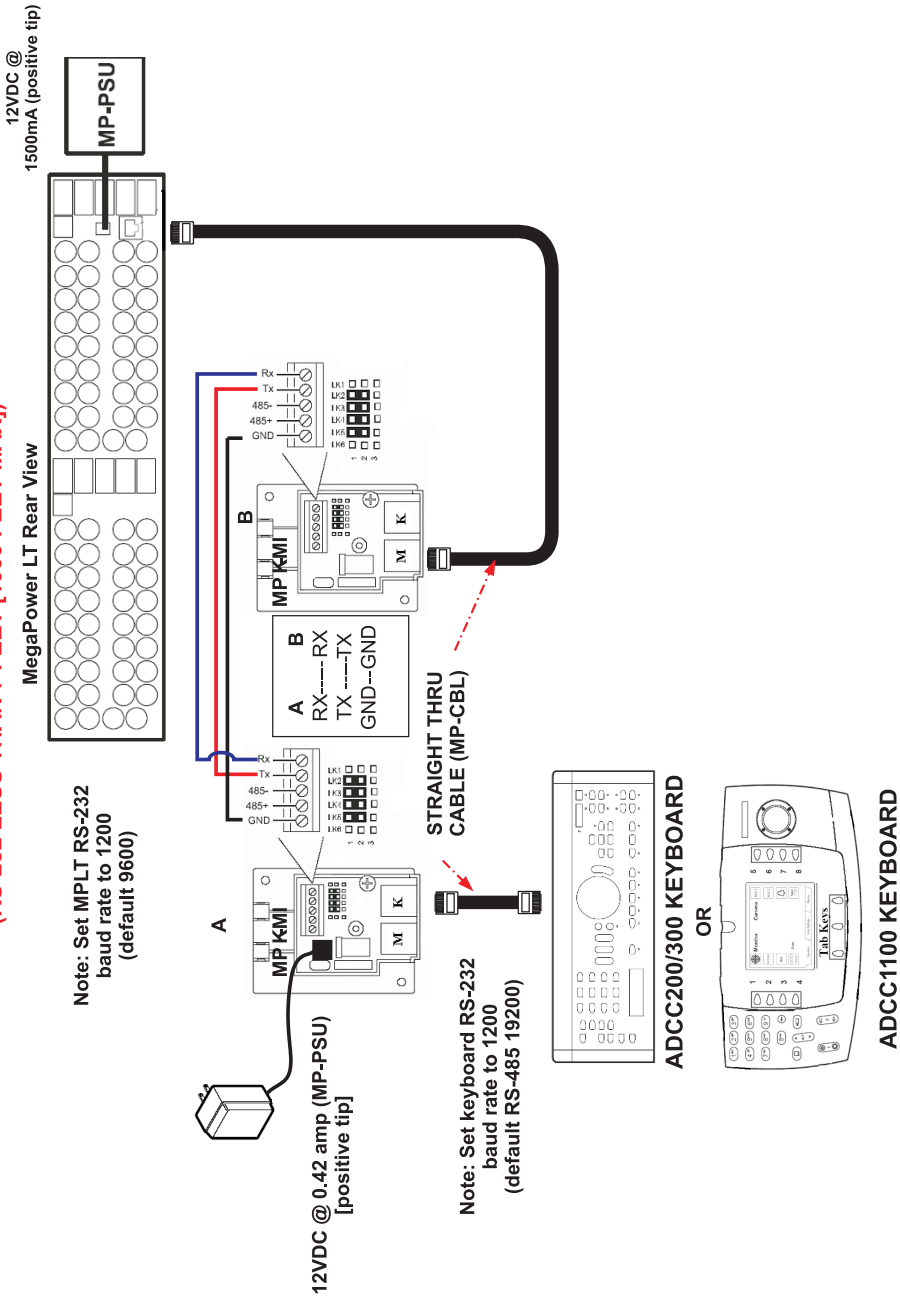
NOTE: FOLLOW RS-485  
TERMINATION WHEN  
USING RS-485 PROTOCOL

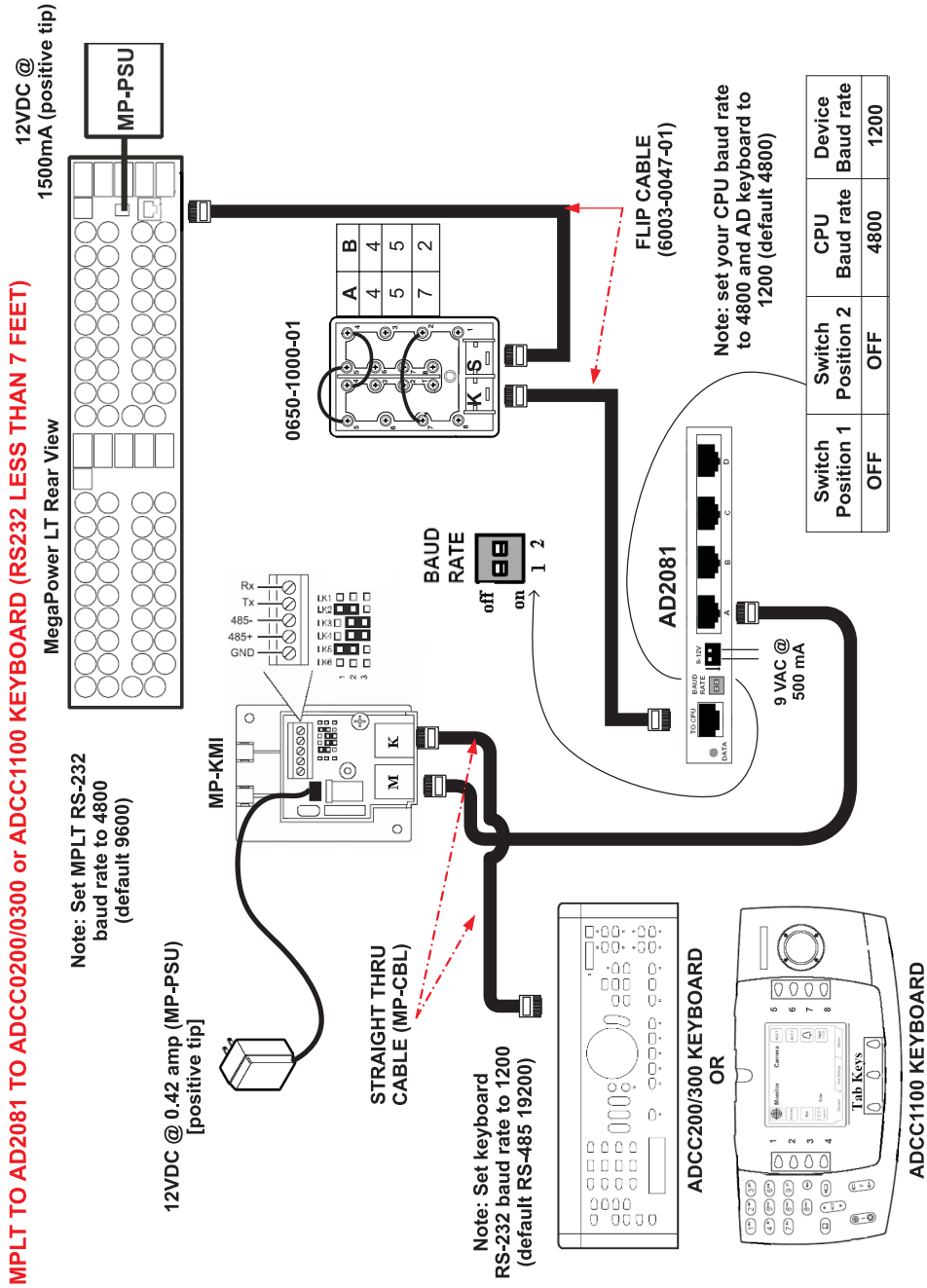
**MEGAPOWER LT TO ADCC200/300 or ADCC1100 KEYBOARD  
(RS-232 LESS THAN 7 FEET METHOD 2)**



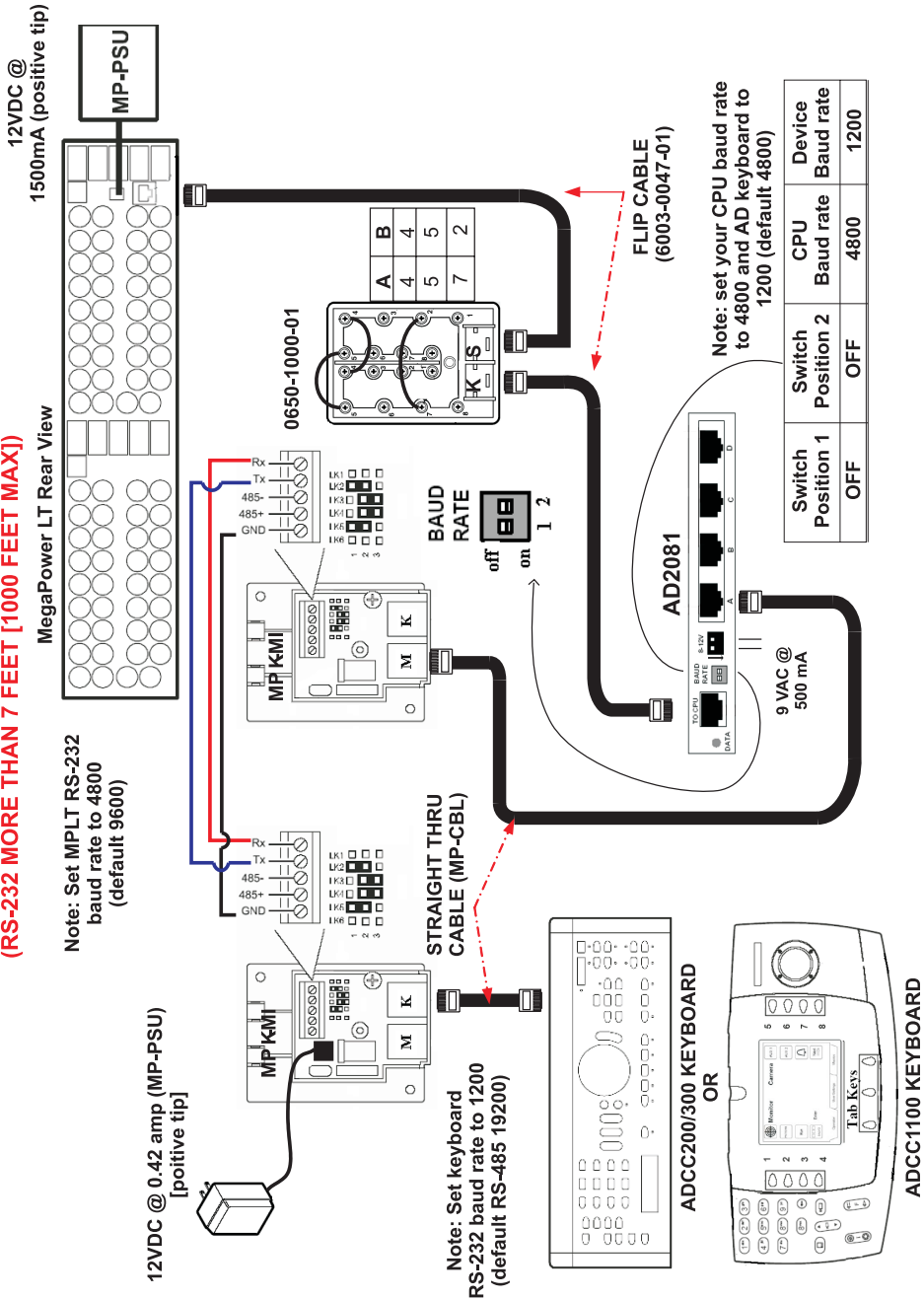


**MEGAPOWER LT TO ADCC200/300 or ADCC1100 KEYBOARD  
(RS-232 LESS THAN 7 FEET [1000 FEET MAX])**

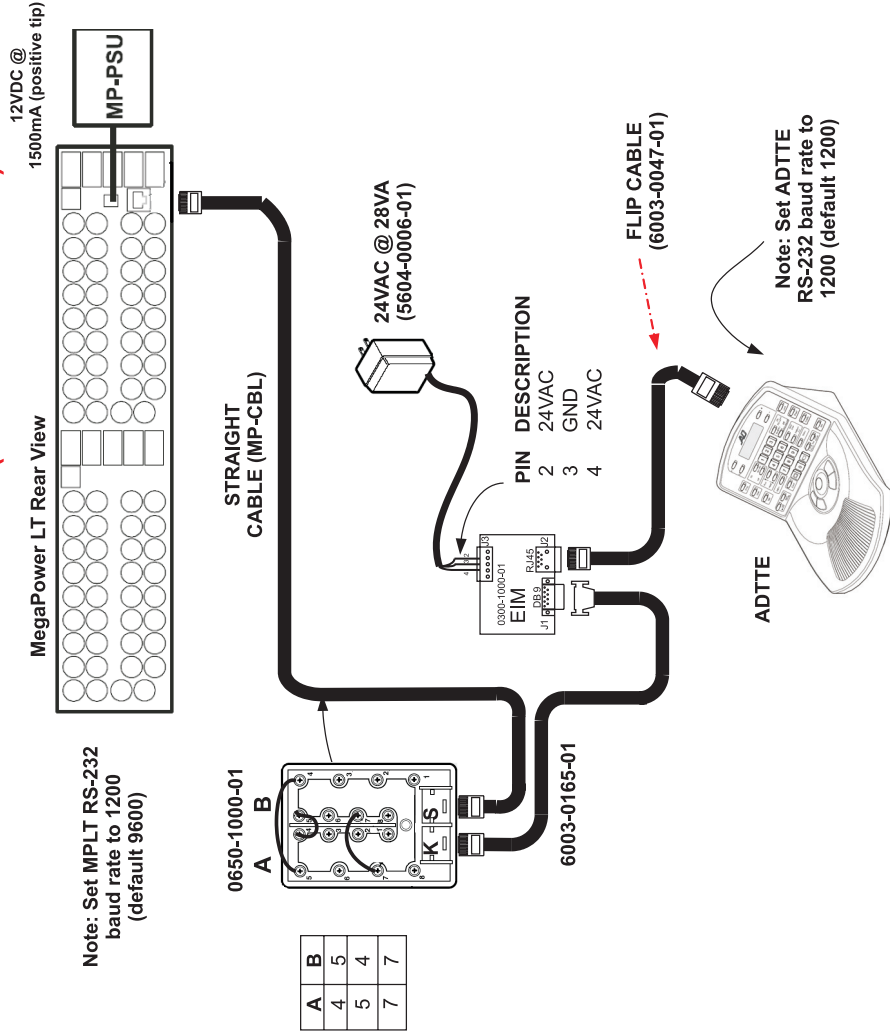




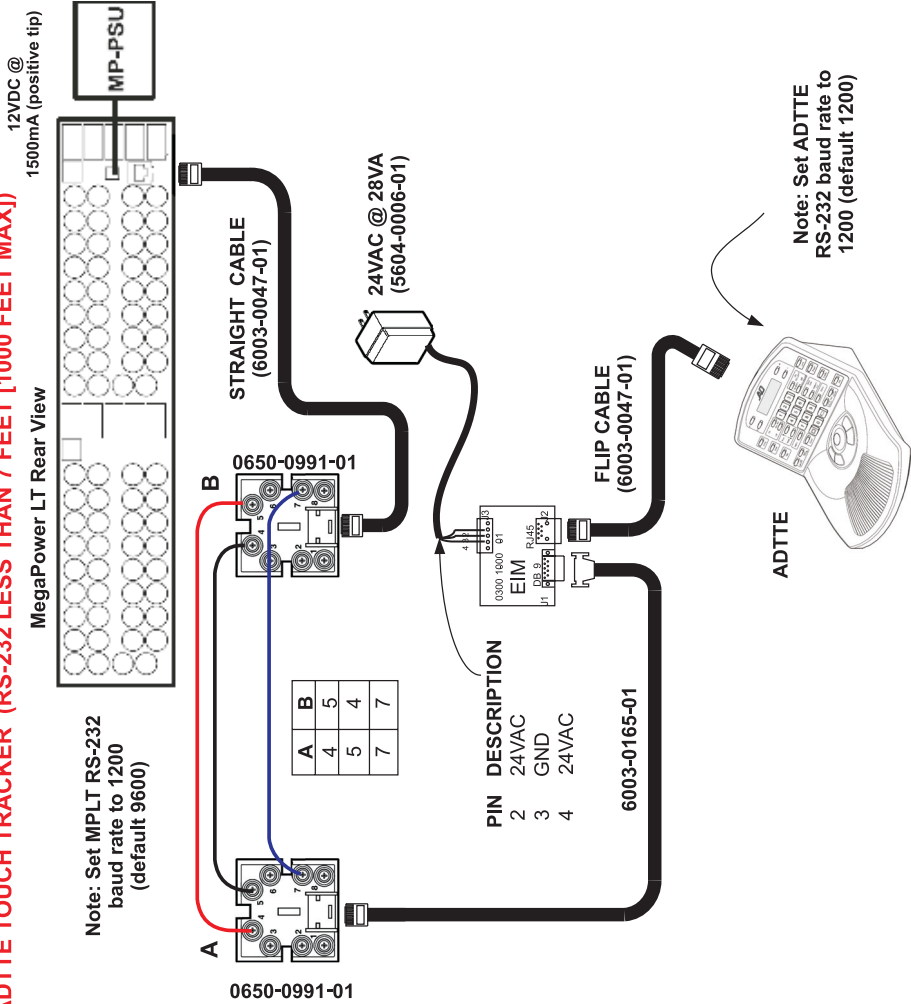
**MEGAPOWER LT TO AD2081 TO ADC200/0300 or ADCC1100 KEYBOARD  
(RS-232 MORE THAN 7 FEET [1000 FEET MAX])**



**MEGAPOWER LT TO ADTTE TOUCH TRACKER (LESS THAN 7 FEET)**

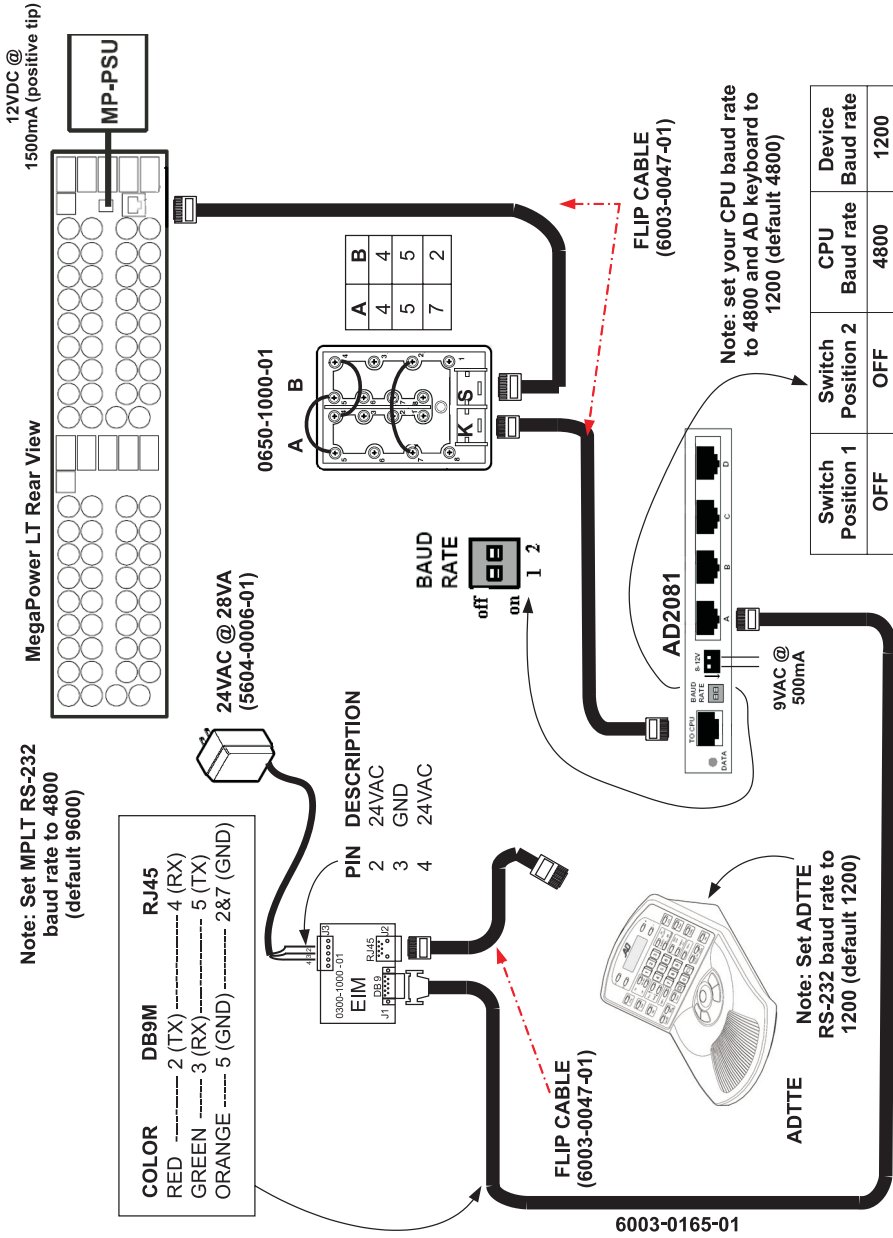


**MEGAPOWER LT TO ADTTE TOUCH TRACKER (RS-232 LESS THAN 7 FEET [1000 FEET MAX])**

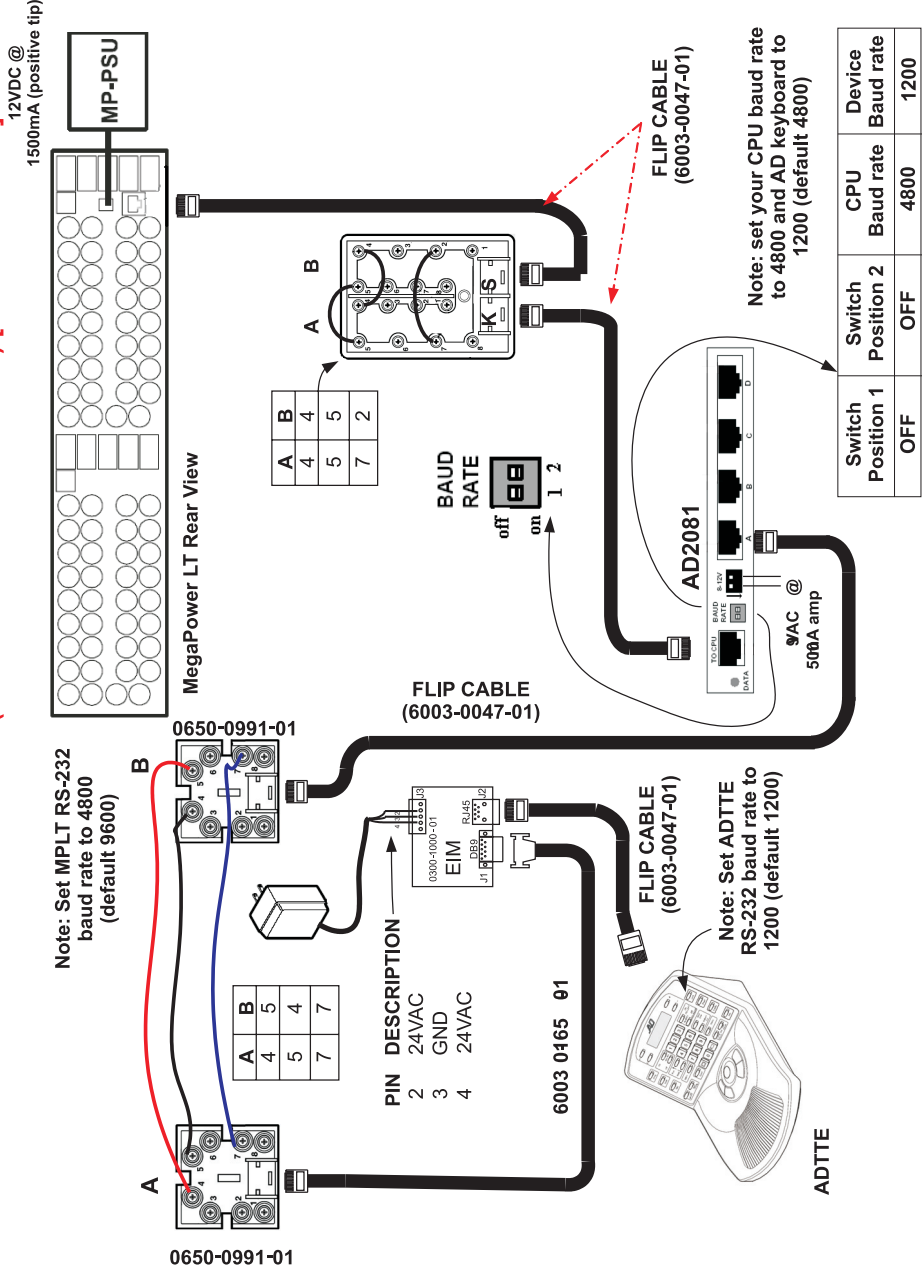




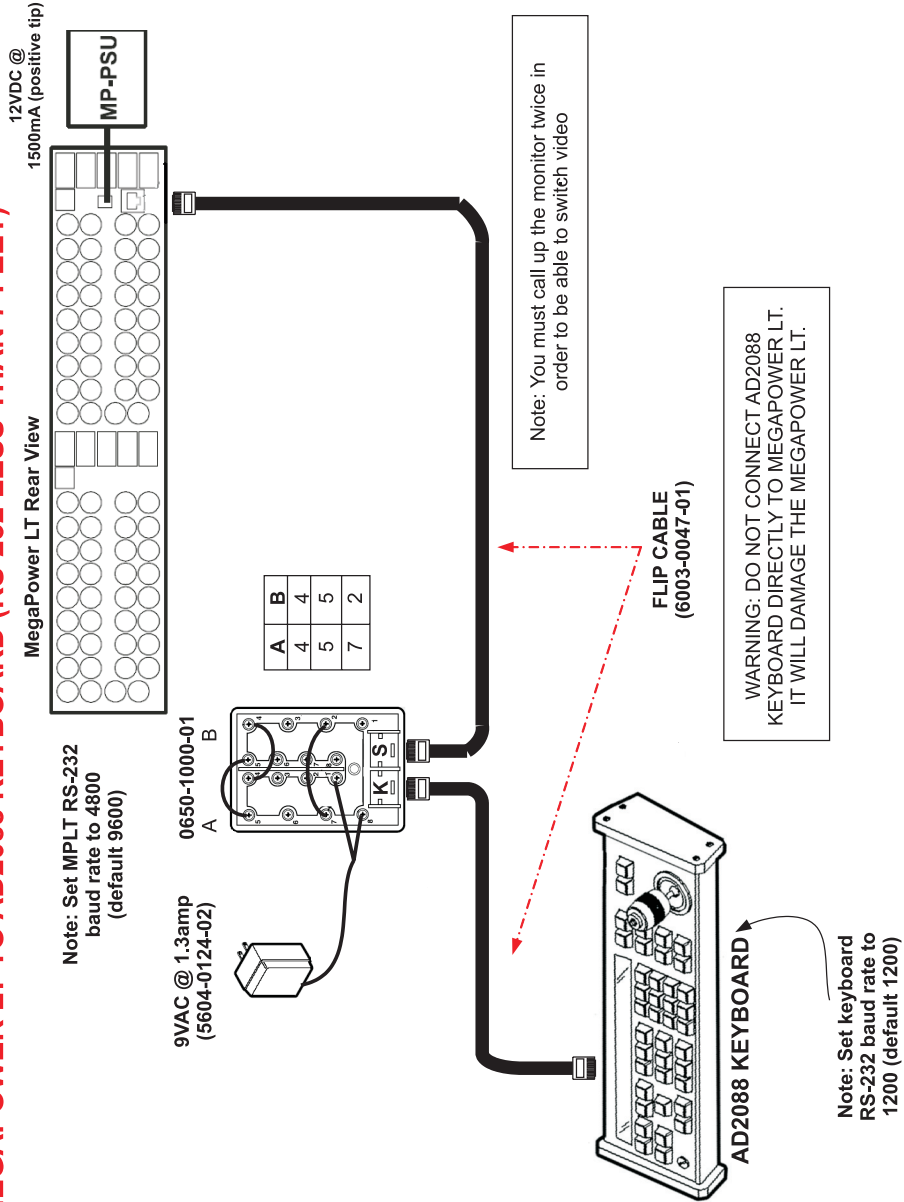
**MEGAPOWER LT TO AD2081 TO ADTTE (RS-232 LESS THAN 7 FEET)**



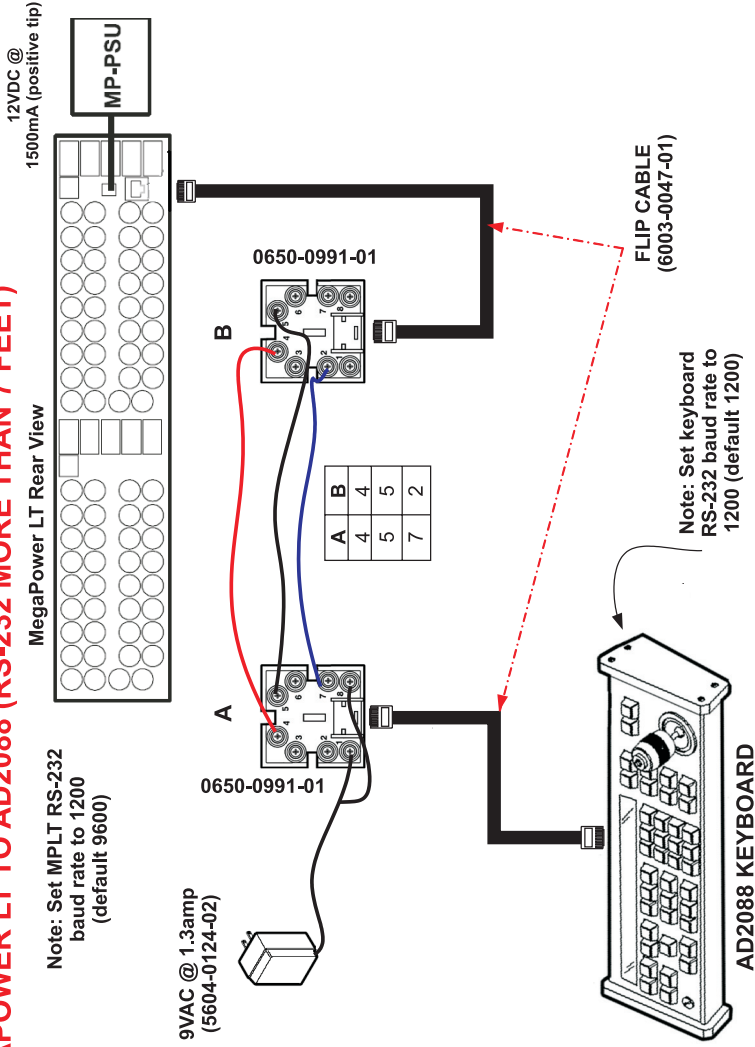
**MEGAPOWER LT TO AD2081 TO ADTTE (RS-232 MORE THAN 7 FEET) [1000 FEET MAX]**



# MEGAPOWER LT TO AD2088 KEYBOARD (RS-232 LESS THAN 7 FEET)



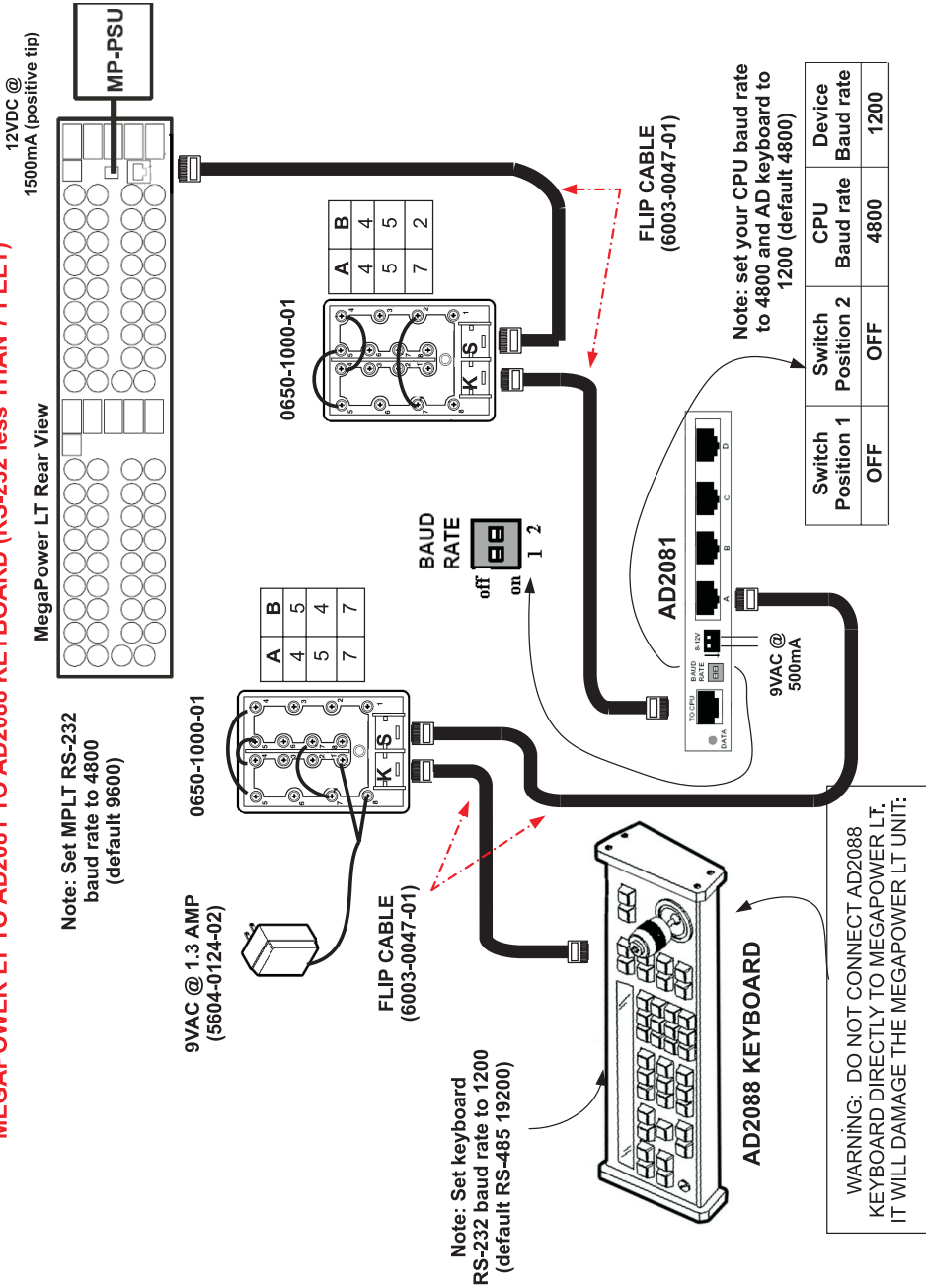
# MEGAPOWER LT TO AD2088 (RS-232 MORE THAN 7 FEET)



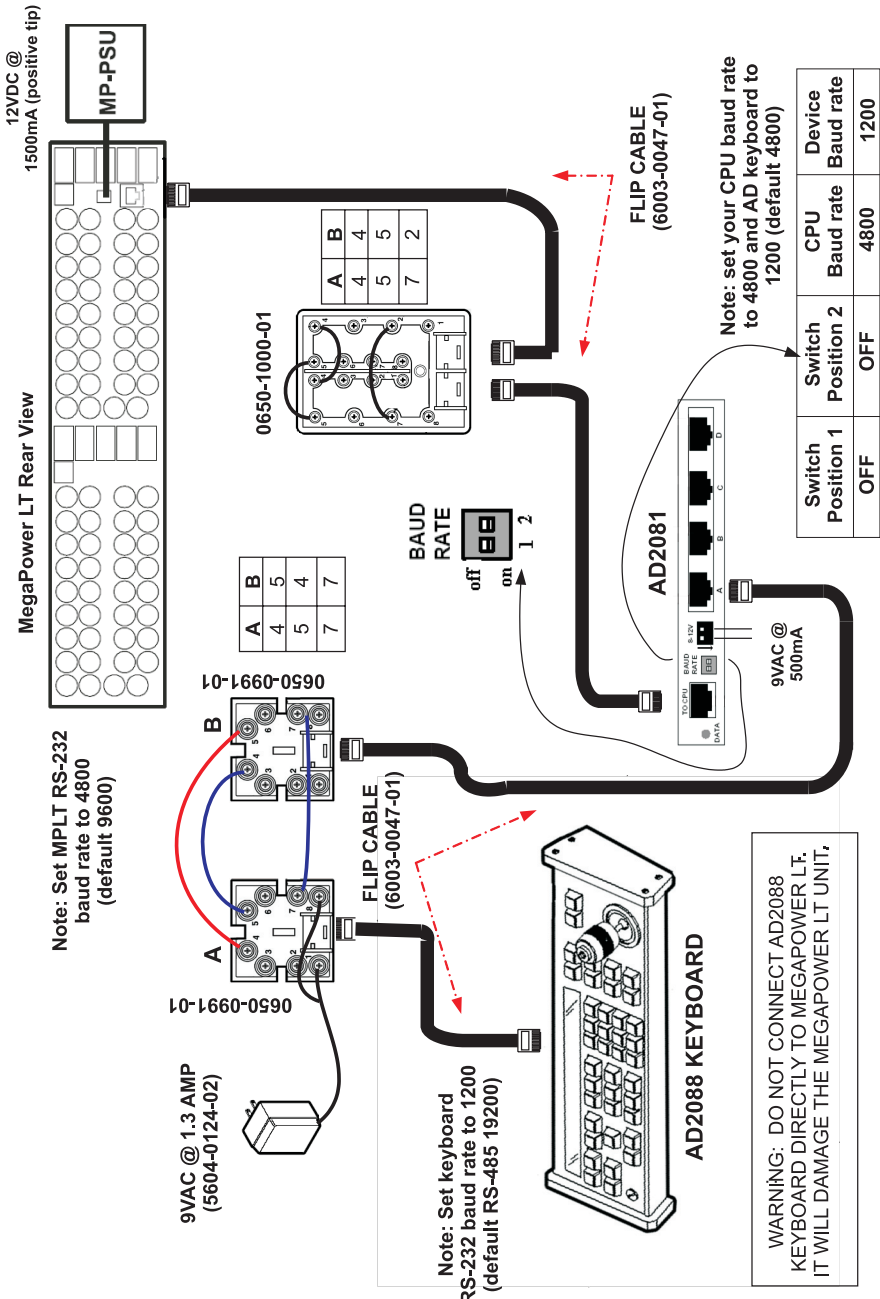
WARNING: DO NOT CONNECT AD2088 KEYBOARD DIRECTLY TO MEGAPOWER LT. IT WILL DAMAGE THE MEGAPOWER LT.

Note: You must call up the monitor twice in order to be able to switch video

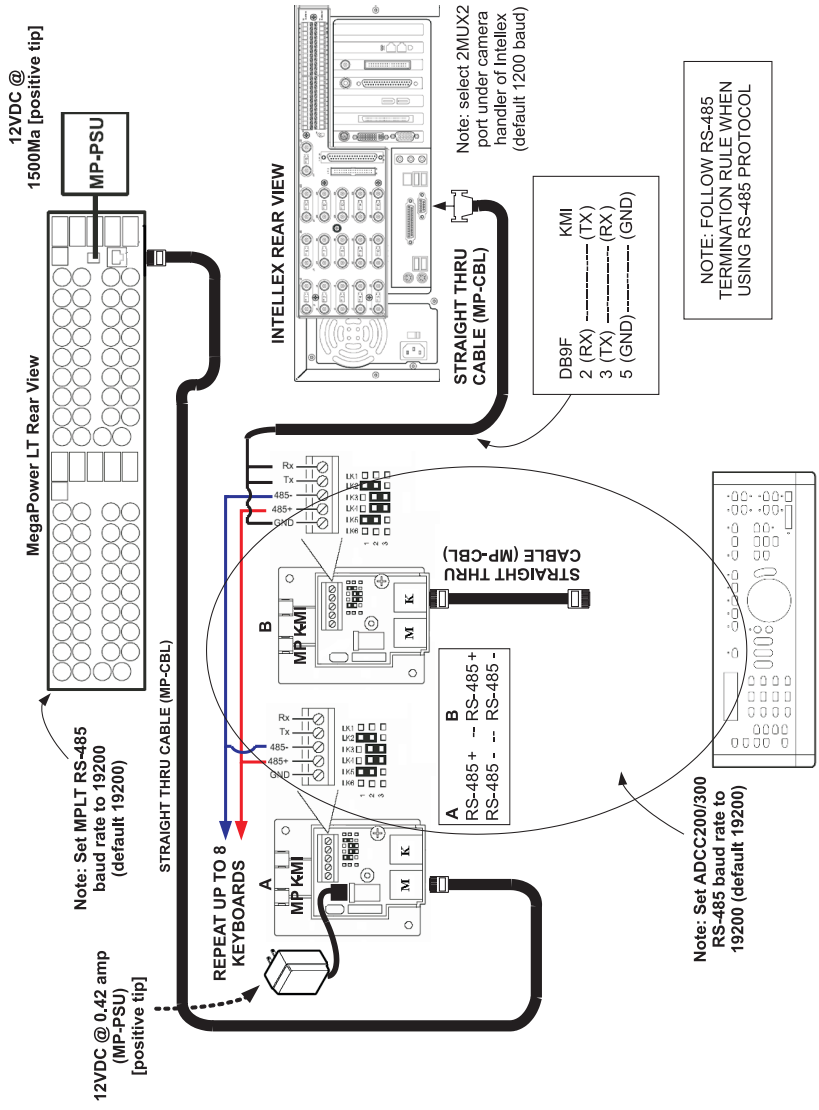
**MEGAPOWER LT TO AD2081 TO AD2088 KEYBOARD (RS-232 less THAN 7 FEET)**



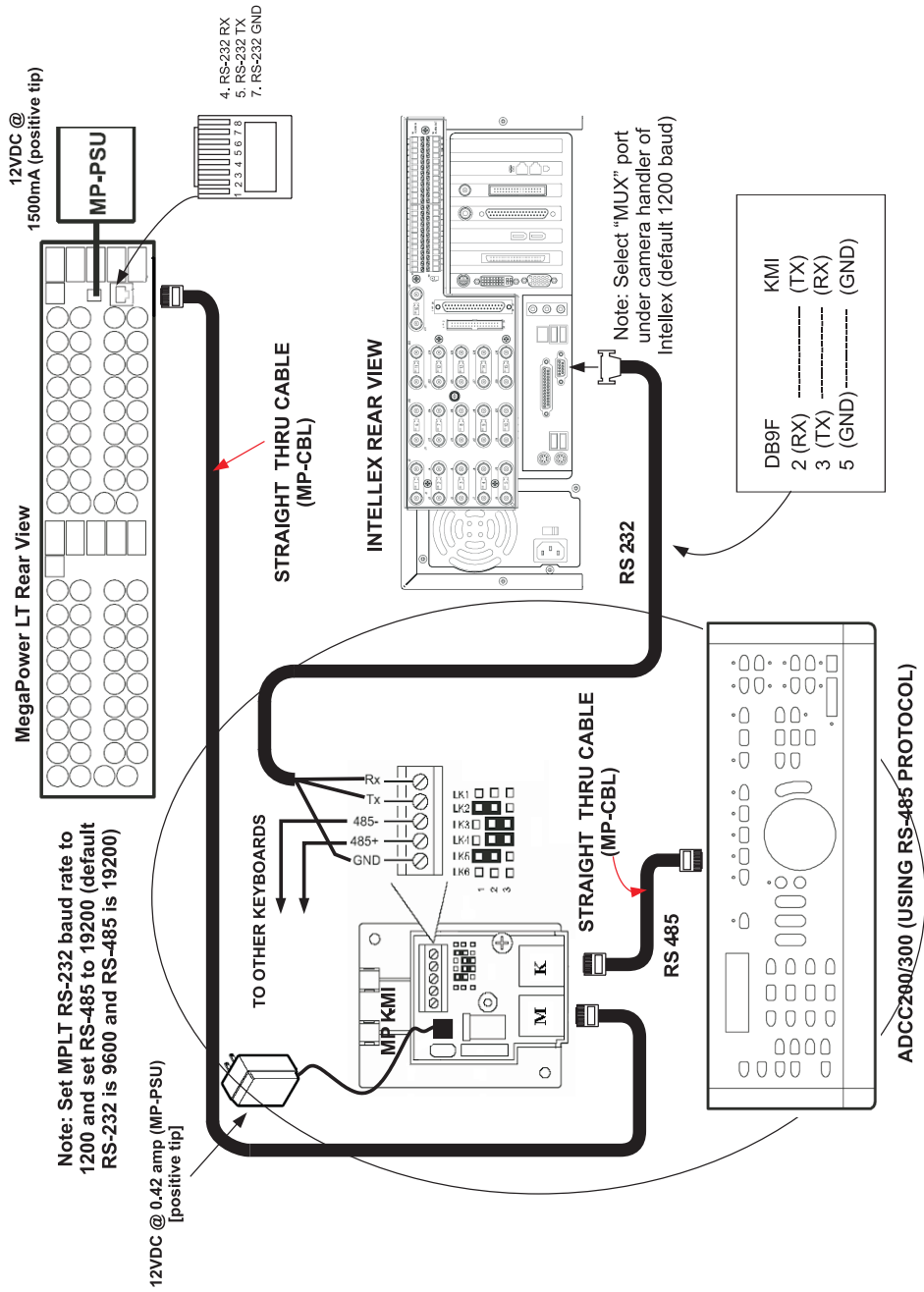
**MEGAPOWER LT TO AD2088 KEYBOARD (RS-232 MORE THAN 7 FEET)**



**MEGAPOWER LT TO INTELLEX TO ADCC200/300 (RS-485 MORE THAN 7 FEET)  
[SINGLE OR MULTIPLE KEYBOARDS CONNECTION]**

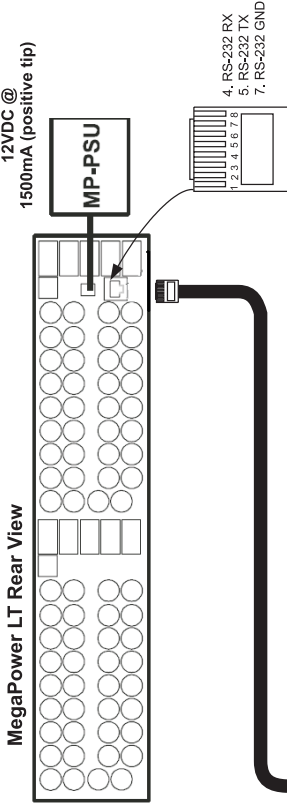


# MEGAPOWER LT TO INTELLEXTM USING RS-232 AND RS-485 PROTOCOL

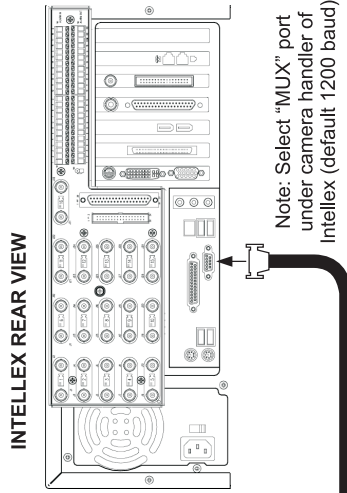




# MEGAPOWER LT TO INTELLEX

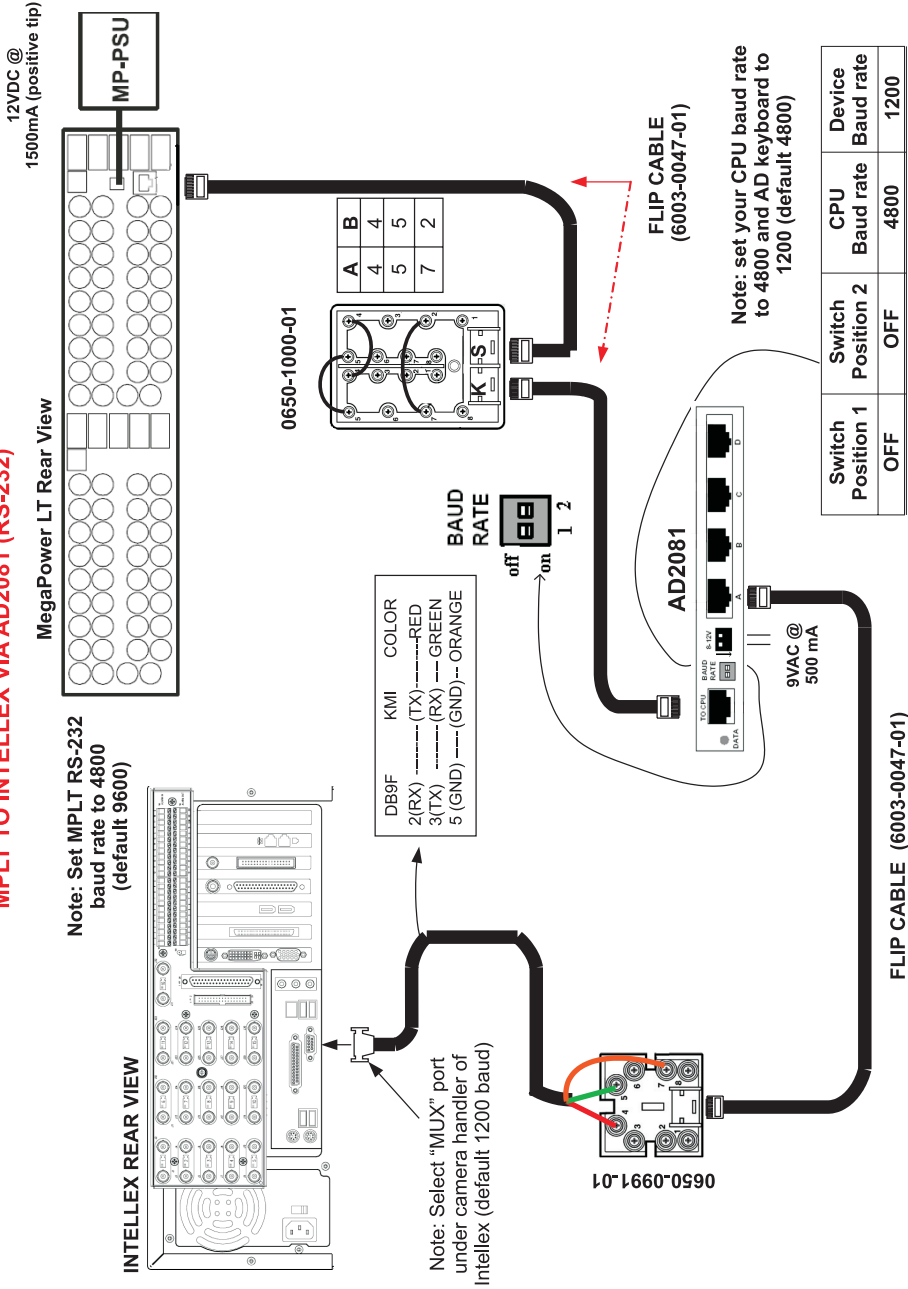


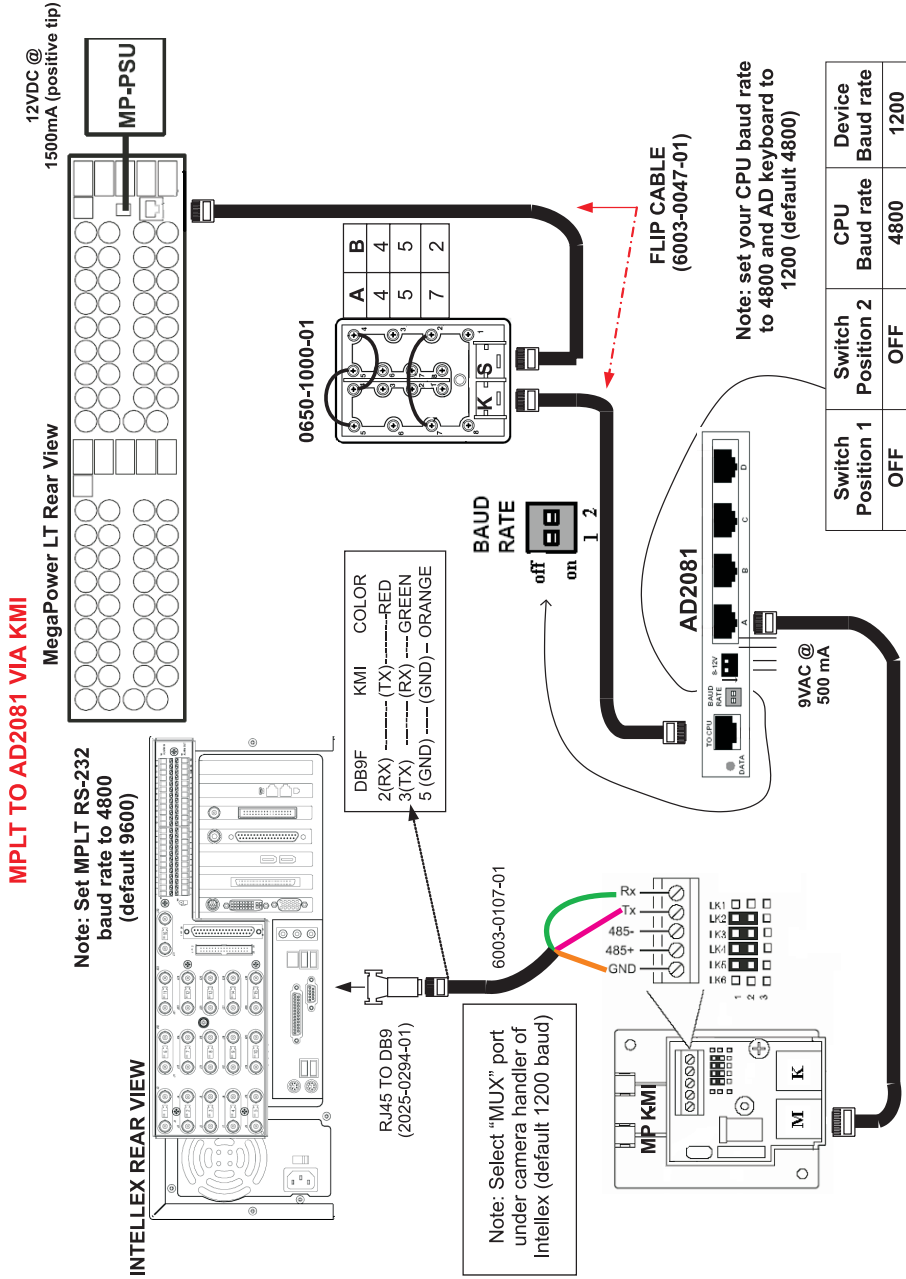
Note: Set MPLT RS-232 baud rate to 1200 (default 9600)



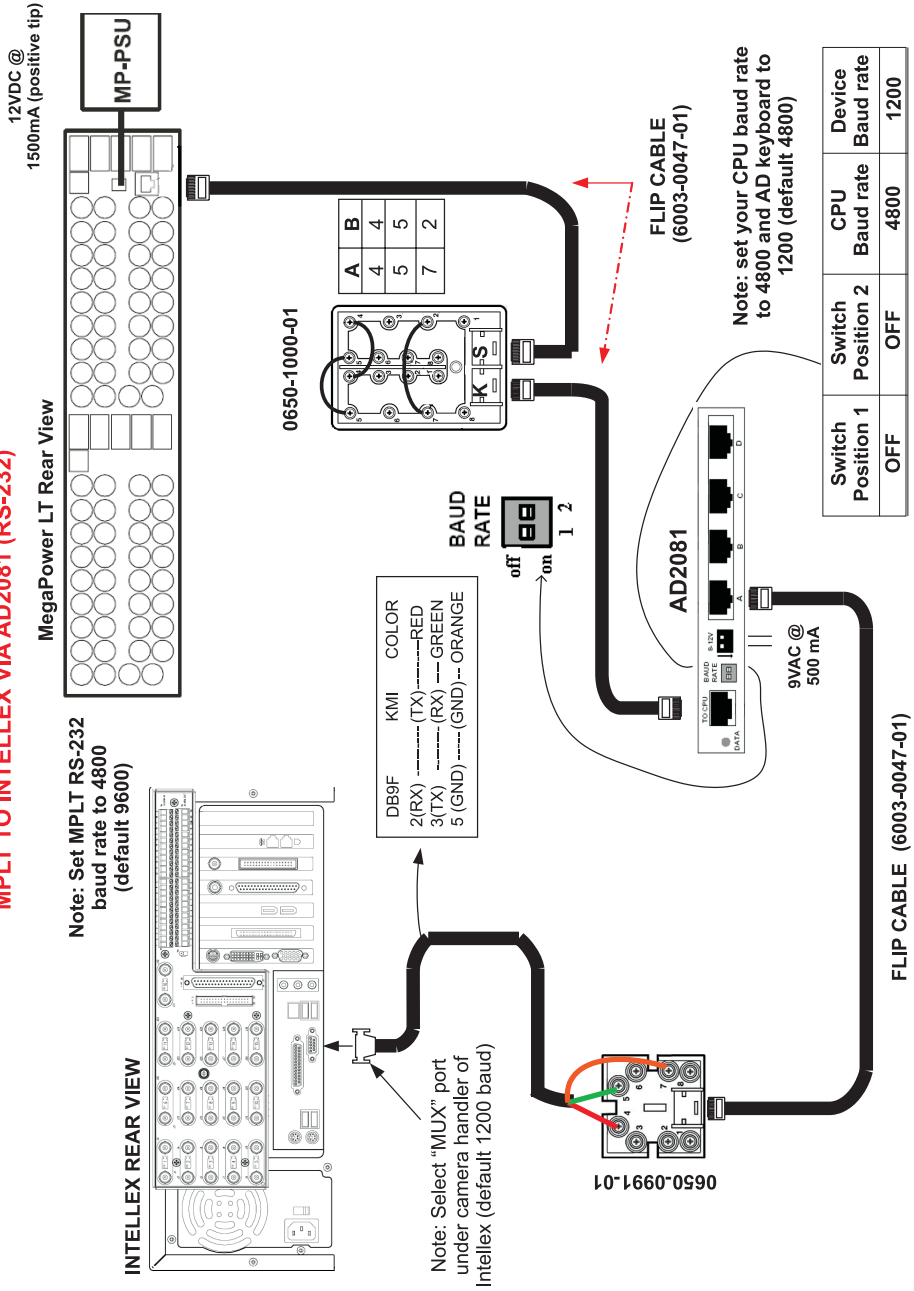
DB9F	MPLT RJ45
2 (RX)	5 (TX)
3 (TX)	4 (RX)
5 (GND)	7 (GND)

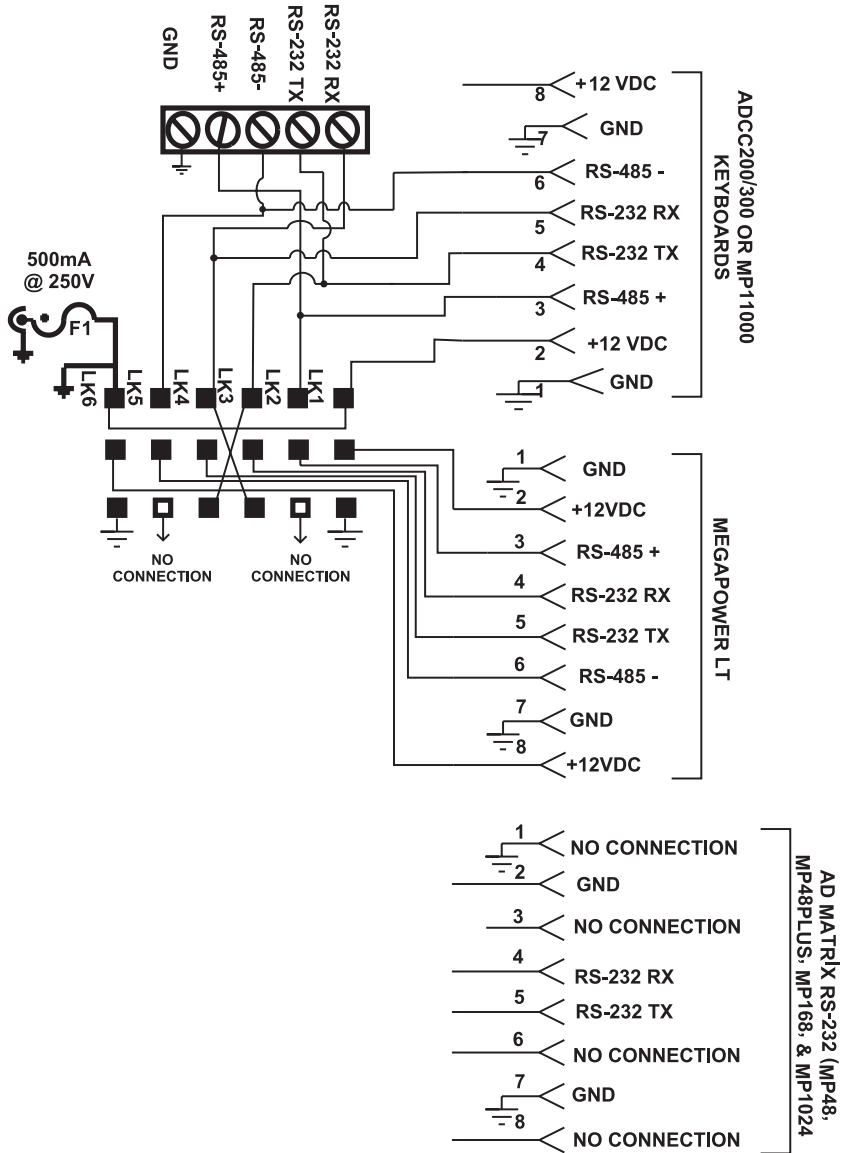
**MPLT TO INTELLEX VIA AD2081 (RS-232)**



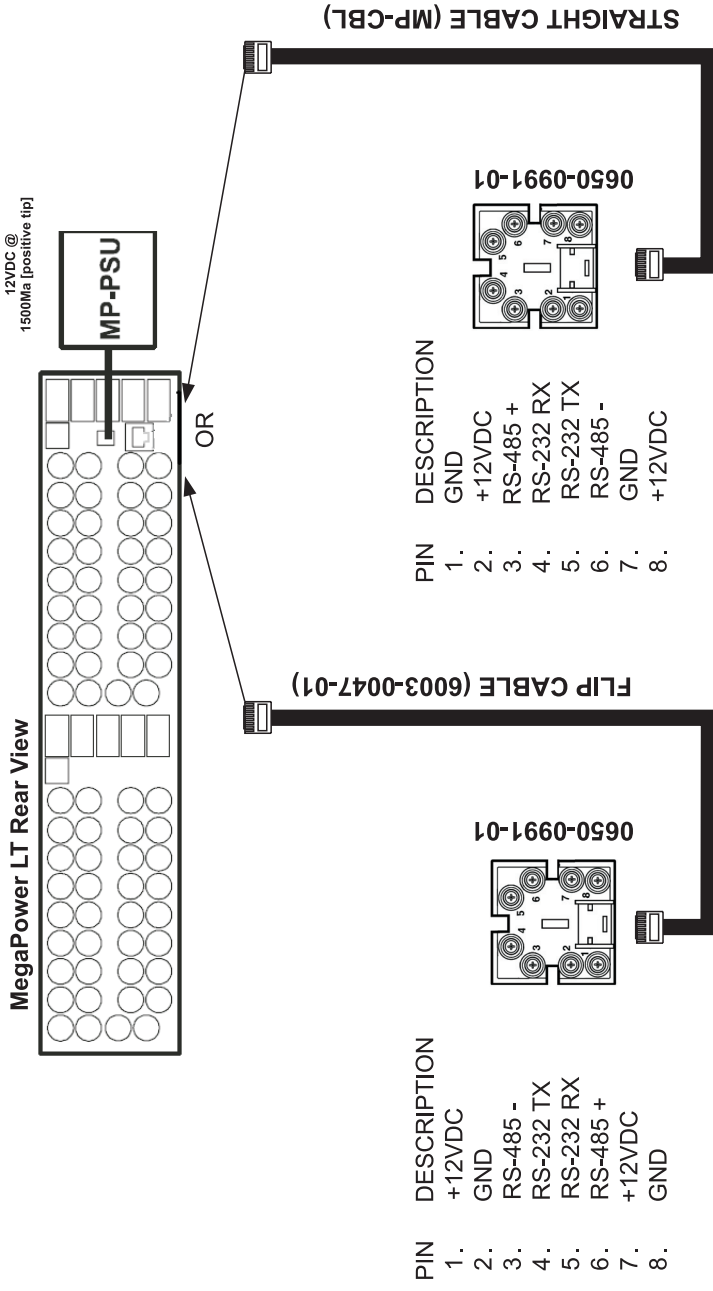


**MPLT TO INTELLEX VIA AD2081 (RS-232)**

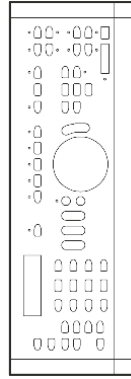
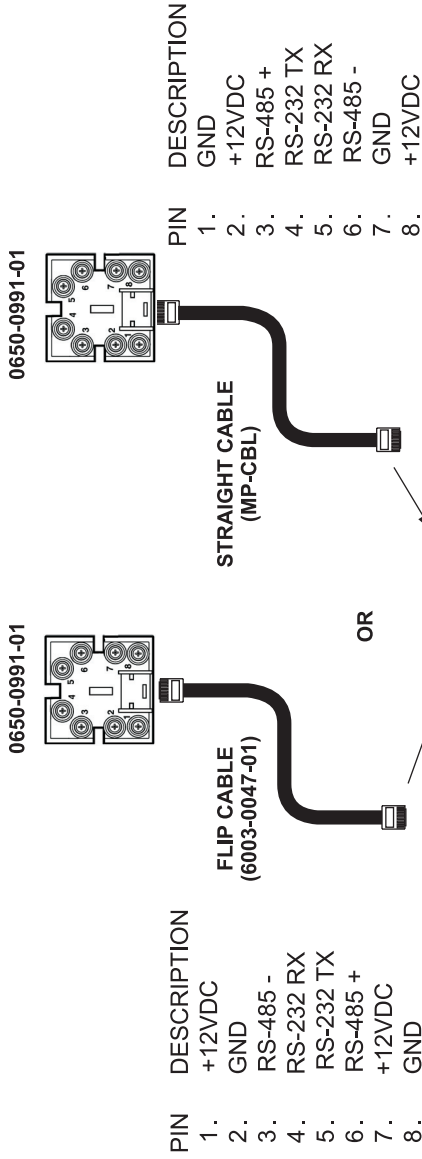




**MPLT TO TERMINAL BLOCK**

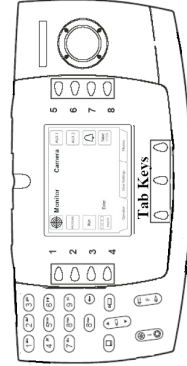


**ADCC200/300 OR ADCC1100 KEYBOARD TO TERMINAL BLOCK**



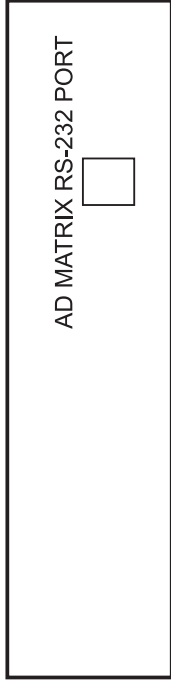
**ADCC200/300 KEYBOARD**

OR

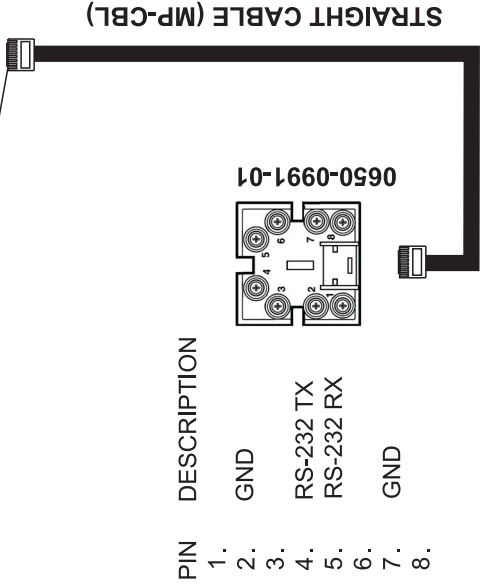
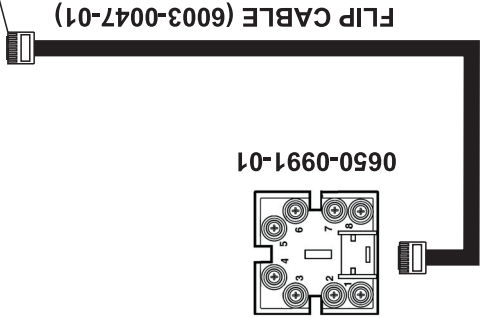


**ADCC1100 KEYBOARD**

**AD MATRIX TO TERMINAL BLOCK**

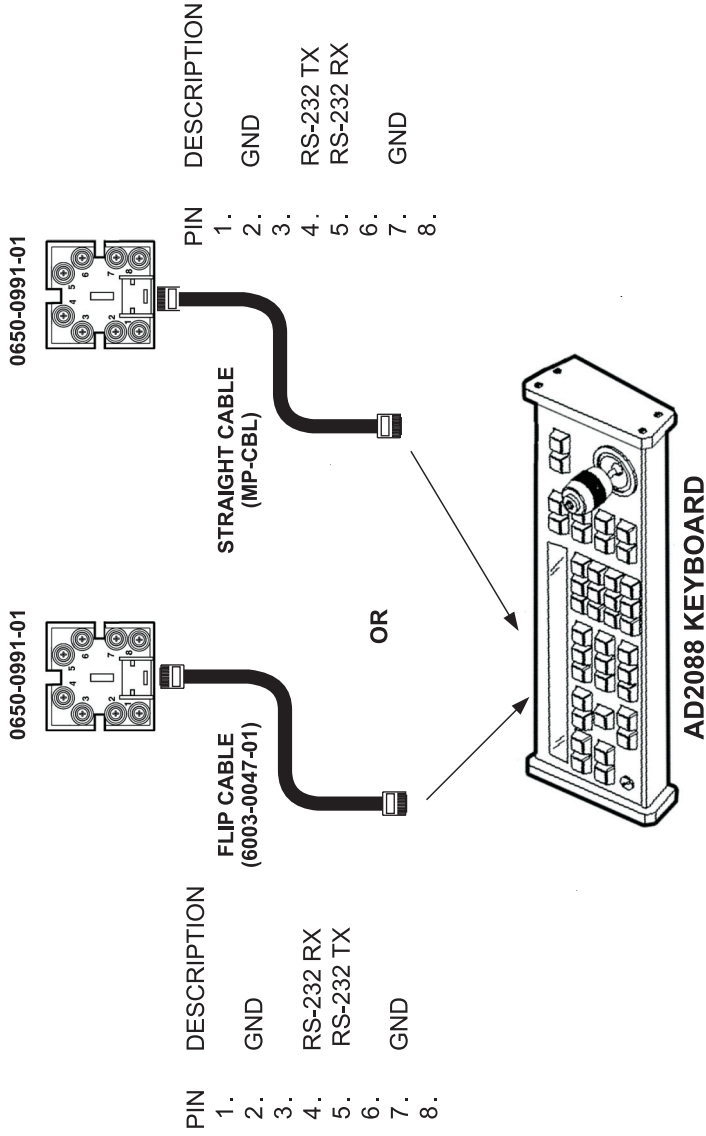


OR



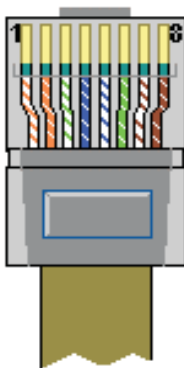
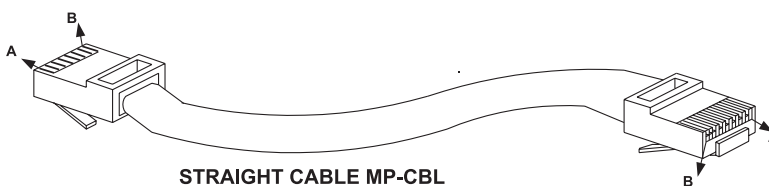


## AD2088 TO TERMINAL BLOCK



**WARNING: DO NOT CONNECT AD2088 KEYBOARD DIRECTLY TO MEGAPOWER LT. IT WILL DAMAGE THE MEGAPOWER LT UNIT.**

## STRAIGHT AND FLIP CABLE PIN OUT



RJ45 pin	MegaPower LT	ADCC200/300 or MP11000	AD Matrixes (MP48, MP168, MP1024)
1	Ground	Ground	No connection
2	+12 VDC	+12 VDC	Ground
3	RS-485+	RS-485+	No connection
4	RS-232 RX	RS-232 TX	RS-232 TX
5	RS-232 TX	RS-232 RX	RS-232 RX
6	RS-485-	RS-485-	No connection
7	Ground	Ground	Ground
8	+12 VDC	+12 VDC	No connection

**WARNING: PLEASE NOTE CABLE TYPE ON EACH KEYBOARD OR TOUCH TRACKER INSTALLATION**



Please visit our website for more information  
**[www.americandynamics.net](http://www.americandynamics.net)**

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MP-LTHB-3