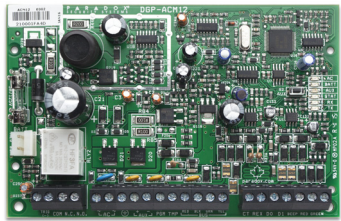


ACM12
Installation Manual V4.72 and higher

Supports EVOHD / EVO192 V4.5 and higher



Description

Thank you for choosing the ACM12 for your access control. The ACM12 is designed to be used with the Paradox EVO system. It allows you to manage access of one door, via card, pin or both, provide forced door and door left open detection, and arm / disarm functions. The ACM12 supports full Off-Line functionality, which stores the entire database in memory when the panel connection is lost and enables full synchronization upon restore. It supports one IN reader and one OUT reader if using 4-wire Paradox readers, or one IN reader only if using the 7-wire 26-bit Wiegand reader. The ACM12 also supports a REX, a door contact that can be an alarm zone, and a door locking device. With accelerated response of up to 999 users, simple and minimal programing, as well as easy installation, the ACM12 is designed to provide you with a reliable and professional access solution.

Compatibility

ACM12 V4.5 and higher is compatible only with panels EVOHD V4.5 and higher and EVO192 V4.5 and higher.

Upgrade Note

When upgrading to the latest version, it is advisable to upgrade the panel first, and then upgrade the ACM12 module.

Off-Line Feature

The ACM12 V4.5 and higher fully supports Off-Line functionality. In the case of panel connection loss, the ACM12 will switch to Off-Line mode and will fully function with user access level and schedules; arm / disarm user permissions will be overridden. While resuming communications with the panel, all programming changes will be updated. In Off-Line mode, events are kept locally in the module and can be uploaded manually for each ACM12 when communication is restored.

Installation (Figure 1)

Connect the ACM12 as per the drawing below. When powering up, all ACM12 modules will synchronize with the panel and upload all user and schedule data. Typically, 100 users and 10 schedules will take about 50 seconds to upload. This will also take place upon resuming connection with the panel. Synchronization is indicated by RX/TX LEDs flashing together at 4 Hz. If an ACM12 V4.5 detects a connection to a different EVO panel, data will be erased and the new panel data will be synchronized.

POWER: The ACM12 should be powered with a 16 Vac 20Va. Battery should be connected.

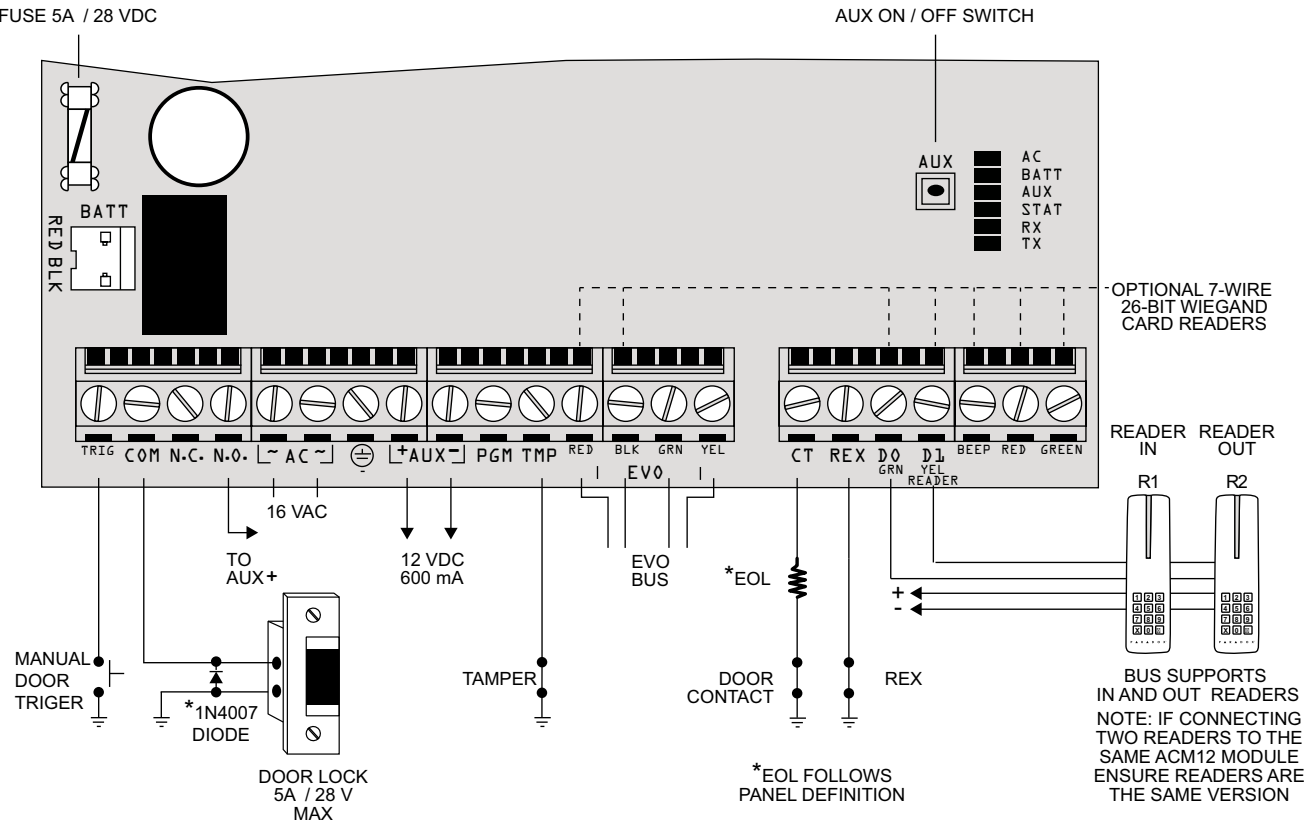


Figure 1

Unlock Device Diode: When connecting a locking device, it is recommended to connect diode 1N4007 as per Figure 1, to keep the relay contacts reliability.

Firmware Upgrade: Should you need to upgrade the ACM12 firmware, connect the CV4USB A+ to Green and B- to Yellow, and power Red and Black.

Connection	Description	Connection	Description
TRIG	Shorting to ground will activate the unlock relay.	TMP	Tamper switch follow panel definition Section [3034] ACM12 programming section [003] option1 to enable.
COM/NC/NO	Unlocking relay, max 5A / 28 VDC AC - 16V 20 VAC	EVO BUS	Connect to EVO bus.
⊕	Additional Aux (-)	CT	Zone for door contact. Can be system zone Section [0400], EOL will follow panel global EOL panel section 3033 bit 7.
AUX	Use to power the Reader, REX, and other devices. Max output 600mA, fuseless shutdown.	REX	Request for exit detector connection, it is connected without EOL.
PGM	50mA output follow. Some predefined conditions, see programming Section [011].	D0	Connect to Green wire of the Reader.
CT	Door contact is used to monitor door condition and to identify door left open and forced door status.	D1	Connect to Yellow wire of Reader.

Turning Auxiliary Power ON / OFF (V4.52 and above)

Press and hold the AUX ON / OFF switch for 7 seconds. This toggles the auxiliary power ON or OFF.

IN / OUT Reader Assignment (V4.52 and above)

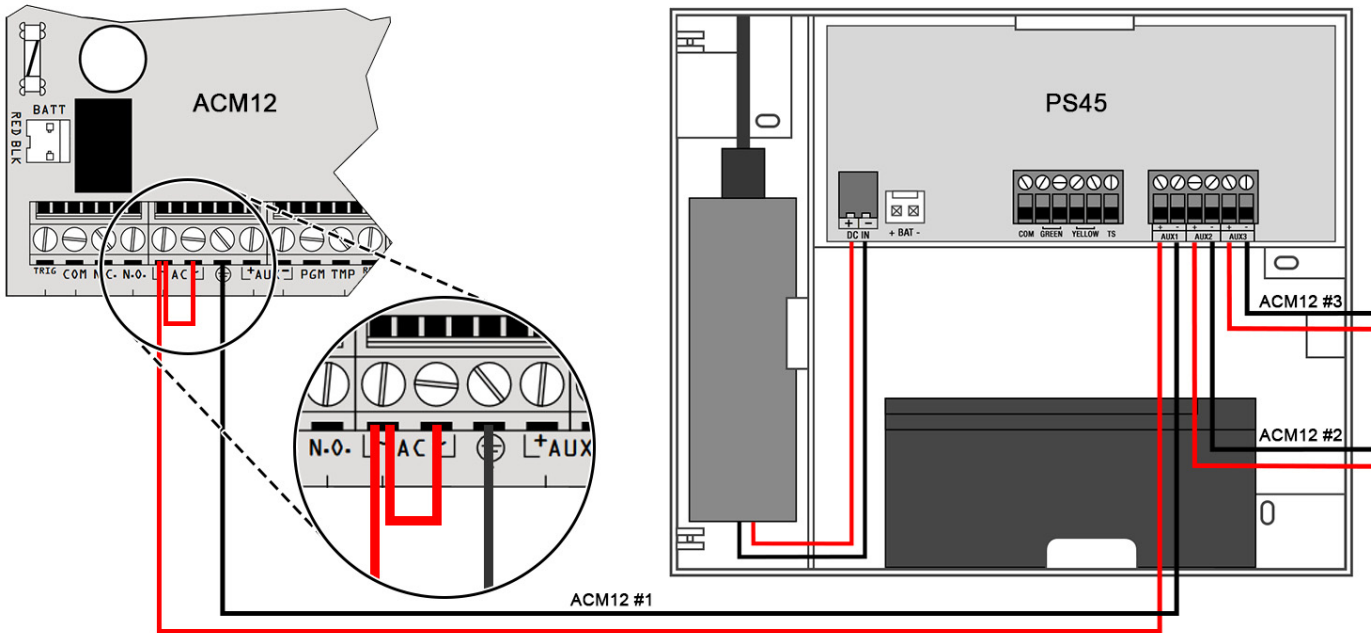
The reader that is detected first will be considered the IN reader, by default. The reader that is detected second will be considered the OUT reader.

Changing the Default Reader Assignment (V4.52 and above)

- Press and hold the AUX ON / OFF switch for 3 seconds. The ERROR, TX and RX LEDs flash for 2-3 seconds.
- Press any key or present an access card to the reader you want to designate as the IN reader. Automatically, the other reader will be designated as the OUT reader.

ACM12 Connection to PS45

Connect the ACM12's AC and ground to the PS45's Aux + and - connectors. You can power up to three ACM12 modules using the PS45 Power Supply instead of using separate transformers for each ACM12. Connect each ACM to the appropriate output, as shown below.



Programming via BabyWare or Keypad

Installer + Section [4003] + Serial Number of the ACM12.
* = Default

Section [001] General Options			
Option		OFF	ON
[1]	Tamper Input	Disabled*	Enabled
[2]	Battery Charging Current	350mA*	850mA
[3]	AC monitoring	Disabled	Enabled*
[4] & [5]		[4]	[5]
	Card only	OFF*	OFF*
	Card or PIN	ON	OFF
	Arm and Access: Card or PIN Disarm: Card and PIN	OFF	ON
	Card and PIN always	ON	ON
[6]	Unlock door on Fire Alarm	Disabled	Enabled*
[7]	Door forced open Alarm	Disabled*	Enabled
[8]	Card activates door unlocked schedule (V4.52 and above)	Disabled	Enabled*

Section	Data	Description	Default
[002]	__/__/__(Seconds)	Door Unlocked Period	005
[003]	__/__/__(Seconds)	Door Unlocked Period Extension (handicap use)	015
[004]	__/__/__(Seconds)	Door Left Open warning delay	000
[005]	__/__/__(Minutes)	Door Left Open Alarm delay from warning	001
[006]	__/__/__(Minutes)	Safe Unlock delay	00
*[007]	__/__/__(01 - 32)	1 st Unlock Door Schedule	00
*[008]	__/__/__(01 - 32)	2 nd Unlock Door Schedule	00
*[009]	__/__/__(01 - 32)	3 rd Unlock Door Schedule	00
*[010]	__/__/__(01 - 32)	4 th Unlock Door Schedule	00

* Follow Panel User Schedules.

Section	Data	Description	Default
[011]	__/__	PGM Activation	00
00 : Arm 01 : Follow Door Unlock Schedule 02 : Follow Access Granted (will be activated for the unlock period) 03 : Follow Door Forced State 04 : Follow Door Left Open Warning / Alarm 05 : Utility Key 1 06 : Utility Key 2 07 : Utility Key 3 08 : Utility Key 4 09 : Utility Key 5 10 : Utility Key 6 11 : Utility Key 7 12 : Utility Key 8 13 – 99 : Future Use			

Section [012]			
Option		OFF	ON
[1]	Partition 1	Disabled	Enabled*
[2]	Partition 2	Disabled*	Enabled
[3]	Partition 3	Disabled*	Enabled
[4]	Partition 4	Disabled*	Enabled
[5]	Partition 5	Disabled*	Enabled
[6]	Partition 6	Disabled*	Enabled
[7]	Partition 7	Disabled*	Enabled
[8]	Partition 8	Disabled*	Enabled

Section [013]			
Option		OFF	ON
[1]	Re-lock option	On door opening	On door closure
[2]	On access granted / utility key event	PGM follow lock delay	PGM toggle state
[3]	Unlock schedule override on access granted	Disabled	Card locks door
[4]	Door left open beep on reader	Disabled	Enable
[5] - [8]	For future use	-	-

LED Feedback

AC	On (green) when module has AC power.
BATT	On (green) when charging and during battery tests. Battery test every one minute.
AUX	On (Yellow) when auxiliary output is active.
STAT	On or flash (Red) when an error occurs. Refer to Error Display table below.
RX	Flashes (Green) when receiving information from the panel.
TX	Flashes (Green) when transmitting information to the panel.

* RX / TX will flash together at a frequency of 4Hz when synchronization takes place.

Error Display

STAT (Red)	RX (Green)	TX (Green)	Condition
ON	OFF	OFF	EVO bus is shorted / No clock / No data (offline)
ON	OFF	ON	Wrong data / Invalid EVO address, too many modules or incompatible panel version
ON	ON	ON	EVO bus YEL and GRN reversed
FLASH	----	----	EVO bus voltage is low (less than 9V)

Technical Specifications

User Capacity	999
Door Unlock Schedules	4 (total of 8 periods)
User Schedules Capacity	32
User Security Levels	15
Power	16 Vac, 20 VA
Auxiliary Output	12 Vdc, 600 mA, 1A fuseless shutdown
Battery	12 Vdc, Gel Cell. Connection protected with 5A fuse
Door Unlock	Form C relay rated at 5A / 28 Vdc
PGM Output	50 mA predefined definitions
Device Connections	Two Paradox 4-wire readers or one 7-wire 26-bit Wiegand reader, door contact, REX device, tamper
Manual Unlock	Negative trigger input
Control Panel Compatibility	EVOHD Control Panel V4.5 and above EVO192 Control Panel V4.5 and above
Metal Box (optional)	Minimum 20 x 25.5 x 7.6 cm (8 x 10 x 3 in.) metal box
Dimensions	14 x 9.2 x 2.5 cm (5.5 x 3.6 x 1 in.)

Warranty

Please refer to the Limited Warranty Statement found on the website www.paradox.com or contact your local distributor.
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Patents

One or more of the following US patents may apply: 7046142, 6215399, 6111256, 6104319, 5920259, 5886632, 5721542, 5287111, and RE39406 and other pending patents may apply. Canadian and international patents may also apply.



ENGLISH

Introduction

The R915 is a weatherproof 4-wire proximity card reader with a built-in backlit 12-button keypad for PIN entry. The R915 is compatible with any Digiplex or EVO control panel and is connected to a ACM12 using only 4 wires to facilitate installation.

Keypad

This reader can use both the Card and PIN functions. However, the PIN must be entered after the card is scanned if Card and PIN is enabled. You can also use the Card Only, PIN Only or Card or PIN settings, which are set in the ACM12. PIN settings are only available with ACM12 V4.0 or higher. The X key is used to cancel a PIN entry, the ✓ key is used when using Flexible Code Length and entering a code shorter than 6 digits.

Arming and Disarming

It is currently possible to arm and disarm the system if the proper options are enabled in the User and door's settings. Refer to your EVO programming guide for additional information.

Tricolour LED Display

The reader includes a tricolour LED display (red, green and amber) that is used to indicate system status as shown in the LED display table.

Audible Tone

The reader includes a built in beeper.

Weather Resistant

The rubber gasket and plastic PCB cover allows you to mount your R915 indoors or outdoors.

Technical Specifications

Compatibility	Card only: DGP-ACM11 version 3.0 or higher Card/PIN: ACM12 version 4.0 or higher
Power Input:	11Vdc to 14.5Vdc
Current Consumption	60mA
Frequency:	Exciter field 125 KHz Pulse Modulated
Operating Temperature:	-35°C (-31°F) to +65°C (149°F)
Output Formats:	4-wire (RS-485)
Cable Distance:	300m (1000 ft.)
Cables:	4-wire Cables (Twisted Pair recommended)
Color:	Available in black, white and silver
Weather Proofing	Rubber Gasket and Plastic PCB cover.
All specifications are subject to change without notice.	

Installation

Mounting

Mount the reader on a clean, flat and even surface to avoid bending the plastic casing. Once mounted, properly seal the reader's contour to avoid possible water infiltration.

It is highly recommended to mount the reader on a flat, even surface, thereby making it less vulnerable to weather damage. If mounting on an uneven surface is absolutely necessary, ensure that all gaps between the reader and surface are properly sealed.

Mounting on Metal

Metal may decrease the read range. The card reader can be mounted on metal but do not surround it by metal. If the reader must be installed in a metal enclosure, ensure that the face of the card reader is not covered and that there is at least 4cm (1.6") between the card reader and the metal on all sides.

Connection

Connect the R915 as shown in Figure 1.

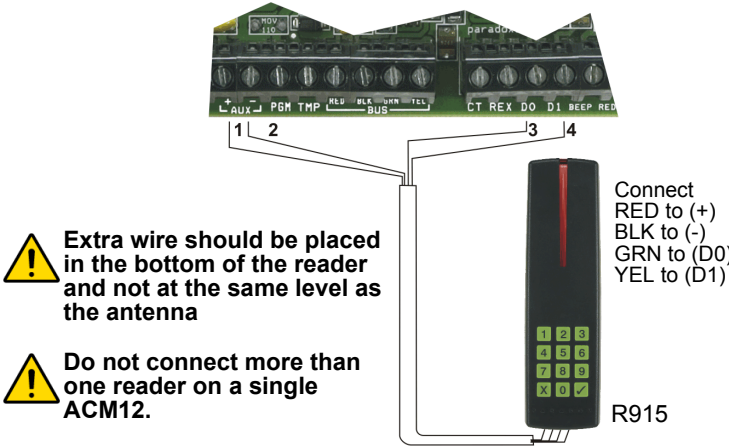
Status Display

	Status	Visual Indicators*			Audible Tone
		Green	Red	Amber	
Access	Wait for PIN entry	Slow Flash	-	-	-
	Read Card	-	-	On when reading	Fast Beep
	Access Denied	-	Fast Flash	-	Long Beep
	Access Granted	On	-	-	Fast Beep
	Door Unlocked	On	-	-	-
	Door Locked	-	On	-	-
	Door Left Open Pre-Alarm	-	Flash	-	Beep
	Door Left/ Forced Open	-	Fast Flash	-	Fast Beep
Security	Fire Alarm	-	Pulsed	-	Pulsed
	Burglary Alarm	-	Flash	-	Beep
	Armed	-	Fast Flash	-	-
	Exit Delay	-	Flash†	-	Beep†
Trouble shooting	Fail to Com.	Slow Alternating Flash	-	-	-
	Safe Mode	Alternating Flash with Pause	-	-	-
	Lost Communication with ACM11	-	-	Slow Flash	-
	Locate	Fast Flash	-	-	-

* Certain displays can be enabled or disabled with the ACM12.
†Faster in the last 10 seconds of the exit delay

Visual Indicators	Details
Flash	250 ms ON; 250 ms OFF
Slow Flash	400 ms ON; 400 ms OFF
Fast Flash	50 ms ON; 50 ms OFF

Figure 1: Connecting the R915
ACM12 (V4.0 or Higher)



ESPAÑOL

Introducción

El R915 es un lector de tarjetas de proximidad de 4 cables a prueba de intemperies con un teclado incorporado de 12 botones con luz de fondo para el ingreso de un NIP. El R915 es compatible con cualquier central Digiplex o EVO y es conectado a un módulo ACM12 mediante sólo 4 cables para facilitar la instalación.

Teclado

Este lector puede usar las funciones de Tarjeta y de NIP conjuntamente. Sin embargo, el NIP debe ser ingresado después de la lectura de la tarjeta por el lector si ambas funciones de Tarjeta y NIP están habilitadas. También se puede usar las funciones de Sólo Tarjeta, Sólo NIP o las funciones de Tarjeta o NIP, que son definidas en el ACM12. La configuración del NIP sólo está disponible con el módulo ACM12 versión 4.0 o posterior. La tecla X es usada para anular el ingreso de un NIP, la tecla ✓ es usada cuando se emplea la opción de Extensión Flexible de Código y se ingresa un código de menos de 6 dígitos.

Armado y Desarmado

Actualmente, es posible armar y desarmar el sistema si las opciones adecuadas están habilitadas en las configuraciones de usuario y de puerta. Consultar la guía de programación de EVO para más información.

Indicador LED Tricolor

El lector incluye un indicador LED tricolor (rojo, verde y ámbar) que se usa para indicar el estado del sistema como se muestra en la tabla de indicadores LED.

Tono Audible

El lector incluye un avisador con tonos incorporado.

A prueba de Intemperies

La junta de caucho y la cubierta en plástico PCB permiten el montaje del R915 en interiores o exteriores.

Especificaciones Técnicas

Compatibilidad	Tarjeta solamente: DGP-ACM11 versión 3.0 o posterior Tarjeta/NIP: ACM12 versión 4.0 o posterior
Alimentación:	11Vcc a 14.5Vcc
Consumo de Corriente	60mA
Frecuencia:	Campo de excitador de 125 KHz Modulado por Pulsos
Temperatura de Funcionamiento:	-35°C (-31°F) a +65°C (149°F)
Formatos de Salida:	4 cables (RS-485)
Distancia de Cables:	300m (1000ft)
Cables:	Detector de humo de 4 cables (se recomienda cable de par trenzado)
Color:	Disponible en negro, blanco y plateado
A prueba Intemperies	Junta de Caucho y cubierta en Plástico PCB.
Todas las especificaciones pueden cambiar sin previo aviso.	

Instalación

Montaje

Montar el lector sobre una superficie plana, limpia y pareja para evitar el doblado de la caja plástica. Una vez montado, sellar correctamente el contorno del lector para evitar la infiltración del agua.

Se recomienda enfáticamente montar el lector en una superficie plana y pareja, lo que lo hace menos vulnerable a a las intemperies. Si el montaje en una superficie irregular es absolutamente necesario, asegurarse de sellar todos los espacios vacios que se encuentren entre el lector y la superficie.

Montaje Sobre Metal

El metal podría reducir el alcance de lectura. El lector de tarjetas puede ser montado sobre metal pero no debe estar rodeado de metal. Si el lector debe ser instalado en una caja metálica, verificar que nada cubra su parte frontal y de mantener una distancia de por lo menos 4cm (1.6") entre el lector de tarjetas y el metal, por todos lados.

Conexión

Conectar el R915 como se muestra en la Figura 2.

Pantalla de Estado

	Estado	Indicadores Visuales*			Tono Audible
		Verde	Rojo	Ámbar	
Acceso	Esperar ingreso de NIP	Parpadeo Lento	-	-	-
	Lectura de Tarjeta	-	-	Encendido en lectura	Parpadeo Rápido
	Acceso Negado	-	Parpadeo Rápido	-	Tono Largo
	Acceso Autorizado	On	-	-	Parpadeo Rápido
	Puerta Desbloqueada	On	-	-	-
	Puerta Desbloqueada	-	On	-	-
	Pre-alarma en Puerta Dejada Abierta	-	Parpadeo	-	Tono
	Puerta Dejada/ Forzada Abierta	-	Parpadeo Rápido	-	Parpadeo Rápido
Seguridad	Alarma de Fuego	-	Pulsada	-	Pulsada
	Alarma Antirrobo	-	Parpadeo	-	Tono
	Armado	-	Parpadeo Rápido	-	
	Retardo de Salida	-	Parpadeo†	-	Tono†
Diagnóstico de Fallos	Fallo al Com.	Parpadeo Lento Alternado		-	-
	Modo Seguro	Parpadeo Alternado con Pausa		-	-
	Pérdida de Comunicación con el ACM11	-	-	Parpadeo Lento	-
	Locate	Parpadeo Rápido	-	-	-

* Ciertos indicadores pueden habilitarse o deshabilitarse con el ACM12.
†Más rápido en los últimos 10 segundos del retardo de salida

Indicadores Visuales	Detalles
Parpadeo	250 ms ON; 250 ms OFF
Parpadeo Lento	400 ms ON; 400 ms OFF
Parpadeo Rápido	50 ms ON; 50 ms OFF

Figura 2: Conexión del R915
ACM12 (V4.0 ó posterior)



FRANÇAIS

Introduction

Le R915 est un lecteur de proximité à 4 fils résistant aux intempéries avec un clavier à 12 touches rétroéclairées intégré pour l’entrée du NIP. Le R915 est compatible avec tous les panneaux de contrôle Digiplex ou EVO et se raccorde à un ACM12 utilisant uniquement 4 fils pour faciliter l’installation.

Clavier

Ce lecteur peut utiliser les fonctions de cartes ou de NIP. Par contre, le NIP doit être entré après le balayage de la carte si les fonctions de cartes et de NIP sont activées. Il est également possible d'utiliser seulement la carte ou le NIP ou les réglages de cartes ou de NIP qui sont réglés dans l'ACM12. Les réglages du NIP sont uniquement disponibles dans la V4.0 ou ultérieure de l'ACM12. La touche **X** est utilisée pour annuler l'entrée d'un NIP, la touche **✓** est utilisée lors de l'usage de la Longueur de code variable et à l'entrée d'un code de moins de 6 caractères.

Armement et désarmement

Il est actuellement possible d'armer et de désarmer le système si les options appropriées sont activées dans les réglages de l'utilisateur et de la porte. Se référer au Guide de programmation EVO pour de plus amples renseignements.

Affichage tricolore à DEL

Ce lecteur comprend un affichage tricolore à DEL (rouge, vert et ambre) qui est utilisé pour indiquer l'état du système, tel qu'illustré dans le tableau d'affichage à DEL.

Tonalité audible

Le lecteur comprend un avertisseur intégré.

Résistant aux intempéries

Le joint en caoutchouc et le couvercle de plastique de la carte de circuits imprimés vous permettent de fixer le R915 à l'intérieur ou à l'extérieur.

Spécifications techniques

Compatibilité :	Carte seulement : DGP-ACM11 V. 3.0 ou ultérieure Carte / NIP : ACM12 V. 4.0 ou ultérieure
Tension d'entrée :	11 Vc.c. à 14,5 Vc.c.
Consommation de courant :	60 mA
Fréquence :	Champ de l'excitatrice - modulé par impulsions à 125 KHz
Température de fonctionnement :	-35 °C (-31 °F) à +65 °C (149 °F)
Format de sortie :	4 fils (RS-485)
Longueur du câble :	300 m (1000 pi)
Câbles :	Câbles à 4 fils (recomm.: câble à paires torsadées)
Couleur :	Disponible en noir, blanc et argent
Résistance aux intempéries :	joint en caoutchouc et couvercle de plastique pour la carte de circuits imprimés.

Toutes spécifications sujettes à changement sans préavis.

Installation

Montage

Installer le lecteur sur une surface plane, propre et lisse pour éviter de courber le boîtier de plastique. Une fois que le lecteur est bien installé, sceller le contour afin d'éviter d'éventuels problèmes d'infiltration d'eau.

⚠ Il est fortement recommandé d'installer le lecteur sur une surface plane, propre et lisse, ce qui le rendra moins susceptible aux dommages causés par les intempéries. Si une installation sur une surface irrégulière est absolument nécessaire, il est important de s'assurer que les espaces entre le lecteur et la surface soient bien scellés.

Montage sur surface en métal

Le métal peut diminuer la portée de lecture. Le lecteur de cartes peut être monté sur une surface en métal mais ne doit pas être entouré de métal. Si le lecteur doit être installé dans un boîtier métallique, s'assurer que le devant du lecteur de cartes n'est pas couvert et

qu'un espace d'au moins 4 cm (1,6 po) est laissé de chaque côté entre le lecteur de cartes et le métal.

Raccordement

Raccordement du R915 tel qu'illustré à la Figure 3.

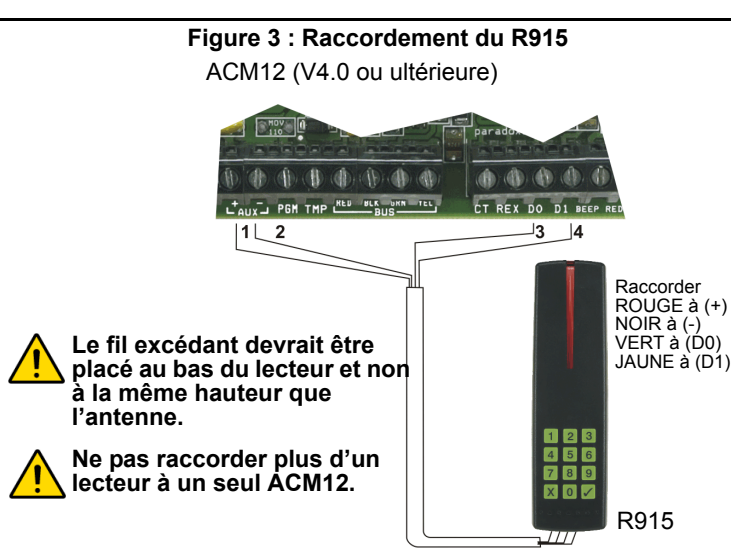
Affichage de l'état

	État	Indicateurs visuels*			Tonalité audible
		Vert	Rouge	Ambre	
Accès	Attendre pour l'entrée du NIP	Clignote-ment lent	-	-	-
	Lecture de cartes	-	-	ACT. lors de lecture	Tonalité rapide
	Accès refusé	-	Clignote-ment rapide	-	Longue tonalité
	Accès autorisé	ACT.	-	-	Tonalité rapide
	Porte déverrouillée	ACT.	-	-	-
	Porte verrouillée	-	ACT.	-	-
	Pré-alarme de porte restée ouverte	-	Clignote-ment	-	Tonalité
Sécurité	Porte forcée/ restée ouverte	-	Clignote-ment rapide	-	Tonalité rapide
	Alarme incendie	-	Pulsée	-	Pulsée
	Alarme antivol	-	Clignotem.	-	Tonalité
	Armé	-	Clignote-ment rapide	-	
Diagnostic de défaillance	Délai de sortie	-	Clignotem.†	-	Tonalité†
	Défaillance de communication	Clignotement lent alterné		-	-
	Mode sûr	Clignotement alterné avec pause		-	-
	Défaillance de communication avec le ACM11	-	-	Clignote-ment lent	-
	Localisation	Clignotement rapide	-	-	-

* Certains affichages peuvent être activés ou désactivés avec l'ACM12.

†Clignote plus rapidement à l'intérieur des 10 dernières secondes du délai de sortie

Indicateurs visuels	Détails
Clignotement	250 ms ACT.; 250 ms DESACT.
Clignotement lent	400 ms ACT.; 400 ms DESACT.
Clignotement rapide	50 ms ACT.; 50 ms DESACT.



FCC Warning

RESIDENTIAL EQUIPMENT
CLASS B DIGITAL DEVICE
INFORMATION TO USER

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.

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

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

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Warranty

For complete warranty information on this product please refer to the Limited Warranty Statement found on the website www.paradox.com/terms. Your use of the Paradox product signifies your acceptance of all warranty terms and conditions.

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Aviso de FCC

EQUIPO RESIDENCIAL
DISPOSITIVO DIGITAL DE CLASE B
INFORMACIÓN PARA EL USUARIO

Este dispositivo cumple con la Parte 15 de los Reglamentos FCC. Su operación está sujeta a las dos condiciones siguientes: (1) Este dispositivo no debe causar severa interferencia, y (2) Este dispositivo debe aceptar cualquier interferencia recibida, incluyendo interferencia que podría causar un funcionamiento no deseado.

Este equipo ha sido probado y cumple con los límites para Dispositivos Digitales de Clase B, según las especificaciones de la Parte 15 de los reglamentos de la FCC. Estos límites han sido diseñados para proveer una razonable protección contra los riesgos de interferencia en instalaciones residenciales. Este equipo genera, usa y puede irradiar radiofrecuencias, y, si no es instalado y usado según las instrucciones, puede causar severa interferencia en las comunicaciones vía radio. Sin embargo, no hay garantía de que no ocurrirá interferencia en una instalación en particular. Si este equipo causa interferencias en la recepción de señales de radio o de televisión, lo cual puede ser determinado mediante el encendido y apagado del equipo, esporádicamente, se sugiere que el usuario trate de corregir la interferencia por medio de una o más de las siguientes medidas:

- Reorientar o relocalizar la antena receptora
- Aumentar la separación entre el equipo y el receptor
- Conectar el equipo en un enchufe en un circuito diferente al cual está conectado el receptor
- Para asistencia, consultar con el instalador o con un técnico de radio /TV experimentado

Todo cambio o modificación que no haya sido claramente aprobado por la parte responsable de la conformidad puede anular la autorización del usuario para operar este equipo.

Garantía

Para una información detallada acerca de la garantía de este producto consultar la Declaración de Garantía Limitada (en inglés) que se encuentra en el sitio web de paradox: www.paradox.ca/terms. El uso de este producto Paradox significa la aceptación de todos los términos y condiciones de la garantía.

Digiplex EVO es una marca de comercio o marca registrada de Paradox Security Systems Ltd. o de sus afiliados en Canadá, Estados Unidos y/o otros países. Para información de último minuto respecto a la homologación de productos, como UL y CE, sírvase visitar nuestro sitio Web en www.paradox.com.

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Avertissements de la FCC

ÉQUIPEMENT RÉSIDENTIEL
DISPOSITIF NUMÉRIQUE DE CLASSE B
RENSEIGNEMENTS POUR L'UTILISATEUR

Ce dispositif est conforme à la Partie 15 des règles de la FCC. Son fonctionnement est subordonné aux deux conditions suivantes : (1) Ce dispositif ne devrait pas entraîner de brouillage préjudiciable, et (2) Ce dispositif doit accepter toute interférence reçue, y compris les types d'interférence pouvant entraîner un fonctionnement indésirable.

Cet équipement a été testé et est conforme aux limitations des dispositifs numériques de la Classe N selon la Partie 15 des règles de la FCC. Ces limitations ont été établies pour offrir une protection raisonnable contre le brouillage préjudiciable dans une installation résidentielle. Cet appareil, utilise et peut rayonner l'énergie des fréquences radio et, s'il n'est pas installé et utilisé conformément aux instructions, peut provoquer du brouillage préjudiciable aux communications radio. Cependant, il n'y a aucune garantie qu'il ne se produira jamais de brouillage dans une installation en particulier. Si cet équipement entraîne du brouillage préjudiciable à la réception radio ou télévisuelle, ce qui peut être déterminé en allumant et en éteignant l'appareil, l'utilisateur est encouragé à essayer d'éliminer l'interférence de l'une des façons suivantes :

- Réorienter ou déplacer l'antenne de réception
- Augmenter la distance entre l'équipement et le récepteur
- Raccorder l'équipement dans une prise de courant d'un circuit différent de celui auquel le récepteur est raccordé
- Consulter un installateur ou un technicien radio / télévision expérimenté pour de l'aide

Tout changement ou toute modification n'étant pas formellement approuvé(e) par la partie responsable de la conformité pourrait annuler les droits d'usage de cet appareil.

Garantie

Pour tous les renseignements sur la garantie de ce produit, se référer à la Déclaration de garantie limitée qui se trouve sur le site Web au www.paradox.com/terms. L'utilisation de ce produit Paradox signifie l'acceptation de toutes les modalités et conditions de la garantie.

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Specifications PRX2780000033-P2C

The PRX2780000033-P2C is a metal box enclosure for provision multiple module and panel mounting.

Features:

- Many punch-out holes for simple wiring
- Easy door removal
- Sizes: 28cm X 28cm X 7.6cm (11" x11" x 3")

P ▲ R ▲ D O X™



Specifications PRXK-TK278

The PRXK-TK278 is a BOM Kit for 1x tamper switch PRX2502302000-P2C and 1x tamper bracket PRX2781030000-P2C to suit with Paradox Metal Box Enclosure PRX2780000033-P2C; to protect against tampering (opening door or removal from wall).

P ▲ R ▲ D O X™



VRLA 12V7AH

SA12V7

Specifications

Nominal Voltage	12 V		
Nominal Capacity 20HR	7.0 AH		
Dimensions	Length	151±1mm (5.94 inches)	
	Width	65±1mm (2.56 inches)	
	Container Height	95±1mm (3.74 inches)	
	Total Height (with terminal)	100±1mm (3.94 inches)	
Approx Weight	Approx 2.10 kg (4.63 lbs)		
Terminal	F1		
Container Material	ABS Plastic		
Lead Material	Purity Lead 99.995%		
Sulfurid Acid	Distilled Sulfurid Acid (Zero metal content)		
Separator	AGM		
Rated Capacity	7.00 AH/0.350A	(20hr, 1.80V/cell, 25°C/77°F)	
	6.53 AH/0.653A	(10hr, 1.80V/cell, 25°C/77°F)	
	6.00 AH/1.20A	(5hr, 1.75V/cell, 25°C/77°F)	
	5.37 AH/1.79A	(3hr, 1.75V/cell, 25°C/77°F)	
	4.55 AH/4.55A	(1hr, 1.60V/cell, 25°C/77°F)	
Max. Discharge Current	105A (5s)		
Internal Resistance	Approx 23mΩ		
Operating Temp.Range	Discharge : -15 - 50°C (5 - 122°F)		
	Charge : 0 - 40°C (32 - 104°F)		
	Storage : -15 - 40°C (5 - 104°F)		
Nominal Operating Temp.Range	25±3°C (77±5°F)		
Cycle Use	Initial Charging Current less than 2.1A. Voltage 14.4V - 14.7V at 25°C (77°F) Temp.Coefficient -30mV/°C		
Standby Use	No limit on Initial Charging Current Voltage 13.5V - 13.8V at 25°C (77°F) Temp.Coefficient -20 mV/°C		
Capacity affected by Temperature	40°C	(104°F)	103%
	25°C	(77°F)	100%
	0°C	(32°F)	86%
Self Discharge	Sentry AGM series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.		



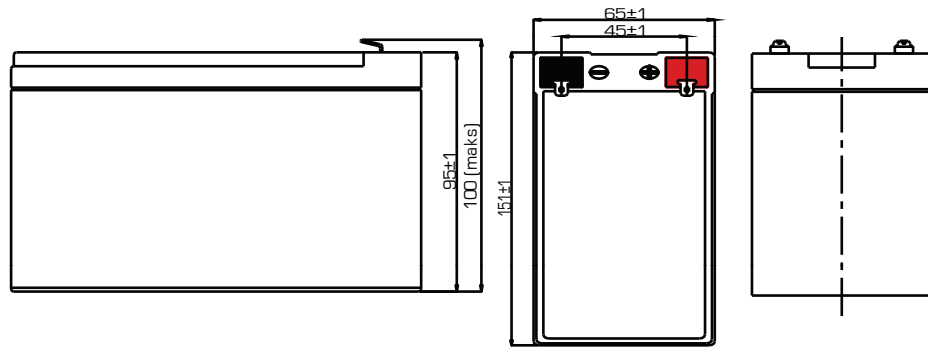
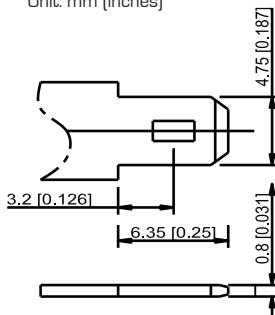
Applications

- All purpose
- Standby Applications
- Recreation Vehicles
- Uninterruptible Power Supply (UPS)
- Electric Power System (EPS)
- Fire & Security
- Generators
- Medical Equipment

Dimensions

▲ F1 Terminal

Unit: mm (inches)



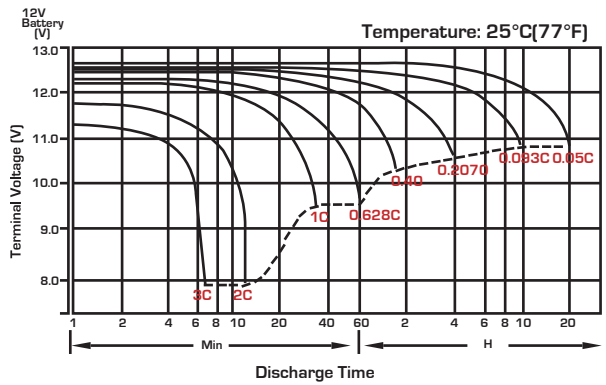
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	18.0	12.8	10.48	8.79	6.53	4.79	3.86	2.29	1.69	1.36	1.14	0.98	0.774	0.640	0.345
1.80V/cell	21.4	14.3	11.4	9.44	6.94	5.05	4.03	2.38	1.74	1.40	1.17	1.01	0.791	0.653	0.350
1.75V/cell	24.2	15.6	12.2	10.0	7.29	5.27	4.18	2.45	1.79	1.43	1.20	1.03	0.805	0.663	0.357
1.70V/cell	26.7	16.7	12.9	10.5	7.59	5.46	4.32	2.51	1.83	1.46	1.22	1.05	0.817	0.672	0.361
1.65V/cell	28.8	17.7	13.5	10.9	7.86	5.62	4.46	2.57	1.86	1.48	1.23	1.06	0.826	0.680	0.365
1.60V/cell	30.6	18.6	14.1	11.3	8.09	5.76	4.55	2.61	1.89	1.50	1.25	1.07	0.834	0.685	0.367

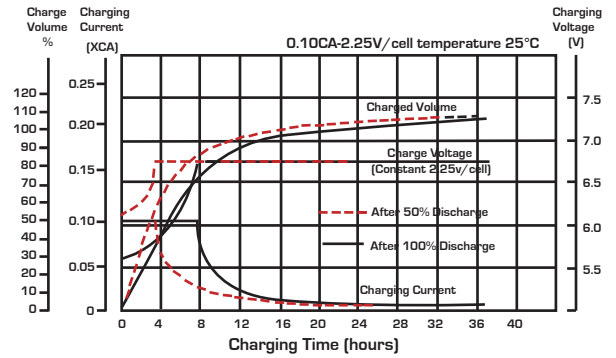
Constant Power Discharge (Watts/Cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	34.2	24.5	20.2	17.1	12.8	9.44	7.64	4.56	3.37	2.72	2.29	1.99	1.565	1.296	0.701
1.80V/cell	40.2	27.2	21.9	18.3	13.5	9.91	7.96	4.72	3.47	2.79	2.34	2.03	1.593	1.318	0.708
1.75V/cell	45.1	29.5	23.3	19.3	14.2	10.3	8.23	4.85	3.55	2.85	2.39	2.06	1.616	1.344	0.719
1.70V/cell	49.2	31.3	24.5	20.1	14.7	10.6	8.48	4.96	3.62	2.89	2.42	2.09	1.633	1.347	0.725
1.65V/cell	52.6	32.9	25.5	20.8	15.2	10.9	8.73	5.05	3.68	2.93	2.45	2.11	1.649	1.359	0.731
1.60V/cell	55.5	34.3	26.3	21.5	15.5	11.2	8.88	5.12	3.72	2.96	2.47	2.13	1.660	1.367	0.734

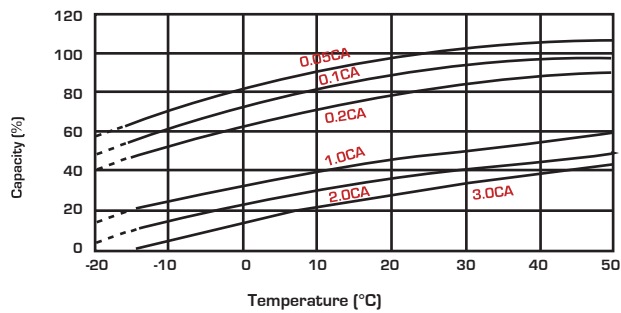
Discharge Characteristics



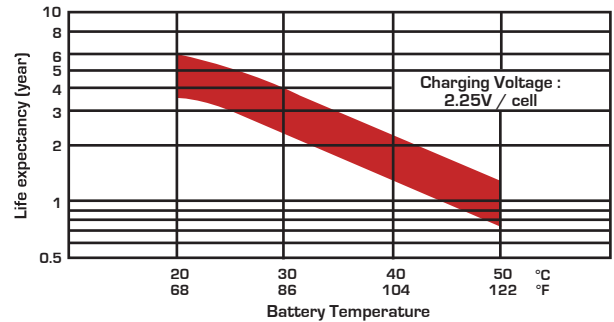
Float Charging Characteristics



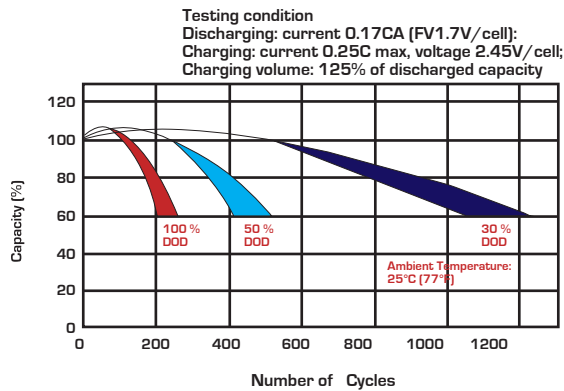
Temperature Effects in Relation to Battery Capacity



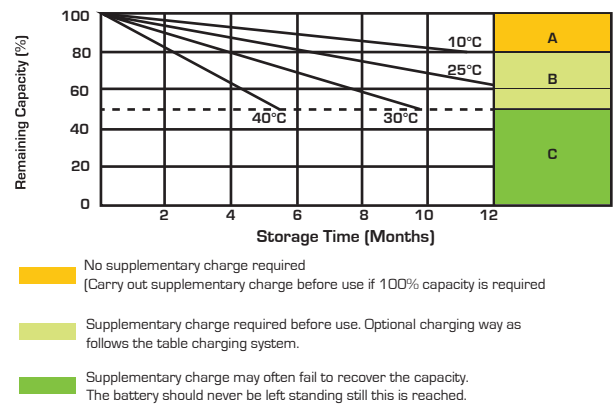
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Charging System

DOD	Current Limit (A)	Constant Voltage (V)	Fully Charged Time (h)
20	0.15C ₁₀	13.5-13.8 vpc (12V)	10
	0.20C ₁₀	6.75-6.9 vpc (6V)	8
50	0.15C ₁₀	13.5-13.8 vpc (12V)	15
	0.20C ₁₀	6.75-6.9 vpc (6V)	12
80	0.15C ₁₀	13.5-13.8 vpc (12V)	16
	0.20C ₁₀	6.75-6.9 vpc (6V)	14
100	0.15C ₁₀	13.5-13.8 vpc (12V)	20
	0.20C ₁₀	6.75-6.9 vpc (6V)	18

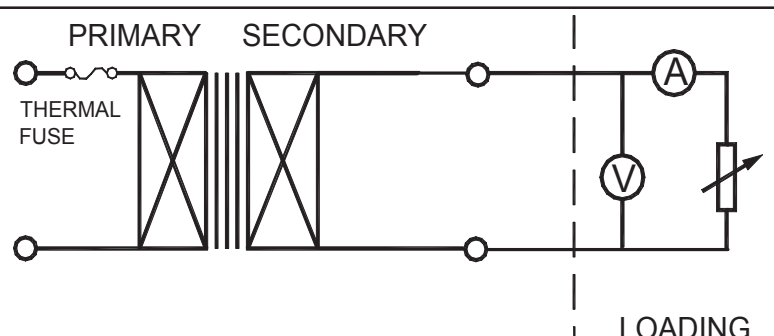
State of Charge (SOC)


Open Circuit Voltage (V/cell)	Open Circuit Voltage (12V/cell)	Open Circuit Voltage (6V/cell)	State of Charge (% of full charge capacity)
2.14-2.15	12.84-12.90	6.42-6.46	100
2.12-2.13	12.72-12.78	6.36-6.39	90
2.11	12.66	6.33	80
2.09	12.54	6.27	70
2.07	12.42	6.21	60
2.05	12.30	6.15	50



Sealed Performance Batteries

Domestic Sales | Ph: +61 (0)7 3386 1102 | Fax: +61 (0)7 3102 9913
 sales@spb.net.au | www.sealedperformance.com.au
 National Warehouse | 1 Ant Road | Yatala, Brisbane QLD 4207
 Melbourne Office | 2/9 Compark Circuit | Mulgrave, Melbourne VIC 3170

ITEM		SPECIFICATION
1. Primary rated input voltage		AC240V 50Hz 133mA
2. Secondary rated output voltage and current		Unloaded voltage: AC 18 V \pm 5% Loaded Voltage : AC 16 V \pm 5% AT 1500 mA
3. Ripple voltage		*** mV (RMS) MAX. AT Rated Loading
4. Insulation resistance		Primary - secondary: DC 500 V 100 M Ω Min
5. Dielectric withstand test		Primary - secondary: AC 3.64 KV 1 seconds
6. Temperature rise		At rated loading 90°C max. For input coil (By resistance method) and 55°C max. on case surface (By use of thermometer)
7. EFFICIENCY		\geq 79%
8. Leadout	Primary	SAA PLUG IN TYPE
	Secondary	PVC cable length: 1.8 Meter Colour : GREY (RAL7035) Wire size: AWG#20/3C Plug : STRIPPED AND TINNED
9. Test circuit		
10. Case		SAA48 colour = GREY (RAL7035)

	REVISED	DRAWN	APPROVED
①	AMENDED PACKING QTY AND CARTON SIZE	JACKY 10/08/09	GARY 10/08/09
②	ADDED DATE CODE ON CASE AND DIMENSIONS	JACKY 07/12/09	GARY 07/12/09
③	ADDED PASSED LABEL ON CARTON	TODD 22/12/10	JACKY 22/12/10
④	AMENDED AC PINS DIMENSION & ADDED WIRES COLORS	ANLEI 01/11/12	ANLEI 01/11/12
⑤	CHANGED CROSS-SHAPED SCREW TO SHAPE  SCREW ON CASE	MARK 31/08/15	FREDERICK 31/08/15




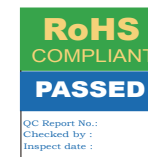
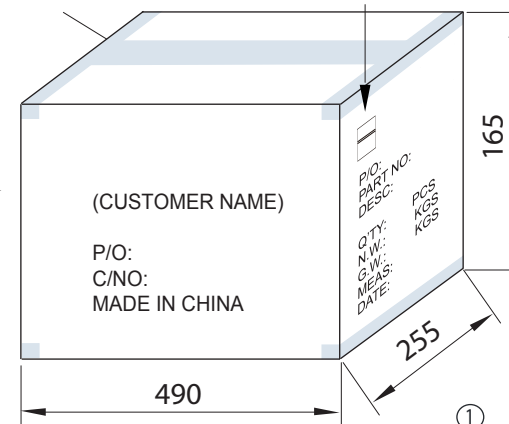
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TE DRAWING NO: TE40-0001 R5


PART NO: 16VAC1500MPS/6


DESCRIPTION: AC ADAPTOR EI-48Q, 16VAC1500mA, 3 WIRE - MEPS

SIZE	A4	DATE	30/04/09	CHECKED	KEVIN 30/04/09		ORDER REF: 0420	SHEET 2 OF 3	TOLERANCES UNLESS OTHERWISE STATED X.= +/-1 .X.= +/-0.5 .XX.= +/-0.2
UNIT	MM	DRAWN	KEVIN	APPROVED	FRANK 30/04/09	CUSTOMER: TE			
SCALE	NTS	MANU:				DATE:			



ONLY ONE RoHS+PASSED LABEL ON CARTON
RoHS LABEL(55X25MM)
GREEN GROUNDING YELLOW TEXT
PASSED LABEL(55X36MM)
BLUE GROUNDING WHITE TEXT
WHITE GROUNDING BLUE TEXT

	REVISED	DRAWN	APPROVED
①	AMENDED PACKING QTY AND CARTON SIZE	JACKY 10/08/09	GARY 10/08/09
②	ADDED DATE CODE ON CASE AND DIMENSIONS	JACKY 07/12/09	GARY 07/12/09
③	ADDED PASSED LABEL ON CARTON	TODD 22/12/10	JACKY 22/12/10
④	AMENDED AC PINS DIMENSION & ADDED WIRES COLORS	ANLEI 01/11/12	ANLEI 01/11/12
⑤	CHANGED CROSS-SHAPPED SCREW TO SHAPE  SCREW ON CASE	MARK 31/08/15	FREDERICK 31/08/15

TE DRAWING NO: TE40-0001 R5						PART NO: 16VAC1500MPS/6				
DESCRIPTION: AC ADAPTOR EI-48Q,16VAC1500mA, 3 WIRE - MEPS										
SIZE	A4	DATE	30/04/09	CHECKED	KEVIN 30/04/09		ORDER REF: 0420	SHEET 3 OF 3	TOLERANCES UNLESS OTHERWISE STATED X.= +/-1 .X=+/-0.5 .XX=+/-0.2	
UNIT	MM	DRAWN	KEVIN	APPROVED	FRANK 30/04/09		CUSTOMER: TE			
SCALE	NTS	MANU:					DATE:			