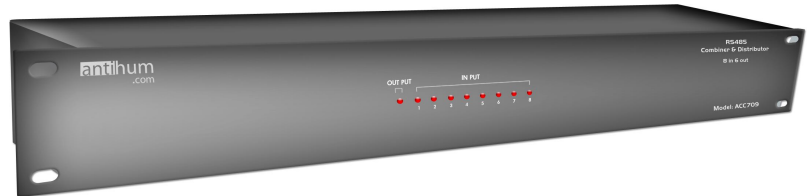This RS485 12v DC Combiner allows you to connect up to eight RS485 control devices such as DVRs, Matrix units and RS485 keyboards that will provide six RS485 output lines each line connected up to 128 PTZ dome cameras. This combiner overcomes control problems as it utilises a shared control bus.

General Information

1. The ACC709 RS485 combiner requires a **12v DC** regulated power supply. An in-line 1A power supply and lead with a 13amp plug is supplied free with each unit.

2. Do not attempt to disassemble these combiners. In order to prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside this unit.

3. Always use and adhere to current electrical safety standards to install and use the RS485 Combiner. The RS485 cables should be kept way from high voltage equipment such as mains cables and especially fluorescent lights. Using an anti-surge protection device is recommended to prevent damage to this unit from lightning and mains surges. Damage caused by lightning or mains voltage surges is not covered under the warranty.

4. Do not operate in areas exceeding the stipulated limitations concerning temperature, humidity and power supply.

5. Always ensure that when connecting RS485 control equipment that the correct polarity is observed.

Power
Connect a 12vDC regulated power supply with 2.1mm jack to the power input.
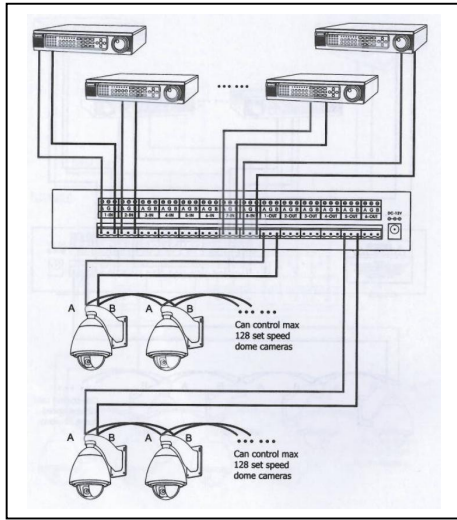
Input Controllers
This RS485 combiner allows you to connect up to eight RS485 inputs from controllers such as DVRs, Keyboards and Matrix units. All eight inputs can be activated at the same time. The input devices can have any protocol, baud rate and ID.

Output RS485 Bus Lines
This unit has up to six RS485 output lines each allowing the connection of up to 128 PTZs in parallel with different protocols and baud rates. Commands from the input devices are directed at all the PTZ cameras connected and each PTZ will respond to commands that match the settings in the respective PTZ camera.

It is recommended to use one twisted pair of CAT5 for each of the RS485 inputs and outputs. The maximum connection range for each output is 1200 metres using CAT5. Ensure that the termination connection is switched on in the last PTZ camera or longest run. Note that you do not connect baluns on data lines.
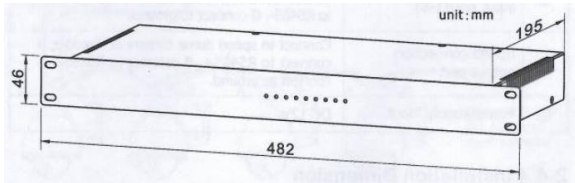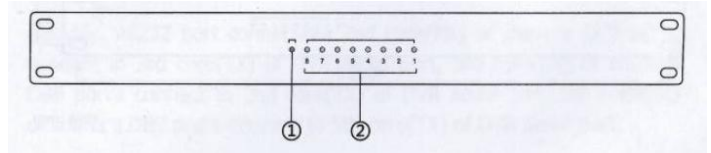
Example

In the diagram to the left there are four DVRs connected from the RS485 to the A and B connections on the rear of the ACC709. The DVRs are 4 channel Alien DVRs and each have the ability to access 4 PTZ cameras that are on different protocols and baud rates. Using this RS485 Combiner you have an easy way of connecting the RS485. Whatever commands are issued by any of the DVRs will be sent to all the PTZs and those matching the correct protocol, baud rate and address will process those commands. If the same PTZ camera is accessed by more than one device, control is gained by each device that sends a successful command string.
NOTE: The RS485 output follows normal RS485 conventions allowing you to use the star connection method if needed.
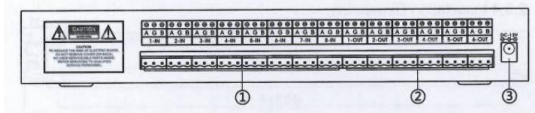
Dimension

Front Panel Description

Status Indicators
1   power light red when unit powered up
8 ~ 1 status light flickers green when receiving data

Rear Panel Description

(1) 1 ~ 8   RS485 IN   Connections for RS485 Inputs

(2) 1 ~ 6   RS485 OUT   Connections for RS485 Outputs

(3)   12vDC Power Jack

Technical Specifications

Power Supply	12vDC 1A regulated
Consumption	<200mA
RS485 Inputs	1 ~ 8
RS485 Output	6 x (1 ~ 128 devices)
Dimensions	482 x 195 x 46mm
Mounting	Rack Mount
Compatibility	RS485, RS422