

Chapter 1 : CAN bus gateway removing, installing and upgrading “ Volkswagen Golf

R. Croughton called "Can Bus Replace Train? - a commentary on railway- replacement bus services". This booklet was produced as a response to the.

Image How will you travel without Epping-Chatswood trains? When the line reopens train will be more frequent but the current direct link to the CBD will be severed. The tunnels and stations, which are currently part of the T1 Northern line which runs between Hornsby and the city via Epping, will be shut for at least seven months so they can be made ready for Sydney Metro trains. Former SBS newsreader Lee Lin Chin has fronted a campaign to raise awareness of the fleet of pink coloured rail replacement buses. Lee Lin Chin is the face of a campaign to raise awareness of the replacement bus routes. Supplied The Epping to Chatswood railway line only opened in Transport for NSW Coordinator General Marg Prendergast said the organisation has been trying to get the message of the closure out to students at Macquarie University and workers in the area. During the close-down platform screen doors will be installed and signalling and communications systems will be upgraded. Journeys that currently take 15 minutes by train between Epping and Chatswood will now take at least 25 minutes. Macquarie Park station on the Epping to Chatswood rail link in Sydney. Supplied The Epping to Chatswood rail line will close for seven months. NewsLocal The current trains can seat around people each meaning 14, commuters an hour can reach work and campus. Hundreds more standing passengers can also squeeze in. Even the largest capacity single deck buses in Sydney can only fit people each in total. If 55 of those make two journeys an hour around 12, customers will be able to board, a reduction on the train. Tangara trains as well some older stock were barred from the route because an incline beneath the Lane Cove river was too steep for them to operate on. Sound levels in the tunnels were also found to be as loud as a jet plane. No specific date has yet been set for the reopening but the government hopes the new Sydney Metro will begin running around autumn next year. When the line reopens it will be part of the Sydney Metro that is due to open in Supplied Single-deck, driverless Metro trains will then use the current tunnels to transport passengers from Rouse Hill and Castle Hill via Epping every four minutes, a big increase on the current frequency. But the pay off for passengers from Macquarie Park, Macquarie University and North Ryde is they will no longer have a one-train service to the city and will have to change at Chatswood on to crowded T1 North Shore line services. The forced change will continue until when phase two of the Sydney Metro is completed. For more information the rail replacement bus between Epping and Chatswood visit the Station Link website.

*Can Bus Replace Train? - A commentary on railway replacement omnibus services [Branch Line Reinvigoration Society] on calendrierdelascience.com *FREE* shipping on qualifying offers.*

Automotive[edit] The modern automobile may have as many as 70 electronic control units ECU for various subsystems. Some of these form independent subsystems, but communications among others are essential. A subsystem may need to control actuators or receive feedback from sensors. The CAN standard was devised to fill this need. One key advantage is that interconnection between different vehicle systems can allow a wide range of safety, economy and convenience features to be implemented using software alone - functionality which would add cost and complexity if such features were "hard wired" using traditional automotive electrics. Similarly, inputs from seat belt sensors part of the airbag controls are fed from the CAN bus to determine if the seat belts are fastened, so that the parking brake will automatically release upon moving off. The CAN bus also takes inputs from the rain sensor to trigger the rear windscreen wiper when reversing. The inputs from the parking sensors are also used by the CAN bus to feed outside proximity data to driver assist systems such as Lane Departure warning, and more recently, these signals travel through the CAN bus to actuate brake by wire in active collision avoidance systems. Input is taken from the rain sensor used primarily for the automatic windscreen wipers via the CAN bus to the ABS module to initiate an imperceptible application of the brakes whilst driving to clear moisture from the brake rotors. Some high performance Audi and BMW models incorporate this feature. Sensors can be placed at the most suitable place, and its data used by several ECU. For example, outdoor temperature sensors traditionally placed in the front can be placed in the outside mirrors, avoiding heating by the engine, and data used by both the engine, the climate control and the driver display. In recent years, the LIN bus standard has been introduced to complement CAN for non-critical subsystems such as air-conditioning and infotainment, where data transmission speed and reliability are less critical. Other[edit] The CAN bus protocol has been used on the Shimano DI2 electronic gear shift system for road bicycles since , and is also used by the Ansmann and BionX systems in their direct drive motor. The CAN bus is also used as a fieldbus in general automation environments, primarily due to the low cost of some CAN controllers and processors. The specific problem is: This largely overlaps with the Layers section Please help improve this article if you can. Two or more nodes are required on the CAN network to communicate. The node may also be a gateway allowing a standard computer to communicate over a USB or Ethernet port to the devices on a CAN network. All nodes are connected to each other through a two wire bus. The dominant common mode voltage must be within 1. ISO ISO , also called low speed Kbps or fault tolerant CAN, uses a linear bus, star bus or multiple star buses connected by a linear bus and is terminated at each node by a fraction of the overall termination resistance. The dominant differential voltage must be greater than 2. ISO Electrical properties[edit] With both high speed and low speed CAN, the speed of the transition is faster when a recessive to dominant transition occurs since the CAN wires are being actively driven. The speed of the dominant to recessive transition depends primarily on the length of the CAN network and the capacitance of the wire used. High speed CAN is usually used in automotive and industrial applications where the bus runs from one end of the environment to the other. Fault tolerant CAN is often used where groups of nodes need to be connected together. The specifications require the bus be kept within a minimum and maximum common mode bus voltage, but do not define how to keep the bus within this range. The CAN bus must be terminated. The termination resistors are needed to suppress reflections as well as return the bus to its recessive or idle state. Low speed CAN uses resistors at each node. Other types of terminations may be used such as the Terminating Bias Circuit defined in ISO [9] A terminating bias circuit provides power and ground in addition to the CAN signaling on a four-wire cable. This provides automatic electrical bias and termination at each end of each bus segment.

Chapter 3 : Fares METRO QÃ® Fare Card, Day Pass & More

The role of the Gateway (also known as the Data bus diagnostic interface J) is the exchange of data between the CAN data bus systems ('powertrain CAN data bus', 'convenience CAN data bus' and 'infotainment CAN data bus') and the conversion of diagnostic data from CAN data bus systems to K-cable and vice versa so the data can be used by vehicle diagnosis, testing and information.

All Railjet and Talent trains Wire train bus[edit] The wire train bus has been designed for international passenger trains with variable composition, consisting of up to 22 vehicles. The medium consists of a duplicated shielded twisted pair cable, which runs in the UIC cables between the vehicles. The connector between the vehicles is the pole UIC connector. Since connectors are exposed and can oxidize, a current pulse is applied at connection establishment to evaporate the oxide layer, called fritting. No repeaters are foreseen since vehicles in between can have discharged batteries. A unique property of the WTB is the train inauguration Zugtaufe in which the newly connected vehicles receive an address in sequence and can identify the vehicle side called port and starboard like in the marine so that doors open on the correct side. Up to 32 addresses can be dynamically allocated. When two train compositions join, the addresses are reallocated to form a new composition of vehicles with a sequential address. Vehicles without WTB node "conduction vehicles" are not counted. The frames have a maximum payload of bits. The WTB operates cyclically to provide deterministic operation, with a period of 25 ms, used mainly for the traction control. The WTB also supports sporadic data transmission for diagnostics. The content of the periodic and sporadic frames is governed by the UIC standard. Multifunction vehicle bus[edit] The multifunction vehicle bus connects individual nodes within a vehicle or in a closed train set. The plugs and sockets are the same as used by Profibus with two 9-pin Sub-D sockets per electrical device. There is no inauguration, the addresses are statically allocated. The physical level is using transmissions at a 1. The maximum distance is determined on the restriction of a maximum allowed reply delay of This explains why MVB and FIP have similar operation cyclic and event-driven , only the arbitration method in case of multiple access differs, as MVB used a binary bisection mode relying of collision detection while FIP piggy-backed a "look-at-me" bit over periodic data. The MVB frames are not compatible with IEC fieldbus frames as it omits most of the preamble synchronization which is not required if zero-crossing detection is possible. Alternate vehicle buses[edit] The MVB standard was introduced to replace the multitude of field buses in the train equipment. While the WorldFIP, CANopen, Lonworks and Profinet are controlled by international manufacturer associations targeting a wide range of application, MVB was tailored to the rolling stock application, with the goal of plug-compatibility, and therefore allows no options. This was intentional as the fight between the field busses raged in the s and the decision of the IEC that any of the eight field busses was a standard did not help plug-compatibility. This is not due to the communication technology: But railways certification is costly and not always needed for uncritical applications such as comfort and passenger information. When total cost of ownership is considered, the cost of the hardware elements can easily be outweighed by additional engineering costs in the railways market with its small series. This separation is not always observed. Additionally more and more components are added to rail vehicles that need far more bandwidth than any field bus can provide e. Still all the alternate vehicle buses are connected to the Wire Train Bus. Running FlexRay with 2. Despite the similarities, no rail-manufacturer has considered FlexRay, since they valued a common solution higher than a multitude of better busses.

Chapter 4 : InertiaLED CAN Bus LED Lights Review - webBikeWorld

CAN Bus LED bulbs are LED bulbs which are made specifically for CAN Bus-equipped vehicles. These bulbs work with your vehicle's advanced computer system, so when your vehicle's computer reads them, they respond back correctly.

Chapter 5 : CTA Reduced Fare & Free Ride Programs (Seniors, Students, Children, etc.) - CTA

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Lee Lin Chin is the face of a campaign to raise awareness of the replacement bus routes. Source:Supplied The Epping to Chatswood railway line only opened in

Chapter 6 : New Jersey Transit

At times, train replacement buses may run on express patterns as required. It is also important to note the calculator below estimates replacement bus travel times only and does not include train travel times where part of the line is still operating.

Chapter 7 : Can bikes be taken/transported on SUV replacement busses? - Life in Munich - Toytown Germ

Train replacement bus services A range of different buses will be operating, including express and stopping all stations services, to help make your journey as direct as possible. For customers travelling to Ringwood or beyond, please change at Box Hill for an express bus.

Chapter 8 : "CAN Bus bulbs should not be used in non CAN Bus applications"?

Hi guys, With the work going on the regional train line west of Munich, for the next two weeks no regional trains will run between Geltendorf and Buchloe with SUV busses as the replacement. I need to transport a bike from Munich to Buchloe, does anyone know if bikes can be bought or.

Chapter 9 : Train communication network - Wikipedia

But a vehicle with CAN bus is more likely to be monitoring everything it can by using sensors throughout the car that communicate to the status monitoring system via CAN bus. These sensors are currently not part of the bulb, but may be built into the lamp housing.