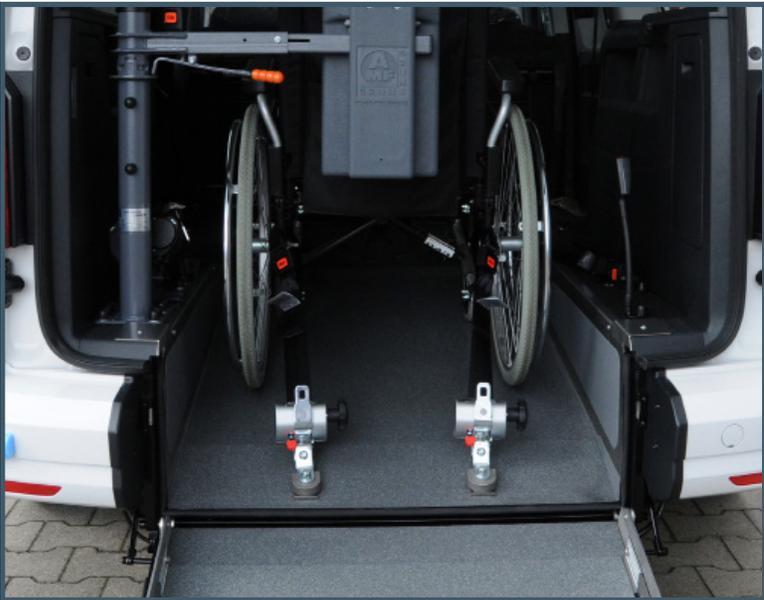


AMF-BRUNS

USER AND INSTALLATION MANUAL

EASY PULL

FRONT WHEELCHAIR RESTRAINTS



⚠ WARNING ⚠

Carefully read, understand and follow all warnings and instructions provided in this manual, and keep it in a safe place for future reference. If you have any doubt whatsoever regarding the use or maintenance of any AMF-Bruns product, please contact AMF-Bruns. Failure to follow these warnings and instructions can result in product malfunction or loss of control of the vehicle, causing an accident, severe personal injury or death. This guide contains current information at the time of printing. AMF-Bruns reserves the right to modify systems or content without notice. Please visit our website for updated versions.



AMF-BRUNS OF AMERICA

www.amfbrunsamerica.com

REV 4/2018 Part Number: - TR-600002



Dear Purchaser:

Thank you for purchasing an AMF-Brunns of America product. Safety is key for all our products and system innovations. Your product meets the following requirements:

- ISO 10542
- WC18 (SAE J2249)
- FMVSS 209,302,210,222
- CMVSS 209
- CSA Z605
- AS 2596
- ADA

Easy Pull has been designed to provide years of safe and dependable service -- as long as it is installed, used and maintained in accordance with the instructions provided in this manual.

All persons who will install, use and/or maintain this product must read, understand and follow all warnings and instructions provided in this manual. This manual should be considered an integral part of your product and should remain with your product over its lifetime. However, nothing in this manual, and none of the safety devices installed on the product, substitute for proper training and careful operation.

Easy Pull must not be converted or modified in any way, without seeking the prior, written permission of the manufacturer. Unauthorized modifications will render the manufacturer's liability and guarantee null and void.

Always be sure that your product is in optimum working order. Use only original spare parts or spare parts which have been approved of by the manufacturer or authorized dealer. If spare parts other than these are used, this can have a negative effect on the specified characteristics, functionality and safety of Easy Pull. The use of any other parts will therefore render the liability for resultant damage null and void.

For any concerns regarding the proper use, maintenance or safety of your product, or if you need to order new products, spare parts or accessories:

- Call your authorized AMF-Brunns of America dealer.
- Contact our Customer Service at 1-877-506-3770
- Email: contact@amfbrunsamerica.com
- Visit our website: www.amfbrunsamerica.com.

Sincerely,

AMF-Brunns of America

Explanation Of Symbol And Signs

1) To improve understanding, the following conventions should be met for this user and installation manual:



DANGER!

Warns of a situation of immediate danger which could lead to serious or fatal injuries if not avoided.



WARNING!

Warns of a potentially dangerous situation which could lead to serious or fatal injuries if not avoided.



CAUTION!

Warns of a potentially dangerous situation, which can lead to slight or minor injuries or material damage if not avoided.



ATTENTION!

Indicates a potentially dangerous situation which can cause material damage if not avoided.



Contains general notes and useful information.



References important information in other sections and documents.

2) Some text passages serve a special purpose. These are highlighted as lists and instructional text, i.e. a series of activities.

3) Meaning of directions: If directions are given in the text (in front of, front, behind, rear, right, left), these directions relate to the normal direction of travel of the vehicle.



AMF-Brunns of America
User and Installation Manual
EASY PULL

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1) SAFETY



CAUTION!

Risk of injury if Easy Pull is not operated correctly.

- It is imperative, that this manual is read thoroughly before operating Easy Pull.
- Always follow the instructions and information.
- If this manual is lost or becomes illegible, please request a new copy from your authorized dealer or AMF-Brunns of America before you proceed.

Prerequisite to the safe handling and trouble-free operation of Easy Pull is a thorough knowledge of the applicable safety information and the safety regulations.

It is therefore imperative that this manual is read thoroughly before operating Easy Pull and that the instructions and warnings herein are strictly observed. The safety information and warnings, given at the appropriate places in this manual, must also be strictly observed. The manufacturer will not be held responsible in situations in which safety information and warnings are not adhered.

In addition to the information given in this manual, local legislative regulations must be taken into consideration, in particular those regarding safety and accident prevention.

1.1 Proper Use

Easy Pull is only deemed to be in proper use when it is used to pull wheelchair passengers or unoccupied wheelchairs into vehicles that are specifically designed or converted to transport mobility persons. The vehicle must be fitted with an access ramp for this purpose.

Easy Pull only secures the front of the wheelchair. The wheelchair must be secured with additional belts at the rear. The wheelchair passenger must wear an occupant securement. Proper use also includes strict adherence to the information given in this manual.



WARNING!

- Only use Easy Pull for the purpose for which it was intended: wheelchair mobility.
- Always adhere to information given in this user and installation manual.
- Do not use Easy Pull for any other purposes, particularly those given in Section 1.2. These are deemed to be improper use.

1.2 Improper Use

Any use other than that described in Section 1.1 is deemed to be improper use.

These include:

- Pulling any objects other than mobility passengers or unoccupied wheelchairs.
- Allowing operation by drivers or caregivers who did not read this user manual or who did not receive proper training.
- Making unauthorized modifications to Easy Pull.
- Operating Easy Pull when it has safety-relevant faults or is in a faulty condition.

1.3 Personnel Requirements

Easy Pull must only be handled by persons who have:

- Been instructed in how to operate Easy Pull.
- Read and understood this manual.
- The technical knowledge to operate the wheelchair's brakes and switch the motors ON and OFF of an electrically-driven wheelchair.

Easy Pull must only be operated by persons who:

- Are of legal age.
- Have been expressly designated to do so by the owner.

Transportation, installation, commissioning, maintenance, repair, fault-finding and disposal of the Easy Pull must only be carried out by persons with the corresponding technical training and experience.

1.4 Product Experience

For any problems regarding the proper use, maintenance or safety of your product:

- Call your authorized AMF-Brunns of America dealer.
- Contact our Customer Service at 1-877-506-3770.
- Visit our website: www.amfbrunsamerica.com.

1.5 Safety And Accident Prevention Regulations

To decrease the likelihood of personal injuries and/or material damage, please adhere to the safety and accident prevention regulations stated below:

- Easy Pull must only be used for the purpose for which it is intended: pulling wheelchair passengers or unoccupied wheelchairs into vehicles that are specifically designed or converted to transport mobility persons.
- All persons who will install, use and/or maintain this product must read, understand and follow all warnings and instructions provided in this manual. Easy Pull should only be operated by authorized personnel. Proper use of Easy Pull also includes adherence to the specified maintenance and repair work, i.e. strict adherence to the maintenance intervals. If such work is not carried out, trouble-free operation can not be guaranteed. There is a risk of personal injury and material damage being caused.
- If an operational or safety issue occurs, do not use Easy Pull until proper repairs have been made. A malfunctioning product could cause serious injuries.
- Use only original spare parts and accessories approved of by the manufacturer.
- If other parts are used, the manufacturer will not accept liability for the outcome.

2) DESCRIPTION

Wheelchairs are pulled into a vehicle by Easy Pull. To enable this, the vehicle must be equipped with an access ramp.

2.1 Layout And Function

Easy Pull comprises the following components:

- Installation and User Manual
- Voltage Transformer
- Control Unit
- Winch with Belts
- Remote Control
- Rear securement are required (not included)

2.1.1 Voltage Transformer

The voltage transformer (see Figure 1) generates the power supply voltage (24 DC) for the control system and winch from the vehicle's battery voltage. The primary and secondary sides of the voltage transformer are protected by fuses.

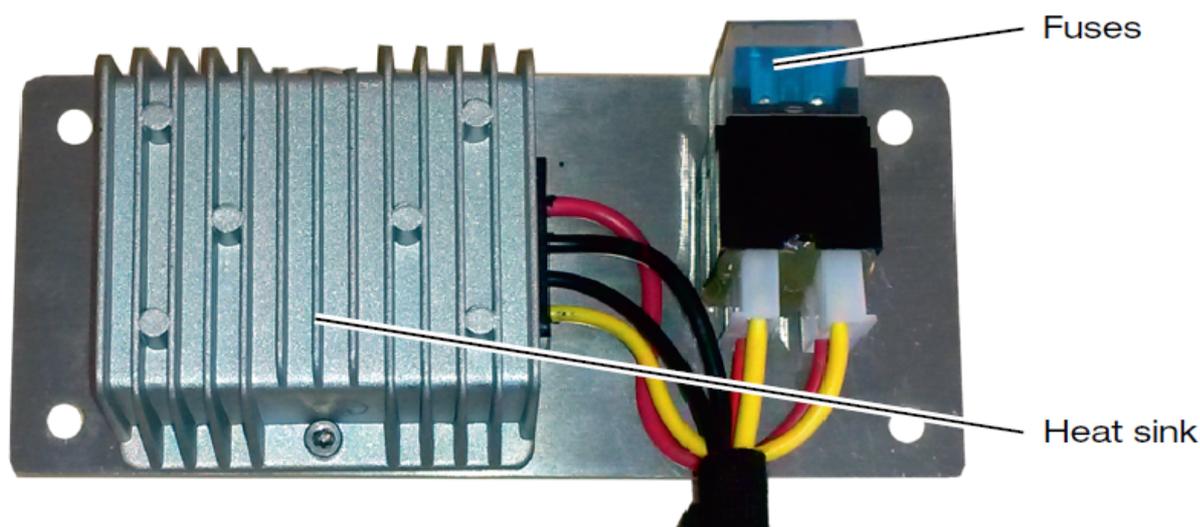


Figure 1: Voltage Transformer

2.1.2 Control Unit

The control unit (see Figure 2) contains the receiver for the remote control and the electronics to control the winch. The door contact switch connected to the control unit switches the power supply to the Easy Pull OFF when the tailgate / rear doors is / are closed, and simultaneously resets the control unit. The LEDs indicate the various operating levels of Easy Pull.

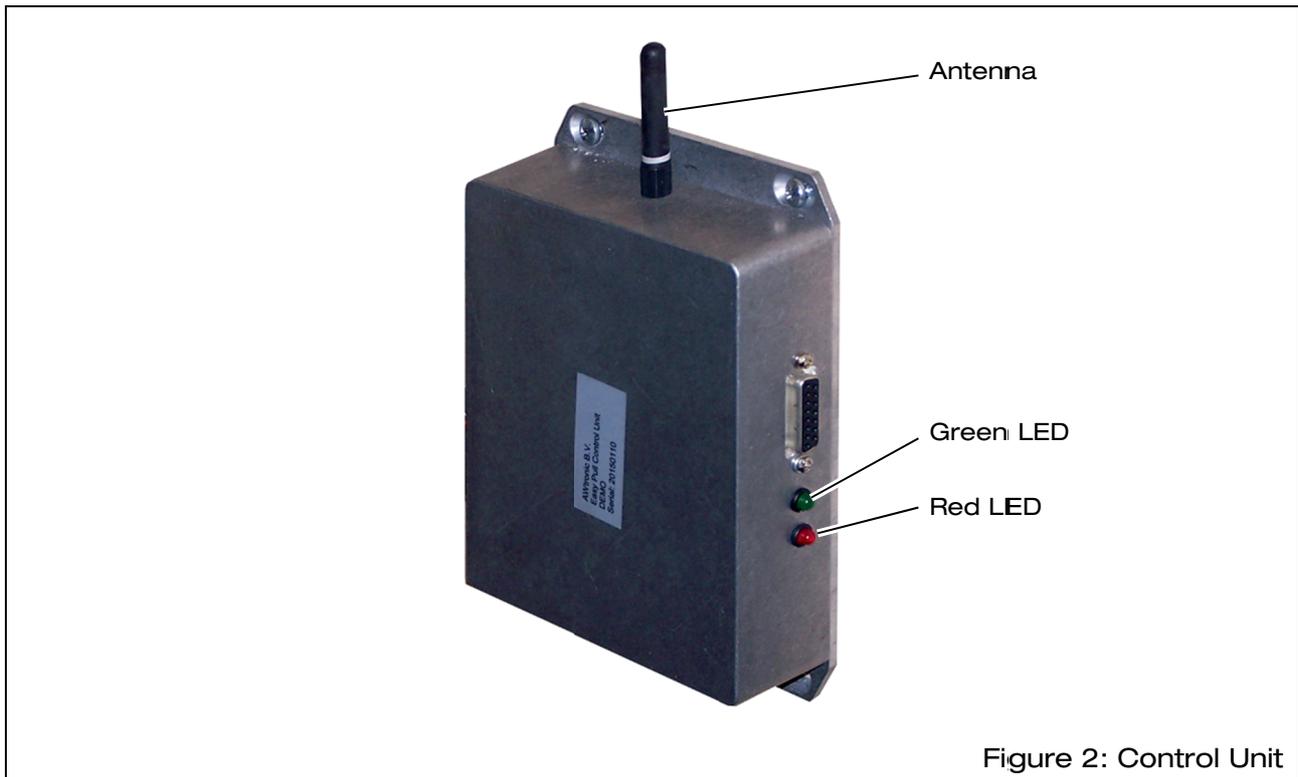


Figure 2: Control Unit

LED		Operating Status
green	red	
OFF	OFF	Tailgate / rear doors closed: EasyPull is switched OFF by the door contact switch.
ON	ON	Tailgate / rear doors open: belts reeled in (magnets switch the proximity sensors).
ON	OFF	Tailgate / rear doors open: belts reeled out (magnets do not switch the proximity sensors).
blinks	OFF	Belts are being reeled in or out.
All other statuses		Fault

2.1.3 Winch With Belts

The winch (see Figure 3) pulls the wheelchair into the vehicle. It comprises the winch housing with the motor and interlocks. Two sensors in the winch housing signal the control unit when the adjustable magnets on the belts are in their proximity. As soon as at least one of the magnets is in the proximity of a sensor, the winch stops and the belts are latched in position. Each belt is equipped with a buckle and a loop to attach it to the wheelchair.



2.1.4 Remote Control

The push-buttons on the remote control are used to control Easy Pull functions.

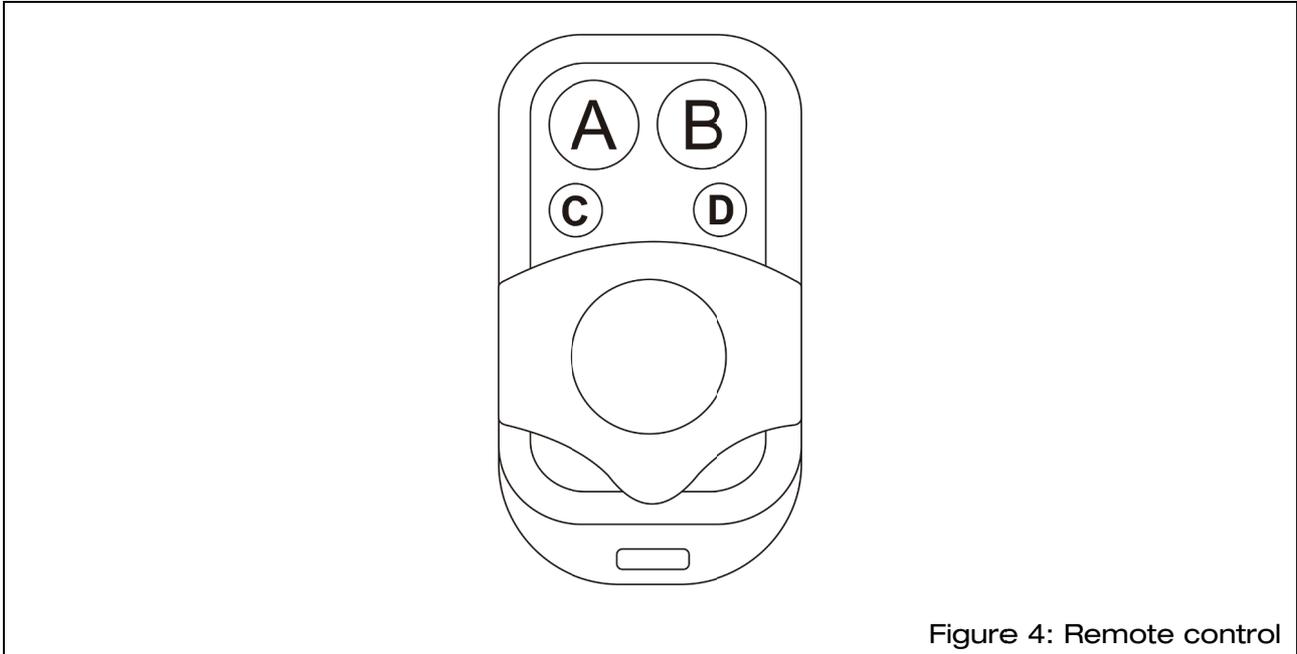


Figure 4: Remote control

Push-button	Function
A	Reels the belts out slowly.
B	Reels the belts in.
C	Reels the belts out quickly.
D	No function.



NOTE:
Belt Safety

The belts are not driven when they are reeled out. The belts reel out slowly or quickly by braking the winch to a greater or lesser extent. If necessary, the operator must pull the wheelchair out of the vehicle.

Description

2.1.5 Rating Plate

A rating plate, which contains the fundamental data, is attached to EasyPull (see Figure 5 below. The rating plate is attached to the motor.

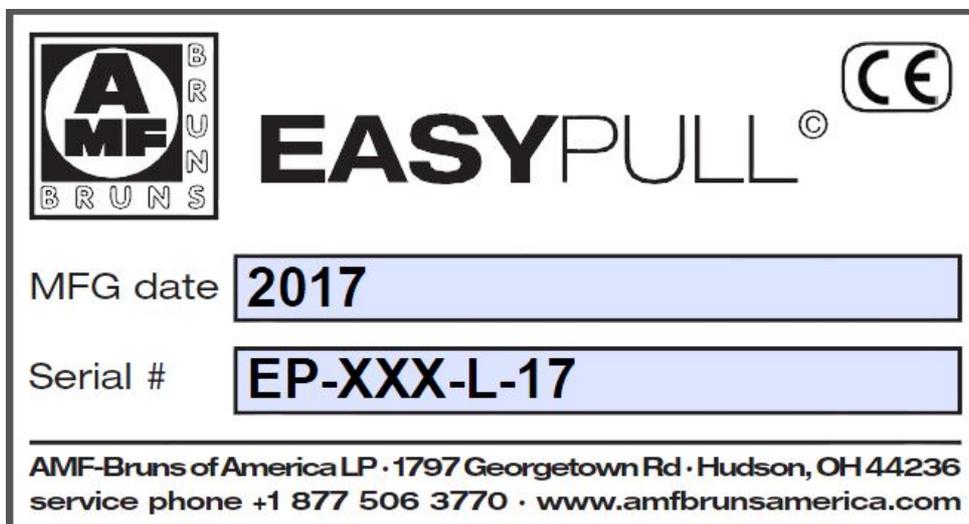


Figure 5: Rating Plate

2.2 Technical Data

Designation		EasyPull
Dimensions:	Width	520 mm
	Depth	158 mm
	Height	110 mm
Connection voltage		12 V DC
Weight		approx. 16 kg
Current consumption		approx. 25 A
Pulling power		approx. 160 kg

3) INSTALLATION

**NOTE:**

Installer must adhere to manufacturer guidelines.

The installation company is responsible for adhering to the safety regulations and manufacturer guidelines when installing Easy Pull. Installation is carried out at the sole risk of the installation company. The manufacturer accepts no liability for damage caused by the Easy Pull installation unless such damage is caused by the manufacturer's gross negligence.

In addition to the information given in these installation instructions, local legislative regulations must be taken into consideration regarding safety and accident prevention. Easy Pull must only be installed in vehicles with a 12 V DC electrical system.

3.1 Safety Information For Installation

**DANGER!**

Risk of injury through incorrect installation.

A number of risks of personal injury and material damage can occur if Easy Pull is incorrectly installed in the vehicle. Such risks of danger can occur during installation and also as a result of an incorrect installation. Therefore, Easy Pull must be installed in the vehicle by a mechanically trained specialist.

**DANGER!**

Risk of injury through unsuitable installation materials.

Unsuitable installation materials are unable to withstand the loads encountered during operation of Easy Pull. This can put both operators and passengers at risk and damage Easy Pull mechanism. Only use the installation materials provided by AMF-Bruns for installation.

**DANGER:**

Risk of injury through screws becoming loose.

During the installation process, if screws / bolts are not tightened to the specific torque, they can become loose during operation, putting both the operators and passengers at risk. Therefore, tighten all fastening screws / bolts to the torque specified in Section 3.4, page 18. Should they become loose during operation, re-tighten them to specifications.

**DANGER!**

Risk of injury through incorrect installation of the power supply cable.

If the power supply cable is not installed correctly, there is a risk of fire. This can cause serious injuries to the vehicle passengers and damage material.

Therefore: Adequately secure the cables, such that they will not chafe. Do not secure the cables to the brake lines.

3.2 Installing The Winch

- Remove the winch housing (see Figure 3, page 11).
- Place the winch in the intended installation position.
- Inspect the underside of the vehicle. Check if the intended installation position is suitable to bolt Easy Pull to the vehicle floor and make a connection to the vehicle's chassis.

**NOTE**

The vehicle manufacturer's body fitting guidelines must be adhered to when installing the winch.

The fastening holes that will be drilled later must be positioned such that a positive, metal-to-metal connection to the vehicle's chassis can be made.

The fastening holes must not be positioned above cavities, beams, seams or similar parts. This must be ensured by the Easy Pull's position on the vehicle's floor. Otherwise Easy Pull cannot be bolted down correctly.

- Correct Easy Pull's position if necessary.
- Mark the position of the fastening holes.
- Drill the $\varnothing = 10.5$ mm fastening holes.
- Check again that the position of the fastening holes of the Easy Pull is adequate.
- Deburr all holes.
- Remove all pieces of metal, wood, or plastic or other debris / waste.
- Remove underseal from the underside of the vehicle at the points to which Easy Pull will be secured.
- Apply rust-proofing paint to all bare metal surfaces.
- Allow the rust-proofing paint to dry.
- Bolt Easy Pull to the vehicle's floor and chassis.
- Tighten the bolts to the torque specified in Section 3.4, page 18.

3.3 Installing And Connecting The Electrical System

**NOTE**

The electrical system must be connected in accordance with the electrical circuit diagram (see Section 8, pages 29-30).

3.3.1 Installing The Voltage Transformer

- Disconnect the cable from the negative pole of the starter battery.
- Install the voltage transformer (see Figure 6).
- Connect the red 12 V cable to the positive pole of the starter battery.
- Connect the black 12 V cable to a grounded connection, i.e. chassis.

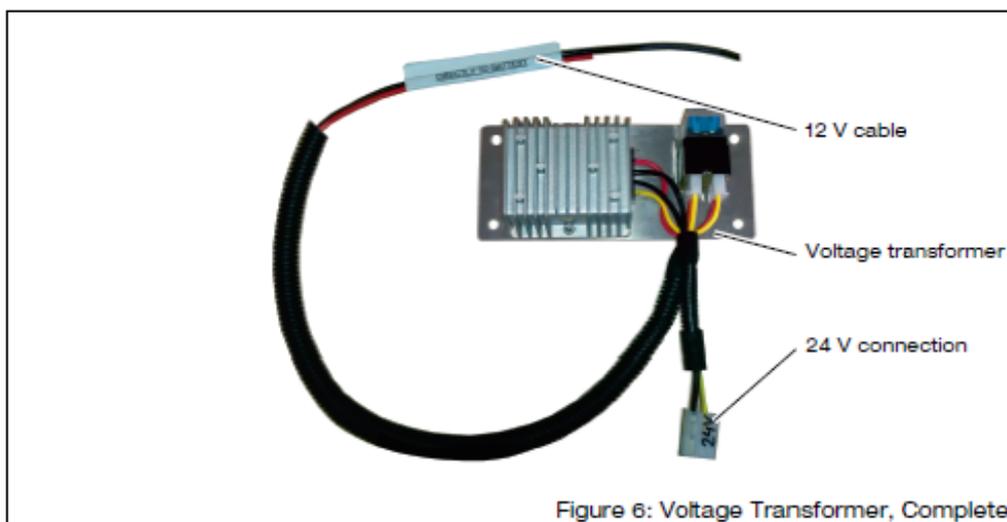


Figure 6: Voltage Transformer, Complete

3.3.2 Installing The Control Unit

Install the control unit behind on the side claddings at the rear of the vehicle (see Figure 2, page 10).



NOTE

The position in which the control unit is fitted must be close enough to the winch that the winch can be connected to it using the connection cable provided on the control unit.

3.3.3 Laying The Extension Cable (Optional)

If necessary, lay the extension cable provided between the voltage transformer and the control unit (see Figure 7).

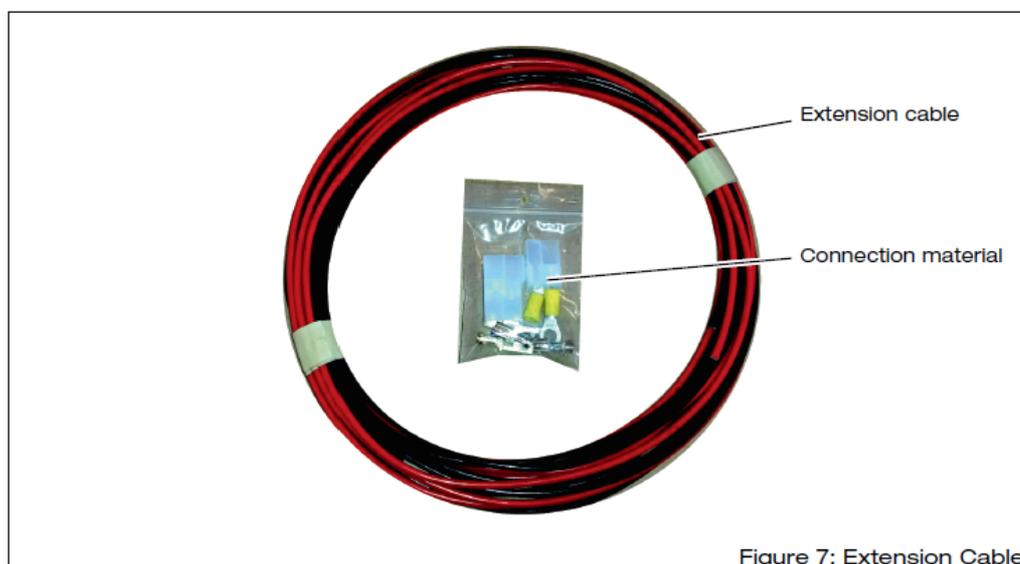


Figure 7: Extension Cable

3.3.4 Laying The Connection Cable

Lay the connection cable from the control unit to the winch (see Figure 8).

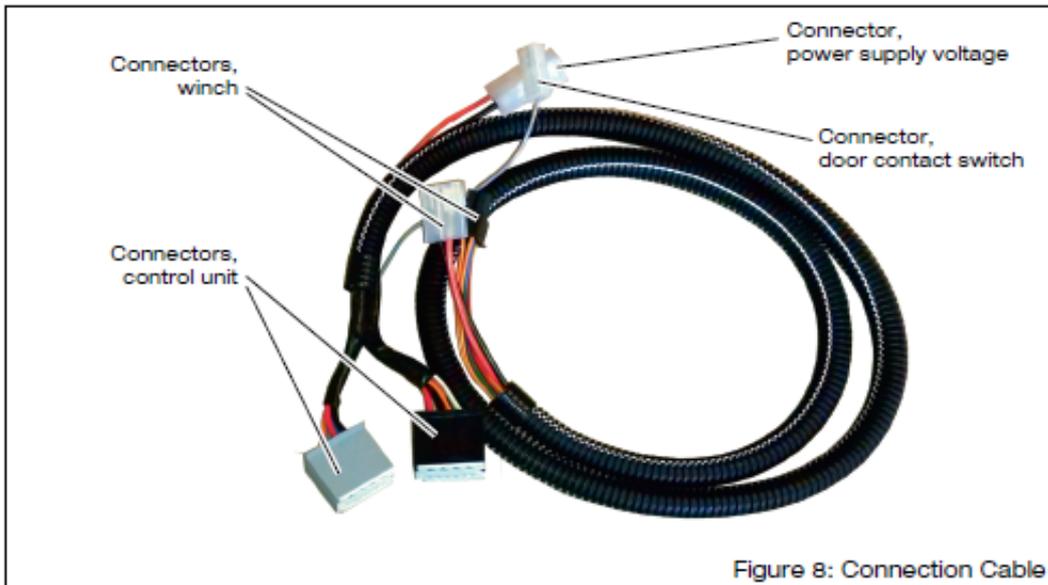


Figure 8: Connection Cable

3.3.5 Connecting The Door Contact Switch

Connect the door contact switch such that it is operated when the rear doors / tailgate are / is closed.

3.3.6 Making The Connections

Connect the connection cable to the control unit (see Figure 9).

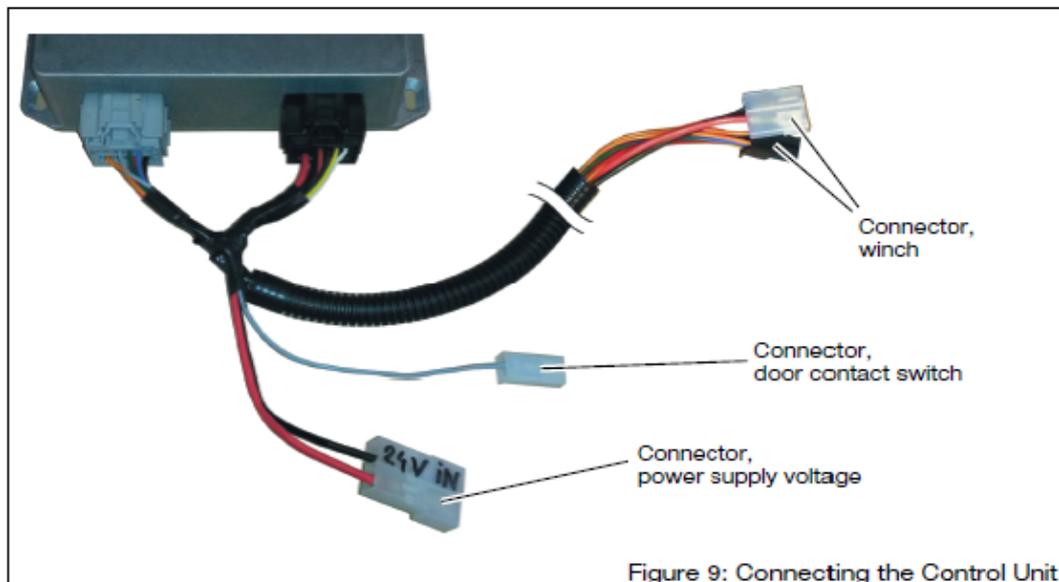
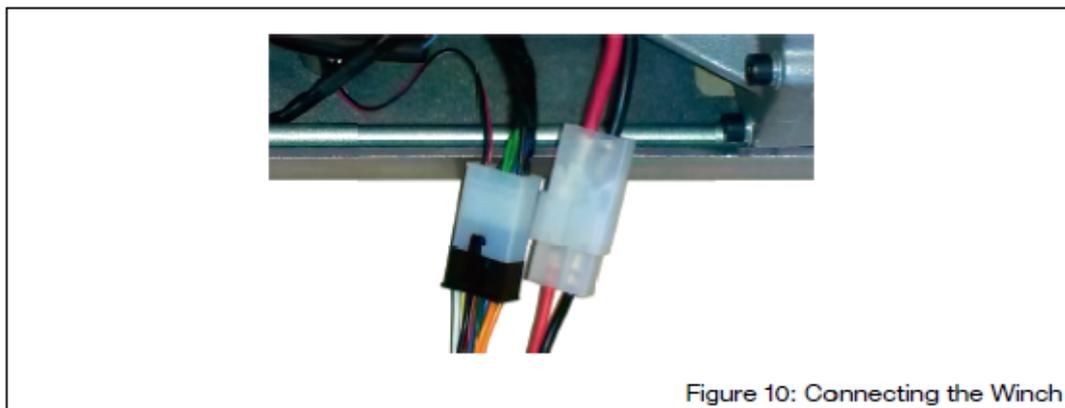
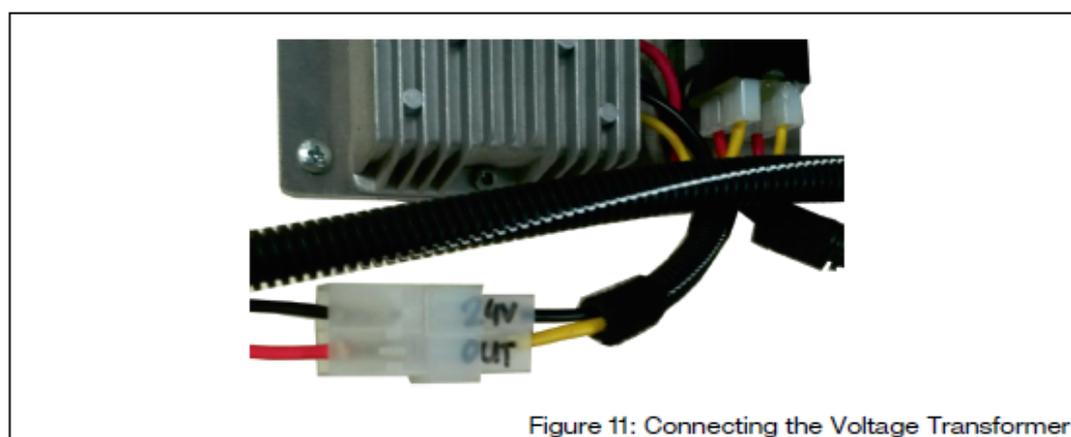


Figure 9: Connecting the Control Unit

- Connect the connection cable to the winch (see Figure 10, next page).



- Fit the winch housing.
- Connect the power supply to the voltage transformer (see Figure 11).
- If necessary, use the provided extension cable (see Figure 7, page 16).



- Connect the connection cable to the door contact switch (see Figure 9, page 17).
- Re-connect the cable to the negative pole of the starter battery. The green LED on the control should light up. Easy Pull is ready for operation.

3.4 Tightening Torques

Standard Threaded Steel Screws

Property Class	8.8	10.9
M8	25 Nm	36 Nm
M10	50 Nm	72 Nm
M12	85 Nm	125 Nm

3.5 Performing A Trial Run

- Adjust the magnets, such that they make contact with the winch housing (see Figure 14, page 22). A beeping sound signals that the winch is latched in position. The red LED on the control unit lights up.
- Press and hold push-button “A” on the remote control to reel the belts out slowly or press and hold push-button “C” to reel the belts out quickly. A beeping sound signals that the winch is unlatched.
- Pull the belts out of the vehicle the vehicle.
- Release the push-button.
- Adjust both magnets, such that they are as close to the belt locks as possible (see Figure 12 below).



- Press and hold push-button “B” on the remote control. Easy Pull reels the belts into the vehicle.
- Keep hold of the belts and guide them whilst they are being reeled in.
 - The winch stops and the latch is applied when at least one magnet reaches the winch housing.
 - A beeping sound signals that the winch is latched in position.
- Release push-button “B”.
- Fit the side cladding.

4) ADJUSTMENTS

Adjusting Easy Pull

Adjust Easy Pull to adapt it to the wheelchair in use. When Easy Pull is correctly adjusted, it will stop and latch automatically when the wheelchair has reached its position in the rear of the vehicle where it can be properly secured using the existing rear belts.



WARNING!

Risk of injury if Easy Pull is incorrectly adjusted.

If Easy Pull is not adjusted correctly, the winch will not latch in position. The wheelchair can roll backwards, losing control.

- Adjust Easy Pull to the wheelchair to be transported the first time it is used.
- Re-adjust Easy Pull every time a different wheelchair is to be transported.

4.1 Initial Setting

- Apply the vehicle's handbrake.
- Remove the ignition key.
- Open the rear doors / tailgate.
- Fold the access ramp out.
- Accompany the occupied or unoccupied wheelchair to the bottom of the access ramp.
- Apply the wheelchair's brakes.
- Take Easy Pull belts up with one hand.
- Press and hold push-button "A" on the remote control to reel the belts out slowly or press and hold push-button "C" to reel the belts out quickly. A beeping sound signals that the winch is unlatched.
- Pull the electrically operated belts out to the wheelchair.
- Release the push-button.
- Attach the belts to the front of the wheelchair.
- Use the belt loops if hitching point adapters are unavailable.
- Loosen the magnets by turning the locking screws in a counter-clockwise direction (see Figure 13, page 21).
- Move the magnets as close as possible to the wheelchair.
- Secure the magnets by turning the locking screws clockwise.



Figure 13: Adjusting the Magnets

- Position yourself behind the wheelchair and keep a firm hold of it.
- Release the wheelchair's brakes.
- Press and hold push-button “B” on the remote control. Easy Pull pulls the wheelchair into the vehicle.
- Guide the wheelchair as it is pulled into the rear of the vehicle. When the wheelchair reaches the position in the vehicle in which it can be secured using the existing rear belts:
 - Release push button "B".
 - Apply the wheelchair's brakes.
 - Adjust the magnet, so they make contact with the winch housing
(See Figure 14, page 22.)
- A beeping sound signals that the winch is latched in position.

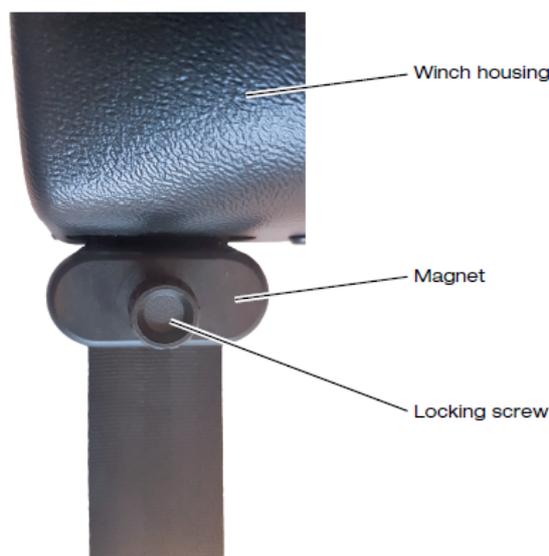


Figure 14: Magnet in Contact with the Winch Housing

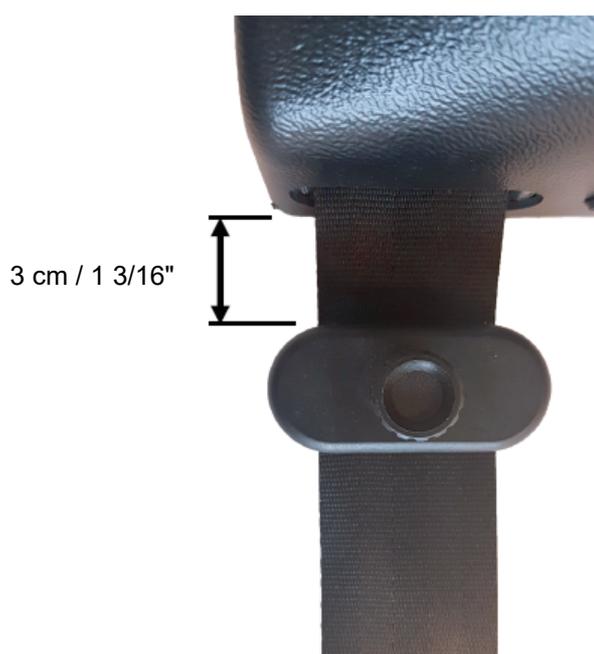


Figure 15

4.2 Checking The Setting

- Press and hold push-button “A” on the remote control. A beeping sound signals that the winch is unlatched.
- Release the wheelchair's brakes.
- Position yourself behind the wheelchair and keep a firm hold of it.
- Pull the wheelchair out of the vehicle by approximately 1 meter / 3.37 ft.
- Release push-button “A”.
- Press and hold push-button “B” on the remote control. Easy Pull pulls the wheelchair back into the vehicle.
- Hold and guide the wheelchair as it is pulled into the rear of the vehicle. Easy Pull stops when at least one magnet is in proximity of the winch housing.
- A beeping sound signals that Easy Pull is latched in position. Release push-button “B”.

The wheelchair is now in position. Finely adjust the magnets if this is not the case (see 4.3 below). Easy Pull is correctly adjusted when the wheelchair has reached a position in the vehicle in which it can be secured using the existing rear belts.

- Apply the wheelchair's brakes.
- Secure the wheelchair with the belt systems provided in the vehicle.
- If the wheelchair is occupied by a passenger: Secure the passenger with a seat belt.
- Fold the access ramp up.
- Close the rear doors / tailgate.

4.3 Fine Adjustment

- Adjust both magnets, such that they are approximately 3 cm / 1-3/16" from the winch housing (see Figure 15).
- Check the adjustment once again (see Section 4.2, above).

5) OPERATION

5.1 Safety Regulations For Operation



Before operating Easy Pull, the safety information must have been read (see pages Section 1, pages 6-8).



WARNING!

Risk of injury and material damage if Easy Pull is used in a faulty condition. Visually inspect for outward signs of damage before use.



WARNING!

Risk of injury if the wheelchair and/or passenger are not secured correctly.

If the passenger and/or wheelchair are not secured correctly, they can suffer severe injury or damage if the vehicle brakes are applied sharply or if the vehicle is involved in even a minor road traffic collision.

- Secure the rear of the wheelchair with the belt systems provided in the vehicle.
- Secure the passenger with the safety belt systems provided in the vehicle.



CAUTION!

Risk of injury to the passenger through the belt fastening loops.

If the belts are secured to the wheelchair by the fastening loops, there is a risk of the passenger reaching into the loops. This presents a risk of crushing when the belts are reeled in. Make sure that the passenger does not come in contact with the fastening loops.

5.2 Loading An Occupied Or Unoccupied Wheelchair



NOTE

If you are using Easy Pull on a wheelchair for the first time, make adjustments to Easy Pull (see pages Section 4, pages 20-23).



WARNING

Risk of injury or material damage when loading an occupied or unoccupied wheelchair

When an occupied or unoccupied wheelchair is pulled into the vehicle, uncontrolled movements of the wheelchair can cause injuries and material damage.

- Apply the vehicle's handbrake.
- Remove the ignition key.
- Open the rear doors / tailgate
- Fold the access ramp out.
- Accompany the occupied or unoccupied wheelchair to the bottom of the access ramp.
- Apply the wheelchair's brakes
- Take Easy Pull belts up with one hand.
- Press and hold push-button "A" on the remote control to reel the belt out slowly or press and hold push-button "C" to reel the belts out quickly. A beeping sound signals that the winch is unlatched.
- Pull the electrically-operated belts out to the wheelchair.
- Release the push-button.
- Attach the belts to the front of the wheelchair.
- Take up a position behind the wheelchair and keep a firm hold of it.
- Release the wheelchair's brakes.
- Press and hold push-button "B" on the remote control. Easy Pull pulls the wheelchair into the vehicle.
- Guide the wheelchair whilst it is being pulled into the rear of the vehicle.

When the wheelchair has reached its foreseen position in the vehicle, Easy Pull will stop and the latch will be applied to the winch. A beeping sound signals that the winch is latched in position.

- Release push-button "B".
- Apply the wheelchair's brakes.
- Secure the rear of the wheelchair with the belt systems provided in the vehicle.
- If the wheelchair is occupied by a passenger:
 - Secure the passenger with a seat belt.
 - Fold the access ramp up.
 - Close the rear doors / tailgate.



WARNING!
Risk of injury if the winch is not latched in position.

If Easy Pull's winch is not latched in position the wheelchair can roll backwards. The passenger in the wheelchair can suffer injury. Always ensure that Easy Pull is latched in position before driving vehicle.

5.3 Unloading An Occupied Or Unoccupied Wheelchair



WARNING!

Risk of injury or material damage when unloading an occupied or unoccupied wheelchair.

When unloading an occupied or unoccupied wheelchair, personal injuries and material damage can be caused if the wheelchair rolls backwards.

- When unloading an occupied or unoccupied wheelchair, always guide the wheelchair by hand until it has reached its final position.



NOTE

The belts are not driven when they are reeled out. The belts reel out quickly by braking the winch to a greater or lesser extent. If necessary, operator must pull the wheelchair out of the vehicle.

- Apply the vehicle's handbrake.
- Remove the ignition key.
- Open the rear doors / tailgate
- Fold the access ramp out.
- Release the passenger's seatbelt.
- Detach and remove the rear belts securing the rear of the wheelchair.
- Take up a position behind the wheelchair and keep a firm hold of it.
- Release the wheelchair's brakes.
- Press and hold push-button "A" or "C" on the remote control.
A beeping sound signals that the winch is unlatched.
- Accompany the passenger / wheelchair out of the vehicle.
- Remain in position behind the wheelchair until it has left the access ramp completely.
- Apply the wheelchair's brakes.
- Detach Easy Pull belts from the wheelchair.
- Hold the belts up with one hand.
- Press and hold push-button "B" on the remote control. Easy Pull reels the belts into the vehicle.
- Keep hold of the belts and guide them whilst they are being reeled in.

The winch stops and the latch is applied when at least one magnet reaches the winch housing. A beeping sound signals that the winch is latched in position.

- Release push-button "B".
- Fold the access ramp up.
- Close the rear doors/tailgate.

6) MAINTENANCE AND REPAIR

6.1 Safety Regulations For Maintenance and Repair



Read the safety information before carrying out maintenance and repair work (see Section 1, pages 6-8).



WARNING!

Risk of injury if Easy Pull is used after it has been involved in an accident.

Easy Pull can suffer damage, which may not be immediately evident, if involved in an accident. This can adversely affect the safety of the wheelchair passenger. Easy Pull must be replaced if it is involved in an accident.



WARNING!

Risk of injury and material damage if maintenance and repair work is not performed by factory-trained personnel.



WARNING!

Risk of injury and material damage if using inferior quality parts.

The manufacturer will accept no liability whatsoever for damage or injury caused by the use of non-original spare parts or spare parts that have not been approved of by the manufacturer. Only use original spare parts or manufactured-approved spare parts.

6.2 Routine Maintenance Work

Maintenance tasks must be implemented on a scheduled basis by factory-trained service personnel (see Section 6.2.1, next page).

6.2.1 Maintenance Schedule

Before Use:

Visually inspect Easy Pull for damages and deficiencies. Listen for unusual sounds and noises. Initiate repairs if necessary.

Daily:

- Check and tighten magnet locking screws by turning them clockwise (see Figure 14, page 22).
- Before wheelchair is secured in vehicle by rear belts, check the function of the latching system by pulling the wheelchair backwards. If the latching system does not function, initiate repairs.
- Check the function of the door contact switch. Initiate repairs if defective.
- Ensure system is locking properly.
- Check webbing to ensure it is not cut frayed or damaged.
- Check parts to ensure they are not broken or cracked.
- Check buckles for damage and ensure proper operation.
- Check all bolts and screws and tighten as necessary.

Yearly

- Check and tighten all fastening screws and bolts.

6.2.2 Maintenance Records

- For optimum performance, maintenance should be scheduled on a regular basis.
- For emergencies, accidents, etc., schedule service as needed.
- Keep accurate records for all maintenance and repair activities.

7) FAULTS AND TROUBLESHOOTING



WARNING!

Risk of injury and material damage if repair work is performed incorrectly. Only use factory-trained service and maintenance workers.

If faults occur when operating Easy Pull, proceed as described in the following troubleshooting table. Contact customer service if faults cannot be remedied using the information and measures given in the table below.

TROUBLE	POSSIBLE CAUSE	SOLUTION
Easy Pull does not stop and latch automatically.	The Easy Pull is not adjusted correctly.	Carry out adjustment of Easy Pull (see Section 4, page 20).
Easy Pull belts can not be reeled out even though the latching system release signal has been given.	Latching system defective.	Do not use EasyPull. Initiate repairs.
Easy Pull makes noises when driving	Easy Pull fastening has become loose.	Check / tighten all fastening bolts.
Easy Pull remains latched, even though push-button "A" or "C" on the remote control has been pressed	Batteries in remote control need replaced.	Replace remote control battery.
Easy Pull does not function.	The control unit does not function correctly.	Carry out a reset: Operate the door contact switch by hand or open the rear doors / tailgate and close them / it again.
	The remote control battery is discharged.	Install a new battery.
	The remote control is defective.	Contact customer service (see Section 10, page 31).
	A fuse has blown in the voltage transformer.	Install a new fuse.
	The vehicle's starter battery is discharged.	Charge the starter battery or install a new battery.
	The door contact switch is defective.	Contact the customer service department (see Section 10, page 31).
	The voltage transformer is defective.	
	The control unit is defective.	

8) ELECTRICAL CIRCUIT DIAGRAMS

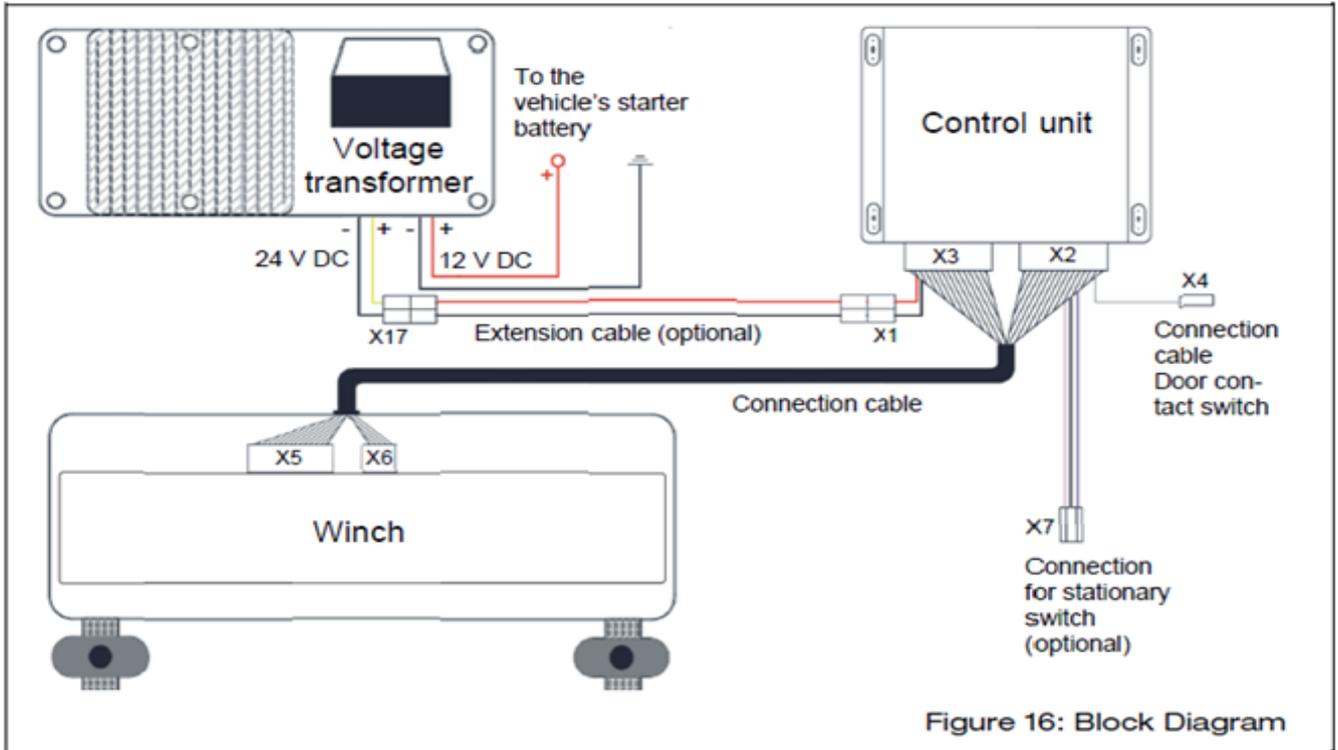
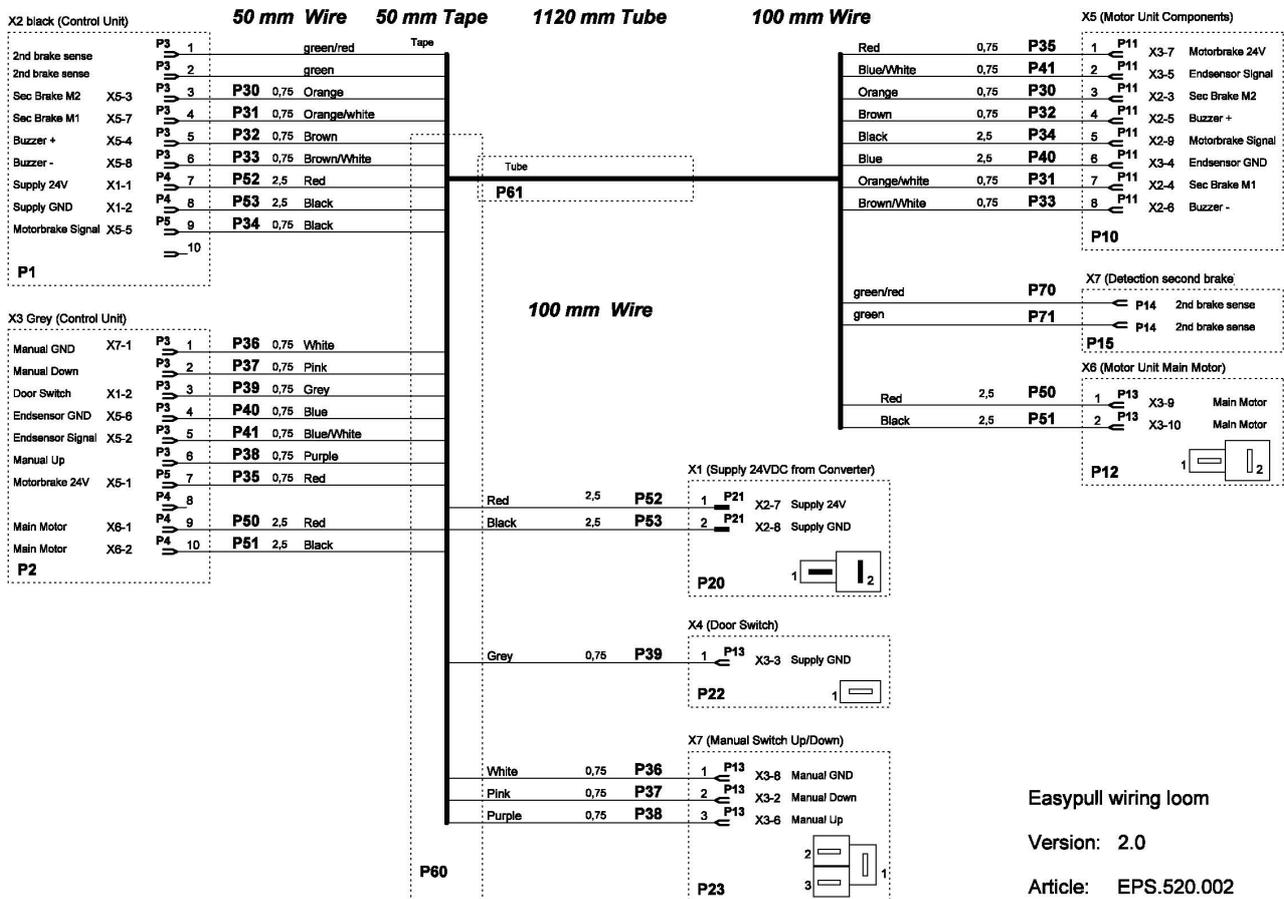


Figure 16: Block Diagram



EasyPull wiring loom

Version: 2.0

Article: EPS.520.002

Figure 17: Easy Pull Wiring Loom

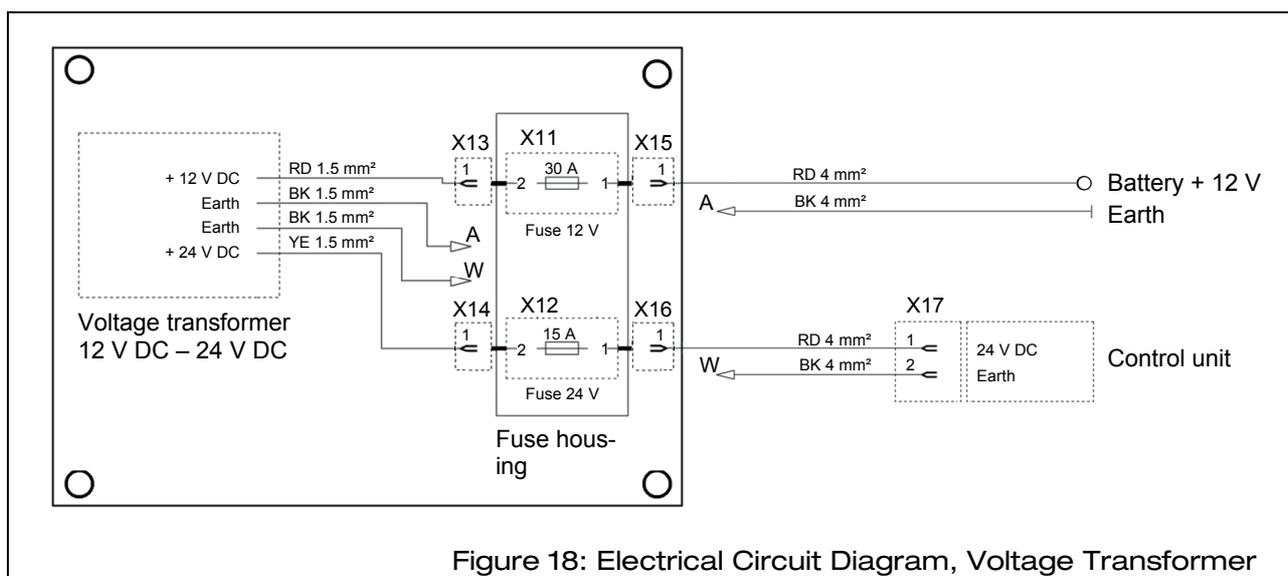


Figure 18: Electrical Circuit Diagram, Voltage Transformer

Color	Abbreviation (acc. to IEC 60757)
Black	BK
Brown	BN
Red	RD
Orange	OG
Yellow	YE
Green	GN

Color	Abbreviation (acc. to IEC 60757)
Blue	BU
Violet	VT
Grey	GY
White	WH
Pink	PK
Turquoise	TQ

9) SPARE PARTS

Figure	Designation	Article No.
	Remote control	10022151
	Cover	10022145

10) CUSTOMER SERVICE

The AMF-Bruns of America customer service department will be more than pleased to assist in ordering spare parts, maintenance and repair work, and provide assistance with general problems or inquiries.

Reach Us At

📍 1797 Georgetown Road, Hudson – OH 44236

✉ Email: contact@amfbrunsamerica.com

☎ Phone: +1 877-506-3770 or 234-284-2073

🌐 Website: www.amfbrunsamerica.com

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Monday-Friday: 7:30am to 4:30pm

Saturday & Sunday: Closed



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