

NOTE FOR ALL TEAM MEMBERS

South West Community Transport's aim is to ensure a safe working environment for all team members and to provide a safe and secure transport service to our clients.

Strategies to assist in reaching this goal is to provide both relevant information and safe operating procedures prior to service delivery.

It is important to remember that clients details / needs can change from time to time without notice.

It is important for all team members to :-

- Undertake a risk assessment, as per organizational policies and procedures prior to undertaking any task.
- Implement Manual Handling Principles at all times



Driver

Information

Power

Mobility

Devices

CONTENTS

Power Wheelchairs	4
Electric Wheelchairs	5
Types of Electric Wheelchairs	6
Front and Rear wheel drive	7
Additional Information	8
Scooters	9—10
SWCT Safe Operating Procedure	11—13
SWCT Power Mobility Driver Competency Test	14—15

Vito

19. Follows driver's instructions during loading and unloading?....C / NYC
20. Positions wheelchair at base of ramp.....C / NYC
21. Drives smoothly up ramp and into vehicle.....C / NYC
22. Manoeuvres wheelchair safely within vehicle.....C / NYC
23. Able to turn off wheelchair as instructed.....C / NYC
24. Reverses wheelchair safely down ramp.....C / NYC

Rosa

25. Follows driver's instructions during loading and unloading?....C / NYC
26. Reverses and positions wheelchair onto hoist.....C / NYC
27. Reverses smoothly into vehicleC / NYC
28. Manoeuvres wheelchair safely within the vehicle.....C / NYC
29. Able to turn off wheelchair as instructed.....C / NYC
30. Drives and positions wheelchair onto hoist.....C / NYC
31. Drives smoothly from hoist onto ground.....C / NYC

If a client is deemed not competent in any component of the test, they will be required to undergo training and resit the test at a later date.

In the interim they will be able to continue to use SWCT services, but in a manual wheelchair only.

The manual wheelchair will be provided by SWCT if necessary.

SWCT Client Competency Test

All items are scored C = Competent or NYC = Not Yet Competent

Basic wheelchair driving skills

1. Turn on/off chair at control panel.....C / NYC
2. Use speed control switch to adjust speed.....C / NYC
3. Put chair into reverse using control panel.....C / NYC
4. Responds to verbal instructions to put chair in slowest speed C / NYC
5. Drives smoothly in a straight line..... C / NYC
6. Reverses smoothly in a straight line..... C / NYC
7. Right turn..... C / NYC
8. Left turn.....C / NYC
9. Reverses to right..... C / NYC
10. Reverses to left.....C / NYC
11. Negotiates driving up a kerb cut-out.....C / NYC

Wheelchair loading/unloading into SWCT vehicle

Transit

12. Follows driver's instructions during loading and unloading?..C / NYC
13. Drives in and positions wheelchair onto hoist.....C / NYC
14. Drives smoothly into vehicleC / NYC
15. Manoeuvres wheelchair safely within the vehicle.....C / NYC
16. Able to turn off wheelchair as instructed.....C / NYC
17. Reverses and positions wheelchair onto hoist.....C / NYC
18. Reverses smoothly from hoist onto ground.....C / NYC

The information in this booklet has been prepared by Kara Edwards (Occupational Therapy Student from University of Sydney, completing her honors degree) in conjunction with representatives from South West Community Transport—April, 2008

South West Community Transport Inc.
P. O. Box 617,
Narellan, NSW 2567

Phone: 0246296888
Fax: 0246296800

Email: transport@swct.com.au
Web: www.swct.com.au

DISCLAIMER

It is recommended that when a client requires more assistance outside of this handbook, that a Risk Assessment is completed. Neither South West Community Transport (SWCT), the student placement nor anyone involved in the production of this publication shall be responsible for the results of any actions arising out of the use of any information in this publication contained therein. SWCT and all persons involved in this publication expressly disclaim all liability for any person or anything done or omitted to be done by any such person, in particular, in respect of any injury, disease or death occurring as a result, in reliance whole or partial, upon the whole or any part of this publication.

Power Wheelchairs

Technically a wheelchair is a chair with a backrest, mounted on wheels, which allows people with mobility disabilities to move around. People who use wheelchairs, especially power wheelchairs may have neurological, musculoskeletal or cognitive disorders that result in a mobility impairment. Power wheelchairs can be modified to suit each individual client by changing how the wheelchair is steered (eg. head or chin controls), or adding specialised backrests to alter how much postural support is provided to the client.

There are many types and styles of power wheelchairs that are provided to clients by many different manufacturers, meaning that most clients who use SWCT services will not have the same model of wheelchair. There are however basic elements to all power wheelchairs, and only a certain number of core types, which can be likened to types of cars (eg. 4WD, all wheel drive etc). These core types are explained below.

Step No.	Task	Safe Work Procedure
7.	Prepare to operate hoist	<ul style="list-style-type: none"> • Advise client that hoist will now become operational (Drivers)
8.	Raise hoist to floor level of bus	Falls, soft tissue injuries <ul style="list-style-type: none"> • Stand beside the hoist (Driver) • Make sure you are in contact with hoist controls at all times (Driver)
9.	Mobilize chair at top of floor level	<ul style="list-style-type: none"> • Instruct client to mobilize chair and to put into reverse (Driver) • Mobilize and Put chair into reverse (Client) • Ensure slow speed is selected (Driver) • Instruct client to reverse chair into vehicle (Driver) • Reverse chair into vehicle (Client) • Encourage client to “mind their head” (Driver) • Instruct client to wait to manoeuvre chair into position until Driver enters vehicle • Fold hoist into upright position (Driver)
10.	Manoeuvre chair into position	<ul style="list-style-type: none"> • Enter vehicle via side door (Driver) • Follow driver instructions (Client) • Stand clear of chair whilst in motion (Driver) • Provide client with instructions for positioning of chair within vehicle (Driver)

Step No.	Task	Safe Work Procedure
1.	Make sure pathway from hoist into vehicle is clear	Slips, trips, falls – Manual Handling <ul style="list-style-type: none"> • Ensure hoist is on level ground (worker) • Ensure pathway is clear (worker) • Remove loose objects (worker)
2.		<ul style="list-style-type: none"> • Make sure restraint belts are not positioned across pathway
3.	Client to Wait for driver instructions	Slips, trips, falls, collisions – Manual Handling <ul style="list-style-type: none"> • Ensure client has license to operate chair on SWCT vehicles (Driver) • Wait for drivers instructions (Client)
4.	Accompany client to vehicle hoist	<ul style="list-style-type: none"> • Walk along side of chair on control lever side (driver) • Direct client to manoeuvre at slow speed (Driver) • Operate chair at slow speed (Client) • Ensure slow speed is selected (Driver) • Proceed operations in a safe manner, obeying road rules etc. (client)
5.	Reverse chair onto hoist (Rosa)	<ul style="list-style-type: none"> • Do not independently load chair onto hoist (Client) • Follow drivers instructions (Client) • Stand beside hoist, in a position where contact with chair and hoist is minimized (Driver)
6.	Immobilize chair and disengage / neutralise electrics	Strain to back <ul style="list-style-type: none"> • Immobilize chair by putting into neutral and disengaging / neutralising all electrics (Client) • Ensure chair is in neutral and all electrics have been neutralised (Driver)

Electric Wheelchairs

Electric wheelchairs are powered in two ways:

Belt-driven- This type of wheelchair has a belt and pulley on each side of the wheelchair, which, when powered by the battery, turns the wheels. Belt-drives tend to be in older wheelchairs, and although this system works well, with time, the belts loosen, which causes the wheelchair to react more slowly.

Direct-drive- This type of wheelchair has the motor connected directly to the wheels through a gearbox, which results in an efficient and responsive system. The direct-drive system is more commonly used in newer power wheelchairs, and it offers active braking of the wheelchair by providing a voltage that stops the motor. This type of drive does not slip, has a high starting torque and high-speed characteristics, but is often heavier than other systems.

Types of Power Wheelchairs

Standard powered wheelchairs- have large back wheels with small front casters. This type of wheelchair most commonly uses direct drive.

Modular powered bases- provide a stable base and are designed to maximise power, meaning that they are ideal for outdoor use. This type of wheelchair is obvious due to the box like base, with the chair sitting on top, and four small heavy duty wheels. Modular powered bases again commonly use direct drive, but can be bulky and heavy.

**Remember
Think through
the task before
proceeding**

South West Community Transport

Safe Operating Procedure

Loading a Client In an electric wheelchair Onto a hoist (Rosa Vehicle)

Refer to Vehicle Procedure Manual for following
Safe Operating Procedures
Unloading a client in an electric wheelchair from a Rosa
Loading and Unloading a client in an electric wheelchair
from a Transit or Hi-ace vehicle

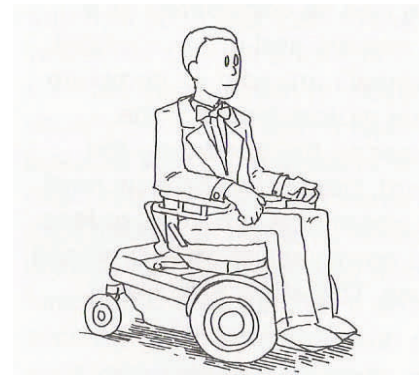
Scooters cont.

Four-wheeled scooters- Four-wheeled scooters are more stable however are larger, and hence are mostly used outdoors. Four-wheeled scooters use rear-wheel drive, and have the rider's weight over the motor, so they provide better traction and more power. The bases of rear wheel drive scooters tend to be longer and wider than front wheel drive scooters, and as a result may not always fit into the platform of a hoist on SWCT vehicles.

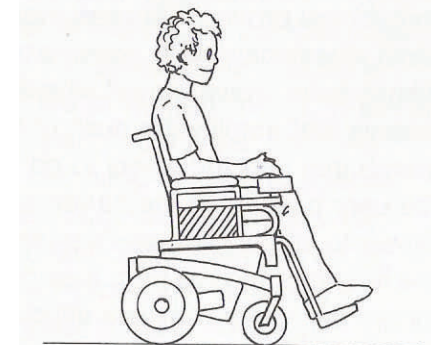


Front and rear wheel drive

In most cases the motor is attached to the rear wheels. Both front and rear wheel drive wheelchairs provide good stability. Front wheel drive chairs have large wheels at the front, with casters at the rear, while rear-wheel drive chairs have large wheel at the back with front casters.



A typical front-wheel drive chair.



A typical rear-wheel drive chair.

Other Information about power wheelchairs

Tyres - Power wheelchairs can have two types of tyres, airless and pneumatic. Airless tyres are commonly used for the smaller front wheels of power wheelchairs, called casters. Airless tyres require less ongoing maintenance than pneumatic tyres but need to be replaced when bumps and cracks appear in them. Pneumatic, or air filled tyres are commonly used for the larger back wheels of power wheelchairs, however, smaller pneumatic tyres may be used in modular based wheelchairs (see above). Pneumatic tyres will provide a smoother ride than airless, but require ongoing care to maintain tyre pressure.

Batteries for wheelchairs and scooters are mounted under the seat and are rechargeable lead-acid batteries. Unlike car batteries, wheelchair batteries require small amounts of current for a longer time. Battery life can be affected by a number of factors including the type of motor in the wheelchair, environmental conditions such as temperature extremes and the amount of regular maintenance.

Scooters

Motorised scooters come with either three or four wheels and like power wheelchairs are powered by a lead-acid rechargeable battery. Motorised scooters have limited seating and positioning options meaning that modifications cannot be made to the seat to provide more support to the client. This means that most people who use a motorised scooter will be able to sit in the standard seat while using the device, and will be able to transfer in and out of the device independently. Scooters are less costly than powered wheelchairs, but cannot be modified in terms of speed, control interfaces, braking or turning controls. Most scooters turn with the back wheels at the centre of the turning circle.



Three- wheeled scooters- Three-wheeled scooters have two rear tyres with one front tyre where the handlebars are situated. Three-wheeled scooters use front wheel drive, which means they drive better on level ground and are more manoeuvrable. Three-wheeled scooters are often smaller than four-wheeled scooters, but can be prone to tipping sideways, especially when turned quickly or going up hills.