

Rolltalk

control of electric wheelchairs



REQUIRED "ABILIA – ACCESSORIES":

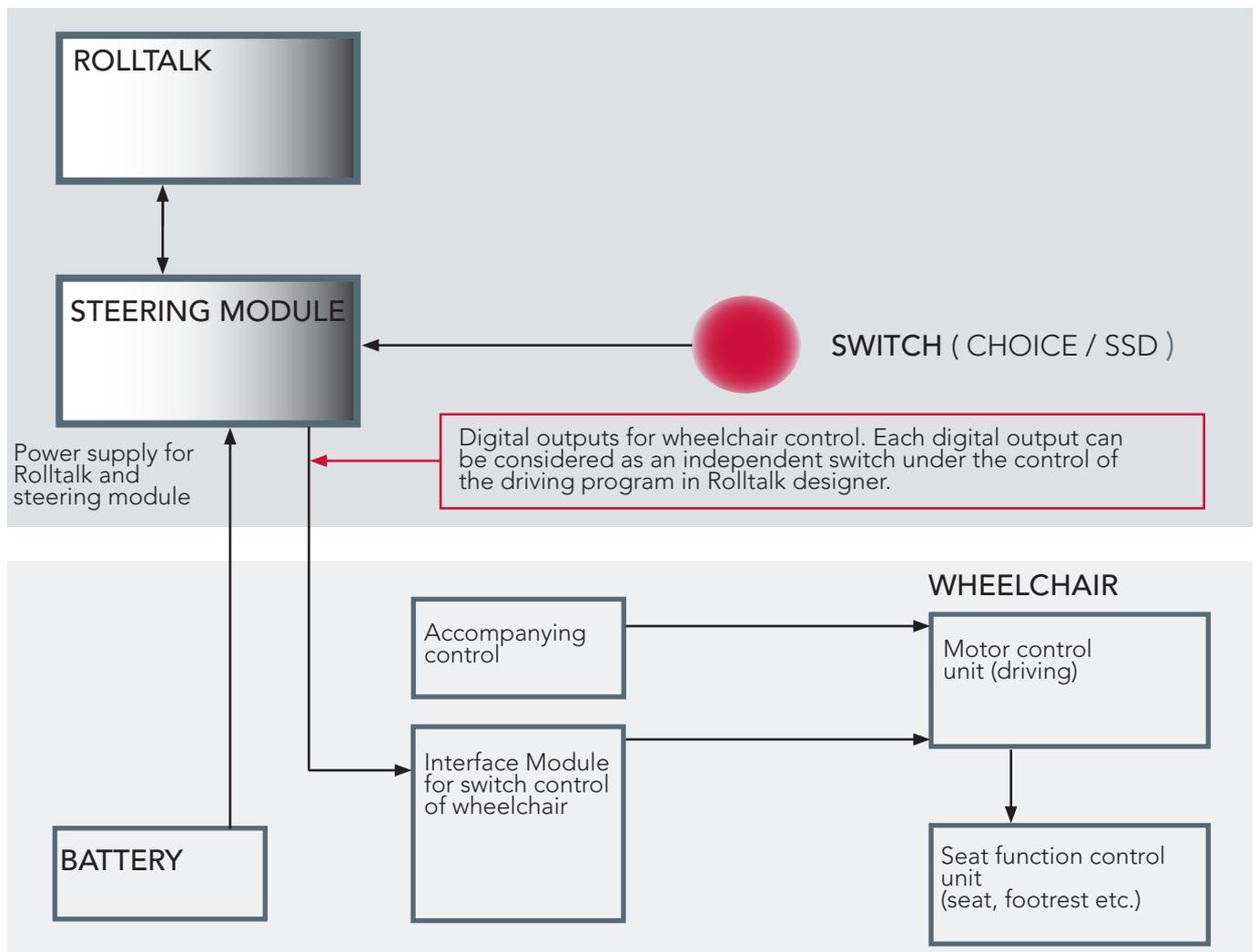
1: Rolltalk (Compact or Light) 2: Steering module

User-adapted operator devices will also be added

(1 or 2 switches, 1 switch with head-movement control, 1 switch with eye-movement control etc).

It will always be necessary to use some sort of switch to operate a Rolltalk, because the switch has a role in safety in addition to choosing an driving program: Driving the wheelchair and changing the seat position should only be permissible once the switch Safety Switch Drive (SSD) has been pressed.

BLOCK DIAGRAM:



WHEELCHAIR REQUIREMENTS:

- 1: The wheelchair must use 24V batteries. This is the standard in modern wheelchairs.
- 2: The battery capacity must be sufficient to power both Rolltalk and the wheelchair for a normal day (approx. 18 hours, when part of the day includes driving the wheelchair).
The minimum battery capacity should be:
24V 40Ah (Amperé hours) minimum. Wheelchairs for combined indoor/outdoor use normally have a 24V 60Ah battery, or greater.
- 3: The wheelchair supplier has to be able to equip the chair with an Interface Module for switch control. These modules can either be standard chair electronics from the suppliers of diverse wheelchair electronics or modules from any other producer that the wheelchair provider prefers to use.

Thus it is not always easy to set up single standard solutions. To further complicate matters, there are variations in how the chairs are equipped, even for the same basic chair model:

Foot support can be a single unit or divided left and right, some persons prefer their foot rests down or up, others forward or recessed.

Yet despite this, there are two principal suppliers of electronics for most wheelchairs: Dynamic and PG. Together, these two have been estimated to comprise about 90% of the world electronic chair market.

DYNAMIC

Here, the minimum chair control requirement is a DX-ACC4/B Switch Interface. This allows control of both chair functions and driving functions. All that is needed is for user to be able to see the wheelchair's service display; what is not useful is – in addition to the above – wanting the chair to be delivered with a unit for direct access for control of wheelchair functions. One example of this would be a DX-ARC-SWB. This is a switch box for control of up to a maximum of 5 chair functions.

PG

Here, the chair supplier can deliver the chair with a PG Omni module (Omni-Rnet) that provides access to control of driving and chair functions, or, alternatively, DriveLink-R, that also permits full control of the chair from Rolltalk.

In both of these cases it is not necessary see the wheelchair display to have complete control over which functions are chosen.

We can best help you with the wiring and driving programs if you can provide us a detailed description of the chair and its electronics.

There are other kinds of wheelchair electronics and interfaces that permit Rolltalk control, put these require us to take the chair in to Abilias PU to carry out the required software and hardware adjustments.