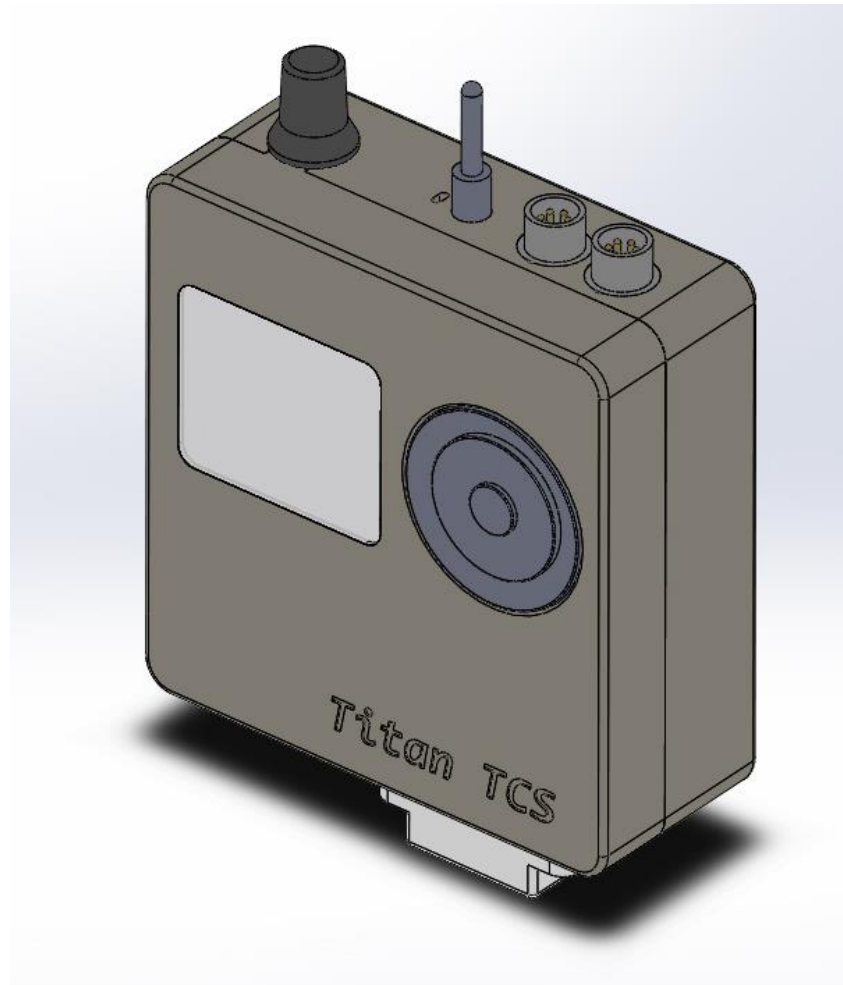
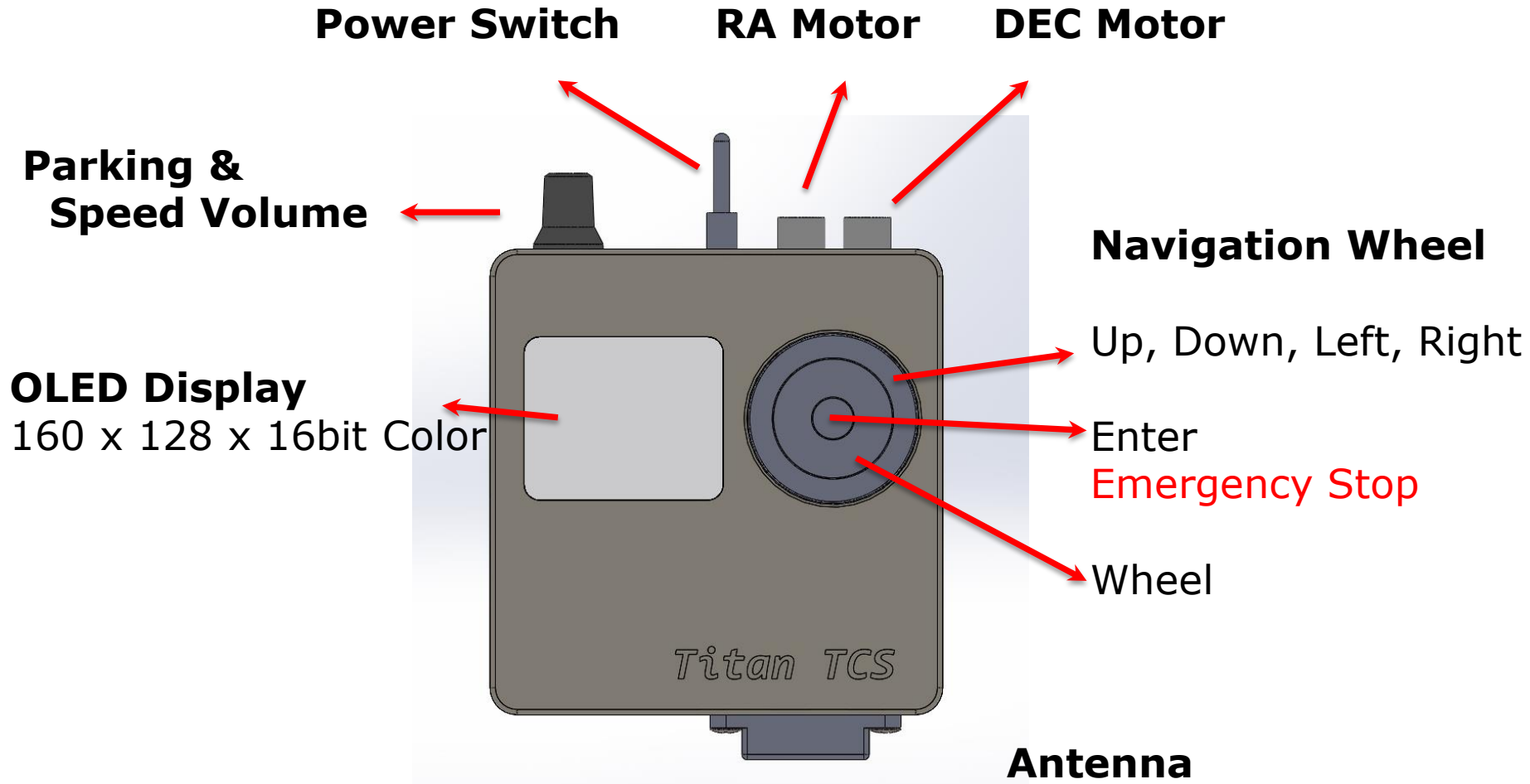


Titian TCS Quick Manual (V1)

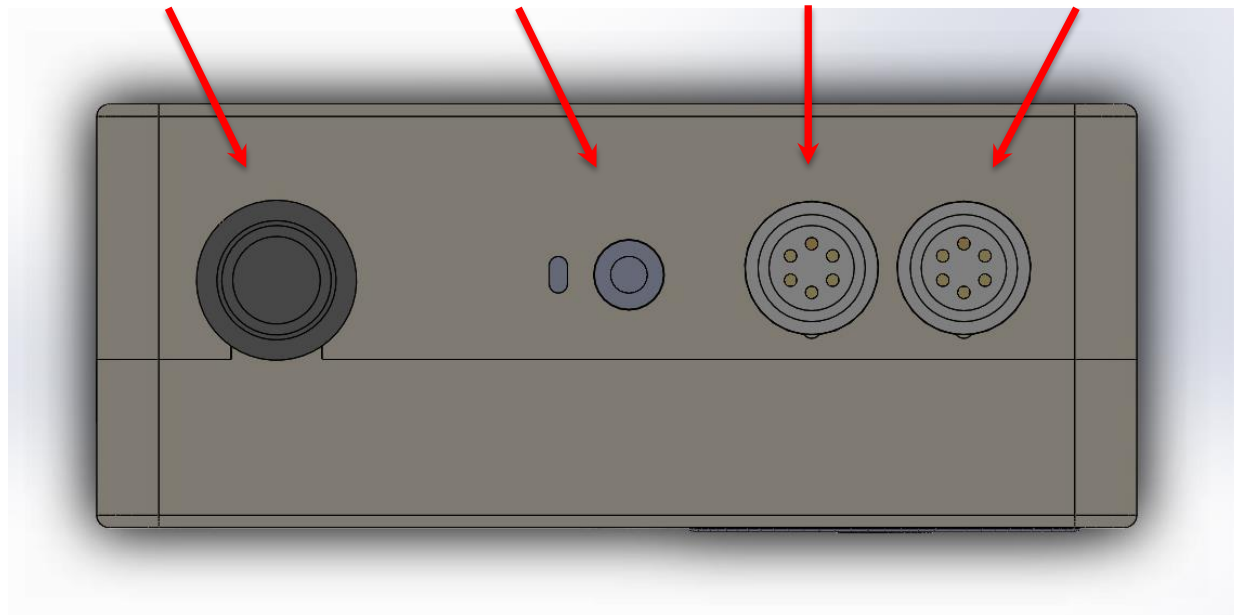


Front View

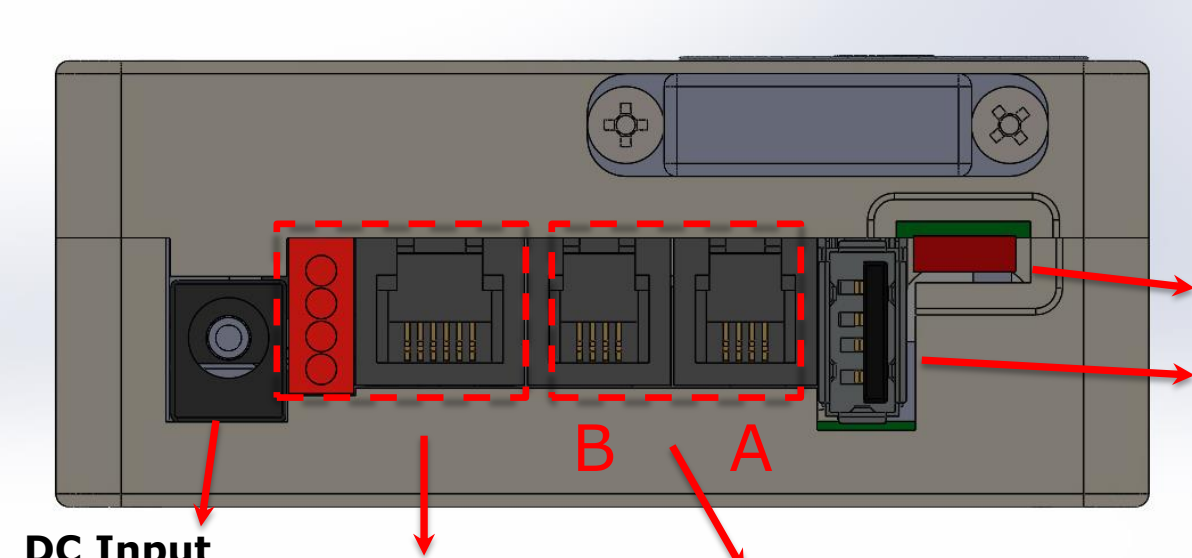


Top View

Parking & Speed Volume **Power Switch** **RA Motor** **DEC Motor**



Bottom View



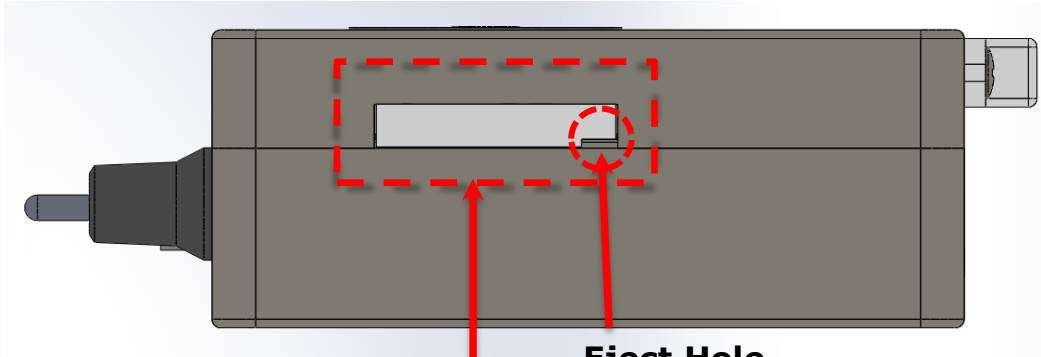
DC Input
12V 3A ~ 4A

Pin Diameter: 2mm
Plug Diameter : 5.5mm
Barrel Outer Diameter: 6.3mm

Guide Port
LED & RJ-12

RS-232
Dual Port

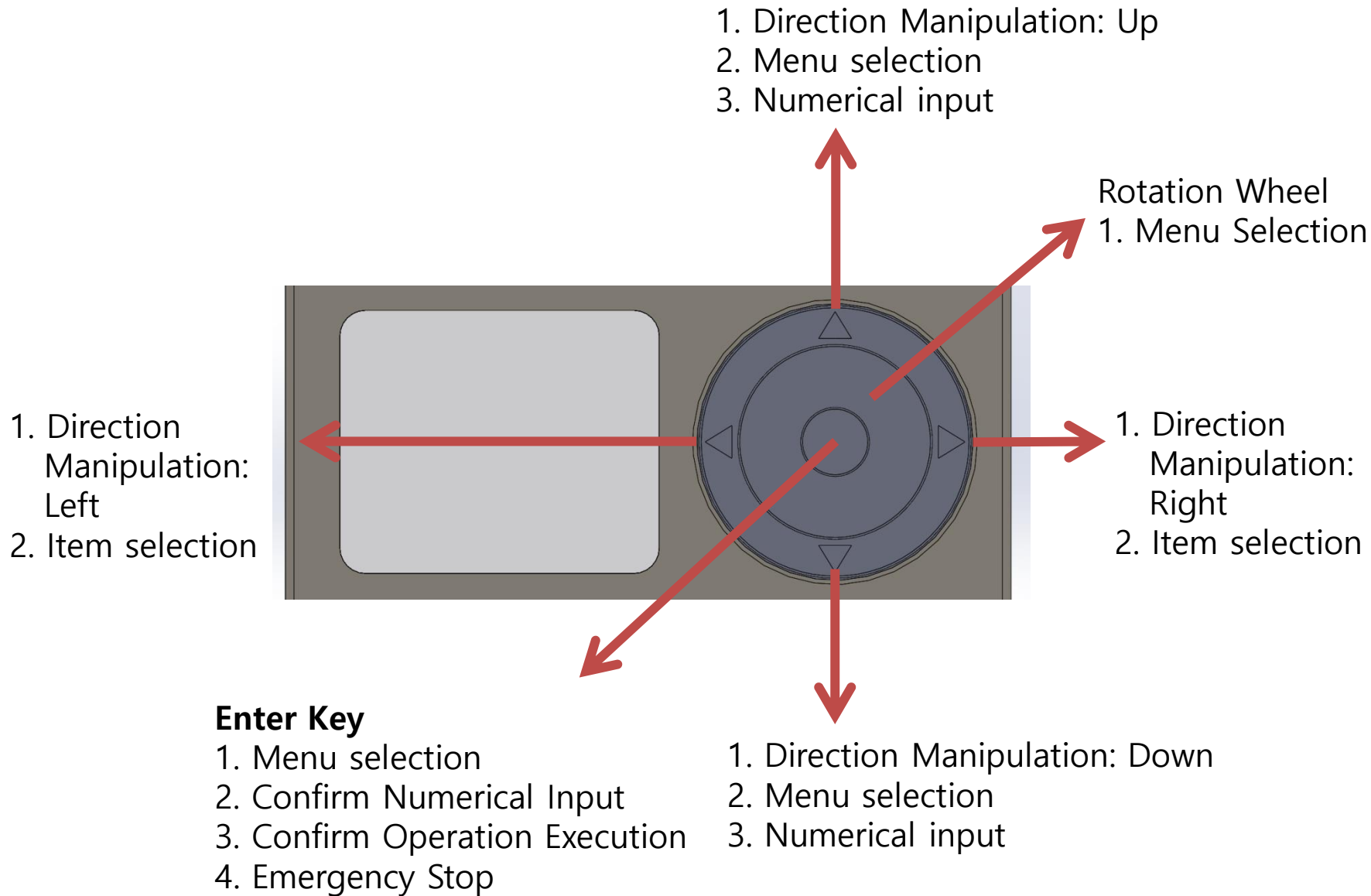
USB Port
Micro USB type B
USB Type A



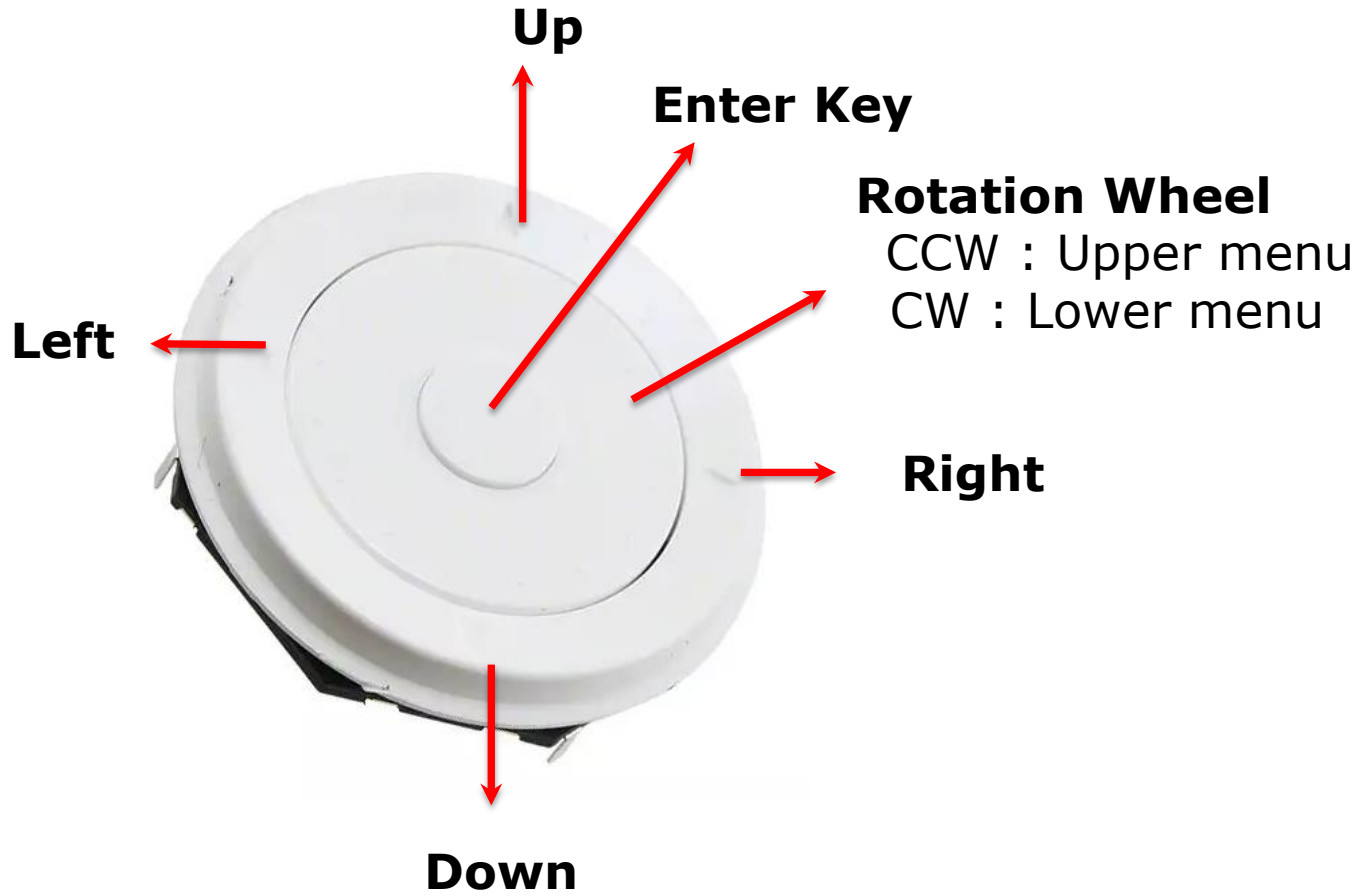
Eject Hole

Use small slot head screwdriver

CR2032 Battery Tray



Navigation Switch



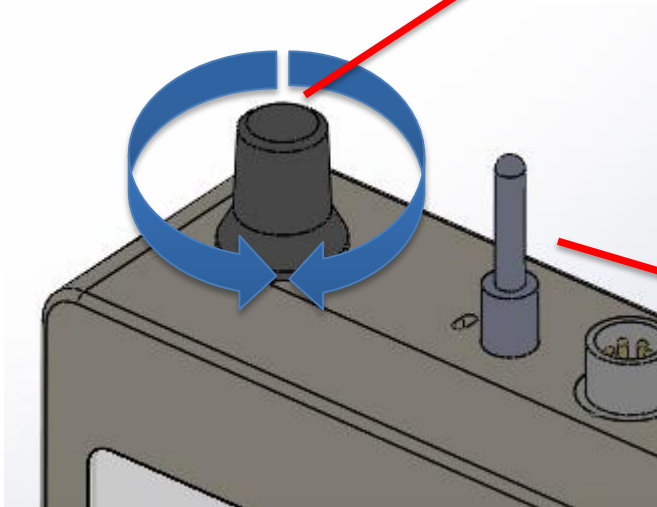
Volume Knob (Parking & Speed)

Parking

Switch off : Parking Mode
on : Tracking Mode

Slewing Speed

CCW : Decrease slewing speed
CW : Increase slewing speed



Power Switch (Toggle)

1. Left Side : Power Off
2. Right Side : Power On

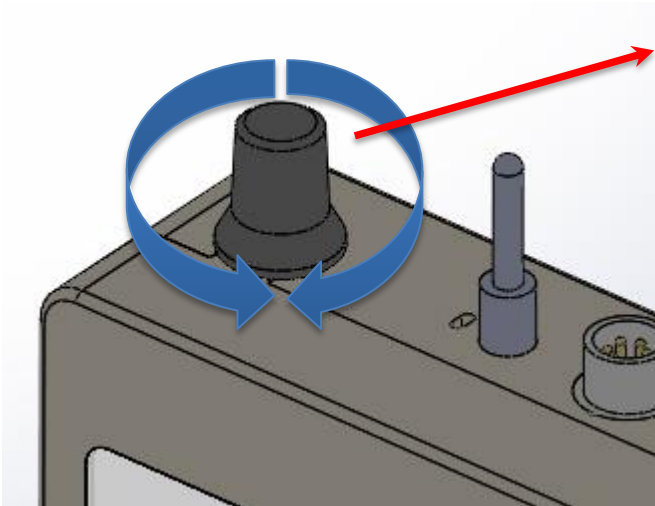
Volume Knob (Parking & Speed)

Parking

Switch off : Parking Mode
on : Tracking Mode

Slewing Speed

CCW : Decrease slewing speed
CW : Increase slewing speed



Volume Knob (Parking & Speed)

Parking

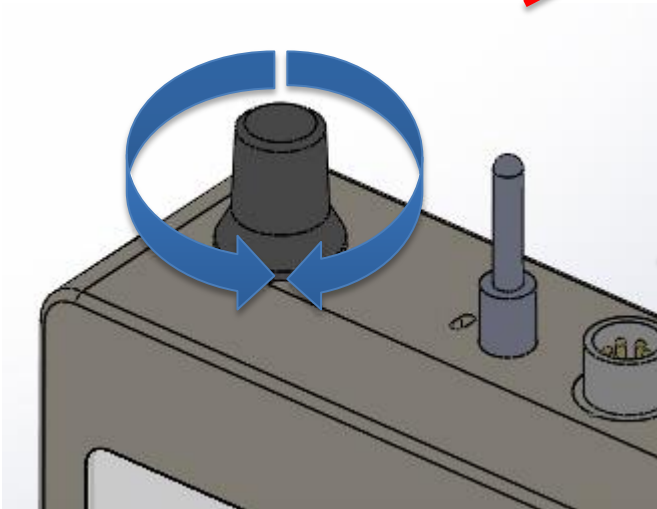
Switch off : Parking Mode
on : Tracking Mode

Slewing Speed

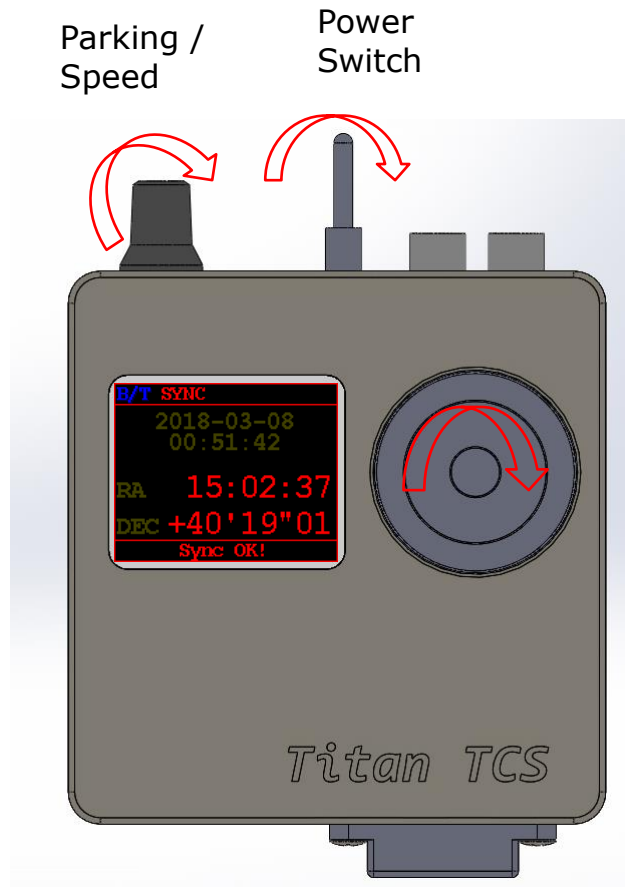
CCW : Decrease slewing speed
CW : Increase slewing speed

Power Switch (Toggle)

1. Left Side : Power Off
2. Right Side : Power On

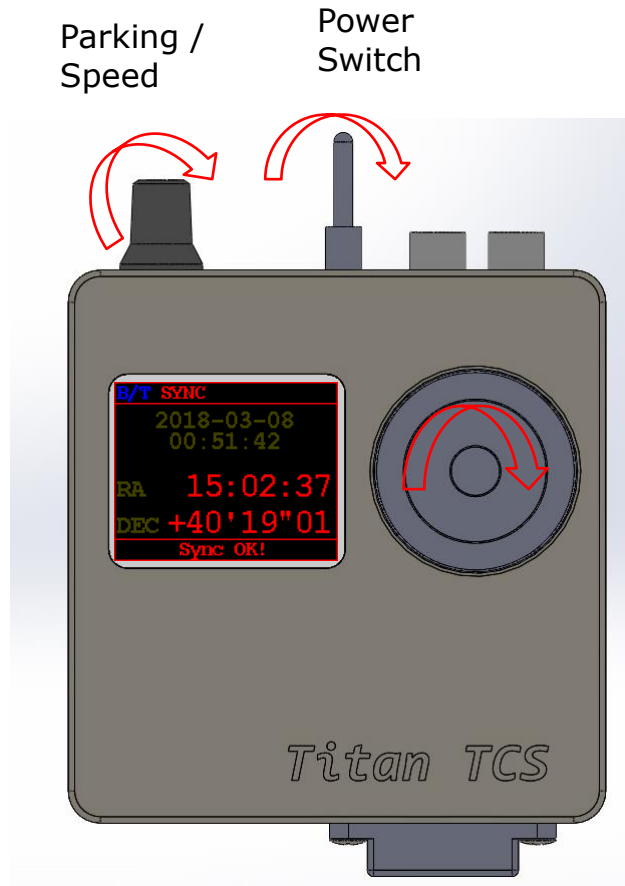


Date/Time Setup



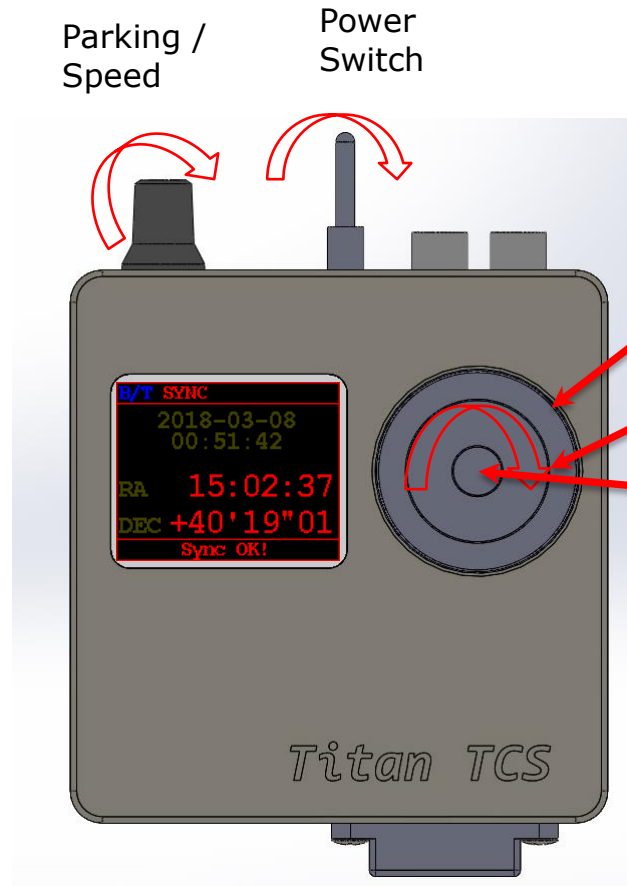
1. Power on (move to right power switch)
The display turns on after a few seconds.
2. Turn volume knob until right end position.
Release parking & slewing speed up(100%)
3. Rotate navigation wheel quickly 1 turn.
Menu screen is displayed.
4. Select "System" Menu using navigation wheel or Up/Down button. Press "Center" button.
5. Select "Date/Time" submenu in "System". Press "Center" button to input Date/time.
6. After input your new local time, press "Center" button. New date & time will apply to TCS. Also, you can cancel input using wheel rotate CCW 1 click.
7. Select "Telescope" menu using wheel or up/down key, then press "Center" button.
Telescope screen is appeared.

Observatory Location Setup



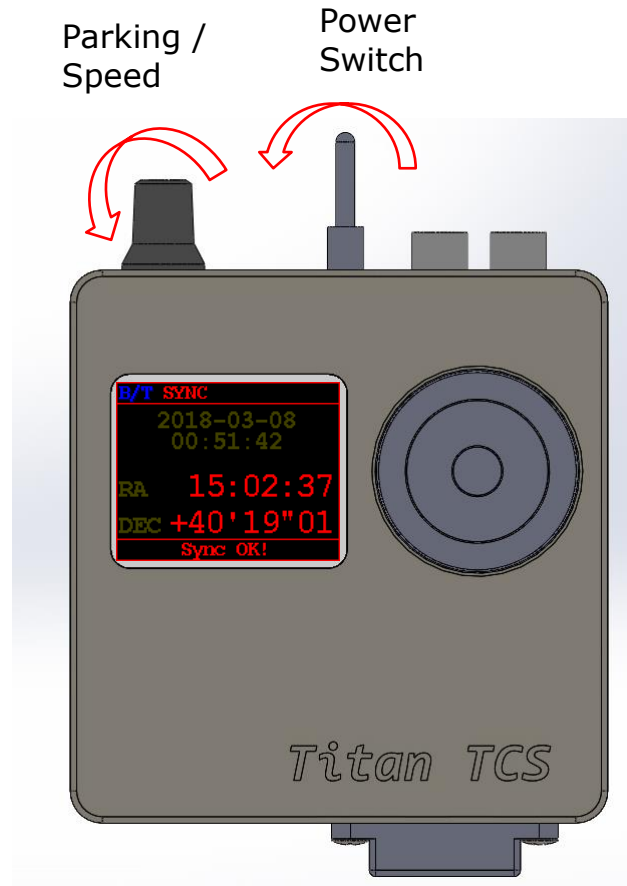
1. Power on (move to right power switch)
The display turns on after a few seconds.
2. Turn volume knob until right end position.
Release parking & slewing speed up(100%)
3. Rotate navigation wheel quickly 1 turn.
Menu screen is displayed.
4. Select "Observatory" Menu using navigation wheel or Up/Down button. Press "Center" button.
5. Select "Location" submenu in "Observatory". Press "Center" button to input new location.
6. After input your new location, press "Center" button. New location will apply to TCS. Also, you can cancel input using wheel rotate CCW 1 click.
7. Input time zone information same way.
8. Select "Telescope" menu using wheel or up/down key, then press "Center" button.
Telescope screen is appeared.

Start (Power on)



1. Power on (move to right power switch)
The display turns on after a few seconds.
2. Turn volume knob until right end position.
Release parking & slewing speed up(100%)
3. Move telescope using Navigation button.
Aim to east side star.
(You must know the star name)
4. Rotate navigation wheel quickly 1 turn.
Menu screen is displayed.
5. Select "Goto(Object)" Menu
using navigation wheel or Up/Down button.
Press "Center" button.
6. Search & select the star name you aimed.
7. Goto/Sync/Cancel appeared.
Select "Sync", then press "Center" button.
8. Sync Complete, You can hear melody
9. Select "Telescope" menu using wheel or
up/down key, then press "Center" button.
Telescope screen is appeared.

Finish (Power off)



1. Turn volume knob until left end switch off.
2. Wait until "Parking OK" message.
3. Power off (Move power switch to left side)
The display turns off immediately.

Menu Operation / Date & Time (1/3)

Top / Telescope



Quickly Rotate Wheel 1
turn -> Menu Mode

Menu Mode



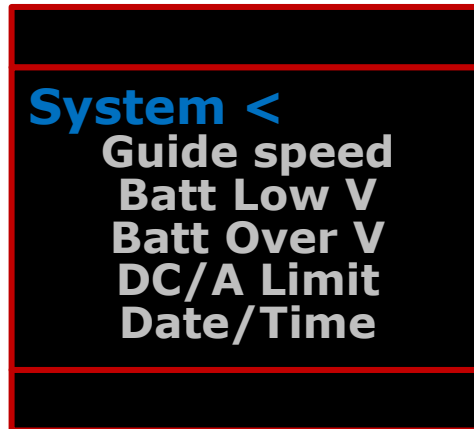
Up/Down Key
-> Highlight menu item

Select menu



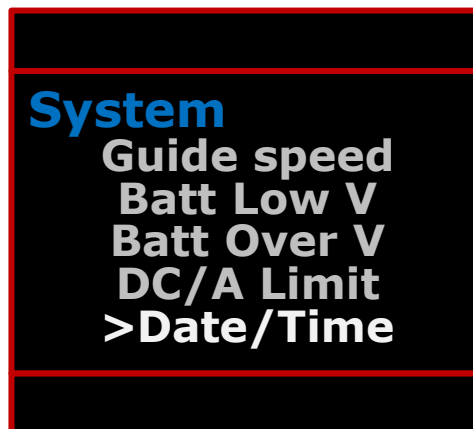
Center Key
-> Select menu

System



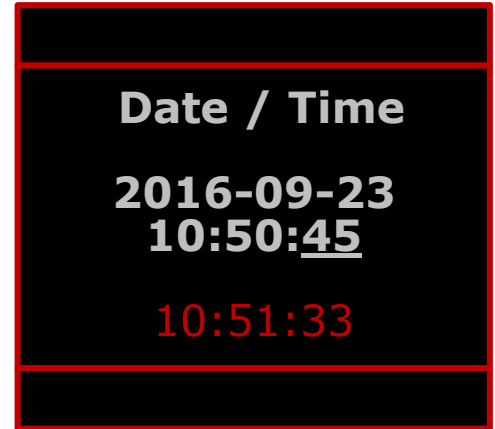
Up/Down Key
-> Highlight menu item

System > Date/Time



Center Key
-> Select Sub-menu

Input new date & time



Input Menu has
cursor(under line)

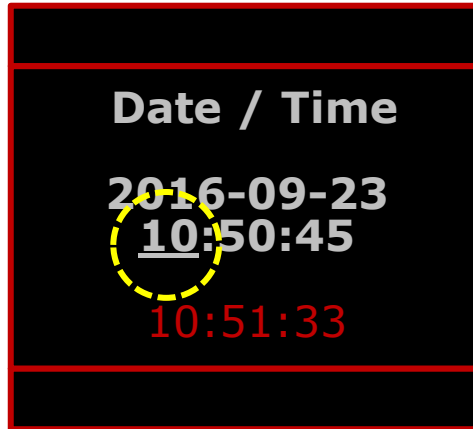
Menu Operation / Date & Time (2/3)

Input new date & time



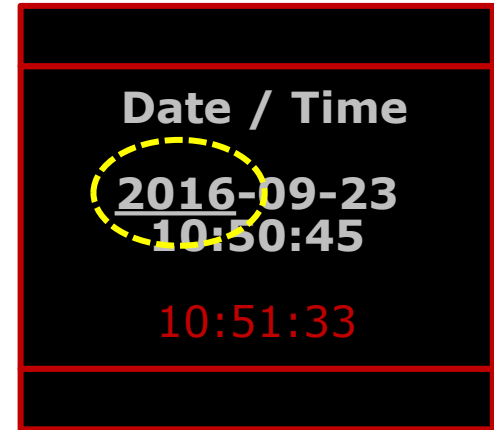
Left/Right Key
-> Move cursor

Input new date & time



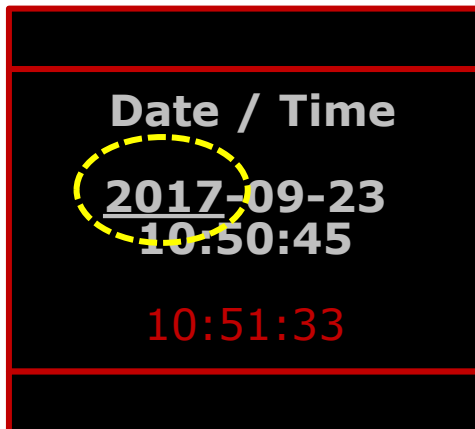
Left/Right Key
-> Move cursor

Input new date & time



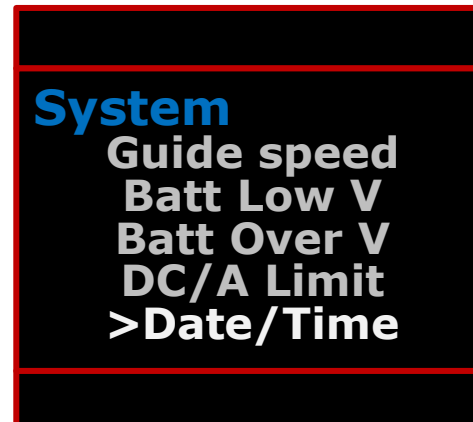
Up/Down Key
-> Change value

Input new date & time



Up/Down Key
-> Change value

Write data to TCS



Center Key
-> Apply New Date/Time
& exit input menu

Also, you can cancel input
using wheel rotate CCW 1
click.

Menu Operation / Date & Time (3/3)

Return to Telescope

System
Guide speed
Batt Low V
Batt Over V
DC/A Limit
>Date/Time

Up Key or Rotate Wheel CCW
-> Select upper menu

Return to Telescope

System <
Guide speed
Batt Low V
Batt Over V
DC/A Limit
Date/Time

Center Key
-> Select Sub-menu

Return to Telescope

Telescope
> RA
DEC
System
Operation

Up/Down Key
-> Highlight menu item

Return to Telescope

RA
DEC
> **System**
Operation
Harmonic

Center Key
-> Select menu

Return to Telescope

>**Telescope**
RA
DEC
System
Operation

Center Key
-> Select Telescope Menu

Top / Telescope

2017-10-11
09:01:02
RA 03:33:01
DEC +01'02'03

Telescope Menu

Menu Operation / RA Max Speed (1/3)

Top / Telescope



2017-10-11
09:01:02
RA 03:33:01
DEC +01'02'03

Quickly Rotate Wheel 1
turn -> Menu Mode

Menu Mode



Telescope
> RA
DEC
System
Operation

Up/Down Key
-> Highlight menu item

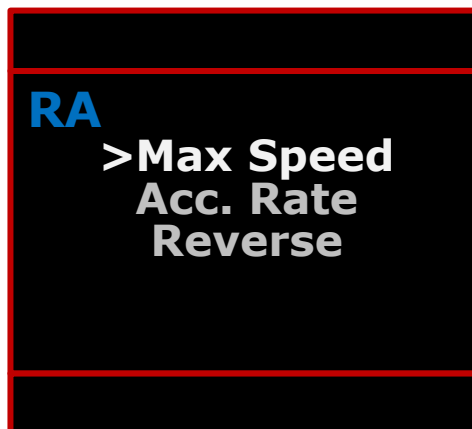
RA



RA <
Max Speed
Acc. Rate
Reverse

Up/Down Key
-> Highlight menu item

RA > Max Speed



RA >
Max Speed
Acc. Rate
Reverse

Center Key
-> Select Sub-menu

Input



RA
Max Speed
+0500

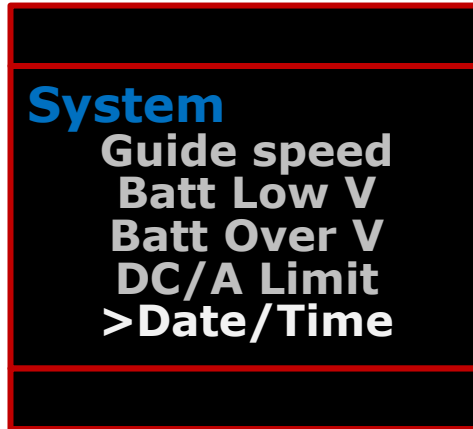
Input Menu has
cursor(under line)

Menu Operation / Date & Time (2/3)

Input



Left/Right Key
-> Move cursor



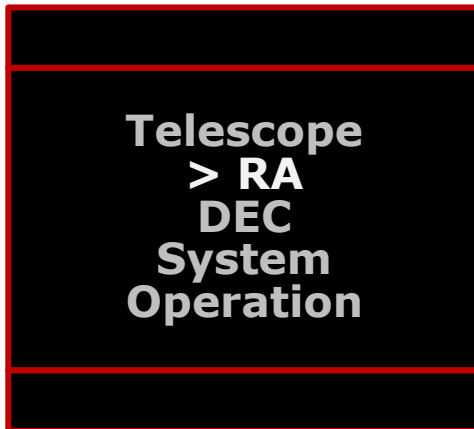
Center Key
-> Apply New Date/Time
& exit input menu

Return to Top Menu



Up/Down Key
-> Highlight menu item

Return to Top Menu



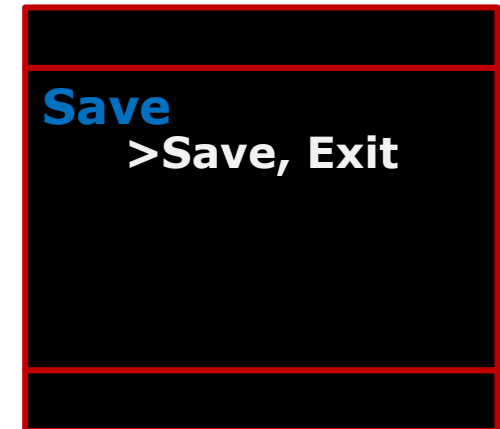
Up/Down Key
-> Highlight menu item

Save Setting



Up/Down Key
-> Highlight menu item

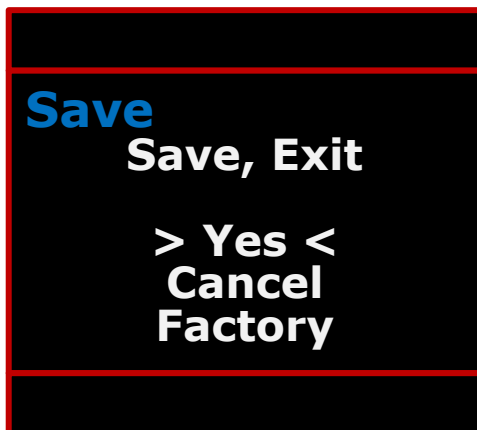
Save Settings



Up Key or Rotate Wheel CCW
-> Select upper menu

Menu Operation / Date & Time (3/3)

Save & Apply Settings



Up/Down Key
-> Select action item

Top / Telescope



Center Key
-> Save & Apply date
Return to "Telescope"

Menu Operation / Save Settings (1/2)

Top Menu



Up/Down Key
-> Highlight menu item

Menu Mode



Up/Down Key
-> Highlight menu item

Save Settings



Up Key or Rotate Wheel CCW
-> Select upper menu

Save & Apply Settings



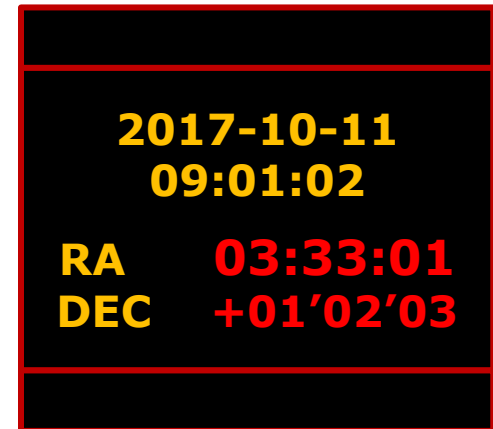
Up/Down Key
-> Select action item

Yes
-> Save new settings & apply new settings.
But, some setting need reboot

Cancel
-> Exit this menu

Factory
-> Factory Reset
This is used for technician.
Never use it if you are not expert.

Top / Telescope



Center Key
-> Save & Apply date
Return to "Telescope"

Menu Operation / Date & Time (2/2)

Save & Apply Settings



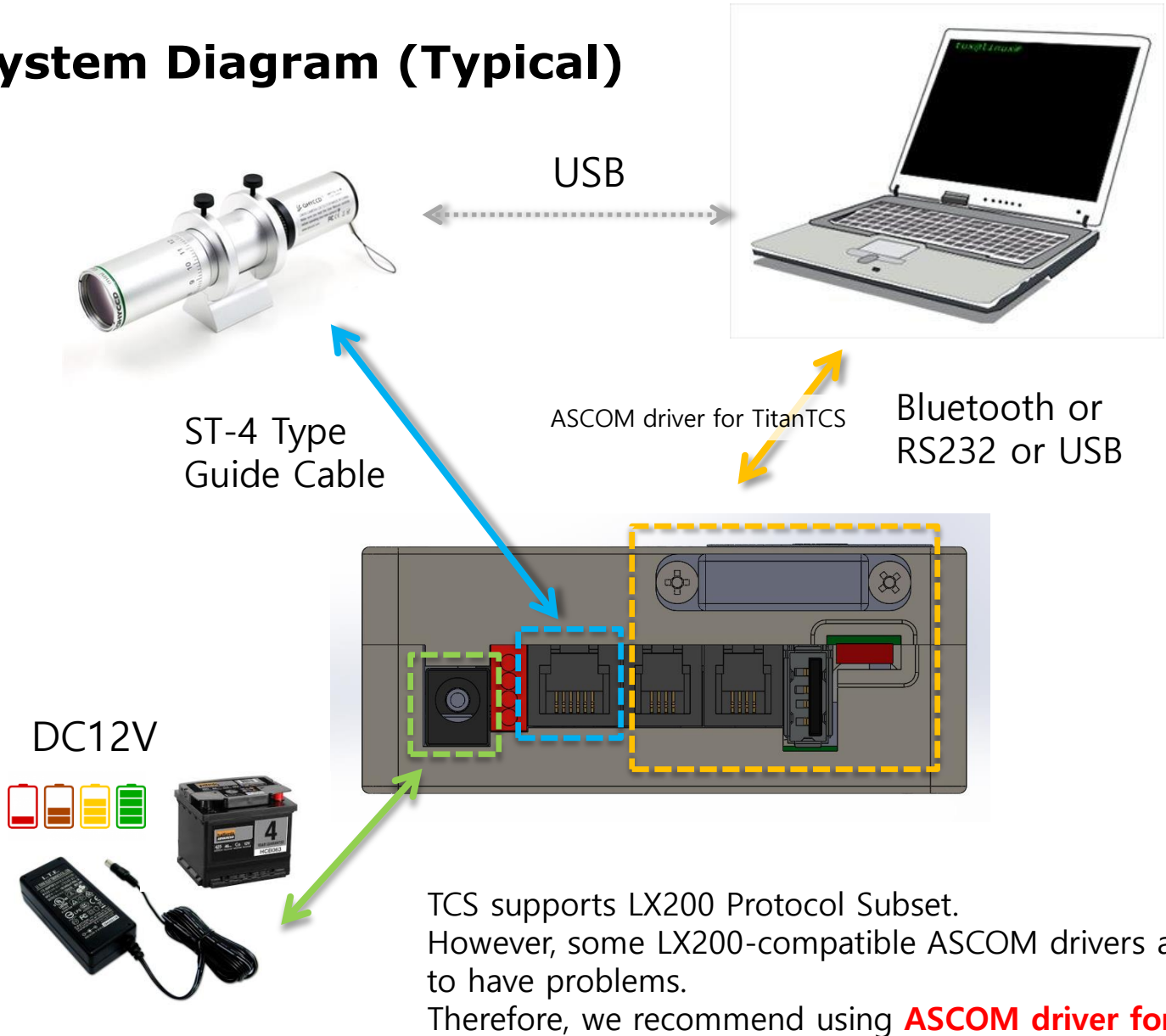
Up/Down Key
-> Select action item

Top / Telescope



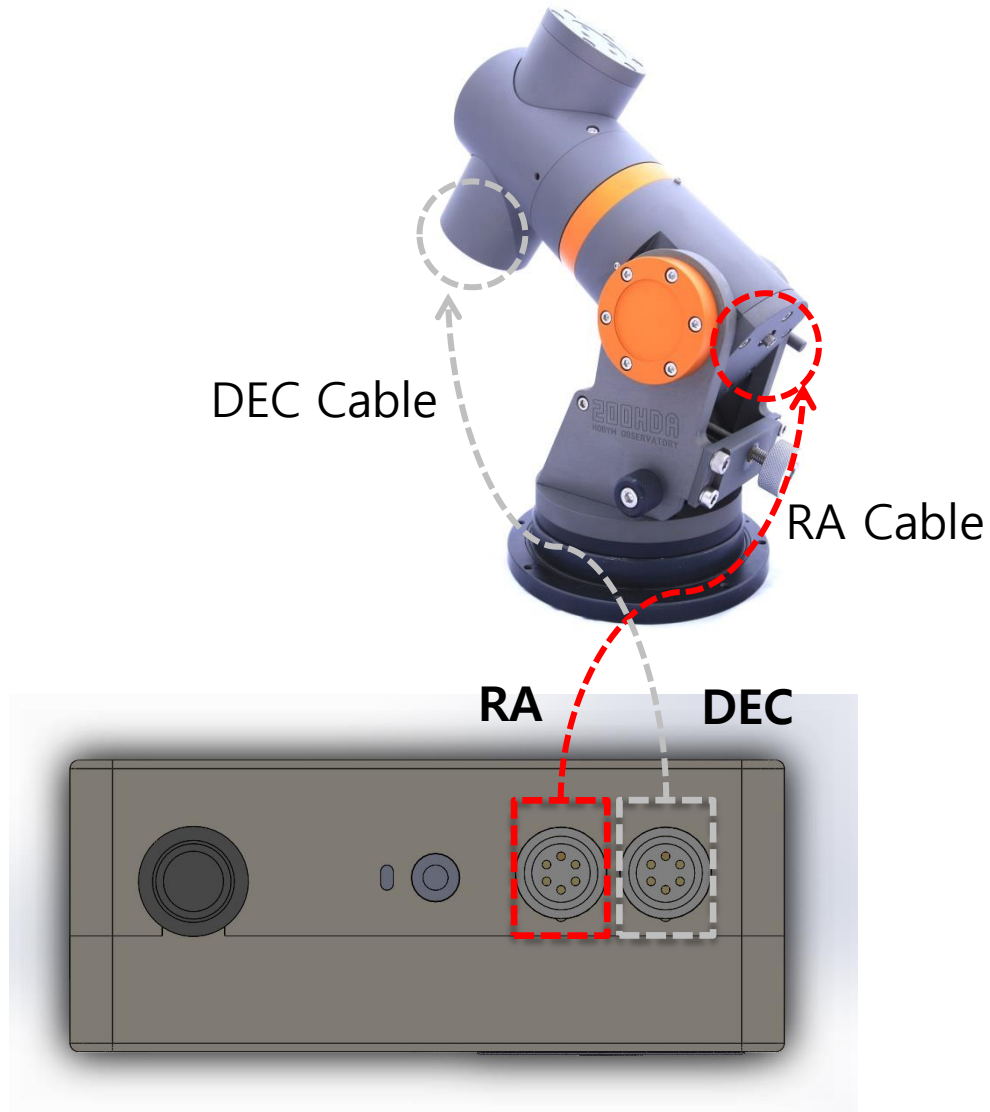
Center Key
-> Save & Apply date
Return to "Telescope"

System Diagram (Typical)

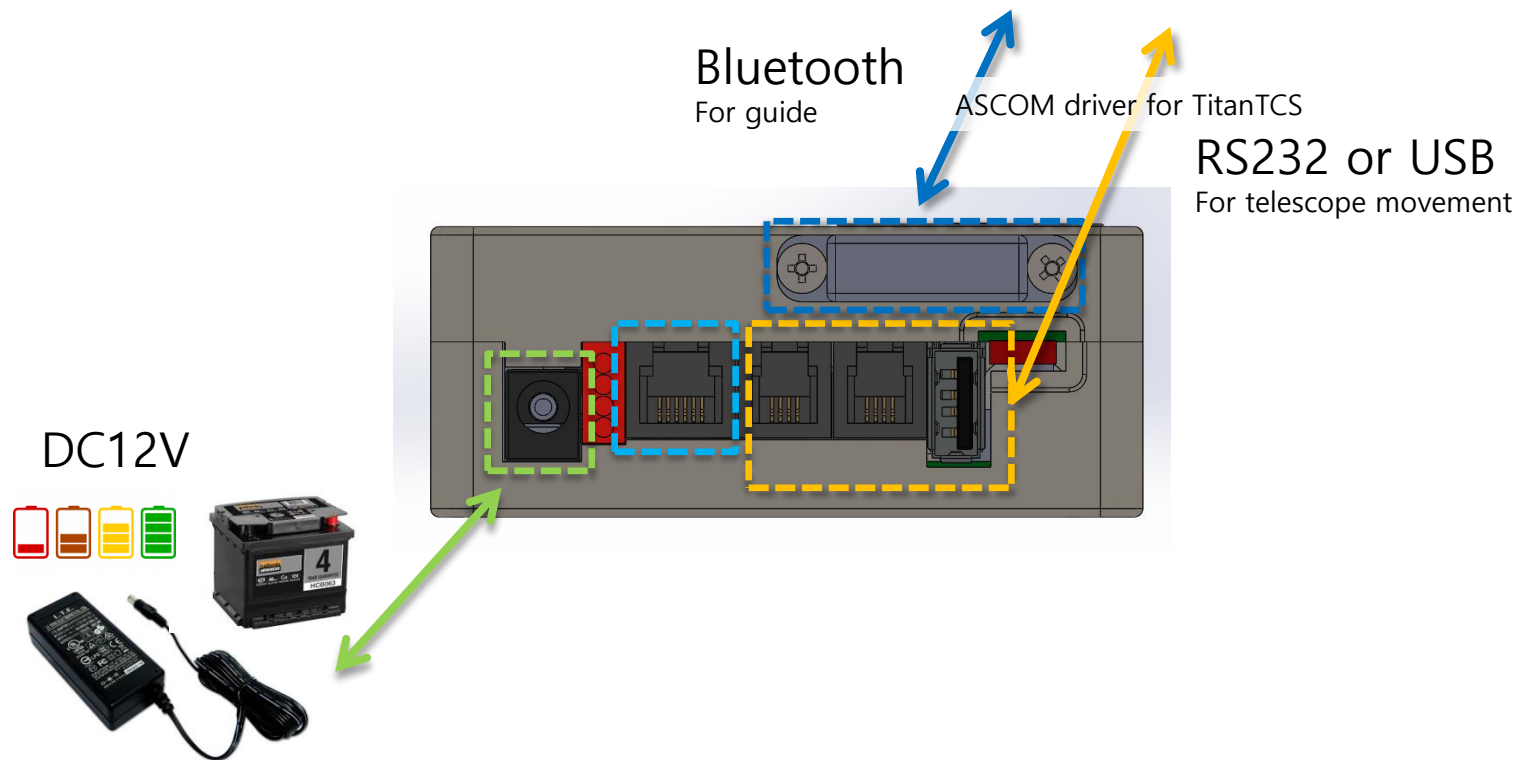
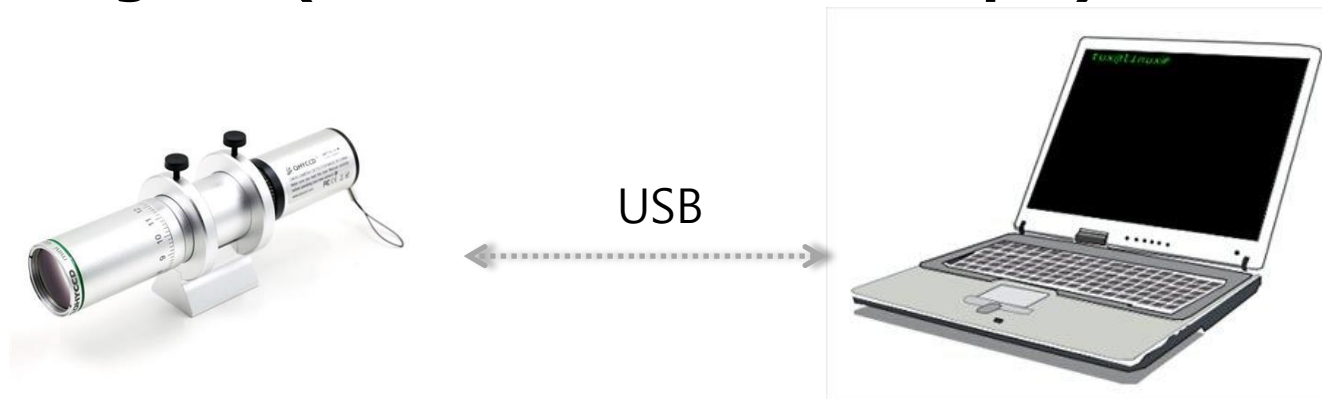


TCS supports LX200 Protocol Subset.
However, some LX200-compatible ASCOM drivers are known to have problems.
Therefore, we recommend using **ASCOM driver for TitanTCS**.

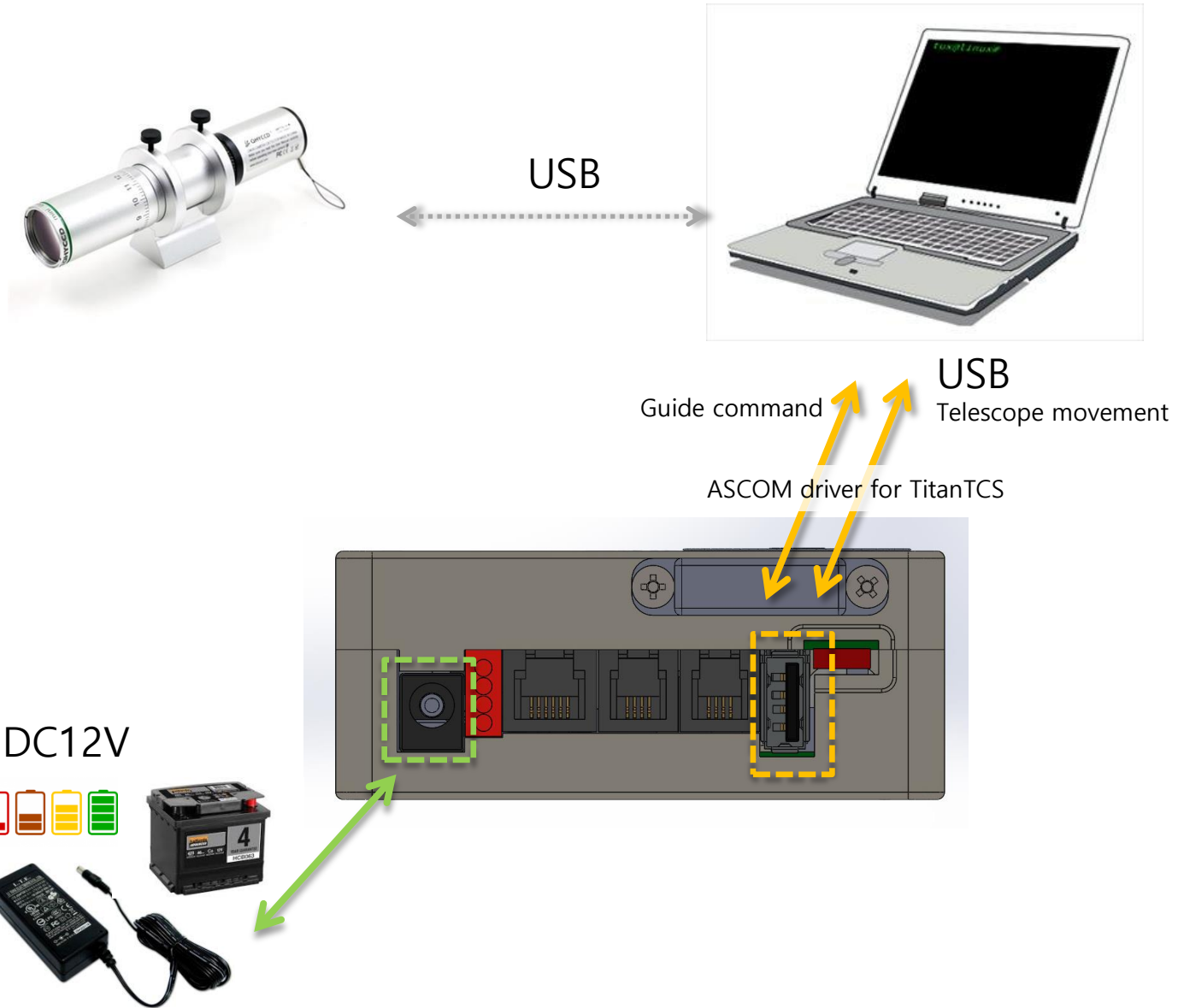
System Diagram (Motor Cable)



System Diagram (Bluetooth Guide Example)



System Diagram (USB Only Example)



Pin map / Bottom View

