

Advanced Charging Controller (ACC)

Link

<https://github.com/VR-25/acc>

<https://xdaforums.com/t/advanced-charging-controller-acc.3668427/>

Config

Configure day and night profiles (aka
"Smart Charging")

```
#= Profile without charge cooldown
# Profil Jour
acc -c a ": day profile; at 6:00 \"acc -s rc=75 pc=80 mcc=750 mcv=4100; acc -n 'Switched to
day profile' \"
# Profil Nuit
acc -c a ": night profile; at 21:00 \"acc -s rc=45 pc=50 mcc=500 mcv=3900; acc -n 'Switched to
night profile' \"

#= Profile with charge cooldown
# Profil Jour
acc -c a ": day profile; at 6:00 \"acc -s rc=75 pc=80 mcc=750 mcv=4100 cch=50 cp=5; acc -n
'Switched to day profile' \"
# Profil Nuit
acc -c a ": night profile; at 21:00 \"acc -s rc=45 pc=50 mcc=500 mcv=3900 cch=50 cp=5; acc -n
'Switched to night profile' \"
```

Informations importantes

Ever wondered why lithium ion batteries aren't sold fully charged? They're usually ~40-60% charged. Why is that? Keeping a battery fully drained, almost fully drained or 70%+ charged for a long times, leads to significant (permanent) capacity loss

- Night/heavy-duty/forever-plugged profile: keep capacity within 40-60% (e.g., acc 50 45) and/or voltage around ~3900 mV
- Day/regular profile: max capacity: 75-80% and/or voltage no higher than 4100 mV
- Travel profile: capacity up to 95% and/or voltage no higher than 4200 mV

The maximum voltage actually defines the percentage of battery, 4200 mV ~95%, 4100 mV ~80%

Always Limit the Charging Current If Your Battery is Old and/or Tends to Discharge Too Fast

This extends the battery's lifespan and may even reduce its discharge rate.

- 750-1000mA is a good range for regular use.
- 500mA is a comfortable minimum - and also very compatible.

If your device does not support custom current limits, use a dedicated ("slow") power adapter.

Exemples

- `acc -s pc=60 mcc=500 mcv=3900`

This keeps battery capacity between 55-60%, limits charging current to 500 mA and voltage to 3900 millivolts. It's great for nighttime and "forever-plugged".

Revision #4

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