

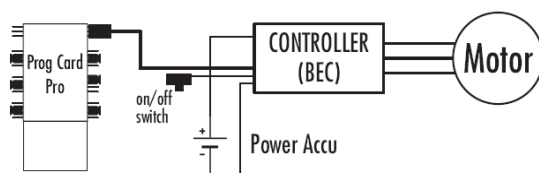
Dear friends,

we very much appreciate your decision to favour our products. This card is a programming aid which greatly improves and extends practicability of the **Advance** controller family as well as their user friendliness.

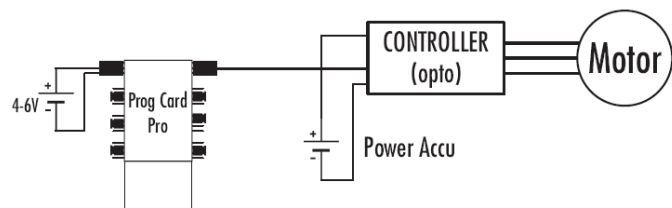
- the programming card ProgCard Pro is determined for adjustments of the Advance Plus controller family (on the side of the programming card you will find the inscription **Advance ProgCard plus**), as well as for adjustments of the Advance Pro controller (on the side of the programming card you will find the inscription **Advance ProgCard Pro**)
- choose the position of all six shorting plugs according to your controller adjustment demands (on the side with the inscription ProgCard Pro – yellow)
- plug in the controller JR plug into the ProgCard socket with the designation „controller“ (orange wire – pulse, brown wire – minus, red wire – plus)
- connect the controller to the motor – connect flight batteries (respect safety regulations – always have the possibility in mind that the motor may start )
- considering controllers with BEC, switch on the switch
- considering controllers without BEC (Opto), connect a current source of 4,8 V for the ProgCard to the position designated by “external power for opto“ (receiver battery)
- after one second you will hear a single beep from the motor which confirms an adjustment change of the controller (in case if there was no parameter change the confirming beep will not come)
- switch off the switch (for the Opto-version disconnect the current source from the ProgCard)
- disconnect the flight batteries
- plug in the JR-plug into the receiver throttle channel

## Programming - Advance Pro Controller:

*Connecting circuit of the ProgCardPro to the controller with BEC (Advance XX Pro)*



*Connecting circuit of the ProgCardPro to the controller with OPTO (Advance XX Pro OPTO)*



## **Programming Alternatives of the Controller with the Aid of the Programming Card ProgCard Advance Pro:**

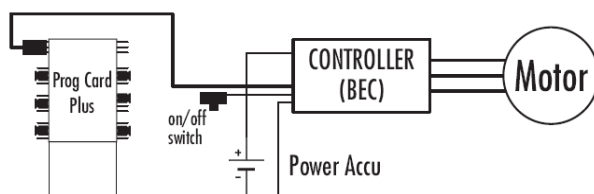
- **Brake**
  - Brake – off: Brake switched off
  - Brake – medium: Brake on, medium braking effect (this adjustment is suited for gear drives)
  - Brake – hard: Brake on, higher brake intensity

- **Timing / Advance timing of the motor**
  - Timing – auto: automatic advance timing (this adjustment is suitable for all motor types)
  - Timing – high: high advance timing (this adjustment is suitable for multi-pole motors with 10 or more poles and for motors with rotating outer magnets „Outrunners“, as for instance AXI or similar)
  - Timing – low: low advance timing (this adjustment is suitable for „classic concept“ motors „Inrunners“ with 2 to 8 poles)
- **Acceleration**
  - Acceleration – high: fast acceleration and deceleration of the motor
  - Acceleration – medium: medium acceleration and deceleration of the motor
  - Acceleration – low: slow acceleration and deceleration of the motor
- **Battery Type – Type of the connected flight battery**
  - Battery Type – NiXX: flight batteries of the NiCd or NiMh type
  - Battery Type – LiXX: flight batteries of the Li-Ion or Li-Pol type
  - Battery Type – LiFe: flight batteries of the Li-Fe type
- **Cut off Voltage – Cut off voltage of the controller**
  - Cut off voltage – high: higher cut off voltage for the selected cell type
  - Cut off voltage – medium: medium cut off voltage for the selected cell type
  - Cut off voltage – low: lower cut off voltage for the selected cell type
- **Cut off Type – Motor cut off mode due to voltage drop beneath the adjusted cut off voltage of the controller**
  - Cut off type – hard: the motor is switched off immediately after the adjusted battery voltage has been achieved (suitable adjustment for gliders)
  - Cut off type – slow down: after achieving the adjusted battery voltage the controller decreases the motor power in such a way, that the battery voltage until complete motor cut off does not drop below this level
- **Rotation – Change of direction of motor rotation**
  - Rotation – direction of motor rotation: if a change of direction of motor rotation is required. When the shorting plug is inserted into this position **the controller only accepts the change of direction of motor rotation and ignores the other adjustments of the ProgCard**. This condition is signalled by a permanent beeping of the motor until the flight battery is disconnected. After the change of direction of motor rotation return the shorting plug back to its original position at Cut off type.

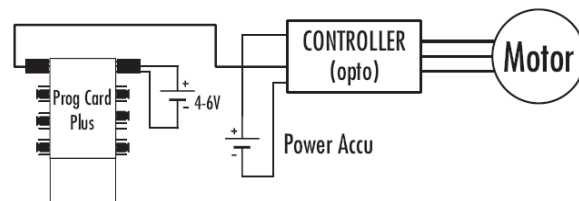
| Cut Off Voltage per Cell [V] | Li-Ion/Pol | NiCd / NiMh | Li-Fe |
|------------------------------|------------|-------------|-------|
| High                         | 3,2 V      | 0,9 V       | 2,8 V |
| Medium                       | 3,0 V      | 0,8 V       | 2,5 V |
| Low                          | 2,8 V      | 0,6 V       | 2,2 V |

## Programming - Advance Plus Controller:

*Connecting circuit of the ProgCardPlus to a controller with BEC (Advance XX Plus)*



*Connecting circuit of the ProgCardPlus to a controller with OPTO (Advance XX Plus OPTO)*



## Programming Alternatives of the Controller with the Aid of the Programming Card ProgCard Advance Plus:

- **Brake**
  - Brake – off: Brake switched off
  - Brake – on: Brake switched on
- **Timing / Advance timing of the motor**
  - Timing – low: low advance timing (this adjustment is suitable for „classic concept“ motors „Inrunners“ with 2 to 8 poles)
  - Timing – hard: high advance timing (this adjustment is suitable for multi-pole motors with 10 or more poles and for motors with rotating outer magnets „Outrunners“, as for instance AXI or similar)
- **Throttle curve**
  - Throttle curve – linear: – linear course of control (50% of stick travel corresponds with 50% of motor rpm change )
  - Throttle curve – logarith: – logarithmic course of control (50% of stick travel corresponds with 50% of power change, i. e. 71% of motor rpm change )
- **Battery Type – Type of connected flight battery**
  - Battery Type – NiXX: flight battery of the NiCd or NiMh type
  - Battery Type – LiXX: flight battery of the Li-Ion or Li-Pol type
- **Cut off voltage – Cut off voltage of the controller**
  - Cut off voltage – high: higher cut off voltage for the selected cell type
  - Cut off voltage – low: lower cut off voltage for the selected cell type
- **Cut off type – Motor cut off mode due to voltage drop beneath the adjusted cut off voltage of the controller**
  - Cut off type – hard: the motor is switched off immediately after the adjusted battery voltage has been achieved (suitable adjustment for gliders)
  - Cut off type – slow down: after achieving the adjusted battery voltage the controller decreases the motor power in such a way, that the battery voltage until complete motor cut off does not drop below this level

| Cut Off Voltage per Cell [V] | Li-Ion/Pol | NiCd / NiMh |
|------------------------------|------------|-------------|
| High                         | 3,0 V      | 0,9 V       |
| Low                          | 2,7 V      | 0,7 V       |

X – the position designated by X is not engaged. The controller will not store any changes if you plug in the plug into this position.

We grant a warranty of 24 months from the date of purchase under the premise that the item has been operated in conformity with these instructions at the specified voltage and currents and does not show signs of mechanical damages.

The warranty service as well as the post warranty service is provided by the manufacturer.

Wishing you many successful flights, yours truly:  
JETI model s.r.o., Lomená 1530, 742 58 Příbor, Czech Republic

[www.jetimodel.cz](http://www.jetimodel.cz)