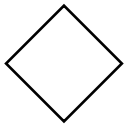
SkySpec Model Configuration Guide

INTRODUCTION

The SkySpec instrument series is highly modular. The flow-charts in this document are meant to help you finding the exact configuration to best meet your individual requirements and guide you through the ordering process.

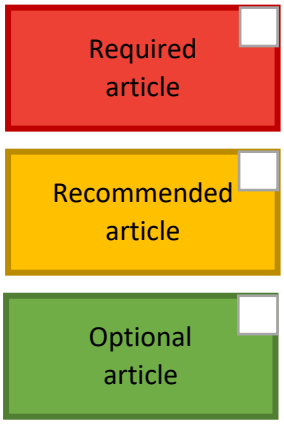
1. Use the first page to identify the basic system type. Click on the instrument symbol or turn over to the indicated page to continue with the corresponding sub-chart.
2. Follow the arrows in the sub-chart from top to bottom. On the way you come across the names of all relevant articles. A detailed description for each article can be found in the price list and data sheets. The meaning of the symbols is as follows:



Branching. A decision is required here.

If unsure, check the comments in the price list or the SkySpec datasheets for details.

Red arrows indicate the default pathway.



Rectangles represent actual articles. Colour indicates their necessity (see captions on the left).

When coming across articles to be ordered, gather them on a list or mark them using the checkboxes on the upper right of the rectangle. Checkboxes of required articles are marked by default.

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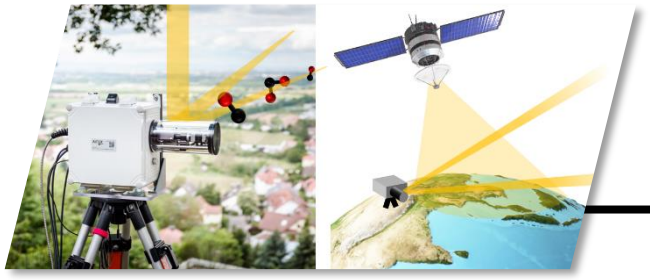
Application

Required instrument

Stationary Measurements

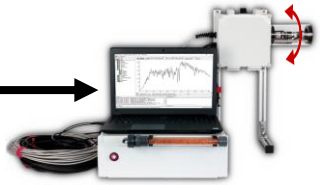
Pollution monitoring ● Atmospheric chemistry ● Retrieval of vertical profiles ● Satellite validation



Fixed azimuthal direction

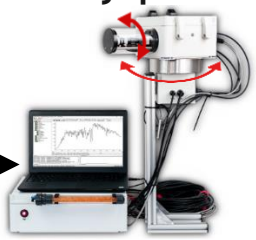
With azimuth motor

SkySpec 1D



Continue on page 3

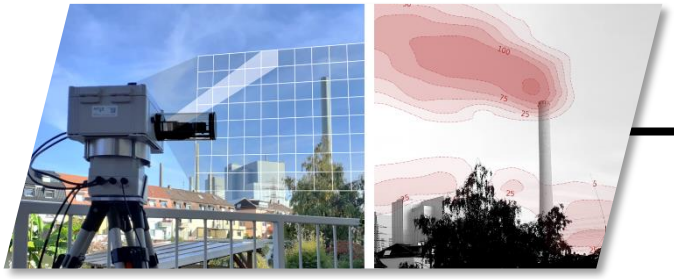
SkySpec 2D



Continue on page 5

Trace gas imaging

Gas images of point sources/areas ● Leak detection

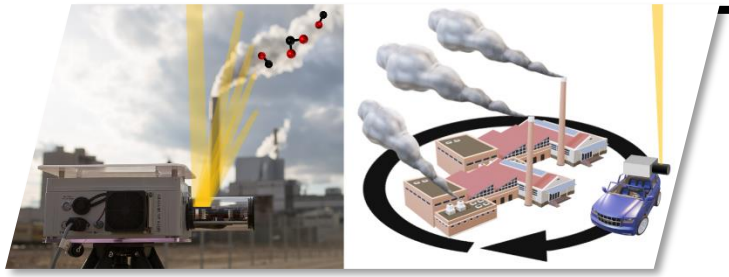


Compact

Continue on page 7

Mobile applications

Short term monitoring in remote places ● Vehicle measurements
Point emission measurements ● Area in- and outflow



Mini

Continue on page 8

Separate Telescope

Continue on page 9

Custom applications

Separate SkySpec telescope and spectrometer units for integration in custom measurement setups

Separate Spectrometer

Continue on page 11

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SkySpec 1D

SYSTEM MAIN UNIT(S)

SKY-TELE-1D X

Custom configurations are possible. Please contact Airyx GmbH for more information.

Number of spectrometers?

2 Enhanced spectral range and coverage of gases

1 Reduced spectral range and coverage of gases

Detectors?

High sensitivity for both, UV and Vis: SO_2 | O_3^{UV} | O_4^{UV} | HCHO | BrO | HONO | NO_2^{UV} | NO_2^{Vis} | O_4^{Vis} | O_3^{Vis} | IO | H_2O | CHOCHO

SKY-SBOX-2S-HGD

High sensitivity in UV: SO_2 | O_3^{UV} | O_4^{UV} | HCHO | BrO | HONO | NO_2^{UV}

Regular sensitivity in Vis: NO_2^{Vis} | O_4^{Vis} | O_3^{Vis} | IO | H_2O | CHOCHO

SKY-SBOX-2S-MGD

Regular sensitivity for both UV and Vis. Cost efficient, but only recommended for Vis species: NO_2^{Vis} | O_4^{Vis} | O_3^{Vis} | IO | H_2O | CHOCHO

SKY-SBOX-2S-RGD

Detector?

High sensitivity. For detection of SO_2 | O_3^{UV} | O_4^{UV} | HCHO | BrO | HONO | NO_2^{UV} | NO_2^{Vis} | O_4^{Vis} | O_3^{Vis} | IO | H_2O | CHOCHO

SKY-SBOX-1S-HGD

Regular sensitivity. Cost efficient, but only recommended only for Vis species: NO_2^{Vis} | O_4^{Vis} | O_3^{Vis} | IO | H_2O | CHOCHO

SKY-SBOX-1S-RGD

SOFTWARE DATA ANALYSIS

SKY-EVAL-V3-2S

SKY-EVAL-V3-1S

SOFTWARE MEASUREMENT

SKY-SOFT-STD X

INSTRUMENT CONFIGURATION

SKY-CON-TCAM0 — Adds a 1st camera covering half of the sky hemisphere

SKY-CON-TCAM180 — Adds a 2nd camera to cover the full hemisphere

ACC-PWR-8A X — External power supply 110 to 220 V - 12 V / 8.5 A

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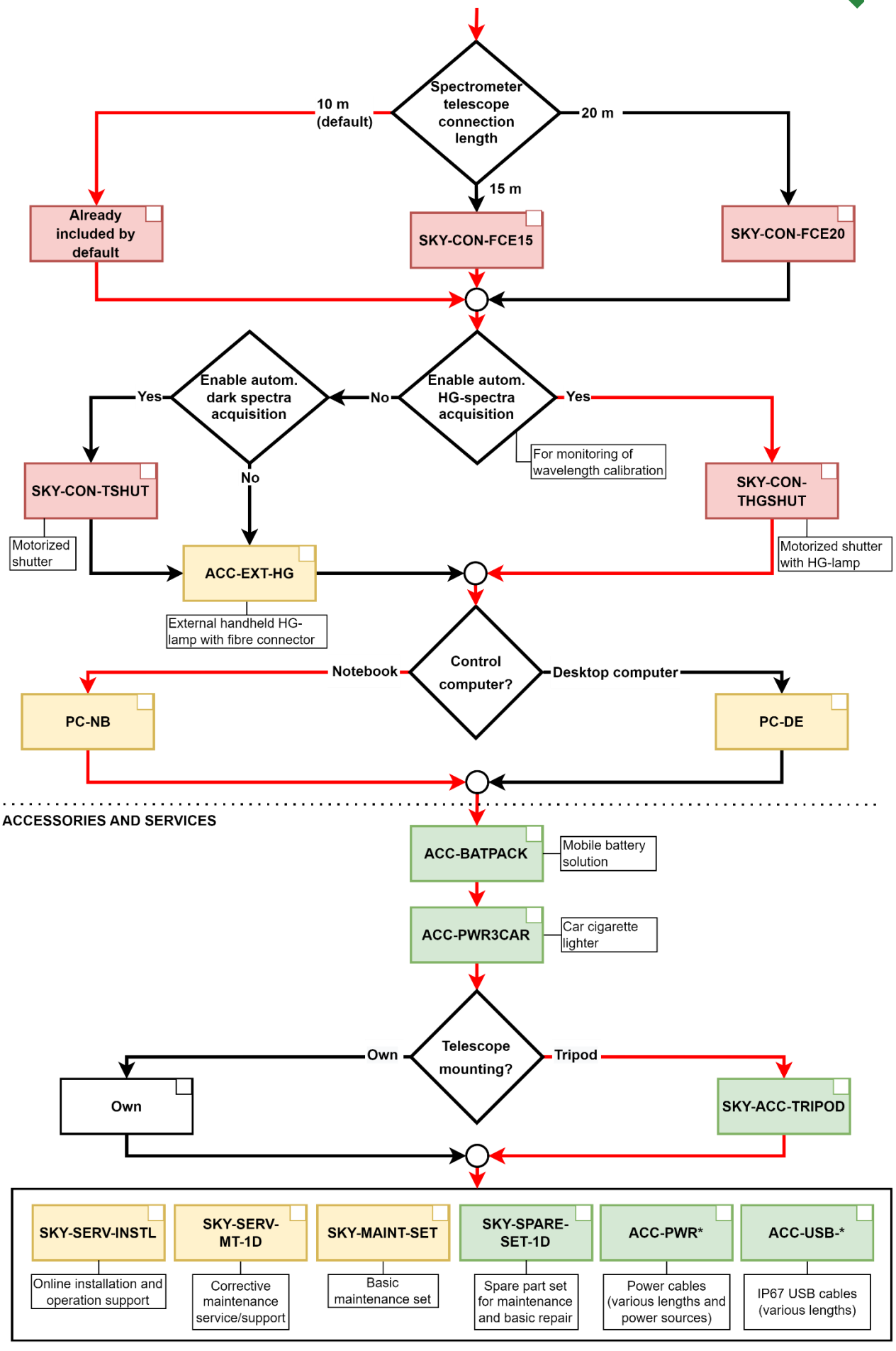

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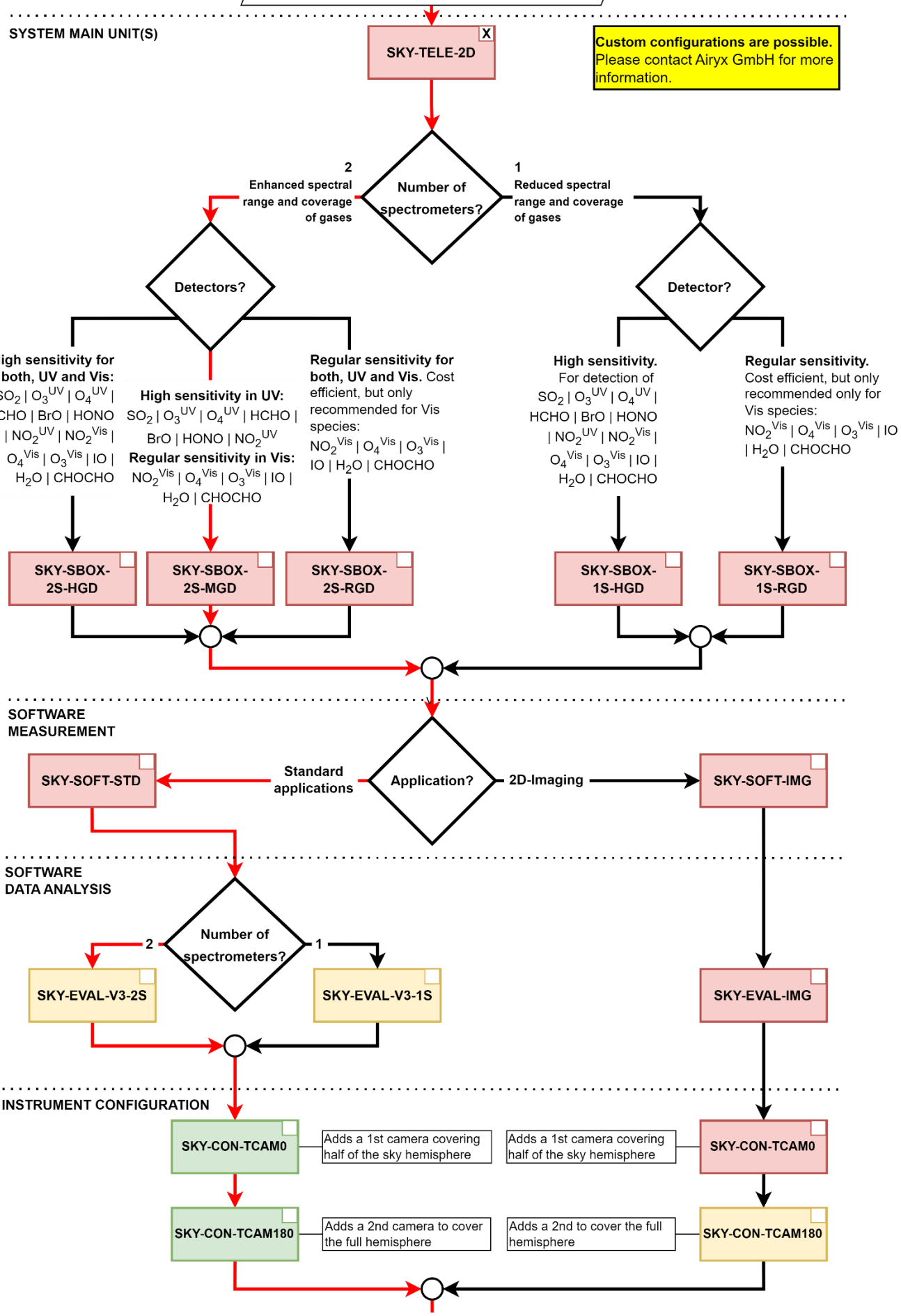
SkySpec 2D



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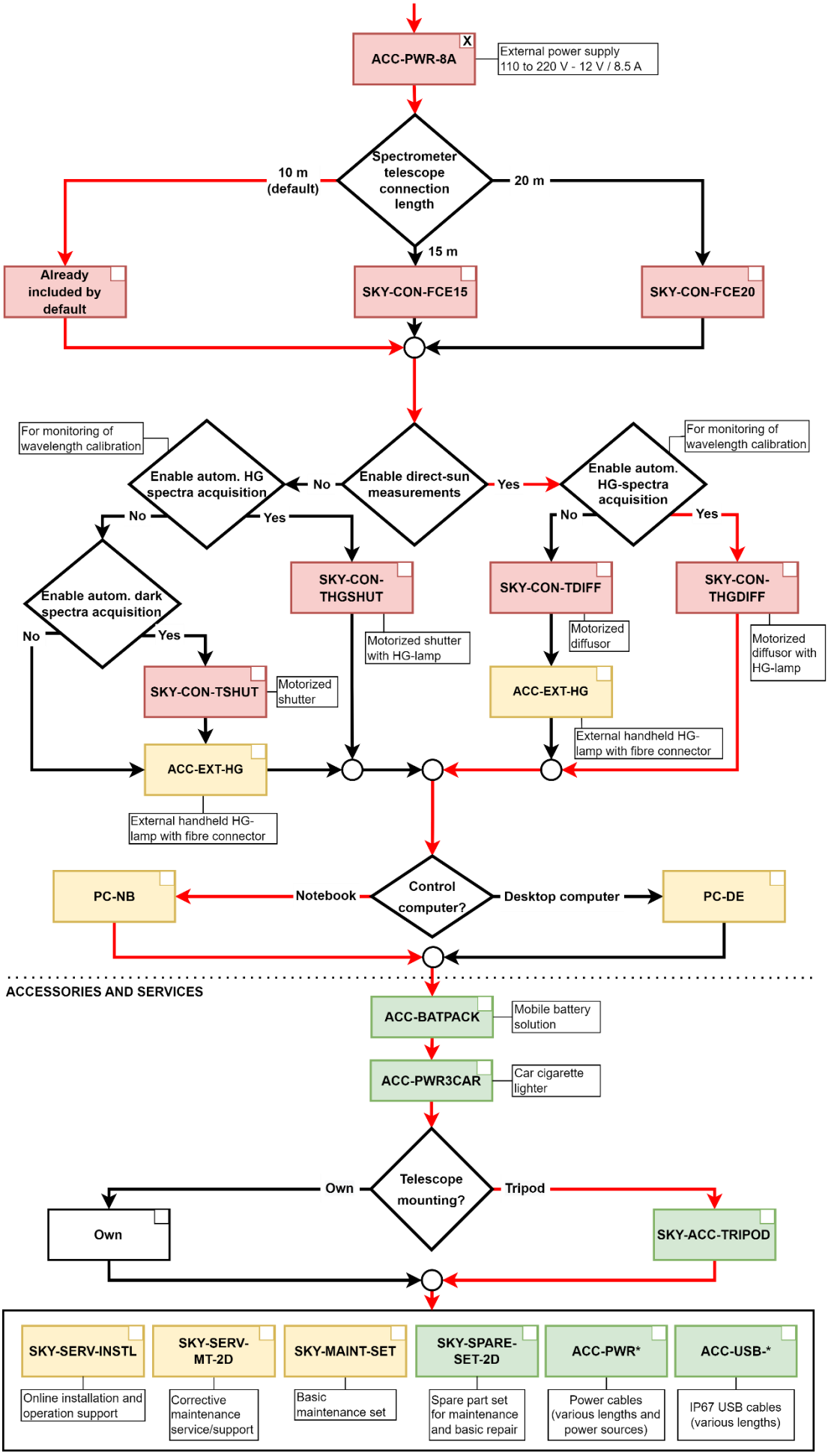

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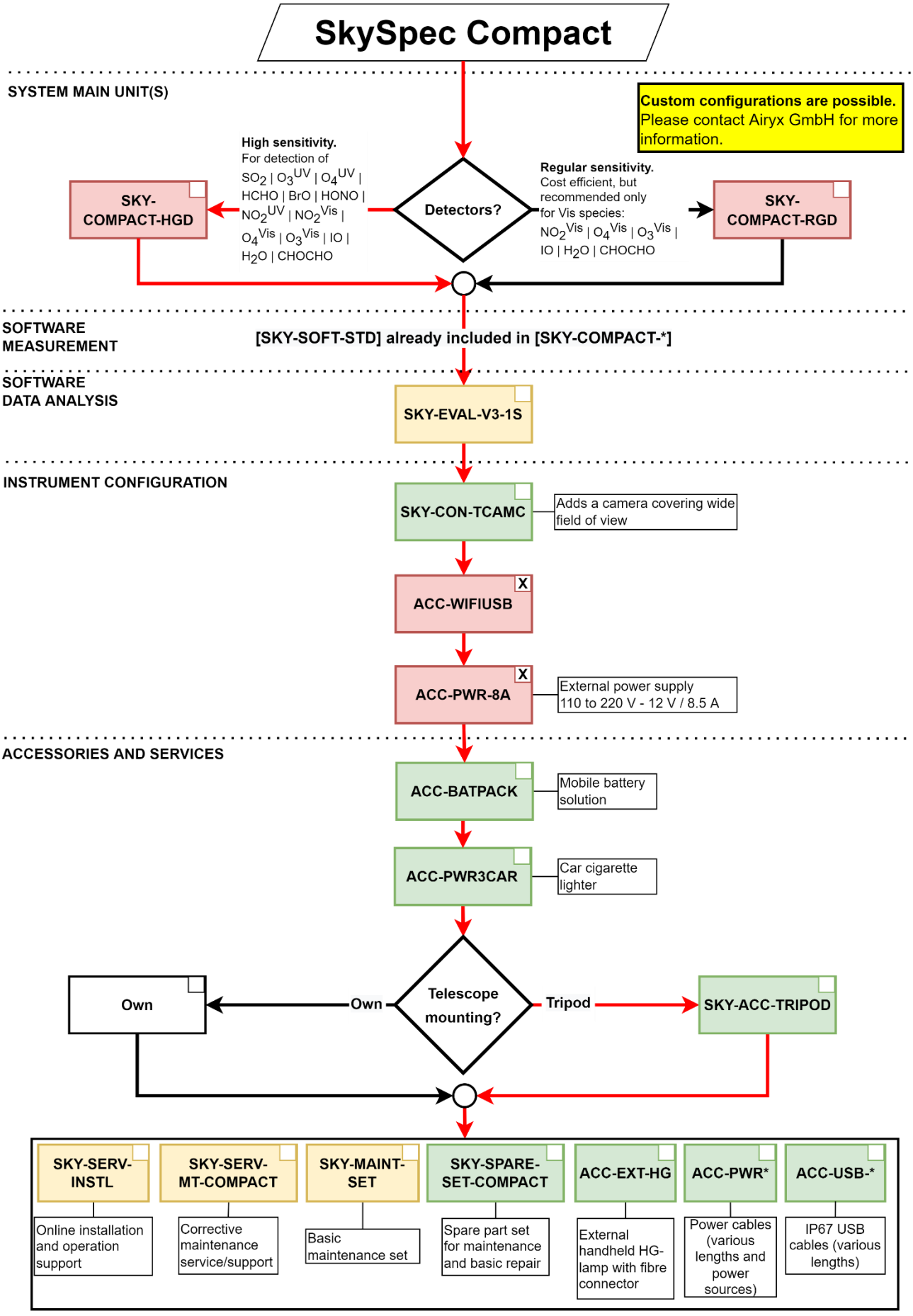

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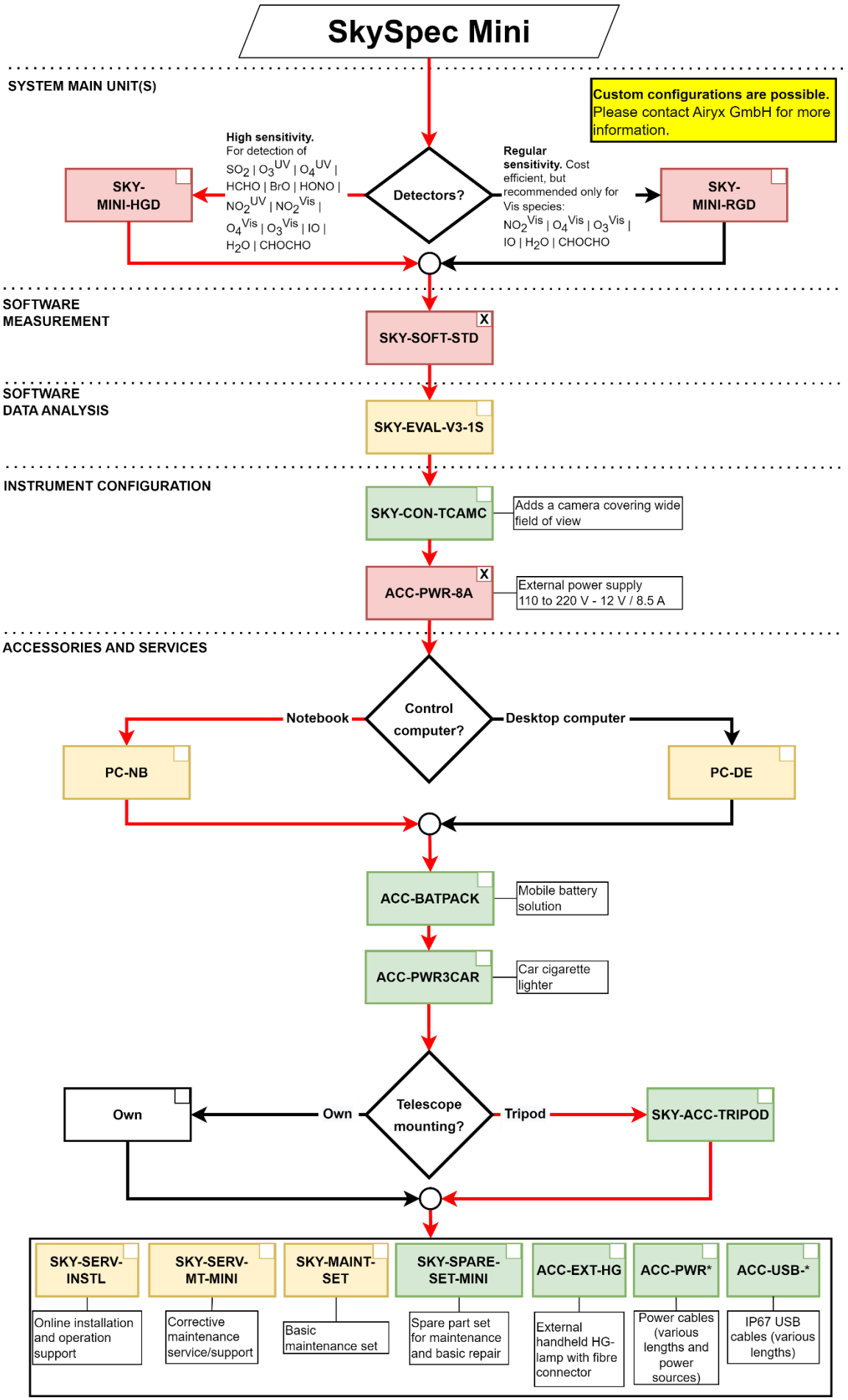

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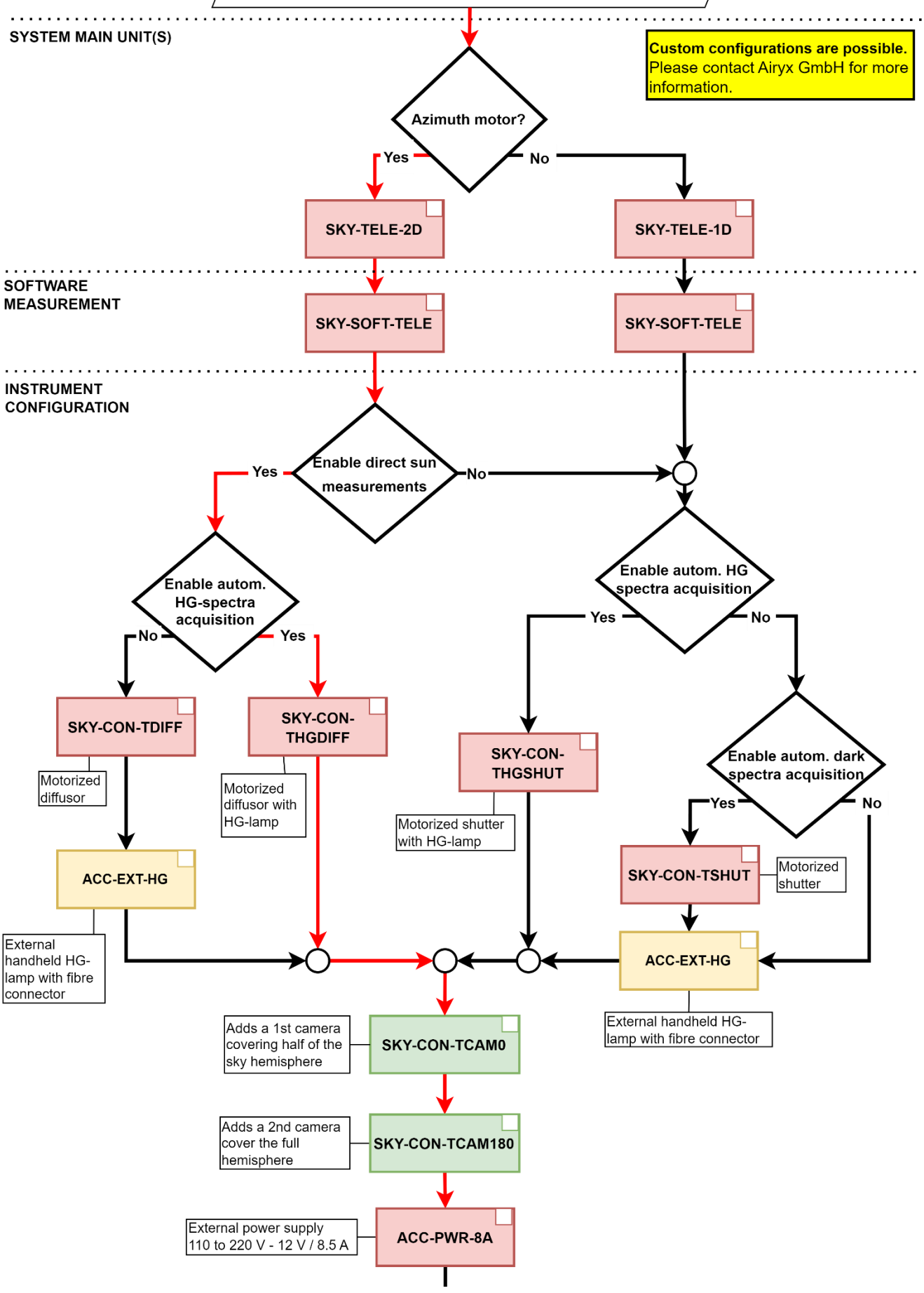
Separate telescope units



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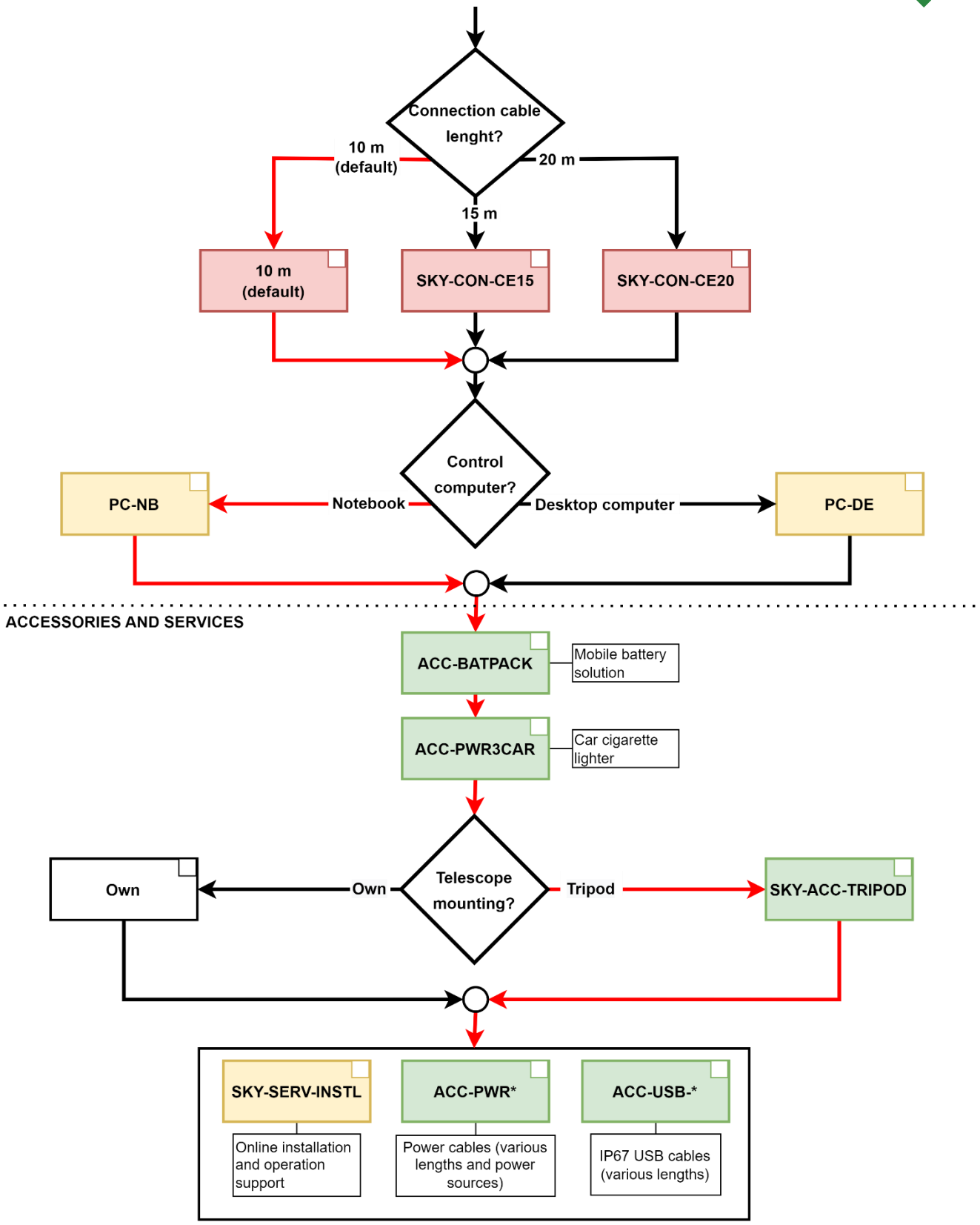

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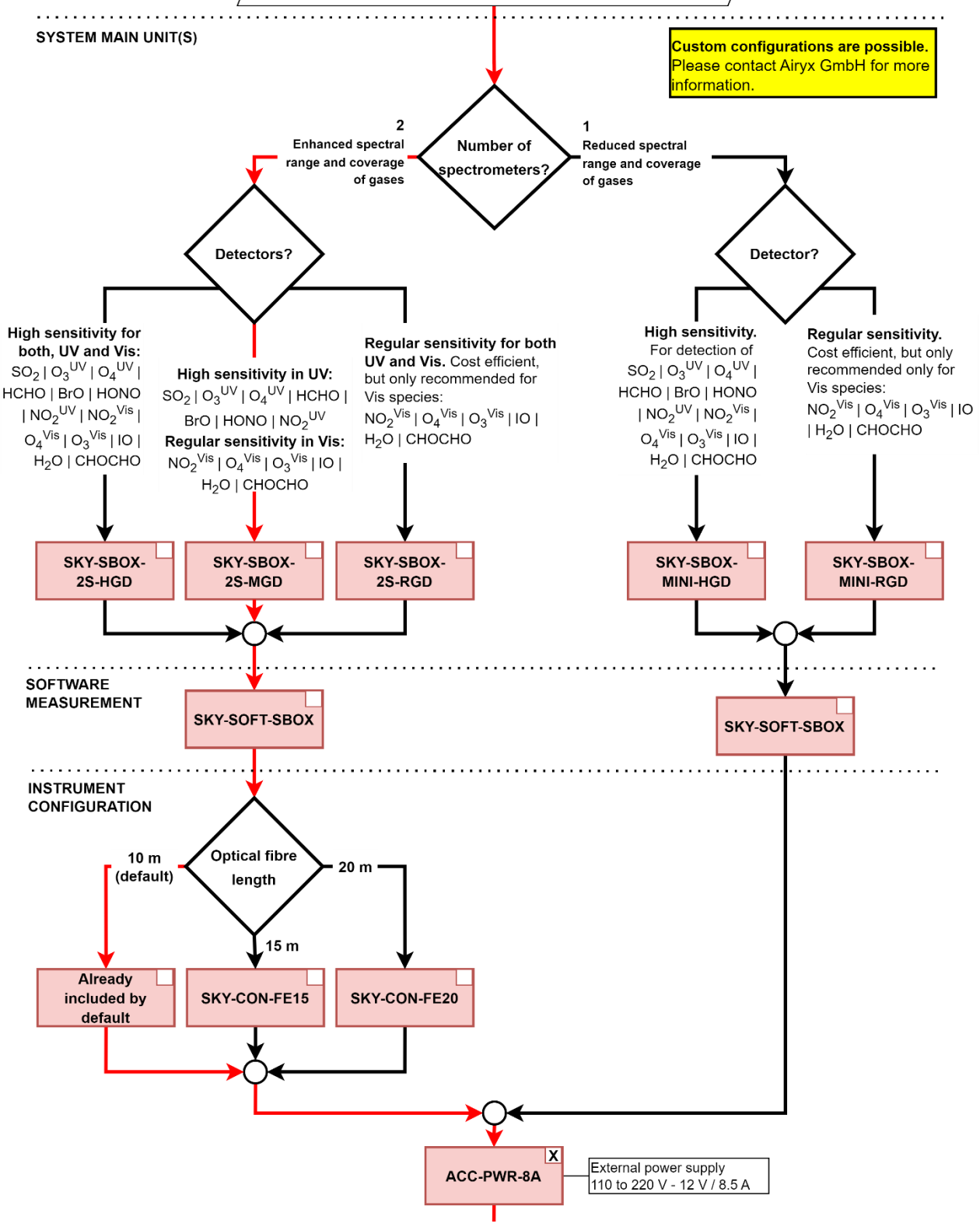
Separate spectrometer units



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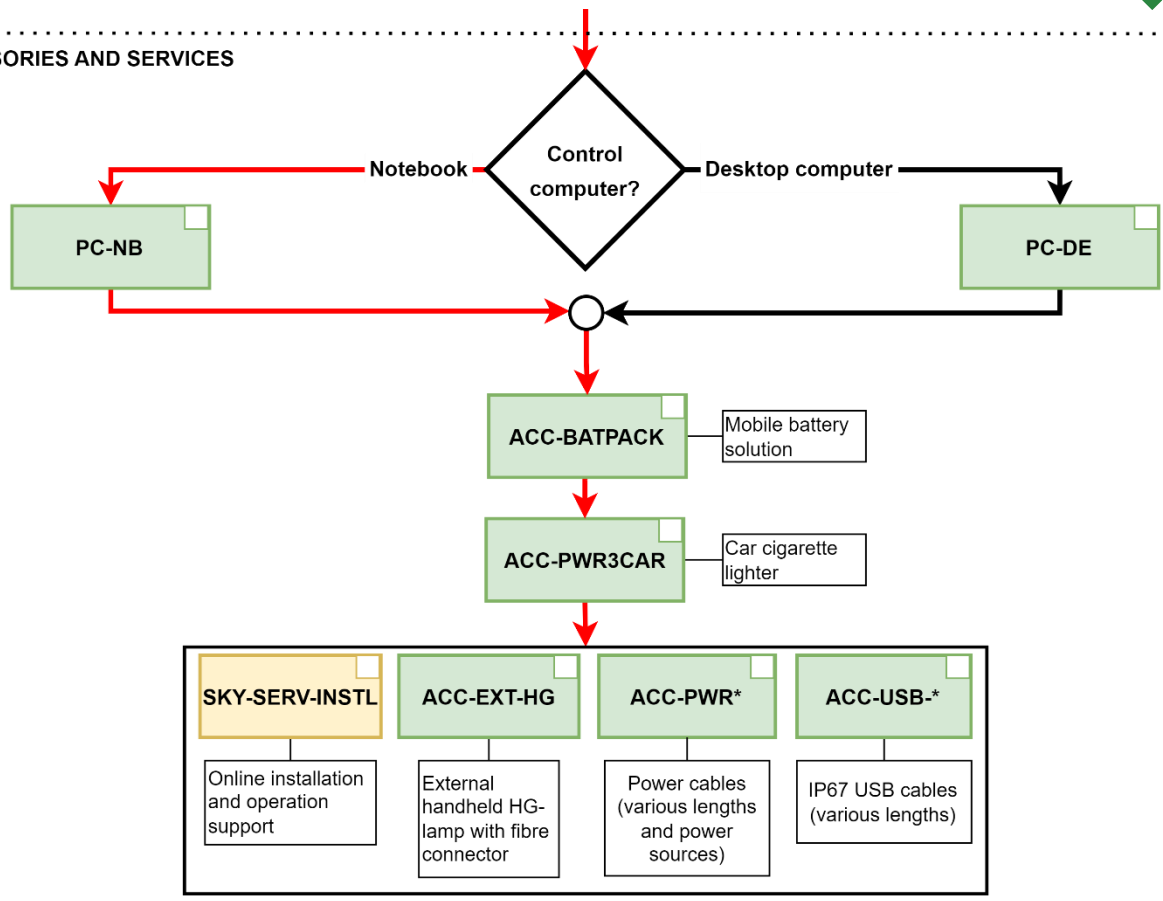

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