Trimble Grade Control Systems
GCS900 2D for Excavators

Trimble offers the heavy and highway contractor the broadest range of Grade Control Systems in the industry. From 2D depth, slope, and elevation based to 3D GNSS or Total Station based, Trimble systems are rugged, easy to use, fully upgradeable, portable, and flexible to meet a wide range of application and jobsite requirements.

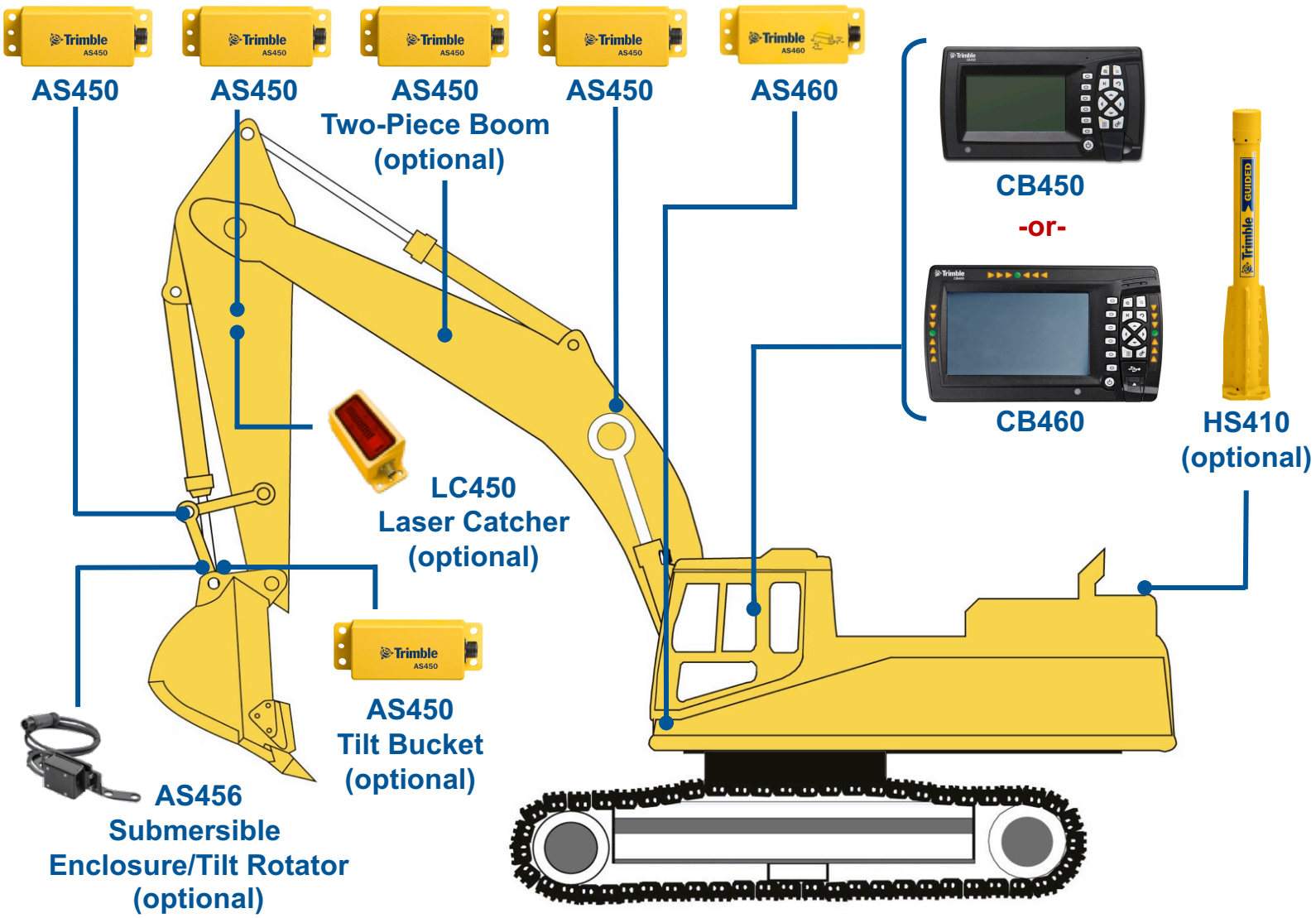
The Trimble GCS900 Grade Control System maximizes excavator performance. Whether grading simple trench and slopes or complex design surfaces and alignments, the operator can get to grade faster, without sacrificing accuracy or quality of the final graded surface.

Trimble GCS900 2D Grade Control System for Excavators

Configuration	Application
Depth and Slope	Depth and slope system for excavation General excavation tasks Flat plane, simple slopes Grading Flat and simple slopes
Depth, Slope, and Elevation	Depth and slope, transfer single benchmark point using laser reference Basements Foundations Footers Trenching Embankments Profiles Canals and batters

Trimble Grade Control Systems
GCS900 2D for Excavators

Key System Features:
- CB450 or CB460 full-color graphical control box with internal lightbars – 2D or 3D capable
- Store unlimited number of depth, slope, and profile guidance models
- Store unlimited number of bucket definitions
- Measure distances and slopes with the bucket and store measured elements as slope guidance models
- HS410 Heading Sensor option allows the operator to rotate the excavator without the need to re-enter the desired depth and slope to maintain consistent accuracy
- On-machine components are portable between machine types, without software/firmware upgrades
- On-machine components are modular and can be added or removed depending upon application
- Optional submersible enclosure available for deep water/salt water marine construction applications
- 2D system is easily upgradeable to 3D



Trimble Grade Control Systems
GCS900 3D for Excavators

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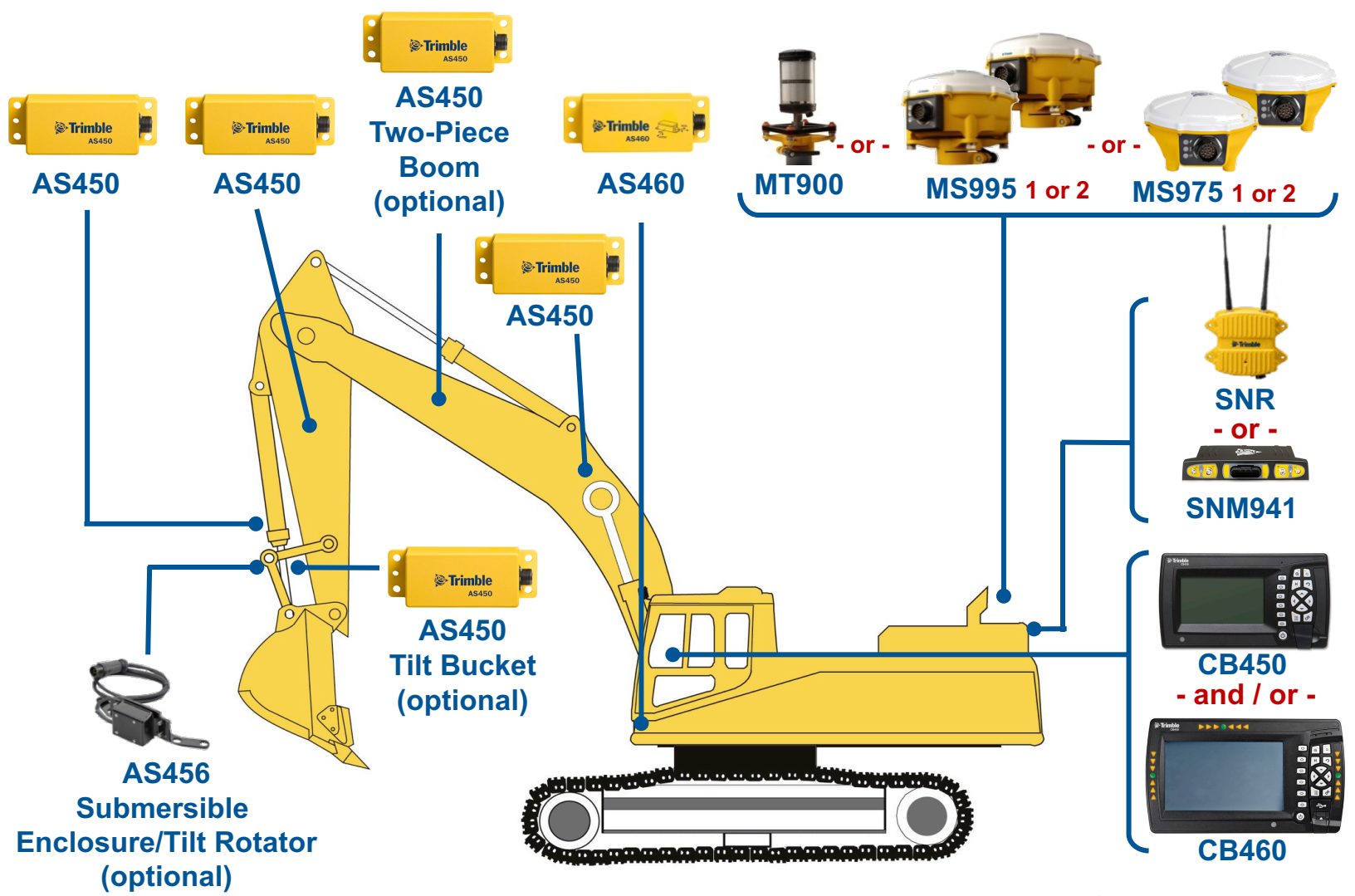
Trimble GCS900 3D Grade Control System for Excavators

Configuration	Application
Single GPS	Excavation to 3D complex design surfaces Trenching Slope work Embankments Bridge headers
Dual GPS	Roads/highways - mass excavation Large earthmoving projects - dams, reclamation, etc. Landfills, waste deposits Commercial/residential site prep - complex designs Underground utilities Pipelines, large trenching projects Dredging
Universal Total Station	Excavation applications requiring 3D centimeter-level guidance to 3D designs in areas where GPS coverage is challenging Inside buildings, tunnels In and around dense tree canopy Near tall buildings and structures

Trimble Grade Control Systems
GCS900 3D for Excavators

Key System Features:

- CB450 or CB460 full-color graphical control box with internal lightbars – 2D or 3D capable
- On-machine support available in 25 languages, configurable on-the-fly, with a button press
- Remote switch support for point collection – allows for operator to quickly collect as-built and site feature data
- Integrated smart GNSS antenna, mounted on counterbalance with quick release mounting for daily removal
- Single or Dual GNSS solution provides the most versatile excavator solution on the market
- Universal Total Station –based solution allows for operation in obstructed areas, tunnels, inside buildings.
- Gyro-augmented angles sensors provide maximum performance and response, increasing accuracy and preventing overcut
- On-machine components are portable between machine types, without software / firmware upgrades
- On-machine components are modular and can be added or removed depending upon applications
- Global solutions for two-way data transfer or synchronization of data files between the machine and the office



Trimble Grade Control Systems

GCS900 3D for Excavators | Off Machine Infrastructure

GCS900 2D with Laser Catcher	GCS900 3D with GNSS	GCS900 3D with MT900
		
GL700 Grade Laser	GNSS Base Station	Universal Total Station