

YSUP

NEW

Intelligent Factory®

Yamaha's Unique & Proven Solutions

IoT/M2M Integration system

Simplified Programming

Real-time Production Analysis

Flexible M2M communication

Smart Setup operations

Traceability

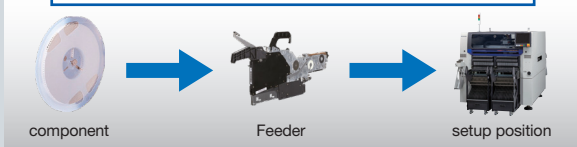
Remote Support

Smart Setup Operations

Component Setup Verification

Components setup verification function prevents invalid setup conditions.

Shows the setup / changeover on a guide display, and collates to verify that setting status is correct.

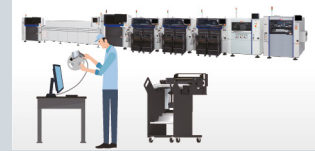


Rank Monitoring (YSUP-ST / YSUP-MI)

Bin code management for LED ranking can confirm the correct LED rank is being mounted.

Offline Setup Navigation (YSUP-ST)

Utilizes an off-line loading station and feeder cart to load components on feeders and setup feeders on dedicated carts. All setups will be validated based on machine specific program setup conditions.



Material Time Limit Management (YSUP-ST / YSUP-MI)

Define and monitor setup and production times for any MSL ranked consumable. The system will reject those consumables that exceed defined time limits.



Real-time Production Analysis

Live Production Dashboard

Visualizes equipment operation, production OEE and quality conditions for the production floor or for each line. Customizable thresholds can be set for any parameter allowing for easy understanding of a failing condition. In addition, the dashboard display can be customized.

ライン	状態	稼働 (稼働率)	OEE	稼働稼働率	性能稼働率	品質
DP_Line_1-1	OK	完了 80/80枚	89%	89%	100%	100%
Line2	Warn	停止 100/100枚	53%	55%	98%	100%
Line3	Warn	稼働 50/100枚	70%	72%	97%	100%
Line4	OK	稼働 100/100枚	87%	89%	99%	99%
Line6	Stop	未稼働 0/200枚	98%	98%	100%	100%



Production Analytics Dashboard

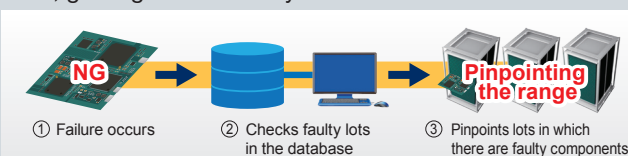
Production Analytics Dashboard utilizes business intelligence algorithms to convey a top-down approach to analyze cause and remedy solutions to improve production OEE.



Traceability Package

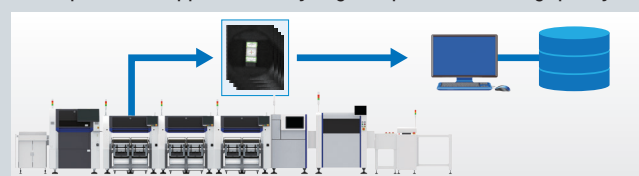
Production History Search (T-TOOL)

T-Tool captures real-time data related to PCB assembly and machine driven events. Users will be able to query serialized data to pinpoint information at component level; gaining more visibility to extensive relational data.



Accumulation of All Images (All Image Tracer)

Saves all of your mounter components recognition images on time, and all the way through the production process yet with no stress. Gives powerful support for analyzing component mounting quality.



Flexible M2M

Auto Program Change-Over (APCO)

APCO automates change over for tooling, programs, setup and conveyor width.



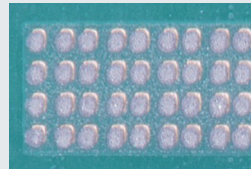
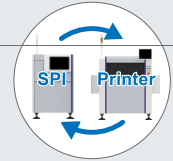
SEMI SMT-ELS Immediate Product Change is also available.

SEMI SMT-ELS M2M protocol is also available.

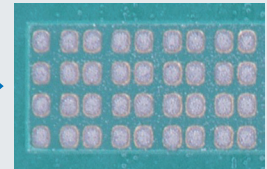
- SEMI SMT-ELS M2M is a communication standard between different machine manufacturers
- SEMI SMT-ELS details: https://global.yamaha-motor.com/business/smt/software/semi_smt-els/

Printer ↔ SPI Feedback

Defect result offsets from SPI can be fed back to printer to automatically adjust print offset. Also SPI machine can request stencil cleaning operation at printer.



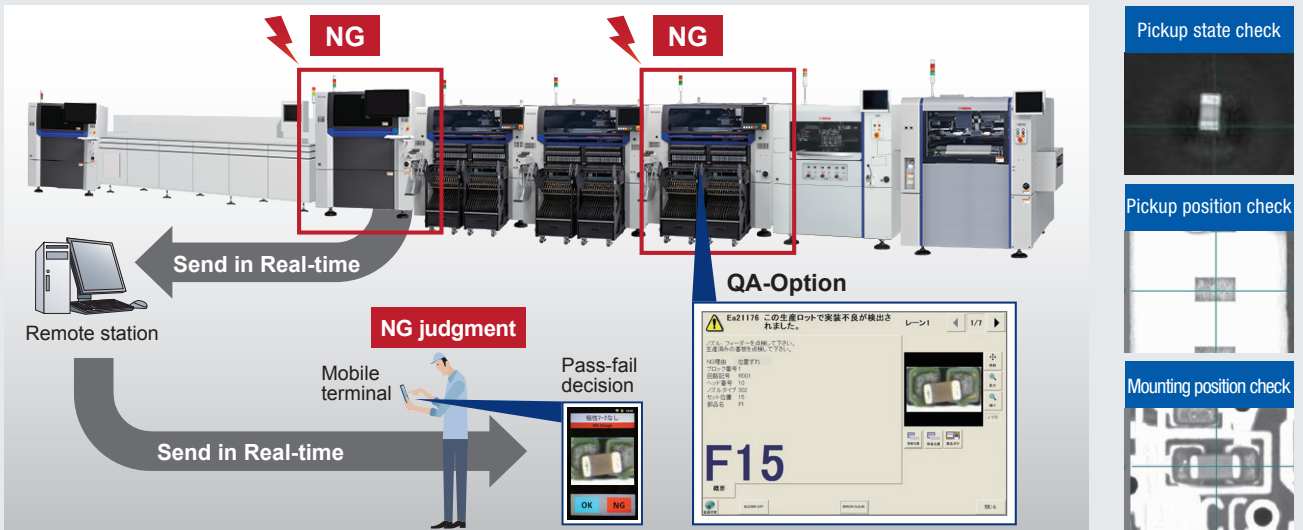
0201 Prining errors



Print error feedback

Mounter <-> AOI Linking (QA Option)

AOI defect results can be fed back to the mounting process to provide equipment operator information related to the defect. In turn, allowing the opportunity to resolve the issue in real-time.



Mobile Decision Function

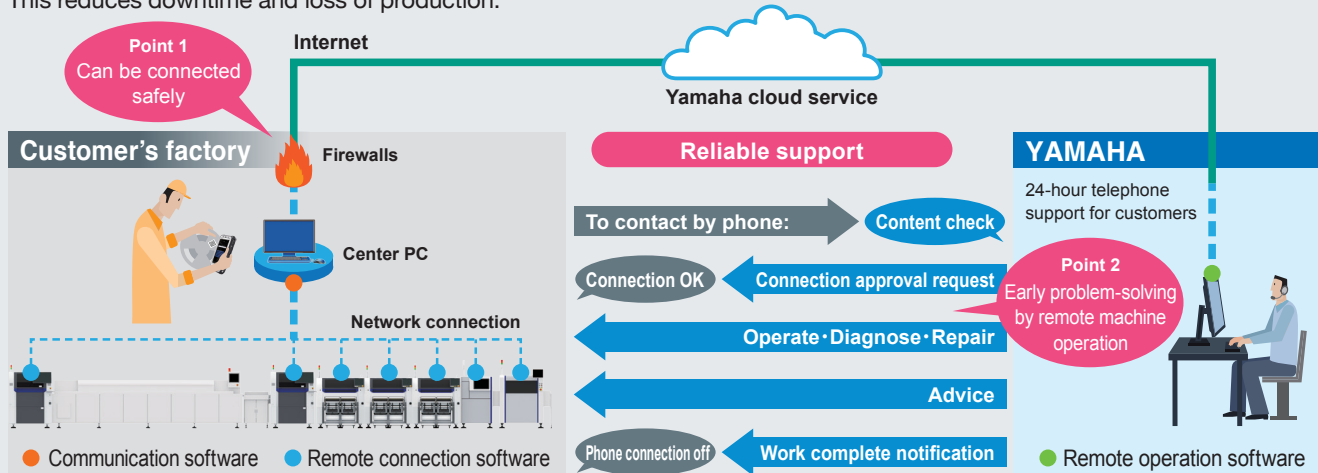
Communicates the inspection pass-fail results to an operator's mobile terminal.

Supports operator's efficient production by making the secondary judgement on the inspector results during machine operation.

Remote Support: Maintenance Package

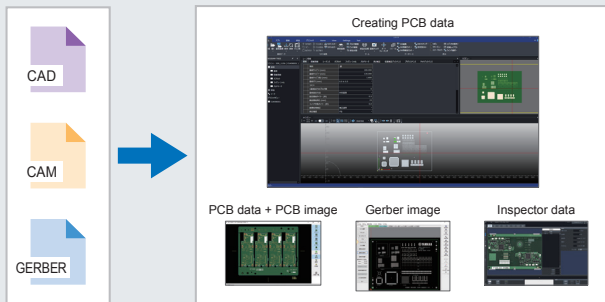
Remote Machine Support

Allows support staff the ability to assist with issue resolution and providing training support. This reduces downtime and loss of production.



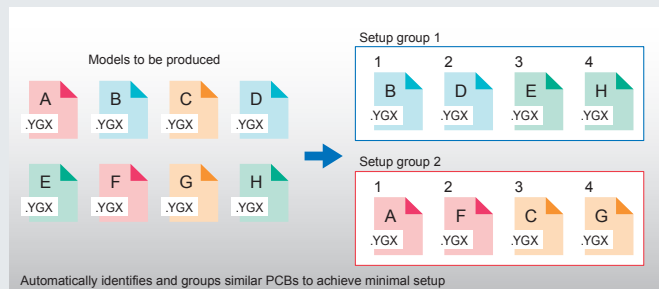
Simplified Programing & Scheduling Package

Create PCB data from various CAD data formats easily. PCB programs are transferable between Yamaha equipment (Printer, SPI, Mounter, AOI)



Optimization via Automated Decision-Making (YSUP-PG)

Optimizes component setup positions and mounting sequences to realize efficient production. It is also possible to plan optimal setup groups or production sequences by considering the PCB surface, reflow conditions, soldering type, and other detailed conditions based on multiple PCB data.



Graphical User Interface

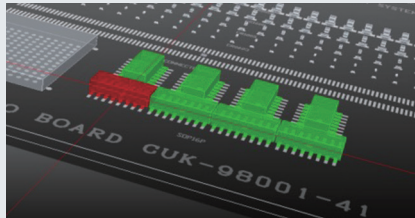
● Real-time Drawing

Reflects changes made to a graphic immediately to create error-free component data.



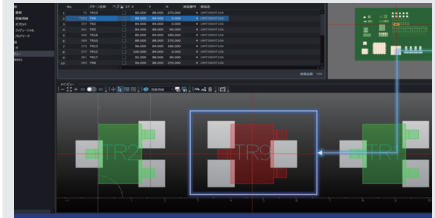
● 3D Graphics

Displays the PCB data in a 3D image to make it easier to see the mounting status of components.



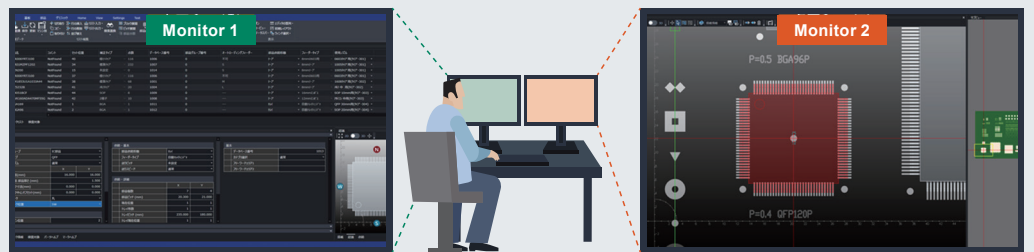
● Mounting Simulation

Displays a virtual PCB based on the PCB design data* to check the PCB data for errors before actual mounting.



● Multi-monitor Support

Displays two screens simultaneously to realize comfortable operability.



Yamaha Motor Europe N.V.
 Niederlassung Deutschland, Geschäftsbereich Robotik
 German Branch Office, Robotics Business
 Hansemanstrasse 12 · 41468 Neuss · Germany
 Tel: +49-2131-2013520
 ymerobotics.info@yamaha-motor.de
 www.yamaha-motor-robotics.eu

Yamaha Motor Co. Ltd., Head office Robotics Operation
 127 Toyooka, Kita-ku, Hamamatsu, Shizuoka 433-8103, Japan, Tel.: 81-53-525-7061
Yamaha Motor IM (Suzhou) Co. Ltd.
 #8 Building No.17 East Suhong Road, Suzhou Industrial Park, China 215026, Tel.: 86-512-6831-7091
Yamaha Motor IM (Suzhou) Co. Ltd., Shenzhen Branch, 1/F, Bd. 1, Yesun Intelligent Community, Guangang Rd. 1301-70, Guanlan St, Longhua District Shenzhen, Guangdong, P.R.C. China, Tel.: 86-755-2393-9910
Yamaha Motor Corporation, U.S.A., IM Division (USA office)
 3065 Chastain Meadows Parkway Marietta, GA 30066, Tel.: 1-770-420-5825
Thai Yamaha Motor Co. Ltd. (Thailand Office), 64 Moo1, Debaratana Rd., Km 21, Tambol Srisa Jorlake Yai, Amphur Bangsaothong, Samutprakarn 10570, Thailand, Tel.: 66-96-779-7680
Yamaha Motor Parts Manufacturing Vietnam Co. Ltd. (Vietnam Office)
 Lot G1-G2, Thang Long Industrial Park, Vong La Com, Dong Anh Dist, Hanoi, Vietnam, Tel.: 84-24-3951-6456

The models shown in the photographs in this catalog may differ slightly from the standard specifications. Specifications and appearance are subject to change without prior notice.

Yamaha Motor Robotics division is a subsidiary of Yamaha Motor Company. Version: July 2022