

The Check Pen S is compatible with various commercially available pens and self-inking stamps.

Model	Туре	Part Number	Manufactures	Country	Main Body Unit	Barrel	Pen Cap
CP-02SX	Pen	PX-20 M-20PM MMP-20 Inkless Pen DPEN-02S	Mitsubishi Pencil Pilot Corporation Pentel Heruru Electronics	Japan	CP-SX I	CP-02S-PP	CP-S-CA
		Camlin Paint Marker EK-400XF	Kokuyo Camlin Shachihata	India			
		PAINT MARKER No.CP Artline70	Snowman Shachihata	Indonesia			
CP-05SX	Pen	PX-21	Mitsubishi Pencil	Japan	CP-SX	CP-05S-PP	Please use the originally supplied pen cap.
CP-09SX	Pen	H-DM	Tombow	Japan	CP-SX	CP-09S-PP	-
CP-11SX	Pen	K-177N	Shachihata	Japan	CP-SX	CP-11S-PP	CP-S-CA
CP-26SX	Self-Inking Stamp	X-BKL	Shachihata	Japan	CP-SX	CP-26S-PP	CP-S-CA
CP-70SX	Pen	Skill Writer III	Shinwa	Japan	CP-SLX	CP-70S-PP	Please use the originally supplied pen cap.
CP-71SX	Self-Inking Stamp	TAT Stamper F11 XQT-11C	Shachihata	Japan	CP-SLX	CP-71S-PP	Please use the originally supplied self-inking stamp cap.
CP-72SX	Pen	Steel Paint NEO	Alton	Japan	CP-SLX	CP-72S-PP	Please use the originally supplied pen cap.
CP-81SX	Self-Inking Stamp	Name Stamp XL-11	Shachihata	Japan	CP-SLX	CP-81S-PP	Please use the originally supplied self-inking stamp cap.

Note: The Check Pen S includes main body unit, barrel, and pen cap (applicable model only). Pens and self-inking stamps

Specifications

	30 m / 33 yd (depends on usage conditions)					
Battery Life	300,000 Uses (depends on usage conditions)					
	Japan / Canada / USA / China / Thailand / Vietnam / Philippines / Indonesia (CP-SX only) / India					
Input	1 Test Switch					
	Communication Status and Time to Replace the Battery Notification LED (Green / Red)					
Power Source	1 Coin Battery (CR2032)					
	2,403 MHz-2,478 MHz (automatic free channel selection by a frequency hopping function)					
Antenna	Chip Antenna					
	 Coin Battery (CR2032) Note: The Check Pen S includes main body unit, barrel, and pen cap (applicable model only). Pen and self-inking stamp are not included. 					
	The available options may differ depending on the model. Please refer to the 'Options' section on the right and contact us for details.					



422-1 Higashimikata-cho, Kita-ku, Hamamatsu, Shizuoka, 433-8104 Japan TEL: +81-53-438-3555 / FAX: +81-53-438-3411 URL: https://www.herutu.co.jp/en/ Email: Info@herutu.co.jp



Please contact your nearest distributor.

POKAYOKE TOOLS





Helping Operators "Mistake-Proofing"(Pokayoke)

These products help operators "mistake-proofing" (pokayoke) in the production processes when using tools such as torque wrenches, pliers wrenches, and power tools.



POKAYOKE plus

When used in combination with a LAN-connectable Pokayoke receiver, this Windows application helps customers ensure the traceability of "working with tools" for workers in factories.





Ensuring Traceability of Tasks

Functional Overview

<section-header><section-header>

Task Results • Work Title • Start Date and Time of Task • End Date and Time of Task • JUDGE Result • Cause of FAIL, etc.

Since the system can grasp in real-time the status of task results





Enabling Mistake-Proofing (Pokayoke) for Covering Multiple Processes By linking the *POKAYOKE plus* to multiple processe, customers cas set work execution instructions, counting the number of tasks upwards, etc.



Since customers can register the TW-800R-SCL installed at up to 8 stations for 1 work type, the system can mistake-proof (pokayoke) for tasks that use up to 8 tools. You can register an unlimited number of work types.

Vou can reserve executions for up to 8 work types as shown below.



POKAYOKE plus" Specifications and Operating Environm

specifications and operating crivitoriment				
Supported OS	Windows® 10 32-bit / 64-bit to Windows® 11 64-bit			
CPU	Intel® Core® 2.3GHz or above			
	4GB or above			
Resolution	1366 x 768 (FWXGA) or above			
HDD	Free space of 1GB or above, excluding data / log			
Supported Languages	Japanese / English			



Since up to 8 tools can be registered for 1 work type, the system can mistake-proof (pokayoke) for tasks that use up to 8 tools. An unlimited number of work types can be registered.

The "PCKAYOKE plus Viewer" operates according to work execution instructions received from the "POKAYOKE plus", and the viewer software screen displays information such as task details of work, task count, JUDGE results, and battery level, etc.

POKAYOKE plus Viewer

	opecifications and operating Environment				
Supported OS CPU Required Memory Resolution HDD Supported Languages		Windows® 10 32-bit / 64-bit to Windows® 11 64-bit			
		Intel Atom® x5-Z8350 1.44GHz or above			
		4GB or above			
		1280 x 800 (WXGA) or above			
		Free space of 1GB or above, excluding data / log			
		Japanese / English			

Pokayok	Pokayoke Transmitters Lineup					
	Pokayoke Slim Transmitter TW-810T	Pokayoke Compact Transmitter TW-850T Pokayoke Transmitter TW-800T		Pokayoke Wireless Unit HCP-2402T-MC		
Supported Tools	Pliers wrenches, torque wrenches and more	Cable tie guns, hand pumps, self-inking stamps, electric screwdrivers and more	Pliers wrenches, torque wrenches and more	Makita impact wrenches, impact drivers, screwdrivers and more (*1)		
External Dimensions (W × H × D)	32 x 66 x 10 mm (1.3 x 2.6 x 0.4") (excluding protrusions)	28 x 55 x 12 mm (1.1 x 2.2 x 0.5") (excluding protrusions)	34 x 71 x 17.5 mm (1.3 x 2.8 x 0.7") (excluding protrusions)	20 x 30 x 6.4 mm (0.8 x 1.2 x 0.3")		
Comm. Distance	50 m (55 yd) (depends on usage conditions)	30 m (33 yd) (depends on usage condition	ns)			
Battery Life	900,000 Uses (depends on usage conditions)	300,000 Uses (depends on usage condition),000 Uses (depends on usage conditions)			
Available Countries	Japan / Canada / USA / China / Thailand / Vietnam / Indonesia / India	Japan / Canada / USA / China / Thailand / Vietnam / Philippines / India	Japan / Canada / USA / China / Taiwan / Thailand / Vietnam / Malaysia / Philippines /Indonesia / India	Japan / Canada / USA / China / Thailand / Vietnam / Philippines / Indonesia / India		
Input	1 Non-voltage Contact Signal					
Display	Communication Status Notification LED (Green / Yellow / Red) Time to Replace the Battery Notification LED (Orange)	Communication Result and Time to Repla	ce the Battery Notification LED (Green / Red)		
Power Source	1 Coin Battery (CR2032)			DC 2.2-6.0 V		
Weight	About 21g (0.74 oz)	About 25g (0.88 oz)	About 40g (1.41 oz)	About 2.5g (0.09 oz)		
Frequency Band	2,403 MHz-2,478 MHz (automatic free cl	nannel selection by a frequency hopping fun	ction)			
Antenna	Inverted-F Metal Plate Antenna	Chip Antenna	PCB Antenna	Chip Antenna		
Accessories	1 Wire Harness Connector with Micro Limit Switch [TW310T-HCL] 1 Coin Battery (CR2032)	1 Connector Cable for Connection [ZHR-2-200] 1 Coin Battery (CR2032)	1 Wire Harness Connector with Micro Limit Switch [TW900T-HCL] 1 Coin Battery (CR2032)	-		
Options	Wire Harness Connector with Micro Limit Switch [TW910T-HCL] Pokayoke Silm Transmitter Protective Cover [TW-910C]	Connector Cable for Connection [ZHR-2-200]	Wire Harness Connector (w/o Micro Limit Switch) [TW9007-HC] Wire Harness Connector with Micro Limit Switch [TW8007-HCL] Pokayoke Transmitter Protective Cover [TW-510C-1][TW-510C-2]	-		

*1: For purchasing Makita impact drivers / impact wrenches / screwdrivers, please contact the person in charge of special procurement at Makita Co., Ltd. Email: tokuju_mkt@m1.makita.co.jp Please also refer to *Customers who request high-precision torque management* in the product information page of Makita Co., Ltd. https://www.makita.co.jp/product/index.html

"Transmitting when Releasing a Hose Clamp" TW-810T-PLR / TW-800T-PLR



This transmitter can be used when "grasping a hose clamp with a pliers wrench, moving it to the specified position, and then transmitting when releasing". For details, please refer to "Transmission Timing" section of the "Pliers Wrench" page.

Pokayoke Wireless Module HRF-2402

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5 × 140

HRF-2402 is a wireless module equipped with various interfaces. By installing an interface board equipped with the necessary input and output capabilities, the module can be attached to various tools. The module is built into many tools such as the Check Pen S, and many products from other tool manufacturers. With the cooperation of a variety tool manufacturers, we will help you to realize the "IoT Conversion" of your tools in use.



okay	oke Receivers	Lineup (without C	ounter Feature)					
	1-Relay-Ouput Type TW-800R	4-Ralay-Ouput Type TW-800R-EXP	R5232C Serial Output Type TW-800R-EXS Series	LAN CONNECTION TYPE TW-800R-EXL	CC-Link IE Field Basic Support TW-800R-EXB	POKAYOKE Result		
ıt(s)	1 Relay Output (Terminal Block M3) Rated Load AC/DC 30 V / 0.5 A	4 Relay Outputs (Terminal Block M3) Rated Load AC/DC 30 V / 0.5 A	1 Relay Output (Terminal Bk Rated Load AC/DC 30 V / 0	ock M3)	Support	2 Power Transistor Outputs Rated Load DC 24 V / 0.1 A Connector 2.5 mm (0.098") Pitch 4-Position 2-Row (1 Position Linused)		
ice	- RS-232C RS-232C RJ-45 Ethernet 10BASE-TX Auto: Sereing)					RJ45 Ethernet 10BASE-T/100BASE-T, Full/Half Duplex		
ıble tries	Japan / Canada / USA / Chi	ina / Taiwan / Thailand / Vietna	am / Malaysia / Philippines / In	idonesia / India		Japan / Canada / USA / China / Thailand		
ıy	1 RX LED (Green) (also as lighting switch for pairing) 1 Power LED (Red)	1 RX LED (Red / Blue / Green / Yellow) NW Status LED (Pale Blue) 2 Pairing LEDs (ID1&2) (Orange) 1 Power LED (Orange)						
hes	1 Power Switch 1 Switch (6-Position DIP) fo 1 Lighting Switch for Pairing	r Setting	1 Power Switch 2 Switches (6-Position DIP e 1 Lighting Switch for Pairing	each) for Setting		4 Push Buttons: Setting (REG / UP / DOWN) / Reset		
er	Piezo Buzzer 95 dB (at 1 m	(3.3'))				Piezo Buzzer 90 dB (at 0.1 m (0.3'))		
nal nsions : D)	80 x 100 x 30 mm (3.1 x 3.9 x 1.2") (excluding protrusions)	130 x 100 x 30 mm (5.1 x 3.1 (excluding protrusions)	9 x 1.2")		150 x 100 x 30 mm (5.9 x 3.9 x 1.2") (excluding protrusions)	150 x 100 x 30 mm (5.9 x 3.9 x 1.2") (excluding protrusions)		
r ce	DC 24 V ±20% (DC 19-28 V		AC 100-240 V (using included AC adapter)					
nt imption	60 mA or less	80 mA or less	90 mA or less	140 mA or less	150 mA or less	150 mA or less		
nt	Approx. 250 g (8.8 oz)	Approx. 430 g (15.2 oz)	Approx. 450 g (15.9 oz)		Approx. 500 g (17.6 oz)	Approx. 290 g (10.2 oz)		
ating nment	Temperature: 0-50 °C (32-1	Temperature: 0-50 °C (32-122 °F) Humidity: 85% or less (without condensation)						
ency	2,403 MHz-2,478 MHz (automatic free channel selection by a frequency hopping function)							
ina	Dipole Antenna					Chip Antenna		
ssory	-	1 AC Adapter [ADB24050] 1 Output Cable [TW-SCL0-4]						

Wall Mounting Bracket [TW-SCLF01] AC Adapter [ADB24050-C] AC Adapter AC Adapter AC Adapter AC Adapter Desktop Stand [TW-SCDS01] [ADB24050-C] [ADB24050-C] RS-232C Straight Cable [ADB24050-C] [ADB24050-C] [6232-9F9F-06] 2.4 GHz External Antenna [MB-13F] 2.4 GHz External Antenna [MB-13F] 2.4 GHz External Antenna 2.4 GHz External Antenna AC Adapter [ADB24050] 2.4 GHz External Antenna [MB-13F] [MB-13F] [MB-13F] Output Cable [TW-SCLO-4]

Options



Output Cable [TW-SCLO-4]

Wall Mounting Bracket [TW-SCLF01]

[TW-SCDS01]

Switch Box for Work-Select [TW-WS-03]

(w/o Micro Limit Switch) [TW800T-HC]

with Micro Limit Switch [TW800T-HCL]

with Micro Limit Switch [TW810T-HCL]

Connection [ZHR-2-200]

Protective Cover [TW-510C-2] Protective Cover [TW-810C]

Pokayol	ke Receivers	Lineup (with Count	er Feature)	
	Simple P TW-	okayoke Counter •800R-SC	Simple Pokayoke Counter TW-800R-SCL	Pokayoke Counter TW-800R-EXC
	Transmitter Support	PASSIFAL (JUDGE Corput) 99	Transmitter LAN (UDGE Output) Max 9999	Hax PASSFAL UDDE Duput
Count Display Output(s)	7-SEG LED 2-Digit ((W 3 2 Power Transistor Out; Rated Load DC 24 V / 0 3-segment Small Single (0.14")	x H) 27 x 50 mm (1.1 x 2.0°)/digit) puts (1 PASS / 1 FAIL) .1 A -head Plug; Diameter 3.5 mm	7-SEG LED 3-Digit ((W x H) 27 x 50 mm (1.1 x 2.0°)/digit) 2 Power Transistor Outputs (1 PASS / 1 FAIL) Rated Load DC 24 V / 0.1 A Connector 2.5 mm (0.098°) Pitch 4-Position 2-Row (1 Position Unused)	7-SEG LED 2-Digit (W x H) 15 x 27 mm (0.6 x 1.1*)/digit) (At TW-800R) 1 Relay Output (Terminal Block M3) Rated Load AC/DC 30 V / 0.5 A (At counter unit) 2 Relay Outputs (Terminal Block M3) (1 PASS / 1 FAIL) Rated Load AC/DC 30 V / 0.5 A
Interface	-		RJ45 Ethernet 10BASE-T/100BASE-T, Full/Half Duplex "POKAYOKE plus" Compatible	-
Input(s)	3 Non-voltage Contact- Very Small Single-head	inputs(for Work-Select) Plug; Diameter 2.5 mm (0.1*)	5 Non-voltage Contact Inputs (1 JUDGE, 1 RESET, 3 Work-Select) Connector 2.5 mm (0.098") Pitch 6-Position 2-Row	6 Non-voltage Contact Inputs (1 SENSOR, 1 JUDGE, 1 RESET, 3 Work-Select)
Registrable Work Type Qty.	1 Type Note: Up to 8 wo optional in	rk types can be registered by using the put cable for work-select.	1 Type Note: Up to 8 work types can be registered by using the optional input cable for work-select. The registrable number of work types is unlimited by linking with "POKAVOKE output"	8 Types
Main Functions	JUDGE (Decremental Ta Reset Timer	ask Count)	Depration Mode (Stand-Joiner / App-Interlock) Nete: When using the 1W-8007-SCL by fast, seter 'stand-alone mode.' plate: steel: "geneticities that the seter in "POLYCRE plate: steel: "geneticities that the seter in the seter JUDGE [Incremental/Decremental Task Count] Note: Incremental/Decremental Task Count] Note: Incremental/Decremental Task Count] Note: Incremental/Decremental Task Count] Note: Incremental/Decremental Task Count] Note: Incremental count on to used in apprinterior mode. Reset Timer Sequence (manageable order of tool usage), Work Execution Reservation, History Management of Task Results for Each Work Note: Application are interlock mode	JUDGE (Decremental Task Count / Tool Timer / Work Timer) Reset Timer Sequence (manageable order of tool usage) Selectable Language (Japanese / English)
Available Countries	Japan / Canada / USA		Japan / Canada / USA / China / Thailand / Vietnam / Philippines / India	Japan / Canada / USA / China / Taiwan / Thailand / Vietnam / Malavsia / Philippines / Indonesia / India
Display	JUDGE LED : Red/Blue/ RX LED: Red/Blue/Yello	/Yellow w	JUDGE LED: Red/Blue/Green/White RX LED: Red/Blue/Green/Yellow/White NW Status LED: Light Blue	(TW-800R Main Body); RX LED : Green (also as lighting switch for pairing) Power LED: Red (Count Unit); UJUGE LED : Red/Blue/Yellow/Green
Switches	5 Touch Keys; POWER / REG. / RESET	Γ / ▲(UP) / ▼(DOWN)	I	1 Power Switch 1 Switch (6-Position DIP) for Setting 1 Lighting Switch for Pairing ▼(DOWN), ESC, ENT, F1, F2
Buzzer	Piezo Buzzer 70 dB (at	0.1 m (3.9"))	Piezo Buzzer 90 dB (at 0.1 m (3.9"))	Piezo Buzzer 95 dB (at 1 m (3.3'))
(W x H x D) Power Source	150 x 100 x 30 mm (5.9	x 3.9 x 1.2") (excluding protrusion	s)	218 x 100 x 30 mm (8.6 x 3.9 x 1.2*)(excluding protrusions)
Current	120 mA or less	sidded AG adapter)	200 mA or less	110 mA or less
Weight	Approx. 250 g (8.8 oz)		Approx. 290 g (10.2 oz)	Approx. 750 g (26.5 oz)
Operating Environment	Temperature: 0-50 °C (3	32-122 °F) Humidity: 80% or less (without condensation)	-
Frequency Band	2,403 MHz-2,478 MHz	automatic free channel selection b	y a frequency hopping function)	
Antenna	Chip Antenna			Dipole Antenna
Accessory Option	1 AC Adapter [ADB240 Input Cable for Work-Se Output Cable for JUDG Switch Box for Work-Se Desktop Stand [TW-SC AC Adapter [ADB24050	550] elect [TW-SC24-4] E [TW-SC35-3] elect [TW-WS-02] DS01] 0]	Input Cable [TW-SCLI-6] Output Cable [TW-SCLO-4] Switch Box for Work-Select [TW-WS-03] Wall Mounting Bracket [TW-SCLF01] Desktop Stand [TW-SCDS01] AC Adapter [ADB24060]	AC Adapter [ADB24050-C] 2.4 GHz External Antenna [MB-13F] Switch Box for Work-Select [TW-WS-01]
	Task Details of Work Carpel Specific Court Vale To the method To the method	Process B Work Work Process C The first of the first	Process A Process B Process B Process B Process C Process C	Process B Work Examples Task Details of Work Examples Task Details

Pliers Wrenches Lineup A pliers wrench is a tool used to lock hose clamps by detaching or removing pins from the hose clamps used to lock radiator hoses, engine hoses, etc. It can be used for mistake-proofing (pokayoke) in combination with the Pokayoke Tools TW-800 series receiver. Jaws Bumper The jaws are brazed with a high hardness material. This prevents excessive jaw opening. Pokayoke Transmitter Bumper Either a Pokayoke slim transmitter An adjustment screw prevents a TW-810T or a Pokayoke transmitter false transmission TW-800T is attached. Spring Switch Jaws open to a certain width. It is the same mechanism as a torque wrench with limit switch. Transmission Timing According to your desired transmission timing, "transmission when grasping the hose clamp with the pliers wrench (TW-810T / TW-800T)" and Our pliers wrench has a false transmission prevention "transmission when releasing the hose clamp from the pliers wrench (TW-810T-PLR / TW-800T-PLR)" can be selected. feature, so it only transmits when grasping above a Transmission When Grasping [TW-810T/TW-800T] Transmission When Releasing [TW-810T-PLR/TW-800T-PLR] certain thickness. The tool is shipped with a default setting to transmit when 900 11 200 CAR grasping an object whose thickness of 1 mm (0.04") and above. The thickness Slide the hose clamp to its Grasp the tabs of the Slide the hose clamp to its Release the tabs of the Grasp the tabs of the can be adjusted with the hose clamp intended position hose clamp intended position hose clamp bumper (adjustment screw). Small Type [JPS100Y] Light Type [JPS175Y2] Light & Slim Type [JPS175YS] Standard Type [P200Y2] Thin Nose Type [SN200Y2] Length 200 mm (7.9') Weight 300 g (10.6 cc) Length 220 mm (8.1') Weight 345 g (12.3 cc) Length 230 mm (8.1') Weight 340 g (12.0 cc) Jaw Opening 10-12 mm (0.4-0.5') Jaw Opening 10-12 mm (0.4-0.5') Jaw Opening 10-12 mm (0.4-0.5') Jaw L, Alve Opening approx. 25 mm (0.5') Max. Jaw Opening approx. 25 mm (1.0') Max. Jaw Opening approx. 25 mm (1.0') Length 245 mm (9.6°) Weight 410 g (14.5 oz) Length 250 mm (9.8°) Weight 420 g (14.8 oz) Jaw Opening 10-12 mm (0.4-0.5°) Jaw Opening 10-12 mm (0.4-0.5°) Max. Jaw Opening approx. 25 mm (1.0°) Max. Jaw Opening approx. 25 mm (1.0°)

 Length 250 mm (8.8) Weight 410 g (14.5 oz)
 Length 250 mm (8.8) Weight 400 g (17.6 oz)
 Length 240 mm (8.4) Weight 300 g (17.8 oz)

 Jaw Opening 10-12 mm (8.4-0.5)
 Jaw Opening approx 23 mm (1.3')
 Jaw Opening 17-20 mm (7.4.9 kg)

 Max. Jaw Opening approx 25 mm (1.0')
 Max. Jaw Opening approx 25 mm (1.2')
 Jaw Opening 17-20 mm (1.4.9 kg)

For Wider Jaw Openin

[SP-202]

T-308R LN240SR AE-200

Super Wide Jaw Opening Type [LN240SR]

Wider Jaw Opening Type [T-308R]

Length 255 mm (10) Weight 380 (12,4 Length 255 mm (13,1) Weight 300 (17,5 cc) Jaw Opening approx. 17 mm (1,7) Max. Jaw Opening approx. 17 mm (1,7) Max. Jaw Opening approx. 17 mm (1,7) Max. Jaw Opening approx. 19 mm (1,7) Max. Jaw Opening approx. 19 mm (1,8) Max. Jaw Opening appr false transmission. * Snap ring (for bore) type is also available.

Customized Products (Examples)



We make with a minimum quantity of one. Please feel free to contact us.



Note: Bent nose downward type BN200YD2 is also available.

Replacement Springs





BN200YU2 BN200YD2

Bent Nose Upward Type [BN200YU2] Spring Hose Clip Type [AE-200]



Snap Ring (for Shaft) Type [FOS-185]

POKAYOKE POKAYOKE TOOLS

Pokayoke Compatible Tools https://www.herutu.co.jp/en/product/pokayoke_tools_list.html





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Making Tools Pokayoke Compatible Pokayoke Wireless Unit HCP-2402T-MC



HCP-2402T-MC is a wireless unit that can communicate with the TW-800 series Pokayoke receivers.

Pokayoke Wireless Unit HCP-2402T-MC An interface board is added to "Pokayoke wireless module HRF-2402" installed in the "Check Pen S", which has a proven track record in factories, and the unit is provided in a form that is easy to incorporate into a tool.

Features

- ✓ Can communicate with the TW-800 series Pokayoke receivers
- ✓ The communication distance is about 30m(98ft) indoors
- Equipped with a pairing switch, LED display, antenna and input, so it can be used as a built-in unit
- ✓ Built-in proprietary communication protocol can greatly reduce the communication related development cost



HCP-2402T-MC can be built in by retrofitting to impact driver/impact wrench/cordless screwdriver made by Makita Corporation





Pokayoke Receivers

[Impact driver/Impact wrench/Cordless screwdriver models that can build-in HCP-2402T-MC]

*Overseas

Impact DriversDTDA040/DTDA070/DTDA100/DTDA140Impact WrenchesDTWA070/DTWA100/DTWA140/DTWA190Cordless ScrewdriversDFT024F/DFT025F/DFT060F(China/Thailand/Philippines/Indonesia/India)Cordless Angle ScrewdriversDFL020F/DFL063F(China/Thailand/Philippines/Indonesia/India)

*For purchasing an impact driver/impact wrench/cordless screwdriver/cordless angle screwdriver, please contact Makita Corporation or Makita Corporation's dealers.



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HERUTU ELECTRONICS CORPORATION



For monitoring the safety of workers wearing a hard hat Hard-hat-on Sensor ENS-HHO1





ENS-HH01 Specifications

ENS-HH01 Specifications				POKAYOKE plus Specifications and operating environment		
Frequency Band	2,403 MHz-2,478 MHz	External	28.6 x 17.0 x 37.6 mm	Supported OS	Windows 8.1 or later to Windows 10 32-	
Antenna	Chip Antenna	Dimensions	Dimensions $(1.1 \times 0.7 \times 1.5")$		bit / 64-bit	
			(excluding protrusions)	CPU	Intel [®] Core [™] 2.3GHz or above	
Input	2 Touch Sensors	Power Source 1 Coin Battery (CR2032)				
	20 m /22d			Poquired Memory	4GB or above	
Comm Distance	depends on usage conditions)	Battery Life	For about 1 year by wearing for 8 hours a day	Required Memory		
comm. Distance				Resolution	1366 x 768 (FWXGA) or above	
Protection	Waterproof and Dustproof	(depending on usage conditions)				
Structure (Protection Structure IP65)		Weight Approx. 19g (0.67 oz)		HDD	Free space of 1GB or above, excluding data / log	
Display	1 LED (Green)				,	
		Operating	Temperature: 0-50 ℃ (32-122 °F)	Supported		
Switch 1 Test Switch E		Environment Humidity: 80% or less		Languages	Japanese / English	



Please contact your nearest distributor.

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Additional Features in "Stand-alone Mode" Newly Added Mode Contents Output task results data to LAN ·Work number display of Version Simple count mode Counting-up Automatic JUDGE ON/OFF setting A mode that only counts up (V2.00)JUDGE by work timer ·Setting RESET-key disabled and does not JUDGE (counts Sensor input to enable counting . Setting to output PASS/FAIL continuously until RESET Update up to 999 times)

Start Pokayoke Immediately

Using just one easy button operation, you can construct a Pokayoke system (task count management) with a tool (installed our Pokayoke transmitter). You can register one type of work with TW-800R-SCL*



■ Various tools used at worksites such as manufacturing, logistics, and construction are compatible with this system. ess Power Tool •Electric Screwdriver •Torque Wrench •Pliers Wrencl ble Tie Gun •Riveter •The LOCTITE® hand ourno and more Check Pen S
 Cord
 Approval Stamp
 C







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Enhancement of Counter Feature and Expansion of Usage Environment

For usability in factories in various industries and sizes, we have upgraded the following mistake-proofing (pokayoke) features to meet customer demands while maintaining the simplicity of our 'Simple Pokavoke Counter TW-800R-SC'

	TW-800R-SC	TW-800R-SCL (Stand-alone mode)
Configurable Specified Count Value	Up to 99 times per work (2-digit count display)	Up to 999 times per work (3-digit count display)
Count-up of number of tasks	No (Countdown only)	Yes (Countdown, Count-up)
Buzzer Loudness	Piezo Buzzer 70dB (at 0.1 m (3.9")) (a loud voice)	Piezo Buzzer 90dB (at 0.1 m (3.9")) (a very loud voice)
JUDGE Method	JUDGE according to task count	JUDGE according to task count / JUDGE by external signal / JUDGE by work timer
RESET Method	RESET with the set timer RESET-key press	RESET with the set timer / RESET-key press / RESET by external signal
Sensor Input Function to Enable Counting	No	Yes
Function to Output Task Results Data to LAN	No	Yes
Setting PASS/FAIL Output	Fixed (100 ms)	Selectable from 13 types of time
Installation Method	Desktop	Desktop, Wall mount possible
Available Countries	Japan / Canada / USA	Japan / Canada / USA / China / Thailand / Vietnam / Philippines / India

Ensuring Traceability of Tasks

By linking*2 with "POKAYOKE plus" via LAN, the functions of TW-800R-SCL can be greatly expanded, such as sequence function, work execution reservation function, history management of task results for each work, registrable unlimited number of works, etc.

	TW-800R-SCL (Stand-alone mode)	TW-800R-SCL (Application interlock mode) × POKAYOKE plus			
Work operation in TW-800R-SCL	Operation based on work registered in TW-800R-SCL	Operation based on work execution instruction from POKAYOKE plus			
Registrable Task Contents for One Work	Task contents using 'one tool'	Task contents using 'up to 8 tools' (in the case of registering installed TW-800R-SCL at up to 8 stations in one work)			
Registrable work count	1 Type (Up to 8 types with the use of options*1)	Unlimited			
History Management of Task Results for Each Work	No	Yes ('Tool usage history' and 'work execution history' are saved in CSV format)			
Remarks	-	Sequence function (manageable the order in which tools are used), work execution reservation function, battery level notification function			
: You can register up to 8 t With the TW-800R-SCL, y interlock mode'. When us	pes of work by using the option ou can select one of three opera ing the TW-800R-SCL in combin	'Input Cable for Work-Select'. ting modes: 'stand-alone mode', 'simple count mode' or 'application ation with 'POKAYOKE plus', select 'application interlock mode'.			

W-800H-SCL, you can select one of three operating modes: "stand-alone mode", "simple count mode" or "applic mode". When using the TW-800R-SCL in combination with 'POKAYOKE plus", select 'application interlock mode"

Please contact your nearest distributor

POKAYOKE

Portable Pokayoke Counter **Mobile Pokayoke Counter**

TW-800R-MCL v2.00

This is a battery-powered Pokayoke receiver with a count feature that allows 'Pokayoke Anywhere' regardless of location where you need task count management at sites such as manufacturing, logistics, construction, etc.

-			The start and starting and the start of the	
	Start Pokayoke Immediately		1	PROD
Pokayok	Possible Anywhere (Battery-power	red)	and and	
Easy to C	arry with Mobile Stand (Sold Separa	tely)		
Contents	Additional Features in "	Stand-alone M	ode"	Newly Added Mode
of Version	•Output task results data to LAN •Work num	ber display		Simple count mode
(V2.00)	Gounting-up Automatic JUDGE by work timer Setting RE	SET-key disabled	setting	A mode that only counts up and does not JUDGE (counts

Setting to output PASS/FAIL continuously until RESET

Start Pokayoke Immediately

Update

Using just one easy button operation, you can construct a Pokayoke system (task count management) with a tool (installed our Pokayoke transmitter). You can register one type of work with TW-800R-MCL

Sensor input to enable counting



■ Various tools used at worksites such as manufacturing, logistics, and construction are compatible with this system. • Check Pen 5 • Condess Power Tool • Electric Screwdrive • Torque Wrench • Pliers Wrench • Approval Stamp • Coble To tion • Plivete • The LOCTITE® hand pump and more

POKAYOKE plus Ensuring Traceability of Lasks Production Process Support Software for Pokayoke Tool

By linking with 'POKAYOKE plus' via LAN, the functions of TW-800R-MCL can be greatly expanded, such as sequence function, work execution reservation

function, history management of task results for each work, registrable unlimited number of works, etc.

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Shizuoka, 433-8104 Japan

Email: info@herutu.co.jp

<Comparison of TW-800R-MCL/TW-800R-SCL>

up to 999 times)

Version

Update

June 14,

2023

	TW-800R-MCL	TW-800R-SCL			
Power Source	DC 5V	AC 100-240 V (using included AC adapter)			
Accessory	1 DC JUDGE Cable [DC-4017A]	1 AC Adapter [ADB24050]			
Count Display	7-SEG LED 3-Digit ((W x H) 27 x 50	1 mm (1.1 x 2.0")/digit)			
Output	2 Power Transistor Outputs (1 PAS	S / 1 FAIL), Rated Load DC 24 V / 0.1 A			
Interface	RJ45 Ethernet 10BASE-T/100BASE-T,	Full/Half Duplex, 'POKAYOKE plus' Compatible			
Input	5 Non-voltage Contact Inputs(1 JU	DGE, 1 RESET, 3 Work-Select)			
Registrable Work Type Qty.	1 Type (more types possible with o	ptions*1)			
Main Features	Operation Modes (Stand-alone / Simple count / App-interiock) hole: When using the W400F-MCU/W400F-SCL by state select effert international one with the W400F-MCU/W400F-SCL by state select effert international the W400F-MCU/W400F-SCL by the W400F-SCL in combination with W400F-MCU/W400F-SCL by the W400F-SCL in combination with W400F-MCU/W400F-SCL by the W400F-SCL in combination with W400F-MCU/W400F-SCL by the W400F-SCL by the W400F-SCL Second Input (count valid only at sensor input) Sequence Immagatale order of tool usaget, W40F-Secution Reservation, History M40F-Kenable in app-interiock mode in W40F-Kenable in App-interiock m				
Available Countries	Japan / Canada / USA / China / Th	ailand / Vietnam / Philippines / India			
Buzzer	Piezo Buzzer 90dB (at 0.1 m (3.9*))				
External Dimensions (#18x0)	150 x 100 x 30 mm (5.9 x 3.9 x 1.2") (excluding protrusions)				
Weight	Approx. 290 g (10.2 oz)				
 Up to 8 work types can be registered by using the optional 'Input Cable for Work-select'. The registrable number of work types is unlimited by linking with 'POKAYOKE plus'. 					

Pokayoke Possible Anywhere (Battery-powered)

TW-800R-MCL operates with an input voltage of DC 5V. By connecting the TW-800R-MCL to a Makita battery via the USB(A)/DC Adapter Cable (DC-4017A) (included), you can use the TW-800R-MCL as battery-powered







Please contact your nearest distributor.

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Collection of Examples of Custom Developments POKAYOKE for the Pokayoke Tools (1/5)

ボカヨケ

Example 1: Grease Gun	Example 2: Cable Tie Tool	Example 3: Grease Pencil
		- MARK
[Background of the Request] In the manufacturing process of agricultural machinery manufacturer, there was a problem: "Grease gun was used, but grease was not injected into the required number of places" due to the difference in the number of grease injection points depending on the manufactured items, even though "Whether a grease gun was used" was obtained from the sensor, and pokayoke (mistake-proofing) was performed. [Product Summary] Without modifying the grease gun that the client had been using, we devised a way to detect when the trigger of the grease gun was pulled by installing a Pokayoke transmitter and using a small magnetic switch. Through these technical measures, we were able to achieve pokayoke (mistake-proofing) of the grease gun (and ensure the injection of grease into the required number of places).	[Background of the Request] We received the following request from an automobile parts manufacturer who bundles wire harnesses using a cable tie tool: "I want to perform pokayoke (mistake- proofing) of the cable tie tool because forgetting to tie INSULOK® (cable ties) has been discovered after shipping". [Product Summary] We attached a Pokayoke transmitter to the HellermannTyton cable tie tool MK9 that the customer was using, developed a mechanism to "send a wireless signal when detecting that the excess part of the cable tie has been cut after tying INSULOK®", and realized the pokayoke (mistake-proofing) of cable tie tool. In particular, we created a durable mechanism by adopting a method that did not directly impact the limit switch when detecting cutting.	[Background of the Request] We received a request from an automobile manufacturer saying, "We want to perform pokayoke (mistake-proofing) of the marking work by using a grease pencil (a mechanical colored pencil that can write on various materials, such as pottery, metal, glass, rubber, and plastic)". [Product Summary] Considering the characteristics of the grease pencil that the customer was using, we planned to realize the customer's request in a short period of time and at a low cost by newly developing the "barrel part" that matched the grease pencil while using the "main body unit" of the Check Pen S as it was. When designing the "barrel part" by considering both "the length to which the core of the grease pencil could be drawn out" and "the thickness that matched the grease pencil", we devised a way to support pokayoke (mistake-proofing) while maintaining the usability of the grease pencil.
XPlease contact our sales department for details.		422-1 Higashimikata-cho, Kita-ku, Hamamatsu, Shizuoka, 433-8104 Japan



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POKAYOKE for the Pokayoke Tools (2/5)

Example 4: Approval Stamp	Example 5: Electric Screwdriver	Example 6: LOCTITE® Hand Pump
	in the second	
[Background of the Request] From a fan product assembly factory, we received a request saying, "I want to add the pokayoke (mistake- proofing) function to a large approval stamp to prevent forgetting to press the stamp used at the factory". [Product Summary] Since the shape and mechanism of the large approval stamp were different from the pokayoke (mistake- proofing)-compatible approval stamps developed in the past, we developed a new mechanism to sense stamp operation by combining the movable part of the mechanism and a small limit switch. In addition, by attaching a Pokayoke transmitter to the side of large stamp, we ensured pokayoke without impairing the workability of the large stamp. With these design ideas, we made "counting with the Pokayoke receiver every time a large stamp was pressed down as before" possible.	[Background of the Request] In the production of products for our own factories, the following improvement proposal was submitted: "After fastening screws at 30 places with an electric screwdriver, we check the number of screws to be fastened in the next process to prevent omission of the screw fastening work. We want to remove this check process". [Product Summary] We attached our newly developed Pokayoke transmitter to the electric screwdriver used in our own production process and developed a mechanism in which "a 'fastening complete' signal is transmitted wirelessly when you fasten a screw with an electric screwdriver". As a result, since the Simple Pokayoke Counter will notify the completion of the work by sound when the electric screwdriver tightens the specified 30 times, workers will come to perform fastening work at 30 places, and the check process is no longer required.	[Background of the Request] We received a request from an industrial machine manufacturer saying, "In the assembly process of industrial machines, we manually apply the threadlocker to the frequently moving parts of the industrial machine, and we want to prevent omission of threadlocker application". [Product Summary] The LOCTITE® hand pump (threadlocker hand pump applicator) that the customer was using had the feature through which a fixed amount of threadlocker was applied by pulling the trigger "lightly". Moreover, the hand pump itself had the characteristic of being light in weight. By devising a design that took this characteristic into consideration when attaching our Pokayoke transmitter to the LOCTITE® hand pump application was maintained, and preventing the omission of thread-locking fluid application was realized.

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POKAYOKE for the Pokayoke Tools (3/5)

Example 7:	Example 8:	Example 9:	
TAT Stamp	E-Clip Holder	Torque Screwdriver	
[Background of the Request]	[Background of the Request]	[Background of the Request]	
We received a request from an automobile	From a multifunction device manufacturer, we	We received a request from a building materials	
manufacturer saying, "I want to prevent omission of	received a request saying, "We want to prevent	manufacturer saying, "I want the task count	
installation of special parts by matching the 'number of	omission of E-Clip fitting (E-shaped retaining clip) in	management (pokayoke) of screw tightening work not	
stampings on the metal part of the engine' and the	the assembly process of the paper feed device (tray	only for Makita rechargeable screwdrivers but also for	
'number of special parts dispensed' in a production	module) in a multifunction device".	manual torque screwdrivers in the production process".	
line (process) that produces multiple products".	[Product Summary]	[Product Summary]	
[Product Summary]	We realized a mechanism "transmitting a signal when	Compared to other tools, since the torque screwdriver	
Following a request from a customer requiring the	the E-clip is fitted" with the E-clip holder (a tool used	needed to detect the completion of work in a very	
application of a "TAT stamp" that could stamp on	for fitting the E-clip) that the customer was using to	short time, we devised a mechanism to accurately	
metal parts, we devised a mechanism to count the	prevent omission of the E-clip fitting work. To realize	detect the completion of torque screwdriver's	
number of times the TAT stamp was used. Upon	the mechanism, we devised a mechanism that could	tightening work by modifying the Pokayoke transmitter	
realizing the mechanism, we received another request	handle different E-clips by changing the "barrel part"	for the torque screwdriver. In addition, since the	
from the customer saying, "I want to be able to easily	according to the shape of the E-clip holder, since "the	customer had already installed our Pokayoke receiver	
Therefore, we designed a mechanism by referring to Check Pen S, thereby achieving both workability and ease of maintenance. %Please contact our sales department for details.	shape of the E-clip holder differs depending on the size of the E-clip to be handled", and applying the Check Pen S mechanism (composed of the "main body unit" and a "barrel part").	Attribute the same production line for task count management of screw fastening work, it was possible to introduce the task count management of a torque screwdriver on site in a short period of time by using the same receiver.	411

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Collection of Examples of Custom Developments POKAYOKE for the Pokayoke Tools (4/5)

Example 10: Spray Can	Example 11: Visual Check Process	Example 12: Calibration of Work Tools
[Background of the Request] We received a request from an automobile manufacturer saying, "We want to prevent omission of wax injection (rust preventive) with a spray can during the car body assembly process".	[Background of the Request] We received a request from an automobile manufacturer saying, "I want to prevent omission (pokayoke) of visual checks by workers as part of the visual inspection process of automotive glass marking".	[Background of the Request] From an automobile manufacturer who used a torque wrench to prevent omission (pokayoke) of fastening work in the assembly process, we received a request saying, "I want to create a mechanism to notify the time to calibrate to prevent omission of work tool calibration".
By attaching a commercially available spray can handle (a gun-shaped tool that sprays when the trigger is pulled) to the spray can used by the customer to inject wax into the car body, we realized a mechanism to count the number of times the trigger was pulled by combining our Pokayoke transmitter and the spray can handle. In considering the mechanism, assuming application to various spray cans used at manufacturing sites, we came up with an attachable mechanism without processing the main body of the spray can handle.	[Product Summary] In order to be able to confirm that the visual check of the glass marking was performed definitely, we developed a mechanism to "wirelessly transmit the work results when the glass marking was checked (contacted with the glass) with a pen that did not adhere ink". In developing the mechanism, we diverted the mechanism of the Check Pen S so that the pen could communicate with the TW-800 series Pokayoke receivers already in use at the customer's production site. Additionally, we came up with a structure that allowed the pen to be hung from the worker's neck so that visual check work could be performed easily.	[Product Summary] To realize the customer's request at a low cost and in a short period of time, by utilizing existing Pokayoke products (Pokayoke receivers and work tools, such as Pokayoke transmitter-equipped torque wrenches) that customers were using and by connecting a task count display device that managed calibration timing to the Pokayoke receiver, we realized a mechanism "possible to grasp whether the number of times the work tool has been fastened has reached the number of times for the required calibration".

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Collection of Examples of Custom Developments POKAYOKE for the Pokayoke Tools (5/5)

Example 13: Example 14: Example 15: **Connector Fitting Clip Fitting Feeler Gauge** [Background of the Request] [Background of the Request] [Background of the Request] We received a request from an automobile parts We received a request from a plastic manufacturer We received a request from an agricultural machinery manufacturer saying, "I want to prevent incomplete saying, "There is a production process in which clips manufacturer saying, "I want to prevent omission locking when fitting wire harness connectors". are fitted into molded plastic products using a hand (pokayoke) of clearance checks using feeler gauges in press machine, and I want to pokayoke (to prevent the assembly process of agricultural machinery". omission in fitting) the clip fitting work". [Product Summary] To meet the needs of our customer, we developed a [Product Summary] dedicated "connector fitting checker" tool to check [Product Summarv] To meet the needs of our customer, we developed a The hand press machine was equipped with a clip tool dedicated "clearance checker" tool that wirelessly whether the mutual connectors of wire harnesses used in the customer's production process were in a for fitting the clip, and by creating a mechanism of transmitted instances when the result of the clearance locked state. Additionally, by attaching a Pokayoke "wireless transmission at the time of the clip tool being check using the feeler gauge was OK. By creating a transmitter to the connector fitting checker, we pressed", we realized the task count management of mechanism through which "the feeler gauge is developed a mechanism to "wirelessly transmit the the clip fitting work. To realize this mechanism, which inserted into the clearance when you grasp the grip part of the clearance checker", it was possible to work results when it is confirmed that the mutual involves diverting the Check Pen S mechanism (a detect whether the clearance was within the standard. connectors are in a locked state". We also realized the combination of the main body unit and barrel part), we size that the connector fitting checker fits in one's developed a dedicated tool that could be attached to a Additionally, the feeler gauge had a replaceable hand so that confirmation work can be easily hand press machine by manufacturing a "barrel part" structure to accommodate gaps of different that matched the shape of the clip tool and by thicknesses. The clearance checker could performed. adjusting the spring of the "main body unit". communicate with the Pokayoke receiver used at the customer's production site.



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