



July, 2022

RESPIRATORY PROTECTIVE DEVICES



SINCE 1917
Safety Style



More Safety, More Comfortable

Easy Breathing

Breath Responsive PAPR provides purified air by fan responding to breath.

High Protection

Pressure inside the facepiece is kept positive to provide a higher safety.

Cost Effective

Even if airtightness breaks, the fan will keep running to lower the risk of breathing in particles.



Filter lasts longer than Reusable Respirator.

Switchless

ON Starts automatically when you breathe.

OFF Stops automatically in 5 seconds after doffing.

Cordless

There is no battery connection cable, which simplifies preparation when donning the mask and does not disturb your work. Have no concern of disconnection.

Filter Replacement and Battery Life Indicator

■ Sync28

LED flashes when it is time to replace the filter, and to inform the battery condition.



Indicator lights and flashes with 3 colours

Lighting Pattern	Indicator	State	Remaining Voltage
Battery Life Indicator	Blue light	Full charge	At least 8.0 V
	Purple light	-	7.9 - 7.4V
	Red light	Low charge	7.3 - 7.0V
	Red flashing	Low charge	Less than 6.9 V
Motor Lock	Red and Blue Alternately lights	The fan is locked.	
Filter Replacement Indicator	Blue flashing	Filter is clogged.	

■ SyncØ9, Sync11, SyncØ1

Filter Replacement Indicator

LED flashes when it is time to replace the filter.



SyncØ9



Sync11



SyncØ1

Battery Life Indicator

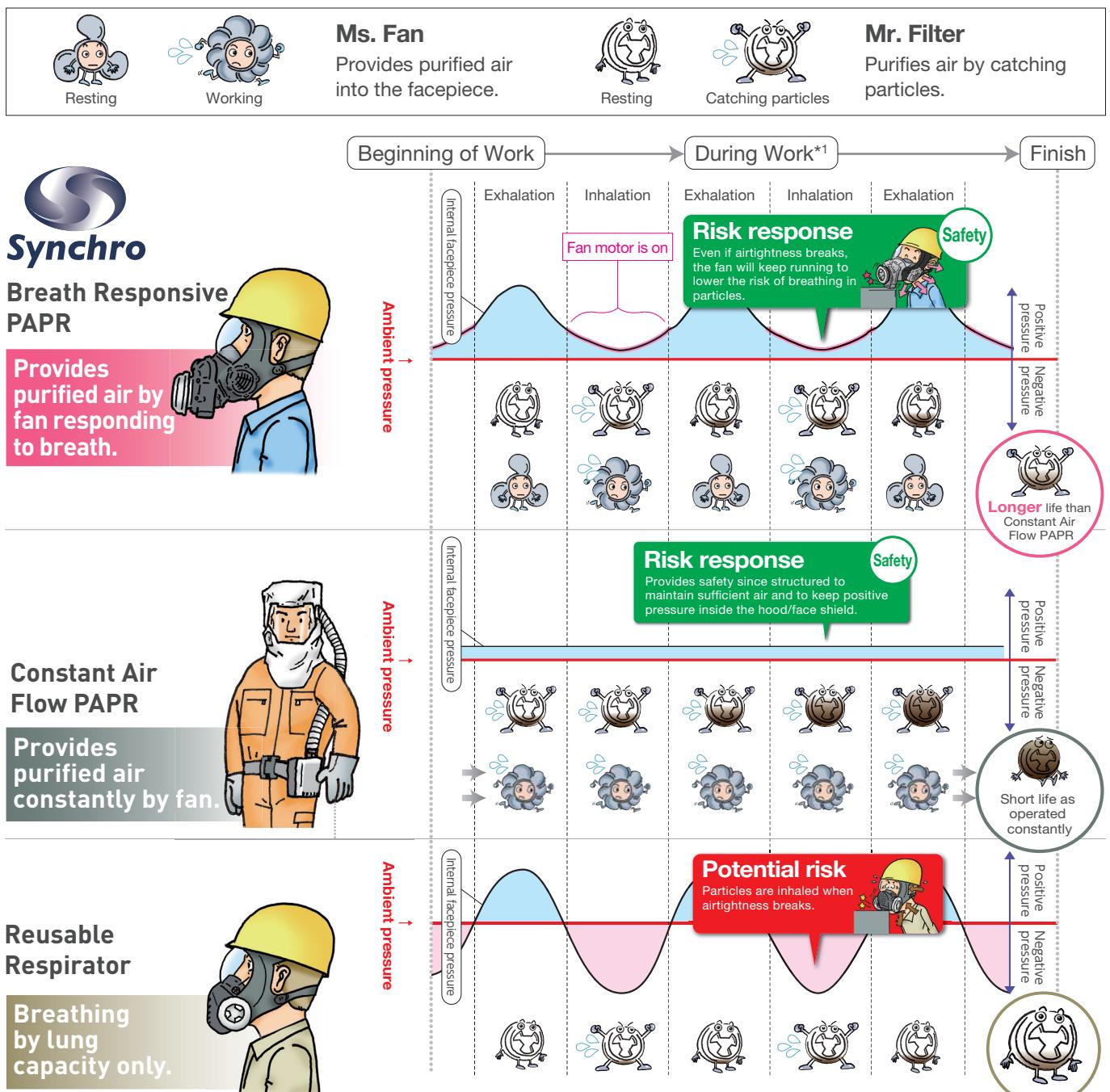
LED flashes to inform the battery condition.

Battery Life Indicator Patterns (2LEDs)	State	Remaining Voltage
■ ■	Full charge	At least 8.0 V
■ ■	-	7.9 - 7.4 V
■ ■	Low charge	7.3 - 7.0 V
□ ■	Low charge	Less than 6.9 V
■ □	Alternately lights	The fan is locked.

■ : Light ■ : Flashing □ : No light



Comparison with Breath Responsive PAPR "Synchro", Constant Air Flow PAPR, and Reusable Respirator



*1 The graph only illustrates pressure difference. PAPR may fail to keep positive pressure when heavily inhaled.

MNFT PRO



MNFT PRO gives the idea to understand the difference whether it is sealed or not. Leakage and pressure inside the mask is detected and visualised at the same time. MNFT PRO visualises that PAPR has higher protection performance than Reusable Respirator.

Product Name	Product Code	Packing Unit
MNFT PRO (Mask Inside Pressure & Fit Tester)	Please contact us	1 pc / box

Sync28 NEW

EN 12942 : 1998+A2 : 2008

AS/NZS 1716 : 2012

IEC 60529 : 2001 IP65 rated

Third Generation Slim PAPR Suitable for Welding

For Welding Application!



Slim Design preventing the contact from the Welding Shield.

4-point Head Harness



Syncro

Breath Responsive PAPR

Slim, Compact, and Excellent Lightweight 405g

Speech Diaphragm

Can Be Used with Reusable CA Series Particle and Gas Filters see Page 13

Picture shows starter kit "Sync28P3R" and combined filter "CA-A1" + "P3RC".

Estimated Operating Time

Product Name	P3R	A1	A2	ABEK1	A1P3RC	A2P3RC	ABEK1P3RC
Sync28	≥ 9.5 h	≥ 12.0 h	≥ 10.0 h	≥ 9.5 h	≥ 7.5 h	≥ 7.0 h	≥ 6.0 h

Order Information

Product Name	Product Code	Weight ¹	Packaging Unit
Sync28P3R	40480	≤ 405 g	1 pc / box

¹ Includes : Facepiece unit, Filter P3R and Battery

SyncØ9

EN 12942 : 1998+A2 : 2008

AS/NZS 1716 : 2012

IEC 60529 : 2001 IP65 rated

Second Generation PAPR with Extraordinary Wide View & Communication

Voice Amplifier
Possible to communicate clearly & safety
with using the battery.

Widest Polycarbonate 3D-curve Visor
(Inside: Anti-fog Coated
Outside: Anti-scratch Coated)

Anti-fog Coated



Anti-scratch Coated



Test Device
Test Condition:
Abrading 400
times using steel
wool with the
weight of 2,000 g.

Can Be Used with
VA1B2E2K1P3 Filter



Estimated Operating Time

Product Name	VP3	VA1P3	VABE1P3	VA1B2E2K1P3
SyncØ9	≥ 11.5 h	≥ 9.5 h	≥ 8.5 h	≥ 8.5 h

Order Information

Product Name	Size	Product Code	Weight ¹	Packaging Unit
SyncØ9VP3	M	40470	≤ 740 g	1 pc / box
	L	40471	≤ 745 g	

Picture shows starter kit "SyncØ9VP3"
and combined filter "VA1B2E2K1P3".



Please
remove
the fan unit
when washing
the facepiece.

¹ Includes : Facepiece, Fan unit, Filter VP3 and Battery

Sync 11

EN 12942 : 1998+A2 : 2008

AS/NZS 1716 : 2012

IEC 60529 : 2001 IP63 rated

**Second Generation PAPR
with Half Facepiece**



Synchro

Breath Responsive PAPR



Estimated Operating Time

Product Name	VP3	VA1P3	VABE1P3	VA1B2E2K1P3
Sync11	≥ 14.5 h	≥ 11.0 h	≥ 11.0 h	≥ 11.0 h

Picture shows starter kit "Sync11VP3" and combined filter "VA1B2E2K1P3".

Order Information

Product Name	Product Code	Weight ¹	Packaging Unit
Sync11VP3	40450	≤ 450 g	1 pc / box

¹ Includes : Facepiece unit, Filter VP3 and Battery

SyncØ1

EN 12942:1998+A2:2008

AS/NZS 1716: 2012

IEC 60529:2001 IP65 rated

**First Generation PAPR
Suitable for Asbestos**



Wide Polycarbonate 3D-curve Visor(Anti-scratch coated)
EN 166 1B

TPE Facepiece Lightweight 755g (M)

6-point Head Harness

Speech Diaphragm



Picture shows starter kit "SyncØ1VP3".

Estimated Operating Time

Product Name	VP3	VA1P3	VABE1P3
SyncØ1	≥ 9.0 h	≥ 8.0 h	≥ 7.5 h

Order Information

Product Name	Size	Product Code	Weight ¹	Packaging Unit
SyncØ1VP3	M L	40406 40407	≤ 755 g ≤ 770 g	1 pc / box

¹ Includes: Facepiece, Fan unit, Filter VP3 and Battery



Please
remove
the fan unit
when washing
the facepiece.

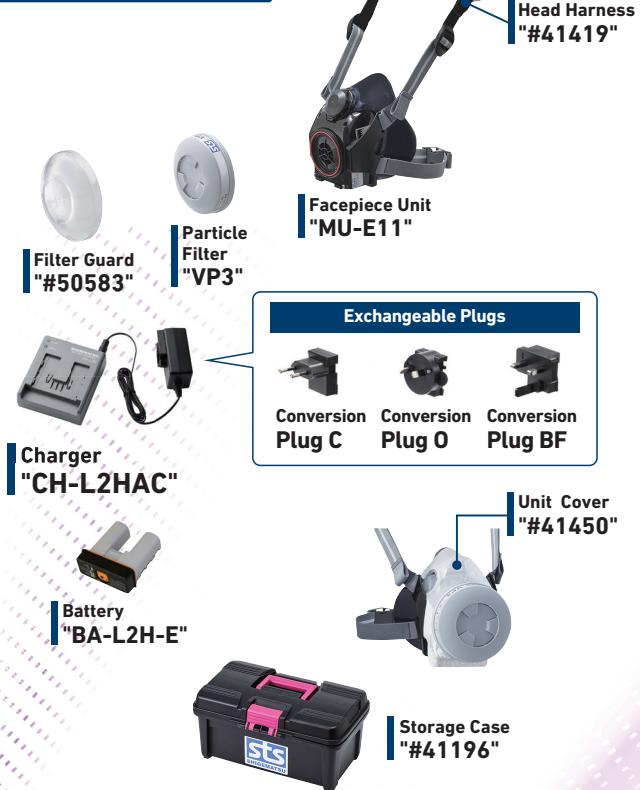
PAPR: Powered Air Purifying Respirator

Starter Kit

Sync 28P3R



Sync 11VP3



Sync Ø9VP3



Sync Ø1VP3



TS01 NEW

EN 140 : 1998
AS/NZS 1716 : 2012

**Stylish Half Mask
with Built-in Fit Checker**

Available in
Two Colours (BK / OR)



BK



Order Information

Product Name	Size	Product Code	Weight (Without filters)	Packaging Unit
TS01 (BK)	M	40161	≤ 115 g	1 pc / box
	L	40162		
TS01 (OR)	M	40163	≤ 115 g	1 pc / box
	L	40164		

Filters sold separately. For Compatible Filters see Page 13 For Spare Parts see Page 17 For Accessories see Page 18

RS01SD NEW

EN 140:1998
AS/NZS 1716:2012

RS01 Series
Premium Silicone Half Mask
with Speech Diaphragm



Order Information

Product Name	Size	Product Code	Weight (Without filters)	Packaging Unit
RS01SD	S	40165	≤ 165 g	1 pc / box
	M	40166		
	L	40167		

RS01S

EN 140 : 1998
AS/NZS 1716 : 2012

RS01 Series Premium Economy Silicone Half Mask



Order Information

Product Name	Size	Product Code	Weight (Without filters)	Packaging Unit
	S	40143		
RS01S	M	40144	≤ 140 g	1 pc / box
	L	40145		

RS01

EN 140 : 1998
AS/NZS 1716 : 2012

RS01 Series Economy TPE Half Mask



Ultimate Lightweight 105g!!

Lighter than 3 golf balls (App. 138g).
One of the lightest facepieces in the RPE market.
With particle filters P3R attached still weight only 150g.



Order Information

Product Name	Size	Product Code	Weight (Without filters)	Packaging Unit
	M	40131		
RS01	L	40132	≤ 105 g	1 pc / box

FS01

EN 136 : 1998 Class 2

AS/NZS 1716 : 2012

Premium Full Face Mask with Extraordinary Wide View



Designed to use with a Safety Helmet and Coveralls

TPE Facepiece Approved to EN 136:1998 Class 2 Lightweight 415g

Widest Polycarbonate 3D-curve Visor
(Inside: Anti-fog Coated
Outside: Anti-scratch Coated)
EN 166 1B

Anti-fog Coated



Coated Lens Uncoated Lens

Anti-scratch Coated



Coated Lens Uncoated Lens

Test Device
Test Condition:
Abrading 400 times
using steel wool
with the weight of 2,000 gf.

Speech Diaphragm



Durable NR 6-point Head Harness

Inner Mask with Easy Attachment

More Safety!

Twist Lock Connector



Filter Lock Application
(Only CP-P3R)

More Wide Vision!



Back Side of CP-P3R Filter

The off-set connector
supports the wide
vision (Only CP-P3R).

Order Information

Product Name	Size	Product Code	Weight (Without filters)	Packaging Unit
FS01	S	40155	≤ 415 g	1 pc / box
	M	40156		
	L	40157		

CF01

EN 136 : 1998 Class 1

AS/NZS 1716 : 2012

Economy Full Face Mask with Lightness



As it is designed to not contact the flat surface, the visor is less likely to be damaged.

TPE Facepiece Excellent Lightweight 360g!!

Lighter than a football (410-450g).
Almost half the weight of other full face masks.



Order Information

Product Name	Size	Product Code	Weight (Without filters)	Packaging Unit
CF01	S	40101	≤ 360 g	1 pc / box
	M	40102		
	L	40103		

Filter Type & Colour Code

Colour Filter Type

Colour	Filter Type	Application
Brown	A	Organic gases and vapours (boiling point > 65°C)
Grey	B	Inorganic gases and vapours
Yellow	E	Sulphur dioxide and other acidic gases and vapours
Green	K	Ammonia and organic ammonia derivatives
Brown	AX	Organic gases and vapours (boiling point ≤ 65°C)
White	P	Particles

Class Type of Particle Filters (Reusable Respirator)

Class	Filter Efficiency	Maximum Filter Penetration (%)
P1	Low	20
P2	Medium	6
P3	High	0.05

Class Type of Gas Filters (A, B, E and K*1)

Max. Permissible Concentration ²		
Class	Powered Air Purifying Respirator	Reusable Respirator
1	500 ppm (0.05 vol.%)	1,000 ppm (0.1 vol.%)
2	1,000 ppm (0.1 vol.%)	5,000 ppm (0.5 vol.%)
3	5,000 ppm (0.5 vol.%)	10,000 ppm (1.0 vol.%)

*1 AX filter is not classified.

*2 Modifications may be possible due to national regulations.

Classification of Complete Devices (PAPR)

Class	Classification of Complete Device			Power	Maximum Inward Leakage (%)	Maximum Particle Filter Penetration (%)
	Gas Filter Type and Class	Particle Filter	ON			
			OFF			
TM1	A1, 2 or 3 B1, 2 or 3		5	5	5	5
TM2	E1, 2 or 3 K1, 2 or 3	P	0.5	1	0.5	0.5
TM3	AX		0.05	0.1	0.05	0.05

Filter Application

RPD Series	PAPR V	Reusable Respirator CP Y	PAPR/Reusable Respirator CA	Reusable Respirator	
Type		Particle Filters	Combined Filter (+Gas Filter)	Particle Filter	
Product Name	VP3	CP-P3R	YP3R	P3R	
Standard	EN 12942:1998+A2:2008 AS/NZS 1716:2012		EN 143 : 2000+A1 : 2006 ² AS/NZS 1716 : 2012		
Product Code	40350	40360	40354	40302	
Dia. [mm]	96	77	97	77	
Height [mm]	28	26	40	+14.5 ⁴	
Weight [g]	≤32	≤27	≤45	≤22	
Packing Unit [pcs / box]	10	20	10	20	
Appearance					
Filter Type & Colour Code	TM3 P R SL ⁵	P3 R ⁶	P3 R ⁶	P3 R ⁶	
Compatible Masks	Sync11 SyncØ9 SyncØ1	FS01	TS01 RS01SD RS01S RS01 FS01 CF01	Sync28 RS01SD RS01S RS01 FS01 CF01	RS01SD RS01S RS01 FS01 CF01

*1 P3RC and P2RC particle filters can only be used when attaching to gas filters CA Series, and used as combined filters.

*2 Since Sync28 is a Powered Air Purifying Respirator, when attaching P3R filters to Sync28, the standard will be EN 12942:1998+A2:2008 and AS/NZS 1716:2012. When attaching P3RC, CA-A1, CA-A2 and CA-ABEK1 filters to Sync28, the standard will be EN 12942:1998+A2:2008.

*3 Exclude : SyncØ1VABE1P3.

*4 "+" shows the additional height when P3RC/P2RC is attached to each gas filters CA Series.



PAPR				Reusable Respirator	PAPR/Reusable Respirator				Reusable Respirator
V				Y	CA				
Combined Filters				Gas Filters					
VA1P3	VABE1P3	VA1B2E2K1P3	YABEK1P3R	CA-A1	CA-A2	CA-ABEK1	CA-K1	CA-AX	
EN 12942 : 1998+A2 : 2008 AS/NZS 1716 : 2012 ^{*3}		EN 12942 : 1998+A2 : 2008		EN 14387 : 2004+A1 : 2008 ^{*2} AS/NZS 1716 : 2012					
40250	40251	40253	40270	40201	40202	40203	40204	40225	
110	110	111	102	82	82	82	82	82	
62	65	66	67	24	34	34	34	44	
≤165	≤205	≤215	≤250	≤55	≤80	≤100	≤125	≤130	
20	20	20	30	20	20	20	20	20	
A1	A1	A1	A1	A1	A2	A1	K1	AX	
	B1	B2	B1			B1			
	E1	E2	E1	K1		E1	K1		
TM3 P R SL^{*5}	TM3 P R SL^{*5}	TM3 P R SL^{*5}	P3 R^{*6}						
Sync11 Sync09 Sync01	Sync11 Sync09	TS01 FS01 CF01	Sync28 RS01SD RS01S RS01 FS01 CF01	RS01SD RS01S RS01 FS01 CF01					

*5 R :If the particle filter part of the combined filter is re-usable.

SL :For use against solid and water based, and all other particles.

*6 R :If the filter is re-usable respectively.

NR:If the filter is limited to single shift use only.

When attaching **P3RC** or **P2RC** particle filters to gas filter **CA-AX**, since **AX** filter is only for single use, the filter type of **P3RC** or **P2RC** will be P3 NR or P2 NR.

*7 Since **Sync28** is a Powered Air Purifying Respirator, when attaching **P3R** or **P3RC** particle filters to **Sync28**, the classification will be TM3 P R SL.

Compatible Mask	Product Name	Product Code	Packing Unit
Sync28P3R	Facepiece Unit "MU-E28"	40495	1 pc / pack
	Spring-loaded Exhalation Valve	41383	5 pcs / pack
	Exhalation Valve Cover	41478	5 pcs / pack
	Inhalation Valve	50132	5 pcs / pack
	Gasket	50418	10 pcs / pack
	Head Harness	41424	5 pcs / pack
	Inner Sponge	50970	10 pcs / pack
	Filter Guard "#50582"	50582	1 pc / pack
	Speech Diaphragm Guard "#50990"	50990	1 pc / pack
	Unit Cover "#41451"	41451	10 pcs / pack
	Diaphragm Filter A	50950	5 pcs / pack
	Diaphragm Filter B	50951	5 pcs / pack
	Diaphragm Cover	41459	5 pcs / pack
	Battery "BA-L2-E"	41750	10 pcs / pack
	Charger "CH-L2AC"	41760	1 pc / pack
	Storage Case "#41196"	41196	1 pc / pack
Sync09VP3	Facepiece "FP-E09" (Includes:Inner Mask and Head Harness)	M L	41736 41737
	Facepiece "FP-E09" (Excludes:Inner Mask and Head Harness)	M L	40504 40505
	Fan Unit "FU-E09"		41738
	Spring-loaded Exhalation Valve		41380
	Exhalation Valve Cover		41475
	Inhalation Valve		03127
	Inner Mask Valve		50122
	Inner Mask		50623
	Drain Valve		41290
	Head Harness		41420
	Gasket Fan Unit-Facepiece		03123
	Gasket Filter-Fan Unit		41482
	Guarding Sponge "#50980"		50980
	Battery Lock Lever & Flat Spring		41795
	Filter Guard "#50583"		50583
	Unit Cover G		32077
	Speech Diaphragm Cover "#03058"		03058
	Visor Protection Cover Type FS		02662
	Battery "BA-L2H-E"		41735
	Charger "CH-L2HAC"		41734
	Storage Case "#41194"		41194



Compatible Mask	Product Name	Product Code	Packing Unit
Sync11VP3	Facepiece Unit "MU-E11"	40490	1 pc / pack
	Spring-loaded Exhalation Valve	41380	5 pcs / pack
	Exhalation Valve Cover	41475	5 pcs / pack
	Inhalation Valve	50123	5 pcs / pack
	Gasket	41482	10 pcs / pack
	Head Harness	41419	5 pcs / pack
	Inner Sponge	03117	10 pcs / pack
	Battery Lock Lever & Flat Spring	41795	10 pcs / pack
	Filter Guard "#50583"	50583	1 pc / pack
	Unit Cover "#41450"	41450	10 pcs / pack
	Battery "BA-L2H-E"	41735	10 pcs / pack
	Charger "CH-L2HAC"	41734	1 pc / pack
	Storage Case "#41196"	41196	1 pc / pack
SyncØ1VP3	Facepiece "FP-E01" (Includes:Inner Mask and Head Harness)	M L	41731 41732
	Facepiece (Excludes:Inner Mask and Head Harness)	M L	40500 40501
	Fan Unit "FU-E01"		41730
	Exhalation Valve		50000
	Exhalation Valve Cover		41474
	Inhalation Valve		03127
	Inner Mask Valve		50122
	Inner Mask		41114
	Drain Valve		50008
	Head Harness		41401
	Gasket Fan Unit-Facepiece		03123
	Gasket Filter-Fan Unit		41482
	Guarding Sponge "#03124"		03124
	Battery Lock Lever & Flat Spring		41795
	Filter Guard "#50583"		50583
	Unit Cover G		32077
	Speech Diaphragm Cover "#03058"		03058
	Visor Protection Cover Type CF		02659
	Airflow Tester "FM-6"		04478
	Battery "BA-L2H-E"		41735
	Charger "CH-L2HAC"		41734
	Storage Case "#41196"		41194



Compatible Mask	Product Name	Product Code	Packing Unit
TS01 	Exhalation Valve	50010	5 pcs / pack
	Exhalation Valve Cover(BK/OR)	41477 / 41479	1 pc / pack
	Inhalation Valve	50128	5 pcs / pack
	Head Harness(BK/OR)	41426 / 41427	5 pcs / pack
	Gasket	50418	10 pcs / pack
RS01SD 	Exhalation Valve	50010	5 pcs / pack
	Inhalation Valve	50127	5 pcs / pack
	Head Harness (Includes:Exhalation Valve Cover)	41413	5 pcs / pack
	Gasket	50418	10 pcs / pack
RS01S 	Exhalation Valve	50000	5 pcs / pack
	Inhalation Valve	50127	5 pcs / pack
	Head Harness	50363	5 pcs / pack
	Gasket	50418	10 pcs / pack
RS01 	Exhalation Valve	50000	5 pcs / pack
	Inhalation Valve	50121	5 pcs / pack
	Head Harness	41414	5 pcs / pack
	Gasket	50418	10 pcs / pack
FS01 	Exhalation Valve	50000	5 pcs / pack
	Inhalation Valve	50127	5 pcs / pack
	Inner Mask Valve	50130	5 pcs / pack
	Inner Mask	S	1 pc / pack
		M	1 pc / pack
		L	1 pc / pack
	Head Harness	41423	1 pc / pack
	Gasket	50426	10 pcs / pack
CF01 	Exhalation Valve	50000	5 pcs / pack
	Inhalation Valve	50121	5 pcs / pack
	Inner Mask Valve	50122	5 pcs / pack
	Inner Mask	S	1 pc / pack
		M	1 pc / pack
		L	1 pc / pack
	Head Harness	41401	1 pc / pack
	Gasket	50418	10 pcs / pack

Accessories

Compatible Mask	Product Name	Product Code	Packing Unit																									
SyncØ9, SyncØ1 FS01, CF01	Corrective Glasses Lens Frame "GG-CS" *1		07502	1 pc / pack																								
SyncØ9, SyncØ1 FS01, CF01	Corrective Glasses "CG1"	 <table border="1"> <tr><td>-1.50</td><td>07521</td></tr> <tr><td>-2.00</td><td>07522</td></tr> <tr><td>-2.50</td><td>07523</td></tr> <tr><td>-3.00</td><td>07524</td></tr> <tr><td>-3.50</td><td>07525</td></tr> <tr><td>-4.00</td><td>07526</td></tr> <tr><td>-4.50</td><td>07527</td></tr> <tr><td>-5.00</td><td>07528</td></tr> <tr><td>-5.50</td><td>07529</td></tr> <tr><td>-6.00</td><td>07530</td></tr> <tr><td>-7.00</td><td>07531</td></tr> <tr><td>-8.00</td><td>07532</td></tr> </table>	-1.50	07521	-2.00	07522	-2.50	07523	-3.00	07524	-3.50	07525	-4.00	07526	-4.50	07527	-5.00	07528	-5.50	07529	-6.00	07530	-7.00	07531	-8.00	07532	07521 07522 07523 07524 07525 07526 07527 07528 07529 07530 07531 07532	1 pc / box
-1.50	07521																											
-2.00	07522																											
-2.50	07523																											
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-5.50	07529																											
-6.00	07530																											
-7.00	07531																											
-8.00	07532																											
SyncØ9 FS01	Visor Protection Cover		02662	5 pcs / pack																								
SyncØ1 CF01			02659	5 pcs / pack																								
Particle and Combined Filters (V and Y Series)	R18		13001	1 pc / pack																								
Particle and Combined Filters (CP and CA Series)	Fit Checker		02865	1 pc / pack																								
Gas Filters (CA Series)	R10		02860	1 pc / pack																								
Sync28	FM-9		04461	1 pc / pack																								
Sync11 SyncØ9, SyncØ1	Airflow Tester		04478	1 pc / pack																								
Sync11 SyncØ9, SyncØ1	Fit Test Adaptor *2		41551	1 pc / pack																								
TS01, RS01SD RS01S, RS01, FS01, CF01			41550	1 pc / pack																								

*1 Lenses are not included.

*2 Fit test adaptor for **Sync28** is under development.



[STS Company Introduction](#)



[Synchro Series Promotion](#)



● Specifications are subject to change without notice.

● The actual colour may vary from those shown.



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