



USED ON  
**HAULOTTE**

# USED ON HAULOTTE



JOYSTICKS & CONTROL BOXES

## ELECTRONIC JOYSTICKS



Dual-axis

Used on HA16SPX, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA26PX, HA20PX, HA32PX, HA260PX, HA12CJ, H21TX, HA16X

**REF [138TA7019](#)**



Dual-axis

Used on H21T, HA20P, HA16P, HA18P, HA26P, H16TPX, H23T, H25TP

**REF [138TA7025](#)**



Single-axis

Used on HA18PXNT, HA16PXNT

**REF [138TA7024](#)**



Single-axis

Used on HA16SPX, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA26PX, HA20PX, HA32PX, HA260PX, H21TX, HA16X

**REF [138TA7020](#)**



Single-axis

Used on HA16SPX, HA15X, HA26PX, HA20PX, HA32PX, HA260PX, HA12CJ, H21TX, HA16PX, HA16X

**REF [138TA7021](#)**



Single-axis

Used on COMPACT8DX, H12SD, HA12PX, HA15D, HA20P, HA16P, HA18P, HA26P, H16TPX, H18DX, COMPACT12DX, H12SX, H15SD, COMPACT10DX, H23T, H25TP, H15SX, H18SX

**REF [127TA2400](#)**



Single-axis

Used on HA16PX, HA18PX

**REF [138TA7028](#)**



Single-axis

Used on COMPACT8, COMPACT10N, COMPACT14

**REF [138TA7017](#)**



Single-axis

Used on OPTIMUM8, COMPACT10

**REF [160TA4928](#)**



Dual-axis

**REF [145TA8760](#)**

**Depends on type and serial n°, for more info contact your sales advisor**

# USED ON HAULOTTE



## ELECTRONIC JOYSTICKS

JOYSTICKS & CONTROL BOXES



Single-axis

**REF 138TA7027**

Depends on type and serial n°, for more info contact your sales advisor



Dual-axis

**REF 138TA7018**

Depends on type and serial n°, for more info contact your sales advisor



Single-axis

Used on H43TPX, HA41PX-NT

**REF 160TA3841**



Single-axis

Used on STAR 8, STAR 10

**REF 127TA2372**



Single-axis

Used on STAR 8

**REF 145TA3090**



Only handle

Used on H43TPX

**REF 160TA3465**



Single-axis

Used on H960E

**REF 138TA7022**



Dual-axis

Used on HA20P

**REF 138TA7023**



Single-axis

Used on HA16D, HA16DX, HA16DX 4x4

**REF 127TA2422**



Dual-axis

Used on HA12I, HA15I

**REF 138TA7026**



# USED ON HAULOTTE



JOYSTICKS & CONTROL BOXES

## ELECTRONIC JOYSTICKS



Dual-axis  
Used on HM8P, HM10P  
**REF [127TA2399](#)**



Single-axis  
Used on HA16SPX, HA18PX, HA18SPX, HA46S, HA51S, HA51SJRT  
**REF [160TA3129](#)**



Single-axis  
Used on H43TPX, HB135JRT  
**REF [160TA3576](#)**



Dual-axis  
Used on H41/130RTJ PRO, HA32RTJ PRO-HA100RT, HA16RTJ/HA46RTJ PRO, HT21/61RT-HT23/67RTJ  
**REF [160TA3625](#)**

## CONTROL BOXES



Upper control box  
Used on HA16SPX  
**REF [160TA3339](#)**



Upper control box without overload indication  
**REF [138TA7044](#)**  
**Depends on type and serial n°, for more info contact your sales advisor**



Upper control box  
**REF [138TA7045](#)**  
**Depends on type and serial n°, for more info contact your sales advisor**



Upper control box  
Used on HA20PX, HA260PX, HA61J, HA80J, HA80JRT  
**REF [160TA3586](#)**



Upper control box without overload indication  
Used on OPTIMUM-series, COMPACT-series  
**REF [138TA7041](#)**



Upper control box  
Used on OPTIMUM6, OPTIMUM8, COMPACT8, COMPACT10, COMPACT12  
**REF [138TA7042](#)**

# USED ON HAULOTTE



JOYSTICKS & CONTROL BOXES

## CONTROL BOXES



Upper control box  
Used on STAR-6, STAR-13  
**REF [165TA3955](#)**



Upper control box  
**REF [138TA7040](#)**  
Depends on type and serial n°, for more info contact your sales advisor



Upper control box  
Used on H12SX(L), HS5388RT(XL)  
**REF [138TA7043](#)**



Upper control box  
Used on COMPACT12DX  
**REF [160TA3605](#)**

## ELECTRICITY CLOSETS AND BOXES



- Length: 327 mm
- Width: 235 mm
- Height: 134 mm

Used on COMPACT12, COMPACT8, COMPACT8W, COMPACT10, OPTIMUM8, COMPACT10N, OPTIMUM6, COMPACT10RTE, COMPACT12EN 280  
**REF [160TA4015](#)**



- Length: 410 mm
- Width: 210 mm

Used on HA16P, HA18P  
**REF [160TA3348](#)**



- Length: 110 mm
- Width: 180 mm
- Height: 255 mm

Used on HA12IP, HA15IP, HA33JE  
**REF [160TA3530](#)**



- Length: 401 mm
- Width: 200 mm
- Height: 111 mm

Used on HA16PX, HA18PX, HA46J, HA51J, HA16SPX, HA18SPX, HA46S, HA51S, HA46JRT, HA51JRT  
**REF [160TA3433](#)**

# USED ON HAULOTTE



CONTROLLERS & PRINTED CIRCUIT BOARDS

## MOTOR CONTROLLERS



- Variable speed unit
- Dimensions: 146 x 146 x 100 mm

Used on HA12IP, HA33JE

**REF 138TA7055**



- Variable speed unit
- Dimensions: 152 x 152 x 63 mm

Used on LPE/LPMSTAR6P, STAR6

**REF 138TA7056**



- Variable speed unit
- Dimensions: 140 x 140 x 100 mm

Used on HA12IP, HA33JE, HA15IP

**REF 138TA7059**



- Variable speed unit
- Dimensions: 145 x 145 x 105 mm

Used on HA12IP

**REF 160TA2748**



- Variable speed unit
- Dimensions: 140 x 142 x 100 mm

Used on HA12IP

**REF 160TA3918**



- Variable speed unit
- Dimensions: 245 x 128 mm

Used on HA12CJ(+)/32CJ(+)/33CJ(+)

**REF 160TA1627**



- Variable speed unit
- Dimensions: 257 x 140 x 63 mm

Used on HM10P, HM8

**REF 138TA7063**



- Variable speed unit
- Dimensions: 247 x 127 x 110 mm

Used on COMPACT12EN 280, COMPACT8W, COMPACT2247E, COMPACT10RTE, COMPACT26668L, COMPACT10N, COMPACT2632E, COMPACT10, COMPACT2747E, COMPACT12, COMPACT3347E, COMPACT8W

**REF 138TA7065**

# USED ON HAULOTTE



## MOTOR CONTROLLERS

CONTROLLERS & PRINTED CIRCUIT BOARDS



- Variable speed unit
- Dimensions: 247 x 127 x 93 mm

Used on STAR10

**REF [160TA3902](#)**



- Variable speed unit
- Dimensions: 248 x 127 x 79 mm

Used on COMPACT8, COMPACT12, COMPACT10RTE, COMPACT10N, COMPACT10, OPTIMUM6, OPTIMUM8, COMPACT8W, COMPACT12EN 280

**REF [138TA7064](#)**



- Variable speed unit
- Dimensions: 250 x 128 x 80 mm

Used on STAR9, STAR12, STAR11

**REF [138TA7054](#)**



- Variable speed unit
- Dimensions: 250 x 128 x 93 mm

Used on STAR8, STAR10

**REF [138TA7057](#)**



- Variable speed unit
- Dimensions: 250 x 130 x 94 mm

Used on STAR10

**REF [138TA7060](#)**



- Variable speed unit
- Dimensions: 80 x 130 x 247 mm

Used on STAR 8

**REF [160TA3920](#)**



- Variable speed unit
- Dimensions: 265 x 140 x 63 mm

Used on HA12I, HA15I

**REF [138TA7053](#)**



Dimensions: 290 x 140 x 62 mm

**REF [160TA2535](#)**



# USED ON HAULOTTE



CONTROLLERS & PRINTED CIRCUIT BOARDS

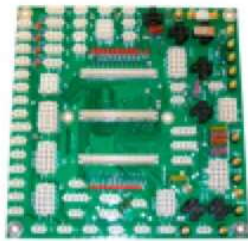
## PRINTED CIRCUIT BOARDS



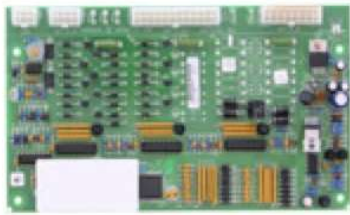
Card



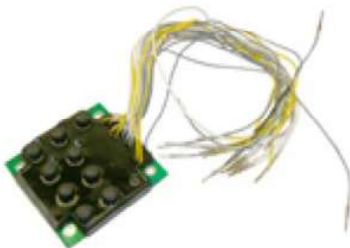
Lower console serial card



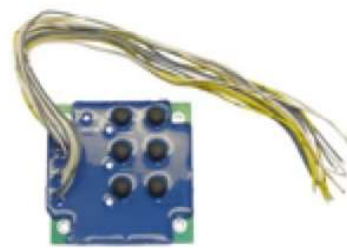
Mother board



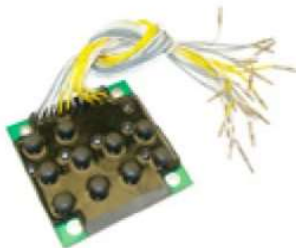
Push button card



Push button card



Push button card



Push button card



Push button card



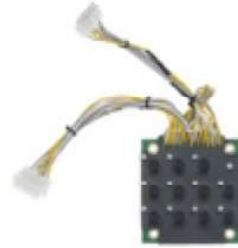
# USED ON HAULOTTE



## PRINTED CIRCUIT BOARDS



Push button card



Switch



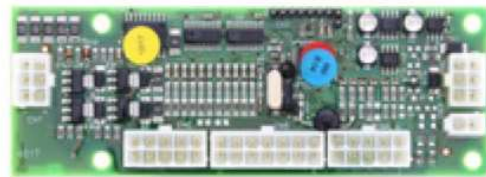
Tachy interface plate



Weighing card



Zapi serial card



Electronic module

Used on HA15IP, HA43JE, HA12IP, HA33JE, HA15IP



Frequency module

Used on H12SX(L), HS5388RT(XL)



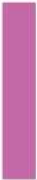
Ramp generator

Used on HA16PX, HA18PX, HA16DX, HA20P, HA16D 4X4, HA16D

**Although these electronic cards may resemble the one fitted on your mobile elevating work platform there can be a big difference. Therefore we always ask you to supply us with part number or full vehicle details before ordering a similar unit.**

**This is just a small selection of our electronic boards. For all other types, please feel free to call us!**

CONTROLLERS & PRINTED CIRCUIT BOARDS



## USED ON HAULOTTE



ELECTRICAL PARTS

DASHBOARD WARNING LIGHTS						
	Length mm	Built-in diameter mm	Outer diameter mm	Colour	Used on	REF
	29,5	17	29,4	Red	SKYJACK SJ9250, SJ8831, SJ6826	<a href="#">138TA7164</a>
	57,3	16	18	Red	H12SD, H18DX, H15SD, COMPACT10N, HA20PX, COMPACT12DX	<a href="#">138TA7157</a>
	31	21,4	28,5	Red		<a href="#">138TA7165</a>
	31	21,4	28,5	Green		<a href="#">138TA7163</a>
	53,4	21,6	28,4	Red	STAR10, STAR 8	<a href="#">138TA7156</a>
	50	22	30	Red	HA12IP, HA15IP	<a href="#">138TA7159</a>
	50	22	30	Red	COMPACT10/12D/3368RT, HA16DX, HA16D, H25TP, H25TPX, H12SD(X/E), H15SD(X/E), H18SDX, COMPACT10DX	<a href="#">138TA7155</a>

## USED ON HAULOTTE



DASHBOARD WARNING LIGHTS						
	Length mm	Built-in diameter mm	Outer diameter mm	Colour	Used on	REF
	54,2	21,5	28,5	Red	HA16SPX, HA12PX, HA15D, HA15X, HA16PX, HA18PX, HA18PXN, HA16PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, COMPACT12DX, H12SX, COMPACT8DX, COMPACT10DX, HA32PX, HA260PX, H15SX, H18SX, H43TPX, H21TX, HA16X, HA41PX-NT	<a href="#">138TA7158</a>
	35	10	12,5	Green	COMPACT10, COMPACT8W, COMPACT8, COMPACT12	<a href="#">160TA3745</a>
	55	22	30	Green	HA16SPX, HA15I, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, HA32PX, HA260PX, H21TX, HA16X	<a href="#">138TA7161</a>
	57	16	18	Green	H125D, H18DX, H155D, COMPACT8, COMPACT10, COMPACT8W, COMPACT12, COMPACT12DX, COMPACT10N, OPTIMUM8, COMPACT10RTE, OPTIMUM6, COMPACT12EN 280, COMPACT10DX	<a href="#">127TA2392</a>
	49,6	22	30	Green	HA12I, HA15D, H21T, HA16DX, HA20P, H23T, H25TP, H960E, HA16D 4X4, HA16D	<a href="#">138TA7160</a>
	54,5	22	28,4	Yellow	HA12PX, HA32PX, HA260PX, COMPACT10DX, H43TPX, H21TX, HA20PX, HA41PX-NT	<a href="#">160TA3992</a>

ELECTRICAL PARTS



## USED ON HAULOTTE



ELECTRICAL PARTS

## PUSH BUTTONS



- Diameter: 29,8 mm
- Length: 29,8 mm
- Button colour: green

REF [138TA7149](#)

- Diameter: 27,8 mm
- Length: 26,5 mm
- Button colour: black

REF [138TA7150](#)

## COMPLETE PUSH BUTTONS



- Diameter: 31 mm
- Button colour: green

Used on LPE/LAMSTAR6P,  
STAR6, STAR8(22J),  
STAR10(26J), HA15I, HA43E,  
STAR10, STAR8, STAR12

REF [138TA7146](#)

- Diameter: 22 mm
- Button colour: black

Used on HA16DX, HA20P,  
HA16D 4X4, HA16D

REF [138TA7147](#)

- Diameter: 22 mm
- Button colour: green

Used on STAR8(22J),  
STAR10(26J), STAR10, STAR8,  
STAR12, STAR11

REF [138TA7148](#)

## USED ON HAULOTTE



## BUZZERS/BACK-UP ALARMS

ELECTRICAL PARTS



- Voltage: 12 V
- Volume: 102 dB
- Dimensions: 101,5 x 41,3 x 69 mm

Used on HA15D/HA15DX

REF [145TA1902](#)

CE/SAE approved



- Voltage: 12-24 V
- Volume: 97 dB
- Dimensions: 101,3 x 41 x 70 mm

Used on H12SD, HA12PX, HA15I, HA15D, H21T, HA15X, HA18PXNT, HA16PXNT, HA20P, HA16P, HA18P, HA26P, H16TPX, H18DX, COMPACT12DX, H12SX, H15SD, COMPACT8DX, COMPACT10DX, H23T, H25TP, HA12I, HA12IP, HA260PX, HA15IP, HM10P, HM8, H15SX, H18SX, HA12CJ, HA16X, H43TPX, HA16PX

REF [138TA7504](#)

CE/SAE approved



- Voltage: 6-28 V
- Volume: 80 dB
- Dimensions: 42 x Ø 43 mm
- Built-in diameter: 28 mm

Used on HA12IP, HA16X

REF [138TA7503](#)

- Voltage: 6-30 V
- Volume: 97 dB
- Dimensions: 101,5 x 41,3 x 69,4 mm

Used on HA16SPX, HM8, HA12I, HA12PX, HA15I, HA15D, H21T, HA15X, HA16PX, HA18PX, HA20P, HA16P, HA16DX, HA18P, HA26PX, HA20PX, HA26P, H16TPX, H23T, H25TP, STAR6, HA12IP, HA32PX, HM10P, H960E, HA16D 4X4, HA16D, H21TX S

REF [144TA6026](#)

CE/SAE approved



- Voltage: 6-28 V
- Volume: 90 dB
- Dimensions: 41,6 x Ø 43 mm
- Built-in diameter: 27 mm

Used on HM8, HM10P, HA16RTJ, HA46RTJP, HA12IP, HA33JE, HA41/130RTJPRO, HA32RTJPRO-HA100RT, STAR8/22J/10/26J, HA32RTJPRO, HA100RT, STAR6, STAR13, HT21/61RT, HT23/67RTJ, HA16D, HA16DX, HA12I, HA15I

REF [163TA8458](#)

# USED ON HAULOTTE



ELECTRICAL PARTS

## HORNS



- Volume: 105 dB
- Voltage: 12 V
- Type of mounting: straight bracket
- Diameter: 90 mm

Used on HA16RTJ, HA46RTJP, HA120PX, COMPACT10-12/2668-336, HA41/130RTJPRO, HA32RTJPRO, HA100RT, HA16RTJ, HA20RTJ, HA20RTJP, HA120PX, MJW970, MJX990, PJX950

**REF 127TA2373**

**E-approved**



- Volume: 105 dB
- Voltage: 24 V
- Type of mounting: straight bracket
- Diameter: 90 mm

Used on HA15IP, HA43JE, HA12JP, HA33JE, COMPACT8W/2047E/12/3, COMPACT8/10N/2032E/26, COMPACT10/2747E, STAR8/22J/10/26J, STAR6, STAR13, COMPACT10, HA16DX, HA16D, STAR10, COMPACT8, COMPACT8W, HA12I

**REF 138TA7505**

**E-approved**

## CABLE GLANDS



- Length: 41 mm
- Diameter: 23,3 mm

Used on COMPACT8, COMPACT10, COMPACT14

**REF 160TA3819**



- Length: 52,7 mm
- Diameter: 29,8 mm

Used on COMPACT8, COMPACT10N

**REF 138TA7205**



- Length: 51,6 mm
- Diameter: 44 mm

Used on HA12PX, HA18PXNT, HA16PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, HA32PX, HA16SPX, HA16X

**REF 138TA7206**



# USED ON HAULOTTE



ELECTRICAL PARTS

CABLE LOOMS						
	Cable type mm <sup>2</sup>	Type of loom	Total length mm	Number of plugs	Used on	REF
	< 6	Multiple cables	3730	1	HA18PX, HA51JSRT, H14TX, H16TPX, HB40-4, HA16/18PX, HA46/51J, HA20/260PX, HA61/80J, H21TX/23/25TPX/HB62/68, HA21TX/23/25TPX/HB62/62	<a href="#">127TA2436</a>
	< 6	Multiple cables	7100	1	OPTIMUM6	<a href="#">160TA2339</a>
	< 6	Multiple cables	8030	1	OPTIMUM8	<a href="#">160TA3911</a>
	< 6	Multiple cables	8830	1	COMPACT8	<a href="#">160TA3967</a>
	< 6	Multiple cables	13 430	1	COMPACT12, COMPACT12EN 280	<a href="#">138TA7196</a>
	< 6	Multiple cables	600	2	COMPACT8W/2047E/12/3, COMPACT8/10N2032E/26, COMPACT10/2747E, COMPACT10, COMPACT14, COMPACT3	<a href="#">160TA3881</a>
	< 6	Multiple cables	20 550	2	HA16P	<a href="#">160TA1240</a>

## USED ON HAULOTTE



ELECTRICAL PARTS

CABLE LOOMS						
	Cable type mm <sup>2</sup>	Type of loom	Total length mm	Number of plugs	Used on	REF
	< 6	Multiple cables	32 000	3	HA260PX	<a href="#">138TA7195</a>
	< 6	Multiple cables	20 300	4	HA16PX, HA18PX, HA16PXNT, HA16SPX	<a href="#">160TA3351</a>
	< 6	Multiple cables	20 870	4	HA18PX, HA16/18PX, HA51SJRT, HA51SJRT, HA46/51J, HA46/51S, HA18PXN, HA51JRT, HA16PX/HA46JRT	<a href="#">160TA1808</a>
	< 6	Multiple cables	5800	5	STAR 8	<a href="#">160TA1531</a>
	< 6	Multiple cables	32 000	5	HA260PX	<a href="#">138TA7194</a>
	< 6	Multiple cables	5600	6	STAR10	<a href="#">160TA3342</a>
	< 6	Multiple cables	19 500	7	HA16PX, HA18PX, HA16SPX, HA18SPX, HA46S, HA51S, HA46J, HA51J, HA16PXNT, HA46JRT	<a href="#">160TA3215</a>

# USED ON HAULOTTE



ELECTRICAL PARTS

CABLE LOOMS						
	Cable type mm <sup>2</sup>	Type of loom	Total length mm	Number of plugs	Used on	REF
	< 6	Multiple cables	20 800	7	HA18PXNT, HA16PX, HA16SPX	<a href="#">160TA1755</a>
	< 6	Multiple cables	20 360	11	H12S, H15S, H18S	<a href="#">138TA7191</a>
	< 6	Multiple cables	24 300	11	H12S, H15S, H18S	<a href="#">138TA7197</a>
	< 6	Multiple cables	27 500	11	H12S, H15S, H18S	<a href="#">160TA3207</a>
	< 6	Multiple cables	2370	29	OPTIMUM6, OPTIMUM8	<a href="#">160TA3324</a>

### ELECTRIC WIRING



- Number of wires: 30
- Colour external wire: black
- Wire section: 1 mm<sup>2</sup>

Used on HA12I, H25TP, H25TPX, H23(X/P/PX), HA26PX, HA80JRT, HA26P, HA61JRT, H21T, H21TX

**REF [138TA7200](#)**



# USED ON HAULOTTE



ELECTRICAL PARTS

## CONVERTERS



- Minimum voltage: 48 V
- Type of voltage: DC
- Outgoing voltage: 24 V
- Number of terminals: 4

Used on HA15IP

**REF [160TA3304](#)**



- Minimum voltage: 48 V
- Type of voltage: DC
- Outgoing voltage: 28 V
- Current: 10,7 A
- Number of terminals: 4

Used on HA12I, HA15I

**REF [160TA3851](#)**



- Minimum voltage: 48 V
- Type of voltage: DC
- Outgoing voltage: 28 V
- Current: 7,1 A
- Number of terminals: 4

Used on HA15I

**REF [160TA1821](#)**

## COMPLETE CONTACTORS

	Voltage V	Maximum current interrupted A	Maximum current uninterrupted A	Magnetic blowouts	Used on	REF
	12	100	125	Yes	H21T, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA16P, HA20P, HA26PX, HA20PX, HA26P, H16TPX, H23T, H25TP, HA32PX, HA260PX, HA12CJ, H43TPX, H21TX, HA16SPX, HA16X, HA41PX-NT	<b><a href="#">138TA7079</a></b>
	12	150	200	Yes		<b><a href="#">106TA1644</a></b>
	12	250	400	Yes	HA16P	<b><a href="#">106TA1721</a></b>

# USED ON HAULOTTE






ELECTRICAL PARTS

COMPLETE CONTACTORS						
	Voltage V	Maximum current interrupted A	Maximum current uninterrupted A	Magnetic blowouts	Used on	REF
	24	150	150	Yes	HA15IP, HA12IP	<a href="#">138TA7084</a>
	24	150	150	Yes		<a href="#">127TA2435</a>
	24	150	200	Yes	HA15IP, HA12IP	<a href="#">160TA3449</a>
	24	100	100	Yes	HM8, HM10P	<a href="#">127TA2441</a>
	24	100	125	Yes	HM8, HM10P	<a href="#">138TA7080</a>
	24	150	200	Yes		<a href="#">106TA1631</a>
	24	250	400	Yes	H960E	<a href="#">127TA2438</a>
	24	250	400	Yes		<a href="#">138TA7085</a>

# USED ON HAULOTTE



ELECTRICAL PARTS

COMPLETE CONTACTORS						
	Voltage	Maximum current interrupted	Maximum current uninterrupted	Magnetic blowouts	Used on	REF
	V	A	A			
	48	150	150	Yes		<a href="#">138TA7081</a>
	48	150	150	Yes		<a href="#">138TA7083</a>
	48	150	200	Yes		<a href="#">138TA7082</a>

ELECTRIC BRAKES	
 <ul style="list-style-type: none"> <li>• Voltage: 24 V</li> <li>• Power: 30 W</li> <li>• Outer diameter: 130 mm</li> </ul> <p><b>REF <a href="#">136TA2693</a></b></p>	 <ul style="list-style-type: none"> <li>• Voltage: 24 V</li> <li>• Power: 40 W</li> <li>• Outer diameter: 147 mm</li> </ul> <p><b>REF <a href="#">139TA4914</a></b></p>
 <ul style="list-style-type: none"> <li>• Voltage: 24 V</li> <li>• Power: 45 W</li> <li>• Outer diameter: 102 mm</li> </ul> <p><b>REF <a href="#">160TA3894</a></b></p>	 <ul style="list-style-type: none"> <li>• Voltage: 24 V</li> <li>• Power: 45 W</li> <li>• Outer diameter: 153 mm</li> </ul> <p><b>REF <a href="#">160TA3049</a></b></p>

## USED ON HAULOTTE



## CONNECTOR HOUSINGS



- Diameter: 34 mm
- Height: 27 mm
- Number of connecting holes: 16 female

Used on H12SX

**REF 160TA3419**



- Diameter: 26,6 mm
- Height: 27 mm
- Number of connecting holes: 9 female

Used on HA15IP, HA43JE, HA12IP/HA33JE, COMPACT 8W/2047E/12/3347E.

**REF 165TA3956**



- Diameter: 44,3 mm
- Height: 31,5 mm
- Number of connecting holes: 16 female

Used on STAR12, COMPACT8, STAR11, HA12IP, OPTIMUM8, COMPACT10N, OPTIMUM6, COMPACT12, COMPACT10RTE, COMPACT10, COMPACT8W, COMPACT12EN 280

**REF 138TA7239**



- Diameter: 21 mm
- Height: 34 mm
- Width: 32,5 mm
- Number of connecting holes: 9 female

Used on HA15IP, HA43JE, HA12IP, HA33JE, COMPACT8, COMPACT10, COMPACT14, COMPACT3, H12SX(L), HS5388RT(XL)

**REF 160TA3633**



- Length: 39 mm
- Width: 39 mm
- Height: 37 mm
- Number of connecting holes: 16 female

Used on COMPACT8, COMPACT8W, COMPACT10, OPTIMUM8, STAR12, COMPACT12, OPTIMUM6, STAR11, STAR8, HA12IP, STAR10, COMPACT10N, COMPACT10RTE, COMPACT12EN 280

**REF 138TA7240**



- Length: 49 mm
- Width: 49 mm
- Number of connecting holes: 37 female

Used on HA16SPX, STAR10, HA12PX, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, COMPACT12DX, H12SX, COMPACT8DX, COMPACT10DX, HA32PX, HA12IP, H15SX, H18SX, STAR 8, H21TX, HA16X

**REF 138TA7241**



- Width: 55 mm
- Height: 39 mm
- Number of connecting holes: 37 female

Used on HA16PX, HA12PX, HA15X, HA18PXNT, HA18PX, HA16PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, HA32PX, HA16SPX, HA16X, H12SX

**REF 138TA7242**



# USED ON HAULOTTE



ELECTRICAL PARTS

RELAYS						
	Type of relay	Voltage V	Type of voltage	Current A	Used on	REF
	General and power relay	12	DC	40	HA12DX	<a href="#">138TA7091</a>
	Mini-relay	12	DC	70	HA120PX, HA41/130RTJPRO, HA32RTJPRO, HA100RT, HA18PX, HA51SJRT, HA43RTJPRO, HT132RT, HA16/18SPX, HA46/51S, H14TX-16TPX, HB40-4, HA16/18PX, HA46/51J, HA20/260PX, HA61/80J, HA120PX, H12SX, H55388RT, COMPACT12, COMPACT8, COMPACT20, COMPACT10	<a href="#">138TA7088</a>
	Mini-relay	12	DC	40/30	COMPACT10, COMPACT12, HA18PX, HA51SRT, STAR2/22J/10/26J, STAR6, STAR13, HA16/18SPX, HA46/51S, H14TX-16TPX, HB40-4, HA16/18PX, HA46/51J, HA20/26PX, HA61/80J, HA12SX, H55388RT, STAR8, H12SD, H15SD, H18SDX, HA32PX, HA18PXNT, HA51JRT, HA16PXNT, HA46JRT, HA15D, HA15DX, HA15D	<a href="#">127TA2364</a>
	Mini-relay	12	DC	40/30	HA16RTJ, HA46RTJP, HA12CJ(+)/32C(+)/33CJ, COMPACT10, HA41/130RTJPRO, HA20RTJ, HA20RTJP, HT43RTJPRO, HA20RTJPRO, HT43RTJPRO, HT132RT, HT21/61RT, HT23/67RTJ, COMPACT12, H12SD, HA16P	<a href="#">138TA7089</a>
	Mini-relay	24	DC	20	HA15DX	<a href="#">138TA7092</a>
	Mini-relay	24	DC	20/10	COMPACT8, COMPACT10, HA32RTJPRO, HA100RT, STAR8, HA20RTJ, HA20RTJPRO, HT43RTJPRO, HT132RT, HT21/61RT, HT23/67RTJ, COMPACT14, HA16DX, HA16D, COMPACT12, COMPACT14, HA20P, HA20PX, OPTIMUM8, OPTIMUM6	<a href="#">138TA7090</a>

# USED ON HAULOTTE



ELECTRICAL PARTS

RELAYS						
	Type of relay	Voltage V	Type of voltage	Current A	Used on	REF
	Mini-relay	24	DC	20/15	HM8, HM10P, HA16D, HA16DX, HM10P, HA20P, HA20PX, 55XA, HLA19PX	<a href="#">160TA3795</a>
	Mini-relay	24	DC	40	HA15I, HM10P, HM8	<a href="#">160TA1543</a>
	Mini-relay	24	DC	40/30	HA12I, HA15I, HA43E	<a href="#">138TA7087</a>

**TIMER RELAY**



For 24 V machines

Used on HA12, 15, 20

REF [160TA3770](#)

# USED ON HAULOTTE



ELECTRICAL PARTS

ELECTRIC MOTORS					
	Minimum voltage V	Revolutions/minute Rpm	Power kW	Direction of rotation	REF
	24	1500	3		<a href="#">160TA3797</a>
	24	1600	3		<a href="#">165TA3957</a>
	24	2600	3		<a href="#">160TA2451</a>
	48				<a href="#">138TA7010</a>
	48	1200	3,7		<a href="#">138TA7009</a>
	24		4,5	CCW	<a href="#">160TA3189</a>
	12		1,5		<a href="#">165TA3958</a>
	12	3000	1,3	CCW	<a href="#">165TA3959</a>

# USED ON HAULOTTE



## BRUSH KITS



- Thickness: 10 mm
- Width: 24,9 mm
- Height: 23 mm
- Set of 4 brushes

Used on HA16PX, HA16SPX, HA16X, HA41PX-NT

**REF [138TA7012](#)**



- Thickness: 7 mm
- Width: 22 mm
- Height: 18,8 mm
- Set of 8 brushes

Used on COMPACT8, COMPACT14

**REF [160TA3450](#)**



- Thickness: 7,8 mm
- Width: 27,8 mm
- Height: 30,5 mm
- Set of 4 brushes

Used on TOUCAN800A, 1100

**REF [121TA2443](#)**



- Thickness: 8 mm
- Width: 28 mm
- Height: 31 mm
- Set of 8 brushes

Used on STAR 8

**REF [160TA3640](#)**



- Thickness: 9 mm
- Width: 19,8 mm
- Height: 22 mm
- Set of 4 brushes

Used on LPE/STAR6P

**REF [121TA2486](#)**

ELECTRICAL PARTS





## USED ON HAULOTTE



ELECTRICAL PARTS

## GEARS



- Outer diameter: 101,3 mm
- Total height: 312 mm
- Number of teeth: 14

Used on HA20P, H21TX, HA20PX

**REF [152TA2077](#)**

- Outer diameter: 155 mm
- Total height: 25 mm
- Number of teeth: 45

Used on HA16PXNT, HA18PXNT, HA12IP, HA15IP, H21TX, HA16PX, HA16X

**REF [138TA7316](#)**

- Outer diameter: 229 mm
- Total height: 164,4 mm
- Number of teeth: 30

Used on H25 TPX

**REF [160TA3218](#)**

- Outer diameter: 83 mm
- Total height: 206 mm
- Number of teeth: 17

Used on STAR9, STAR12, STAR11

**REF [138TA7312](#)**

## USED ON HAULOTTE



## CAM SWITCHES

SWITCHES



- Number of positions: 2 fixed positions
- Type of contact: NO contact

Used on H 12/15 l, HA 16 D(X), H960 E

REF [127TA2434](#)

- Number of positions: 4 positions
- Type of contact: NC contact

Used on HM10P, HM8

REF [138TA7125](#)

## USED ON HAULOTTE



SWITCHES

## CONTACT BLOCKS



- Voltage: 240 V
- Current: 3 A
- Number of NO contacts: 0
- Number of NC contacts: 1

Used on STAR10, STAR12, STAR6, HA15D, COMPACT8, STAR11, STAR8, HA12IP, COMPACT10N, COMPACT12, COMPACT10RTE, COMPACT10, OPTIMUM6, OPTIMUM8, COMPACT8W, COMPACT12EN 280, HA41PX-NT, STAR 6

REF [138TA7181](#)

- Voltage: 400 V
- Current: 10 A
- Number of NO contacts: 2
- Number of NC contacts: 0

Used on H12SD, H21T, HA20P, HA26P, H18DX, H15SD

REF [138TA7177](#)

- Voltage: 400 V
- Current: 10 A
- Number of NO contacts: 1
- Number of NC contacts: 0

REF [138TA7178](#)

- Voltage: 400 V
- Current: 10 A
- Number of NO contacts: 2
- Number of NC contacts: 0

Used on HA120PX, HA12CJ(+)/32CJ(+)/33CJ(+), COMPACT 10-12/2668-3368RTE, COMPACT 10/2747E

REF [127TA2390](#)

- Voltage: 400 V
- Current: 10 A
- Number of NO contacts: 1
- Number of NC contacts: 0

Used on HA32PX, H43TPX

REF [138TA7183](#)

- Voltage: 600 V
- Current: 10 A
- Number of NO contacts: 0
- Number of NC contacts: 1

Used on HA15I, HA15D, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA12I, HM10P, HM8

REF [138TA7179](#)

## USED ON HAULOTTE



## CONTACT BLOCKS



- Voltage: 600 V
- Current: 10 A
- Number of NO contacts: 0
- Number of NC contacts: 2

Used on HA16SPX, COMPACT12, COMPACT8, COMPACT8W, COMPACT10, HA12PX, HA15I, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, COMPACT12DX, H12SX, COMPACT8DX, COMPACT10DX, HA32PX S

**REF 138TA7182**



- Voltage: 660 V
- Current: 10 A
- Number of NO contacts: 0
- Number of NC contacts: 1

Used on HM8, HA15D, HA12CJ, H12SX

**REF 106TA2535**



- Voltage: 600 V
- Current: 10 A
- Number of NO contacts: 1
- Number of NC contacts: 1

Used on HA15D, HA16P, HA18P

**REF 146TA7841**

## CONTACT BLOCK HOLDER



- Length: 40 mm
- Width: 30 mm
- Height: 10,8 mm

**REF 131TA9000**

SWITCHES



# USED ON HAULOTTE



SWITCHES

## EMERGENCY STOP SWITCHES - HIGH CAPACITY



- Type: SD150A
- Maximum voltage: 24 V
- Current: 125 A
- Magnetic blowouts: no
- Dust cover: no

Used on COMPACT10N,  
COMPACT10, STAR10,  
COMPACT12, OPTIMUM8,  
COMPACT8W, COMPACT8,  
STAR6, STAR8, HA12IP, HA15IP,  
COMPACT10RTE, OPTIMUM6,  
COMPACT12EN 280, STAR 8,  
STAR 6, LPE/STAR6P

REF [127TA2380](#)



- Type: SD150A-54
- Maximum voltage: 24 V
- Current: 150 A
- Magnetic blowouts: no
- Dust cover: no

Used on HA12IP, HA66JE,  
COMPACT8, COMPACT10N

REF [164TA1084](#)

## MUSHROOMHEAD PUSH BUTTONS



- Built-in diameter: 21,5 mm
- Diameter knob: 40 mm

REF [138TA7140](#)



- Built-in diameter: 22 mm
- Diameter knob: 40 mm

Used on SL14, SL26, SL30N

REF [138TA7139](#)



- Built-in diameter: 20 mm
- Diameter knob: 40 mm

Used on HM8, HA15D, COMPACT10N, STAR10, COMPACT8,  
COMPACT12, COMPACT10RTE, COMPACT10, OPTIMUM6,  
OPTIMUM8, COMPACT8W, COMPACT12EN 280

REF [138TA7144](#)



- Built-in diameter: 28,3 mm
- Diameter knob: 40 mm

Used on HA16RTJ, HA46RTJP, HA120PX, COMPACT10,  
HA41/130RTJPRO, HA32RTJPRO, HA100RT, HA18PX,  
HA51SJRT, HTL3010/3510/4010, HT21/61RT, HT23/67RTJ,  
H14TX-16TPX, HB40-4, HA16/18PX, HA46/51J, COMPACT10,  
HA20/260PX, HA61/80J, HA120PX, COMPACT12,  
COMPACT8, COMPACT12, OPTIMUM8, OPTIMUM6, STAR6,  
STAR10

REF [138TA7142](#)

# USED ON HAULOTTE



SWITCHES

## EMERGENCY SWITCHES



- Built-in diameter: 22 mm
- Current: 10 A
- Voltage: 600 VAC
- NC contact

Used on HA12IP, HA15IP

**REF 138TA7138**



- Built-in diameter: 22 mm
- Current: 10 A
- Voltage: 400 V
- NO contact

**REF 138TA7141**



- Built-in diameter: 22 mm
- Current: 3 A
- Voltage: 240 V
- NC contact

Used on HA12I

**REF 160TA4041**



- Built-in diameter: 22 mm
- Current: 3 A
- Voltage: 240 V
- NC contact

Used on HM8, H12SD, HA15D, H21T, HA26P, H18DX, H15SD, H23T, H25TP, HA12I, COMPACT8W, COMPACT10, COMPACT12, COMPACT8, HA20P, HM10P, OPTIMUM6, OPTIMUM8

**REF 127TA2411**



- Built-in diameter: 22 mm
- Current: 3 A
- Voltage: 240 V
- NC contact

Used on HA12I, HA16DX, HA20P, H960E, HA16D 4X4, HA16D

**REF 138TA7137**



- Built-in diameter: 22 mm
- Current: 4,5 A
- Voltage: 110 V
- NC contact

Used on HA12I

**REF 138TA7143**



- Built-in diameter: 40 mm
- Current: 10 A
- Voltage: 400 V
- NC contact

Used on HTB180, HA16PX

**REF 160TA3682**

# USED ON HAULOTTE



SWITCHES

## FOOT SWITCHES



- Number of NC contacts: 1
- Number of NO contacts: 1

Used on HA16SPX, HA15X, HA16PX, HA18PX, HA16PXNT, HA18PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, HA12IP, HA32PX, HA260PX, HA12CJ, H21TX, HA16X, H43TPX, HA41PX-NT

**REF 138TA7103**

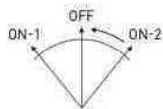


- Number of NC contacts: 0
- Number of NO contacts: 1

Used on COMPACT8, HA15I, HA43E, HA16DX, HA16D, HA12I, HA15I

**REF 138TA7102**

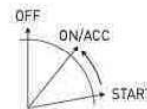
## IGNITION SWITCHES



- Number of connections: 6
- Number of positions: 3
- Built-in diameter: 22 mm
- Total length: 85 mm
- Key: yes

Used on HA15IP, HA12IP

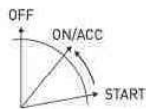
**REF 138TA7116**



- Number of connections: 8
- Number of positions: 3
- Built-in diameter: 22 mm
- Total length: 86 mm
- Key: yes

Used on HA20P, HA26P, COMPACT10DX

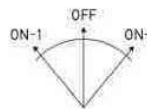
**REF 160TA4045**



- Number of connections: 8
- Number of positions: 3
- Built-in diameter: 22 mm
- Total length: 86,5 mm
- Key: yes

Used on COMPACT10, COMPACT14

**REF 160TA4098**



- Number of connections: 8
- Number of positions: 3
- Built-in diameter: 22 mm
- Total length: 86 mm
- Key: yes

Used on HA120PX, OPTIMUM8

**REF 160TA4066**



# USED ON HAULOTTE



SWITCHES

## OPERATING HEADS



- Number of positions: 2
- Built-in diameter: 21 mm
- Key number: 455

**REF 138TA7112** – Without key  
**REF 163TA8493** – Key



- Number of positions: 2
- Built-in diameter: 22 mm
- Key number: 455

**REF 165TA3960** – Without key  
**REF 163TA8493** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 4241A

**REF 138TA7118** – Without key  
**REF 129TA4086** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 4241A

Used on COMPACT10,  
 COMPACT8, COMPACT12,  
 OPTIMUM8, COMPACT8W,  
 COMPACT12DX, H12SX,  
 COMPACT8DX, COMPACT10DX,  
 HA12IP, COMPACT10N, H15SX,  
 H18SX, COMPACT10RTE,  
 OPTIMUM6, COMPACT12EN 280

**REF 127TA2391** – Without key  
**REF 129TA4086** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 4241A

Used on COMPACT10,  
 COMPACT12, COMPACT8,  
 COMPACT8W

**REF 138TA7114** – Without key  
**REF 129TA4086** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 4241A

Used on STAR10, OPTIMUM8,  
 STAR8, OPTIMUM6, STAR 8,  
 H21TX, HA20PX

**REF 138TA7109** – Without key  
**REF 129TA4086** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 138TA7110** – Without key  
**REF 129TA4166** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 138TA7111** – Without key  
**REF 129TA4166** – Key



# USED ON HAULOTTE



SWITCHES

## OPERATING HEADS



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 138TA7120** – Without key  
**REF 129TA4166** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 138TA7122** – Without key  
**REF 129TA4166** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 138TA7124** – Without key  
**REF 129TA4166** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 138TA7113** – Without key  
**REF 163TA8493** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 164TA1092** – Without key  
**REF 163TA8493** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

Used on HA120PX,  
 GA12CJ(+)/32CJ(+)/33CJ,  
 HA12IP, HA33JE,  
 COMPACT10/12DX/3368RT,  
 HA18PX, HA51SJRT,  
 STAR8/22J/10/26J, STAR6,  
 STAR13, HA20/26PX, GA61/80J,  
 STAR10

**REF 138TA7121** – Without key  
**REF 163TA8493** – Key



- Number of positions: 3
- Built-in diameter: 22 mm
- Key number: 455

**REF 138TA7123** – Without key  
**REF 163TA8493** – Key

# USED ON HAULOTTE



## KEYS FOR IGNITION/DOOR LOCK

SWITCHES



- Key number: 14607
- Number of keys: 1

Used on HTL3210,  
HAL3614/3617/4041/401,  
HTL3010/3510/4010, HTL3210,  
HTL4010, HTL3510, HTL3510,  
HTL32

**REF 152TA8028**



- Key number: 3095
- Number of keys: 1

Used on AB46RT

**REF 122TA8983**



- Key number: 4241A
- Number of keys: 1

Used on HA15IP, HA43JE,  
HA12IP, HA33JE, COMPACT10,  
COMPACT8, HA41/130RTJPRO,  
HA32RTJPRO, HA100RT,  
STAR6, STAR13, H14TX16TPX,  
HB404, HA20/260PX, HA61/80J,  
HA120PX, HA41/130RTJPRO,  
HA6X, HA46RT

**REF 129TA4085**



- Key number: 4241A
- Number of keys: 1

Used on HA260PX, HA16X,  
HA16SPX, HA20PX

**REF 129TA4086**



- Key number: 455
- Number of keys: 1

Used on SJ9250, SJ8831

**REF 129TA4166**



- Key number: CH751
- Number of keys: 1

**REF 152TA1738**

## USED ON HAULOTTE



SWITCHES

LIMIT SWITCHES					
	Number of NO contacts	Number of NC contacts	Current A	Used on	REF
	0	2	2		<a href="#">147TA5544</a>
	0	2	3	HA12I, HA16DX, HA16D 4X4, HA16D, P90	<a href="#">138TA7099</a>
	1	1	1,5	HA12I, HA16DX, HA20P, H960E, HA16D 4X4, HA16D	<a href="#">146TA5939</a>
	1	1	2	H43TPX, HB135JRT, HA41PX/130JRT-NT, HA32PX, HT43RTJPRO, HA100RT, HTL3614-3617-4014-401	<a href="#">163TA8606</a>
	1	1	2	HM8, HA12I, HA15D, HM10P, H21TX, HA20PX, H12SX, HA41PX-NT	<a href="#">138TA7097</a>
	1	1	3	HA16SPX, STAR10, COMPACT8W, COMPACT8, COMPACT10, COMPACT12, COMPACT10N, HA260PX, OPTIMUM8, HA12PX, HA15I, HA15D, H21T, HA16PX, HA15X, HA18PX, HA16PXNT, HA18PXNT, HA20P, HA16P, HA18P, HA26PX, HA20PX, HA26P, H16TPX, H18DX	<a href="#">127TA2381</a>
	1	1	3	H12SD, H18DX, COMPACT12DX, H12SX, H15SD, COMPACT8DX, COMPACT10DX, H15SX, H18SX	<a href="#">138TA7098</a>
	1	1	2	HA15IP, HA43JE, HA120PX, HA12IP, HA33JE, HA18PX, HA51SJRT, HA16/18SPX, HA46/51S, HA120PX	<a href="#">165TA3961</a>

## USED ON HAULOTTE



## ROTARY SWITCHES

SWITCHES



- Number of positions: 2
- Built-in diameter: 21,7 mm

Used on SJ9250, SJ8831

REF [138TA7168](#)

- Number of positions: 2
- Built-in diameter: 22 mm

Used on LE023GT, LE025GT, 260MRT, TOUCAN DUO

REF [138TA7171](#)

- Number of positions: 3
- Built-in diameter: 21 mm

Used on HA18PXNT, HA16PXNT, HA26PX, HA20PX, HA260PX, COMPACT8, COMPACT12, COMPACT10RTE, COMPACT10N, COMPACT10, OPTIMUM6, OPTIMUM8, COMPACT8W, COMPACT12EN 280

REF [151TA2359](#)

- Number of positions: 3
- Built-in diameter: 22 mm

Used on STAR10, STAR12, STAR11, STAR6, STAR8, STAR 8, STAR 6, LPE/STAR6P

REF [138TA7174](#)

- Number of positions: 3
- Built-in diameter: 22 mm

Used on HA15I, HA43E, HA12I

REF [145TA3962](#)



# USED ON HAULOTTE



SWITCHES

## COMPLETE ROTARY SWITCHES



- Number of positions: 2
- Voltage: 240 V
- Current: 10 A
- Built-in diameter: 21,7 mm

Used on HA15I, HA43E, HA16DX, HA16D, HA12I, HA15I, HA20P, HA20PX, HA16D 4X4

**REF [165TA3963](#)**



- Number of positions: 2
- Voltage: 400 V
- Current: 10 A
- Built-in diameter: 21,7 mm

Used on HA16DX, HA16D 4X4, HA16D

**REF [138TA7167](#)**



- Number of positions: 3
- Voltage: 400 V
- Current: 10 A
- Built-in diameter: 22 mm

Used on HA16DX, HA20P, H960E, HA16D 4X4, HA16D

**REF [127TA2418](#)**

## SELECTOR SWITCH



Number of positions: 3

**REF [138TA7169](#)**

## USED ON HAULOTTE



SWITCHES

TOGGLE SWITCHES						
	Position	Number of connections	Maximum voltage V	Current A	Used on	REF
	On-off-none	2 x blade	250	6	COMPACT8, COMPACT10, COMPACT8W, COMPACT12, H12SD, HA26P, HA12PX, H21T, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA20P, HA16P, HA18P, HA26PX, HA20PX, OPTIMUM8, H16TPX, H18DX, COMPACT12DX	<a href="#">138TA7105</a>
	On-none-(on)	6 x blade	250	6	H21T, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA20P, HA26PX, HA20PX, H16TPX, H23T, H25TP, HA32PX, COMPACT10DX, H43TPX, H21TX	<a href="#">138TA7106</a>
	(On)-off-(on)	3 x blade	250	6	HA16SPX, HA15D, HM10P, HM8, COMPACT10, COMPACT8, COMPACT12, COMPACT8W, HA26P, H12SD, HA12PX, H21T, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA20P, HA16P, HA18P, HA26PX, HA20PX, H16TPX, H18DX, COMPACT12DX	<a href="#">138TA7104</a>
	(On)-off-(on)	3 x blade	250	6	H12SD, HA18PX, HA16PX, HA18PXNT, HA16PXNT, HA20P, HA16P, HA26P, HA20PX, H16TPX, H18DX, COMPACT12DX, H15SD, HA26PX, COMPACT10DX	<a href="#">127TA2406</a>
	On-off-on	6 x blade	250	12	HA16SPX, COMPACT8W, COMPACT8, COMPACT10, COMPACT12, H12SD, H21T, HA15X, HA18PX, HA16PX, HA18PXNT, HA16PXNT, HA16P, HA18P, HA26PX, HA20PX, H16TPX, H18DX, COMPACT12DX, H15SD, H23T, H25TP, HA260PX, COMPACT10N, OPTIMUM8, COMPACT10RTE	<a href="#">127TA2398</a>
	(On)-off-(on)	6 x blade	250	20	HA15IP, HA12IP	<a href="#">146TA3723</a>
	(On)-off-(on)	6 x blade	250	6	HA120PX, HA12CJ(+)/32C(+)/33CJ, HA18PX, HA51SJRT, HA16/18SPX, HA46/51S, H14TX-16TPX, HAB40-4, HA16/18PX, HA46/51J, HA20/26PX, HA61/80J, HA120PX, HA12C(+)/32CJ(+)/33CJ, HA41PX/130JRT-NT, HA16X, HA46RT, HA46/51S	<a href="#">165TA3964</a>
	On-none-(on)	3 x blade	250	10	HA16RTJ, HA46RTJP, HA41/13RTJPRO, HA32RTJPRO, HA100RT, STAR8/22J/10/26J, HA20RTJ, HA20RTJP, HT43RTJPRO, HT132RT, STAR6, STAR3, HT21/61RT, HT23/67RTJ, STAR8/10, STAR13	<a href="#">164TA1089</a>

## USED ON HAULOTTE



## SWITCHES

## RUBBER BELLOWS SWITCH



- Cap
- Dimensions: 18,2 x Ø 12,2 mm

Used on HA15D, HA15DX

**REF [138TA7107](#)**

## COMPLETE PUSH BUTTON



Button colour: black

Used on HA12CJ(+)/32CJ(+)/33CJ, HA20/260PX, HA61/80J, HA43TPX/HB135JRT, HA41PX/130JRT-NT

**REF [160TA3657](#)**

## BATTERY DISCONNECT SWITCHES



- Current: 150 A
- Quantity of poles: 1
- Auxilliary switch present: yes

Used on HA16P, HA16DX, HA20P, HA12I, H960E, HA16D 4X4, HA16D

**REF [127TA2423](#)**



- Voltage: 48 V
- Current: 150 A
- Quantity of poles: 1
- Auxilliary switch present: no

Used on HM8, HA12I, HA15D, HM10P, H21TX, HA20PX, H12SX, HA41PX-NT

**REF [138TA7006](#)**

## USED ON HAULOTTE



SENSORS

## ENCODERS



- Diameter shaft: 6 mm
- Shaft length: 7 mm
- Housing diameter: 6 mm
- Voltage: out 0,5-4,5 V
- Number of pins: 3

Used on OPTIMUM6, OPTIMUM8

REF [160TA3040](#)

- Diameter shaft: 6,3 mm
- Shaft length: 8,4 mm
- Housing diameter: 35,8 mm
- Number of pins: 3

Used on HA260PX, H43TPX, HA20PX, HA41PX-NT

REF [138TA7077](#)

- Diameter shaft: 6,3 mm
- Shaft length: 8,4 mm
- Housing diameter: 35,8 mm
- Number of pins: 3

REF [138TA7076](#)

- Diameter shaft: 7 mm
- Shaft length: 9 mm
- Housing diameter: 30 mm
- Number of pins: 3

Used on STAR10, STAR 8

REF [138TA7075](#)

## POTENTIOMETER



- Diameter shaft: 6 mm
- Housing diameter: 21,5 mm
- Number of pins: 3

Used on COMPACT12EN 280

REF [160TA3805](#)

## ANGLE SENSORS



- Length: 60 mm
- Width: 41 mm
- Height: 45 mm

Used on HA260PX

REF [138TA7074](#)

- Length: 72 mm
- Width: 41 mm
- Height: 44,7 mm

Used on HA260PX, HA80JRT

REF [160TA3032](#)



# USED ON HAULOTTE



SENSORS

**LOAD CELL**



- Length: 146,5 mm
- Width: 43,4 mm
- Height: 35 mm

Used on H125X

**REF [160TA2320](#)**

**OPTICAL SENSOR**



Number of pins: 4

Used on HA260PX, HA15IP, HA12CJ, HA16PX, H43TPX, HA20PX, HA41PX-NT

**REF [138TA7073](#)**

**PRESSURE CONTACTS**

	Thread	Connection	Switch mode	Pressure range Bar	Length mm	Used on	REF
	1/4" BSP	Blade connection	Change over	159,2	58,5	COMPACT10DX	<a href="#">138TA7132</a>
	1/4" BSP	Blade connection	Normally closed	198	55	COMPACT8, COMPACT8W, COMPACT12, COMPACT10, COMPACT10RTE, COMPACT10N, OPTIMUM6, OPTIMUM8	<a href="#">138TA7131</a>
	1/4" BSP	Blade connection	Normally open	11	55	H12SD, H18DX, COMPACT12DX, H15SD, COMPACT10DX	<a href="#">138TA7127</a>
	1/4" BSP	Blade connection	Normally open	14,6	55	COMPACT10DX	<a href="#">138TA7126</a>
	1/4" BSP	Fixed connector	Multiple, different or with signal	0-250	63	HA15IP, HA16PX	<a href="#">138TA7128</a>

## USED ON HAULOTTE



PRESSURE CONTACTS							
	Thread	Connection	Switch mode	Pressure range Bar	Length mm	Used on	REF
	1/4" BSP	Fixed connector	Multiple, different or with signal	250	63,5	HA12CJ, H43TPX, HA20PX, HA41PX-NT	<a href="#">160TA3594</a>
	1/4" BSP	Fixed connector	Multiple, different or with signal	250	77	STAR10, STAR 8	<a href="#">138TA7133</a>
	1/4" BSP	Special	Multiple, different or with signal	250	70,5	HA260PX, COMPACT12EN 280	<a href="#">138TA7129</a>
	M12	Fixed connector	Normally closed	62,9	62,9	H43TPX, HA41PX	<a href="#">160TA4352</a>
 	1/4" BSP	Fixed connector	Input, output, signal	0-200	65,35		<a href="#">160TA4628</a>
	1/4" BSP	Blade connection	Change over	130	92	COMPACT12, H960E, HA16D 4X4	<a href="#">138TA7305</a>
	1/8" NPT	Screw	Normally closed	0,7	38	H12SX	<a href="#">160TA2141</a>
	M10	Blade connection	Normally closed	0,5	43,5	HA20PX	<a href="#">126TA5405</a>

SENSORS

## USED ON HAULOTTE



SENSORS

## PROXIMITY SENSORS



- Total length: 57,5 mm
- Width: 26 mm
- Max voltage: 100 VDC

Used on HTB180

**REF 138TA7136**

- Total length: 475 mm
- Diameter: 11,5 mm
- Voltage: 12 V

Used on HA16RTJ, HA46RTJP, HA41/130RTJPRO, HA32RTJPRO, HA100RT, HA32RTJPRO, HA20RTJ, HA20RTJP, HT43RTJPRO, HT132RT, HT21/61RT, HT23/67RTJ, HA20/260PX, HA61/80J, H12SX(L), HS5388RT(XL), HA41PX/130JRT-NT, HTB180, HA260PX/HA80JRT

**REF 138TA7078**

- Total length: 57 mm
- Diameter: 18 mm
- Max voltage: 100 VDC

Used on COMPACT10DX

**REF 138TA7135**

## USED ON HAULOTTE



## TEMPERATURE SWITCHES

SENSORS



- Thread: M14 x 1,5 mm
- Voltage: 6-24 V
- Switch temperature:  $140 \pm 4$  °C
- Maximum temperature: 150 °C

Used on HA16PX, HA16SPX, HA16X, HA20PX

**REF [160TA5191](#)**



Used on HA16RTJ, HA46RTJP, HA120PX, COMPACT10/12DX/3368RT, HA32RTHPRO, HA100RT, HA18PX, HA51SJRT, HA43RTJPRO, HT132RT, HTL3210, HTL3614-3617-4014-401, HTL3010/3510/4010, HTL3210, HA16/18SPX, HA46/51S, HA14TX-16TPX, HB40-4, HTL4010, HTL3510, HTL32, H12SX(L), HS5388RT(XL), HA20/260PX, HA61/80J, H43TPX, HB135JRT, H21TX/23/25TPX/HB62/68, H12SX(L), HS5388RT(XL), H41PX/130JRT-NT, H23T(X/P/PX)

**REF [138TA7134](#)**



Thread: M18 x 1,5 mm

Used on H43TPX, HA41PX-NT

**REF [160TA1230](#)**



## USED ON HAULOTTE



SENSORS

TILT SENSORS							
	Height	Diameter	Switch type	Voltage	Detection	Used on	REF
	mm	mm		VDC			
	113	96,7	Level sensor	7-48	1-10°	HA12IP, HA15IP	<a href="#">138TA7069</a>
	113	96,7	Level sensor	7-48	1-10°	COMPACT12EN 280, HA15I, HA43E, COMPACT8W/COMPACT2247E, COMPACT10RTE/COMPACT2668L, COMPACT10N/COMPACT2632E, COMPACT10/COMPACT2747E, COMPACT12/COMPACT33747E, COMPACT8W, STAR11, STAR8, STAR10, HM10P, HA12I, H18SDX, H18SX/HS5388RT, COMPACT10DX, COMPACT12DX, COMPACT12DX/COMPACT3368RT, HA26PX, HA80RJT, HA12PX, COMPACT8W, COMPACT12, COMPACT10	<a href="#">127TA2394</a>
	113	96,7	Level sensor	7-48	1-2°	H12SD, HA12PX, HA15D, H21T, HA15X, HA16PX, HA18PX, HA16PXNT, HA18PXNT, HA20P, HA16P, HA18P, HA26PX, HA20PX, HA26P, H16TPX, H12SX, H15SD, H23T, H25TP, HA32PX, HA260PX, H15SX, STAR6, HA12CJ, H21TX, HA16SPX, HA16X, STAR 6, LPE/STAR6P	<a href="#">127TA2424</a>
	113	96,7	Level sensor	7-48	2°	OPTIMUM8, OPTIMUM6	<a href="#">160TA3914</a>
	113	96,7	Level sensor	7-48	2°	COMPACT10/12DX/3368RT, COMPACT8/10N/2032E/26	<a href="#">138TA7068</a>
	18,5	100	Level sensor		3°	H12SX, H12SD, H18DX, H15SD, COMPACT8DX, COMPACT10DX, COMPACT12DX, H15SX, H18SX	<a href="#">138TA7070</a>
	85	72	Level sensor + tilt detector	9-33	5°/5°	COMPACT10/12/3368, COMPACT10/12DX/3368RT, HTB180, H18SX, HS5388RT, H12SX, HS3388RT, COMPACT8DX/COMPACT2068RT	<a href="#">138TA7071</a>

# USED ON HAULOTTE



## BATTERY DISCHARGE INDICATORS

INDICATORS & HOUR METERS



- Voltage: 24-48 V
- Built-in diameter: 52 mm

Used on HA12IP, HA33JE

**REF 138TA7245**



- Voltage: 24-48 V
- Built-in diameter: 51,5 mm

Used on COMPACT10/COMPACT2747E, COMPACT12/COMPACT3347E, COMPACT8W, COMPACT8, COMPACT12, COMPACT10, COMPACT8W/2047E/12/3, COMPACT8/10N/2032E/26, COMPACT10/2747E, COMPACT10N/2032E/26, COMPACT14, COMPACT4, STAR8(22J), STAR10(26J), COMPACT12EN 280, OPTIMUM8, OPTIMUM6, STAR10, STAR8

**REF 127TA2383**



- Voltage: 24-80 V
- Built-in diameter: 52 mm

Used on COMPACT10-12/2668-336

**REF 160TA1955**



Built-in diameter: 52 mm

Used on STAR6, HA15IP, HA12IP, STAR 6, LPE/STAR6P

**REF 138TA7247**



Built-in diameter: 30 mm

Used on STAR10, STAR8, STAR 8, LPE/STAR6P

**REF 138TA7003**



Built-in diameter: 30 mm

Used on COMPACT10-12/2668-336

**REF 138TA7004**



Built-in diameter: 40 mm

Used on COMPACT10

**REF 138TA7005**

## USED ON HAULOTTE



INDICATORS &amp; HOUR METERS

## COMBINATION GAUGE



- Voltage: 24–48 V
- Built-in diameter: 52 mm

Used on HM8, HM10P, HA15I, H12SD(X/E), HA16P(X/D/N), HA46JRT, HA12I

REF [127TA2370](#)

## HOUR METER



- Voltage: 12–48 V
- Built-in diameter: 52 mm

Used on H12SD, HA12PX, HA15D, H21T, HA15X, HA16PX, HA18PX, HA18PXNT, HA16PXNT, HA20P, HA16DX, HA16P, HA18P, HA26PX, HA20PX, HA26P, H16TPX, H18DX, COMPACT12DX, H12SX, H15SD, COMPACT8DX, COMPACT10DX

REF [138TA7246](#)