



# THE DATASHEET OF TSM-104-01-L-DV

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0086-755-83957316

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NOTES:

- ⊙ REPRESENTS A CRITICAL DIMENSION.
- MAXIMUM POST HEIGHT VARIATION: .005[0.13].
- LOAD PARTS POS 1 IN SAME DIRECTION AS ARROW.
- TUBE POSITIONS 03 THRU 50.
- TAPE & REEL AVAILABLE ON POSITION 02 THRU 28 ONLY. LEADS MAY NOT BE VISIBLE FOR CUSTOMER'S VISUAL INSPECTION ON SMALLER POSITIONED PARTS WHEN USED WITH THE -P OR -M OPTIONS.
- MEASURE AT BEND RADIUS.
- MINIMUM PUSHOUT FORCE: 3 LBS.
- FOR -TV USE T-31724-01.
- DUE TO THE HIGH AMOUNT OF INSERTION FORCE NEEDED, THE -LC OPTION IS NOT COMPATIBLE WITH AUTO PLACEMENT. SAMTEC RECOMMENDS MANUAL PLACEMENT FOR ALL ASSEMBLIES WITH THE -LC OPTION.
- ONLY AVAILABLE ON -01-DV OPTION, MATES ONLY WITH SSM, SSW, SSQ, BCS, ESW AND ESQ.
- MAXIMUM ALLOWABLE CUT FLASH .010[0.25], .015[0.38] ALLOWED TOWARDS TAILS.
- THIS DIMENSION TO BE MEASURED RELATIVE TO DATUM -Z-.
- FR OPTIONS WILL BE SHIPPED AT THE MAX QUANTITY PER REEL, BASED ON OPTIONS SELECTED.

MOUNT STYLE	POSITIONS	COPLANARITY
-DV	-02 THRU -05	.004 [0.10]
	-06 THRU -10	.005 [0.13]
	-11 THRU -50	.006 [0.15]
-TV & -TM	-02 THRU -10	.004 [0.10]
	-11 THRU -20	.005 [0.13]
	-21 THRU -30	.006 [0.15]

TSM-1XX-XX-XXX-XX-X-XXX-X

No OF POSITIONS  
-02 THRU -50

LEAD STYLE  
(SEE TABLE 1)

PLATING SPECIFICATION

- T: MATTE TIN ON ENTIRE PIN.
- S: 30μ" SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL.
- G: 10μ" SELECTIVE GOLD IN CONTACT AREA, 3μ" SELECTIVE GOLD ON TAIL.
- L: 10μ" SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL.
- TL: TIN/LEAD (90/10) ON ENTIRE PIN.
- STL: 30μ" SELECTIVE GOLD IN CONTACT AREA, TIN/LEAD (90/10) ON TAIL.
- F: 3μ" SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL.
- H: 30μ" SELECTIVE GOLD IN CONTACT AREA, 3μ" SELECTIVE GOLD ON TAIL.
- TM: MATTE TIN ON ENTIRE PIN.
- SM: 30μ" SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL.
- LM: 10μ" SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL.
- FM: 3μ" SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL.
- SS: 30μ" STRIPE SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL. (SEE NOTE 10)

OPTION #3

(NOT AVAILABLE WITH -TV & -TM MOUNT STYLES)  
-P: PICK AND PLACE PAD  
(POS -04 THRU -36, 50 USE PPP-06, SEE FIG 4, SHT 2)  
(POS -02, USE PPP-81, SEE FIG 9, SHT 2)  
(POS -03, USE PPP-86, SEE FIG 10, SHT 2)  
(AVAILABLE ON POS -02 & -03 WITH -TR & -FR OPTION ONLY)

\*-M: METAL PICK AND PLACE PAD

\* FOR EXISTING CUSTOMERS ONLY

(USE LMP-01, SEE FIG 5, SHT 2)  
(NOT RECOMMENDED WITH -T OR -TM PLATING)  
(LEAD STYLES -01 & -04 ONLY)  
(AVAILABLE ON POS 04 THRU 36)  
(AVAILABLE ON POS 02 AND 03 WITH -TR & -FR OPTION ONLY, SEE NOTE 5)  
-TR: TAPE AND REEL (SEE FIG 8, SHT 3)  
(02 THRU 28 POS)  
-FR: FULL REEL QTY. TAPE & REEL (SEE FIG 8, SHT 3)  
(02 THRU 28 POS)(SEE NOTE 13)

OPTION #2

POLARIZED POSITION  
SPECIFY OMITTED PIN

OPTION #1

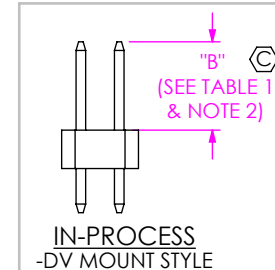
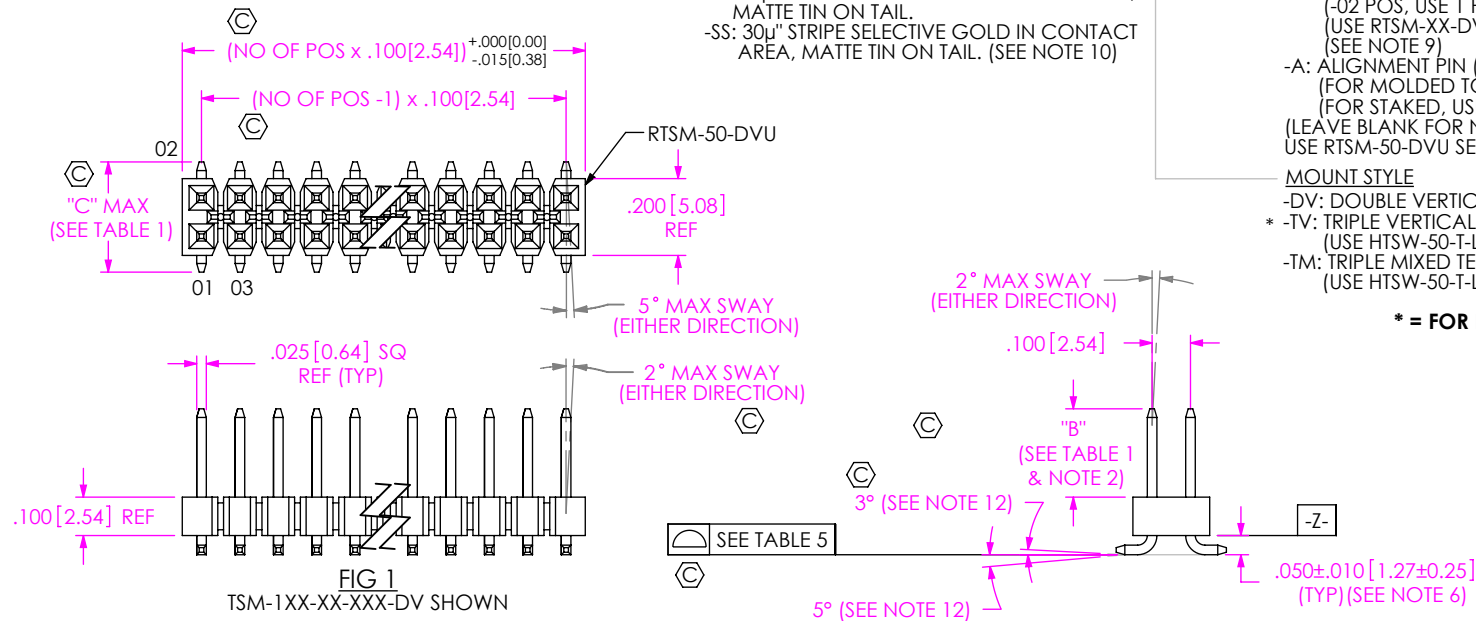
(AVAILABLE FOR -DV MOUNT STYLE ONLY)

-LC: LOCKING CLIP (SEE FIG 2, SHT 2)  
(USE LC-05-TM)  
(-03 THRU -36 POS, USE 2 PER STRIP)  
(-02 POS, USE 1 PER STRIP)  
(USE RTSM-XX-DVU)  
(SEE NOTE 9)  
-A: ALIGNMENT PIN (SEE FIG 3, SHT 2)  
(FOR MOLDED TO POSITION, USE RTSM-XX-DVU-XX BODY)  
(FOR STAKED, USE RTSM-50-DVU BODY, 5 POS MIN)  
(LEAVE BLANK FOR NO HOLD DOWN OPTION)  
USE RTSM-50-DVU SEE FIG 1, CAN BE CUT TO POSITION)

MOUNT STYLE

-DV: DOUBLE VERTICAL  
\* -TV: TRIPLE VERTICAL (-02 THRU -30 ONLY)  
(USE HTSW-50-T-LCP, SEE NOTE 8)  
-TM: TRIPLE MIXED TECHNOLOGY (-02 THRU -30 ONLY)  
(USE HTSW-50-T-LCP, AVAILABLE ON -01 LEAD STYLE ONLY)

\* = FOR EXISTING CUSTOMERS ONLY



LEAD STYLE	MOUNT STYLE	"B"	"C"	"D"	TERMINAL	OVERALL PIN LENGTH
-01	-DV	0.230 [5.84]	0.303 [7.70]	0.280 [7.11]	T-1S6-16-X-2	0.445 [11.30] REF
	-TM, -TV	0.230 [5.84]	---	---	T-1S6-17-X-2	0.480 [12.19] REF
-02	-DV	0.320 [8.13]	0.293 [7.44]	0.370 [9.40]	T-1S6-08-X-2	0.530 [13.46] REF
-03	-DV	0.420 [10.67]	0.293 [7.44]	0.470 [11.94]	T-1S6-15-X-2	0.630 [16.00] REF
-04	-DV	0.120 [3.05]	0.303 [7.70]	0.270 [6.86]	T-1S6-21-X-2	0.335 [8.51] REF
-05	-DV	0.075 [1.91]	0.323 [8.20]	0.270 [6.86]	T-1S6-18-X-2	0.300 [7.62] REF

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES ARE:

DECIMALS ANGLES  
.XX: ±.01 [.3]  
.XXX: ±.005 [.13]  
.XXXX: ±.0020 [.051]

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MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 2:1

INSULATOR: LCP, UL94V0, COLOR: BLACK  
TERMINAL: PHOS BRONZE

DESCRIPTION:



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DOUBLE ROW GULLWING ASM

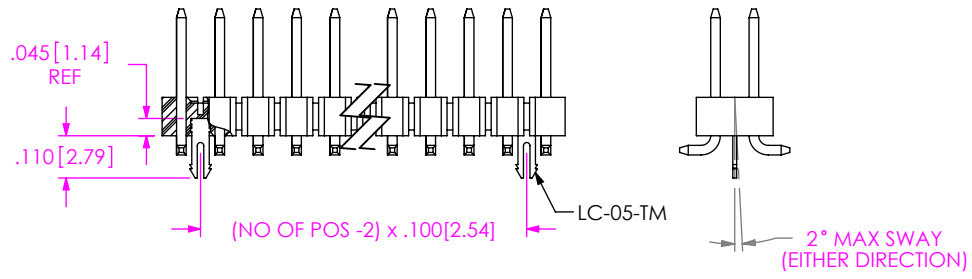
DWG. NO.

TSM-1XX-XX-XXX-XX-X-XXX-X

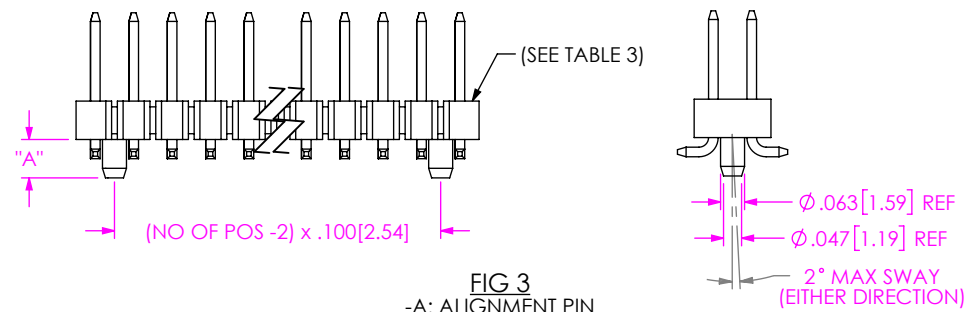
BY: BRYANT 04/24/1991 SHEET 1 OF 3

TABLE 3			
	"A"	BODY	MIN NO OF POS
MOLDED	.100[2.54] REF	RTSM-50-DVU-XX	2
*STAKED	.100[2.54]	RTSM-50-DVU-XX	5

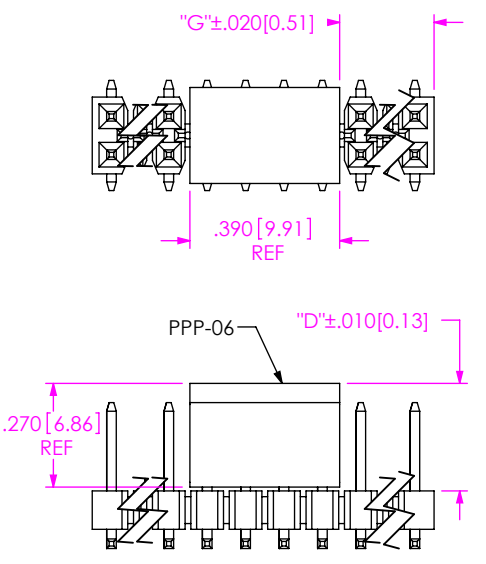
\* = USE TWO SM-AH'S



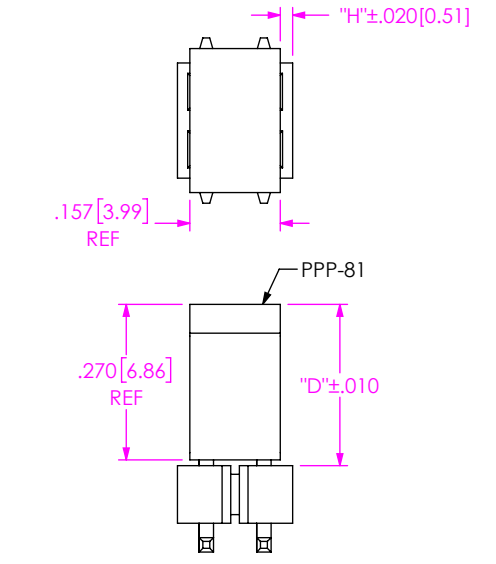
**FIG 2**  
-LC: LOCKING CLIP  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)



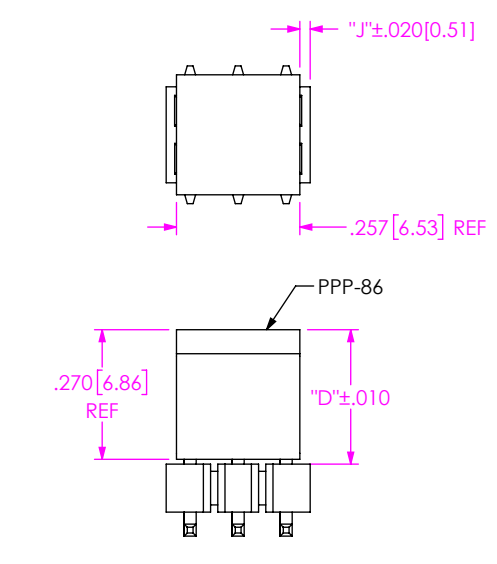
**FIG 3**  
-A: ALIGNMENT PIN  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)



**FIG 4**  
-P: PICK AND PLACE PAD  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
 $"G" = ((\text{NO OF POS} \times .100[2.54]) - .390[9.91])/2$

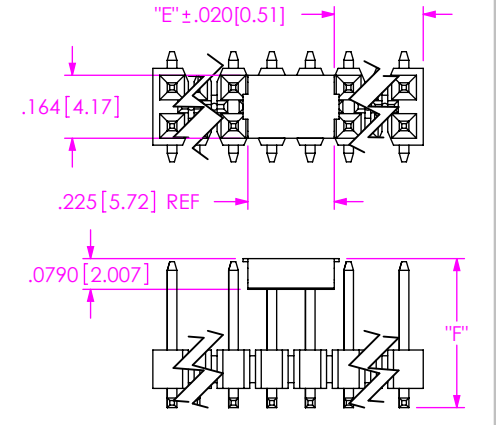


**FIG 9**  
-P: PICK AND PLACE PAD  
(-02 POS ONLY)  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
 $"H" = ((\text{NO OF POS} \times .100[2.54]) - .157[3.99])/2$



**FIG 10**  
-P: PICK AND PLACE PAD  
(-03 POS ONLY)  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
 $"J" = ((\text{NO OF POS} \times .100[2.54]) - .257[6.53])/2$

TABLE 2	
LEAD STYLE	"F"
-01	0.388[9.86]
-04	0.278[7.06]



**FIG 5**  
-M: METAL PICK AND PLACE PAD  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
 $"E" = ((\text{NO OF POS} \times .100[2.54]) - .225[5.72]) / 2$   
NOTE:  
HAND FILL USE LMP-01  
MACHINE FILL USE LMP-01

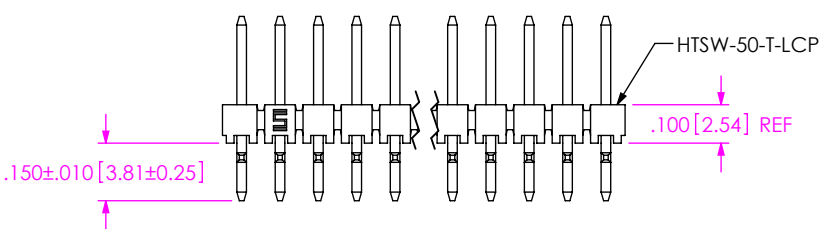
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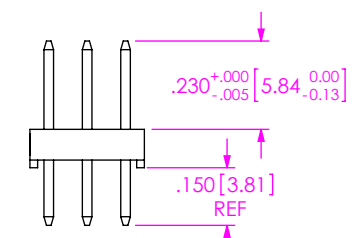
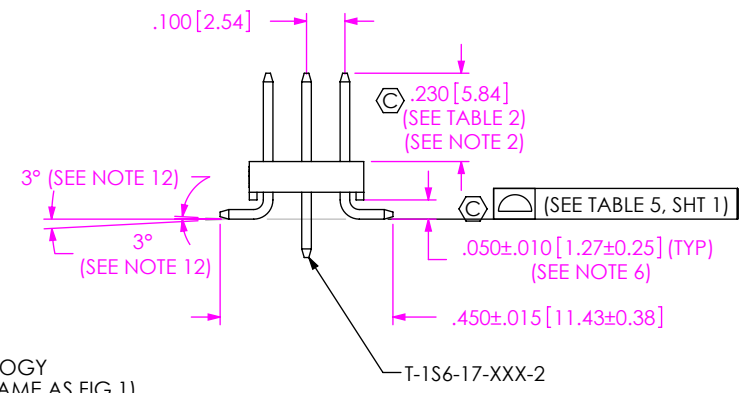


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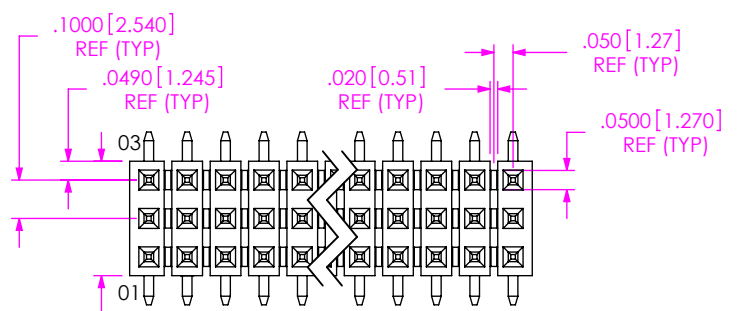
DESCRIPTION: DOUBLE ROW GULLWING ASM  
DWG. NO. TSM-1XX-XX-XXX-XX-X-XXX-X  
BY: BRYANT 04/24/1991 SHEET 2 OF 3



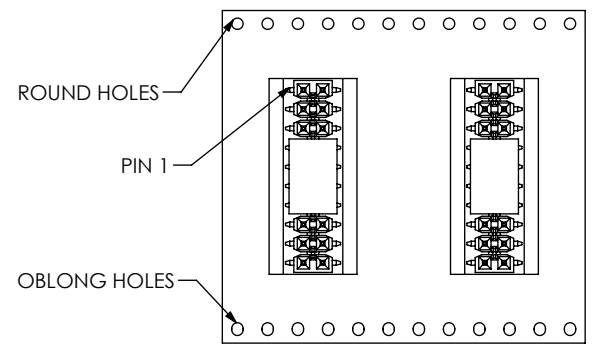
**FIG 6**  
-TM: TRIPLE MIXED TECHNOLOGY  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)



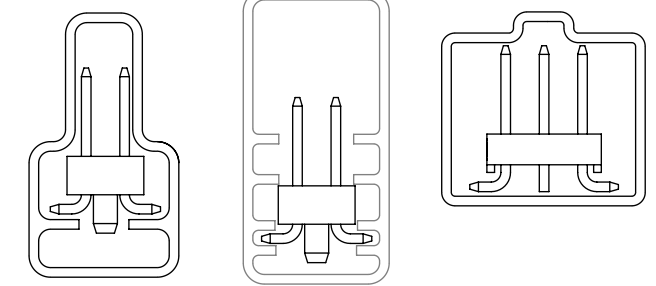
**IN-PROCESS**  
-TM MOUNT STYLE



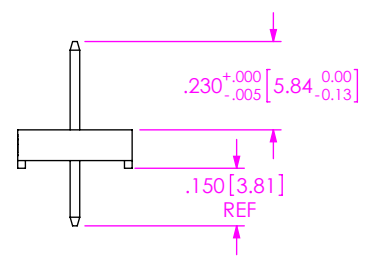
**FIG 7**  
-TV: TRIPLE VERTICAL  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 6)  
**FOR EXISTING CUSTOMERS ONLY**



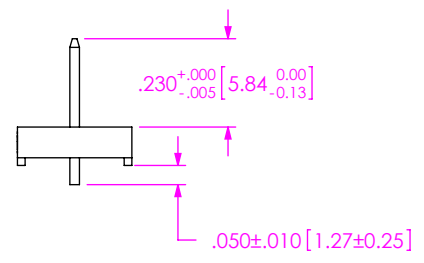
**FIG 8**  
PACKAGING VIEWS



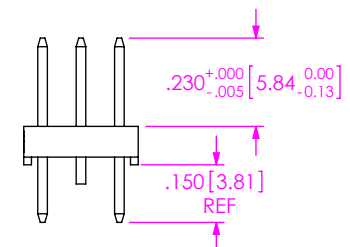
LEAD STYLE	MOUNT STYLE	OPTION	TUBE	PLUG	NOTE
01, 02, 04, 05	-DV	NONE	PT-1-24-01-29	TP-03	4
01, 02	-DV	-LC, -A	PT-1-24-01-29	TP-03	4
01, 04, 05	-DV	-P	PT-1-24-06-29	TP-03	4
01, 04, 05	-DV	-LC-P, -A-P	PT-1-24-06-29	TP-03	4
02	-DV	-P	PT-1-24-15-29	TP-07	4
02	-DV	-LC-P, -A-P	PT-1-24-15-29	TP-07	4
03	-DV	NONE	PT-1-24-09-29	TP-03	4
03	-DV	-LC, -A	PT-1-24-09-29	TP-03	4
03	-DV	-P	PT-1-24-16-29	TP-03	4
03	-DV	-LC-P, -A-P	PT-1-24-16-29	TP-03	4
04, 05	-DV	-LC, -A	PT-1-24-03-15	TP-03	4
01, 04, 05	-DV	-M, -LC-M, -A-M, -LC-A-M	PT-TSM004-DV	TP-03	4
01	-TM	NONE	PT-1-24-02-08	TP-13	4
01	-TV	NONE	PT-1-24-01-70	TP-07	4



**IN-PROCESS 1**  
-TV MOUNT STYLE



**IN-PROCESS 2**  
-TV MOUNT STYLE



**IN-PROCESS 3**  
-TV MOUNT STYLE

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DESCRIPTION: **DOUBLE ROW GULLWING ASM**

DWG. NO. **TSM-1XX-XX-XXX-XX-X-XXX-X**

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