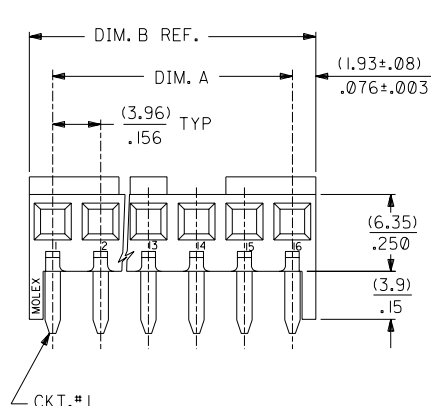
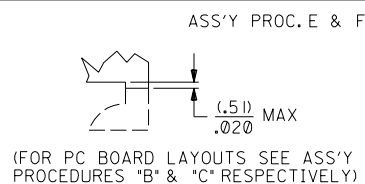
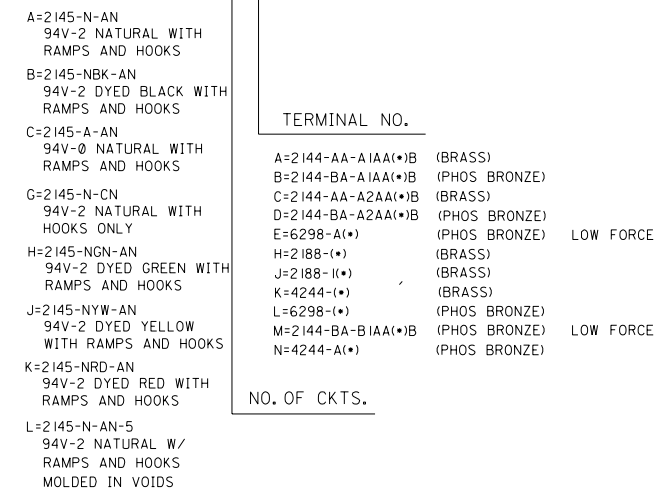
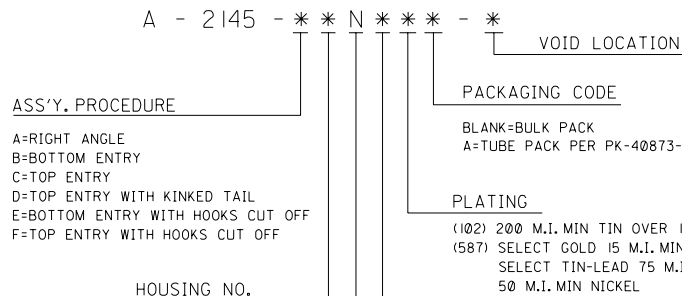




1. TERMINALS MUST CONFORM TO SOLDERABILITY SPEC. ES-152.
2. PARTS CONFORM TO PRODUCT SPEC 08-50.
3. HOUSING MATERIAL: NYLON, UL LISTED
4. "\*" PRECEDING ENG. NO. IN CHARTS DESIGNATES STANDARD PRODUCT.
5. TERMINAL TAIL CENTERLINES ARE TO BE WITHIN (.30)/.012 OF EACH OTHER.
6. FOR KINKED PIN INFORMATION SEE SMES-42329-\*\*\*.



| NO. OF<br>CKTS. | DIM. A                                | DIM. B               | KINK PIN<br>LOCATION |
|-----------------|---------------------------------------|----------------------|----------------------|
|                 |                                       |                      | (ASSY. PROC. D ONLY) |
| 2               | $(3.96 \pm .13)$<br>$.156 \pm .005$   | $(7.82)$<br>$.308$   | N/A                  |
| 3               | $(7.92 \pm .13)$<br>$.312 \pm .005$   | $(11.79)$<br>$.464$  | N/A                  |
| 4               | $(11.89 \pm .13)$<br>$.468 \pm .005$  | $(15.75)$<br>$.620$  | 1, 2<br>3, 4         |
| 5               | $(15.85 \pm .13)$<br>$.624 \pm .005$  | $(19.71)$<br>$.776$  | 2, 3<br>4, 5         |
| 6               | $(19.81 \pm .13)$<br>$.780 \pm .005$  | $(23.67)$<br>$.932$  | 2, 3<br>4, 5         |
| 7               | $(23.77 \pm .25)$<br>$.936 \pm .010$  | $(27.64)$<br>$1.088$ | 2, 3<br>5, 6         |
| 8               | $(27.74 \pm .25)$<br>$1.092 \pm .010$ | $(31.60)$<br>$1.244$ | 2, 3<br>6, 7         |
| 9               | $(31.70 \pm .25)$<br>$1.248 \pm .010$ | $(35.56)$<br>$1.400$ | 2, 3<br>7, 8         |
| 10              | $(35.66 \pm .25)$<br>$1.404 \pm .010$ | $(39.52)$<br>$1.556$ | 2, 3<br>8, 9         |
| 11              | $(39.62 \pm .25)$<br>$1.560 \pm .010$ | $(43.48)$<br>$1.712$ | 2, 3<br>9, 10        |
| 12              | $(43.59 \pm .25)$<br>$1.716 \pm .010$ | $(47.45)$<br>$1.868$ | 2, 3<br>10, 11       |
| 13              | $(47.55 \pm .25)$<br>$1.872 \pm .010$ | $(51.41)$<br>$2.024$ | 2, 3<br>11, 12       |
| 14              | $(51.51 \pm .36)$<br>$2.028 \pm .014$ | $(55.37)$<br>$2.180$ | 2, 3<br>12, 13       |
| 15              | $(55.47 \pm .36)$<br>$2.184 \pm .014$ | $(59.33)$<br>$2.336$ | 2, 3<br>13, 14       |
| 16              | $(59.44 \pm .36)$<br>$2.340 \pm .014$ | $(63.30)$<br>$2.492$ | 2, 3<br>14, 15       |

|      |     |      |
|------|-----|------|
| 20   | U   | 245  |
| 19   | T   |      |
| 18   | U   | D    |
| 17   | M   |      |
| 16   | T6  | C    |
| 15   | T   |      |
| 14   | T2  | E    |
| 13   | U6  |      |
| 12   | U5  |      |
| 11   | R3  |      |
| 10   | U   |      |
| 9    | T   |      |
| 8    | T   |      |
| 7    | U3  |      |
| 6    | U   |      |
| 5    | U   |      |
| 4    | U   |      |
| 3    | U   |      |
| 2    | U   |      |
| 1    | U7  |      |
| MFG. | SH. | REV. |

FOR PC BOARD LAYOUT  
SEE ASS'Y PROCEDURE "C"

|                                                                                                                                              |                   |                |       |                                                                 |      |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------|-----------------------------------------------------------------|------|
| DIMENSIONS SHOWN METRIC INCH                                                                                                                 |                   |                |       | $\nabla = 0$ $\blacktriangledown = 0$ REVISE ONLY ON CAD SYSTEM |      |
| UNLESS OTHERWISE SPECIFIED<br>TOLERANCES ANGULAR = 1/2°                                                                                      |                   |                |       | TITLE                                                           |      |
| INCH                                                                                                                                         |                   | METRIC         |       | HOUSING ASS'Y, P.C. TAIL                                        |      |
| 3 PLACE                                                                                                                                      | ± .010            | ---            |       | (3.96) / .156 C                                                 |      |
| 2 PLACE                                                                                                                                      | ± .014            | ± 0.25         |       | 2145 SERIES DRAWING                                             |      |
| 1 PLACE                                                                                                                                      | ---               | ± 0.36         |       | MOLEX INCORPORATED                                              |      |
| DRAFT WHERE APPLICABLE MUST<br>REMAIN WITHIN DIMENSIONS                                                                                      |                   |                |       | SHEET NO. 1 OF 20<br>DATE 7 / 9 / 87                            |      |
| PART NO. 52145X11<br>SEE CHART                                                                                                               |                   |                |       | DWG. NO. SDA-2145                                               |      |
| FILE NAME 52145X11<br>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. |                   |                |       | DIV.                                                            | SIZE |
| DRWG. BY PEREZ                                                                                                                               | CHK'D BY ARGUELTA | CHK'D BY PATEL | SCALE |                                                                 |      |
| APP'D. LENZ                                                                                                                                  |                   |                |       |                                                                 |      |

|   | 13                  | 12 | 11          | 10 | 9                  | 8 | 7              | 6 | 2145           | 4 | 3 | 2 | 1 |   |
|---|---------------------|----|-------------|----|--------------------|---|----------------|---|----------------|---|---|---|---|---|
| J | ENG. NO.            |    | HOUSING NO. |    | TERMINAL NO.       |   | DIM. C         |   | EDP ON SHT/COL |   |   |   |   | J |
|   | A-2145-AANA(102)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-102B  |   | ( 3.68) / .145 |   | 7 / 1          |   |   |   |   |   |
|   | A-2145-AANA(122)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-122B  |   | ( 3.68) / .145 |   | 7 / 2          |   |   |   |   |   |
|   | A-2145-AANA(505)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-505B  |   | ( 3.68) / .145 |   | 7 / 3          |   |   |   |   |   |
|   | A-2145-AANA(507)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-507B  |   | ( 3.68) / .145 |   | 7 / 4          |   |   |   |   |   |
|   | A-2145-AANB(558)-*  |    | 2145-N-AN   |    | 2144-BA-AIAA-558B  |   | ( 3.68) / .145 |   | 8 / 1          |   |   |   |   | I |
|   | A-2145-AANA(P913)-* |    | 2145-N-AN   |    | 2144-AA-AIAA-P913B |   | ( 3.68) / .145 |   | 8 / 2          |   |   |   |   |   |
|   | A-2145-ABNA(122)-*  |    | 2145-NBK-AN |    | 2144-AA-AIAA-122B  |   | ( 3.68) / .145 |   | 8 / 3          |   |   |   |   |   |
|   | A-2145-ABNA(P913)-* |    | 2145-NBK-AN |    | 2144-AA-AIAA-P913B |   | ( 3.68) / .145 |   | 8 / 4          |   |   |   |   |   |
|   | A-2145-AANA(587)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-587B  |   | ( 3.68) / .145 |   | 9 / 1          |   |   |   |   |   |
|   | A-2145-AGNA(P913)-* |    | 2145-N-CN   |    | 2144-AA-AIAA-587B  |   | ( 3.68) / .145 |   | 9 / 2          |   |   |   |   |   |
|   | A-2145-BANH(102)-*  |    | 2145-N-AN   |    | 2188-(102)         |   | ( 4.06) / .160 |   | 9 / 3          |   |   |   |   | H |
|   | A-2145-BANH(122)-*  |    | 2145-N-AN   |    | 2188-(122)         |   | ( 4.06) / .160 |   | 9 / 4          |   |   |   |   |   |
|   | A-2145-BANL(P913)-* |    | 2145-N-AN   |    | 6298-(P913)        |   | ( 4.06) / .160 |   | 10 / 1         |   |   |   |   |   |
|   | A-2145-BANL(565)-*  |    | 2145-N-AN   |    | 6298-(565)         |   | ( 4.06) / .160 |   | 10 / 2         |   |   |   |   |   |
|   | A-2145-BBNH(122)-*  |    | 2145-NBK-AN |    | 2188-(122)         |   | ( 4.06) / .160 |   | 10 / 3         |   |   |   |   |   |
|   | A-2145-CANA(102)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-102B  |   | ( 3.05) / .120 |   | 10 / 4         |   |   |   |   | G |
|   | A-2145-CANA(122)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-122B  |   | ( 3.05) / .120 |   | 11 / 1         |   |   |   |   |   |
|   | A-2145-CANB(565)-*  |    | 2145-N-AN   |    | 2144-BA-AIAA-565B  |   | ( 3.05) / .120 |   | 11 / 2         |   |   |   |   |   |
|   | A-2145-CANC(P913)-* |    | 2145-N-AN   |    | 2144-AA-A2AA-P913B |   | ( 4.80) / .189 |   | 11 / 3         |   |   |   |   |   |
|   | A-2145-FGNA(587)-*  |    | 2145-N-CN   |    | 2144-AA-AIAA-587B  |   | ( 3.05) / .120 |   | 11 / 4         |   |   |   |   |   |
|   | A-2145-FANA(P913)-* |    | 2145-N-AN   |    | 2144-AA-AIAA-P913B |   | ( 3.05) / .120 |   | 12 / 1         |   |   |   |   |   |
|   | A-2145-DANC(P913)-* |    | 2145-N-AN   |    | 2144-AA-A2AA-P913B |   | ( 4.80) / .189 |   | 12 / 2         |   |   |   |   | F |
|   | A-2145-BBNH(P913)-* |    | 2145-NBK-AN |    | 2188-(P913)        |   | ( 4.06) / .160 |   | 12 / 3         |   |   |   |   |   |
|   | A-2145-CBNA(P913)-* |    | 2145-NBK-AN |    | 2144-AA-AIAA-P913B |   | ( 3.05) / .120 |   | 12 / 4         |   |   |   |   |   |
|   | A-2145-FGNA(550)-*  |    | 2145-N-CN   |    | 2144-AA-AIAA-550B  |   | ( 3.05) / .120 |   | 13 / 1         |   |   |   |   |   |
|   | A-2145-BANH(P913)-* |    | 2145-N-AN   |    | 2188-(P913)        |   | ( 4.06) / .160 |   | 13 / 2         |   |   |   |   |   |
|   | A-2145-BANH(587)-*  |    | 2145-N-AN   |    | 2188-(587)         |   | ( 4.06) / .160 |   | 13 / 3         |   |   |   |   | E |
|   | A-2145-FANA(503)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-503B  |   | ( 3.05) / .120 |   | 13 / 4         |   |   |   |   |   |
|   | A-2145-EANH(P913)-* |    | 2145-N-AN   |    | 2188-(P913)        |   | ( 4.06) / .160 |   | 14 / 1         |   |   |   |   |   |
|   | A-2145-AANK(P913)-* |    | 2145-N-AN   |    | 4244-(P913)        |   | ( 3.68) / .145 |   | 14 / 2         |   |   |   |   |   |
|   | A-2145-ABNK(P913)-* |    | 2145-NBK-AN |    | 4244-(P913)        |   | ( 3.68) / .145 |   | 14 / 3         |   |   |   |   |   |
|   | A-2145-ABNA(587)-*  |    | 2145-NBK-AN |    | 2144-AA-AIAA-587B  |   | ( 3.68) / .145 |   | 14 / 4         |   |   |   |   | D |
|   | A-2145-AANA-(109)-* |    | 2145-N-AN   |    | 2144-AA-AIAA-109B  |   | ( 3.68) / .145 |   | 15 / 1         |   |   |   |   |   |
|   | A-2145-CANA(P913)-* |    | 2145-N-AN   |    | 2144-AA-AIAA-P913B |   | ( 3.05) / .120 |   | 15 / 2         |   |   |   |   |   |
|   | A-2145-AANB(122)-*  |    | 2145-N-AN   |    | 2144-BA-AIAA(122)B |   | ( 3.68) / .145 |   | 15 / 3         |   |   |   |   |   |
|   | A-2145-BANL(122)-*  |    | 2145-N-AN   |    | 6298-(122)         |   | ( 4.06) / .160 |   | 15 / 4         |   |   |   |   |   |
|   | A-2145-CANB(122)-*  |    | 2145-N-AN   |    | 2144-BA-AIAA(122)B |   | ( 3.05) / .120 |   | 16 / 1         |   |   |   |   |   |
|   | A-2145-EGNH(P913)-* |    | 2145-N-CN   |    | 2188-(P913)        |   | ( 4.06) / .160 |   | 16 / 2         |   |   |   |   | C |
|   | A-2145-FGNA(P913)-* |    | 2145-N-CN   |    | 2144-AA-AIAA-P913B |   | ( 3.05) / .120 |   | 16 / 3         |   |   |   |   |   |
|   | A-2145-CANA(587)-*  |    | 2145-N-AN   |    | 2144-AA-AIAA-587B  |   | ( 3.05) / .120 |   | 16 / 4         |   |   |   |   |   |
|   | A-2145-BHNH(122)-*  |    | 2145-NGN-AN |    | 2188-(122)         |   | ( 4.06) / .160 |   | 17 / 1         |   |   |   |   |   |
|   | A-2145-BJNH(122)-*  |    | 2145-NYW-AN |    | 2188-(122)         |   | ( 4.06) / .160 |   | 17 / 2         |   |   |   |   |   |
|   | A-2145-BKNH(122)-*  |    | 2145-NRD-AN |    | 2188-(122)         |   | ( 4.06) / .160 |   | 17 / 3         |   |   |   |   | B |
|   |                     |    |             |    |                    |   | /              |   | /              |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |
|   |                     |    |             |    |                    |   |                |   |                |   |   |   |   |   |

|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|--------------------|--|--|----------------------|--|--|------------|--|--|------------|--|--|----------------------|--|--|-----------|--|--|---------------------|--|--|----------------------|--|--|--------------------|--|--|----------|--|--|----------------------|--|--|-----------|--|--|---|--|--|
| 13                 |  |  | 12                   |  |  | 11         |  |  | 10         |  |  | 9                    |  |  | 8         |  |  | 7                   |  |  | 6                    |  |  | 2145               |  |  | 4        |  |  | 3                    |  |  | 2         |  |  | 1 |  |  |
| A-2145-CANA(122)-* |  |  |                      |  |  |            |  |  |            |  |  | A-2145-CANB(565)-*   |  |  |           |  |  | A-2145-CANC(P913)-* |  |  |                      |  |  | A-2145-FGNA(587)-* |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
| PART NO.           |  |  | ENG. NO(SUFFIX ONLY) |  |  | VOID CKT.  |  |  | PART NO.   |  |  | ENG. NO(SUFFIX ONLY) |  |  | VOID CKT. |  |  | PART NO.            |  |  | ENG. NO(SUFFIX ONLY) |  |  | VOID CKT.          |  |  | PART NO. |  |  | ENG. NO(SUFFIX ONLY) |  |  | VOID CKT. |  |  |   |  |  |
|                    |  |  | -CA2A(122)           |  |  |            |  |  |            |  |  | -CA2B(565)           |  |  |           |  |  | 09-52-1029          |  |  | -CA2C(P913)          |  |  |                    |  |  |          |  |  | -FG2A(587)           |  |  |           |  |  |   |  |  |
|                    |  |  | -CA3A(122)           |  |  |            |  |  |            |  |  | -CA3B(565)           |  |  |           |  |  | 09-52-1039          |  |  | -CA3C(P913)          |  |  |                    |  |  |          |  |  | -FG3A(587)           |  |  |           |  |  |   |  |  |
| 09-86-3043         |  |  | -CA4A(122)           |  |  |            |  |  |            |  |  | -CA4B(565)           |  |  |           |  |  | 09-52-1049          |  |  | -CA4C(P913)          |  |  |                    |  |  |          |  |  | -FG4A(587)           |  |  |           |  |  |   |  |  |
|                    |  |  | -CA5A(122)           |  |  |            |  |  |            |  |  | -CA5B(565)           |  |  |           |  |  | 09-52-1059          |  |  | -CA5C(P913)          |  |  |                    |  |  |          |  |  | -FG5A(587)           |  |  |           |  |  |   |  |  |
|                    |  |  | -CA6A(122)           |  |  | 09-62-3066 |  |  |            |  |  | -CA6B(565)           |  |  |           |  |  | 09-52-1069          |  |  | -CA6C(P913)          |  |  |                    |  |  |          |  |  | -FG6A(587)           |  |  |           |  |  |   |  |  |
| 09-86-3083         |  |  | -CA7A(122)           |  |  |            |  |  |            |  |  | -CA7B(565)           |  |  |           |  |  | 09-52-1079          |  |  | -CA7C(P913)          |  |  |                    |  |  |          |  |  | -FG7A(587)           |  |  |           |  |  |   |  |  |
|                    |  |  | -CA8A(122)           |  |  |            |  |  |            |  |  | -CA8B(565)           |  |  |           |  |  | 09-52-1089          |  |  | -CA8C(P913)          |  |  |                    |  |  |          |  |  | -FG8A(587)           |  |  |           |  |  |   |  |  |
|                    |  |  | -CA9A(122)           |  |  | 09-62-3096 |  |  |            |  |  | -CA9B(565)           |  |  |           |  |  | 09-52-1099          |  |  | -CA9C(P913)          |  |  | 09-62-4094         |  |  |          |  |  | -FG9A(587)           |  |  |           |  |  |   |  |  |
| 09-86-3103         |  |  | -CA10A(122)          |  |  |            |  |  | 09-62-3106 |  |  | -CA10B(565)          |  |  |           |  |  | 09-52-1109          |  |  | -CA10C(P913)         |  |  |                    |  |  |          |  |  | -FG10A(587)          |  |  |           |  |  |   |  |  |
|                    |  |  | -CA11A(122)          |  |  |            |  |  |            |  |  | -CA11B(565)          |  |  |           |  |  | 09-52-1119          |  |  | -CA11C(P913)         |  |  |                    |  |  |          |  |  | -FG11A(587)          |  |  |           |  |  |   |  |  |
| 09-86-3123         |  |  | -CA12A(122)          |  |  |            |  |  |            |  |  | -CA12B(565)          |  |  |           |  |  | 09-52-1129          |  |  | -CA12C(P913)         |  |  |                    |  |  |          |  |  | -FG12A(587)          |  |  |           |  |  |   |  |  |
|                    |  |  | -CA13A(122)          |  |  |            |  |  |            |  |  | -CA13B(565)          |  |  |           |  |  | 09-52-1139          |  |  | -CA13C(P913)         |  |  |                    |  |  |          |  |  | -FG13A(587)          |  |  |           |  |  |   |  |  |
|                    |  |  | -CA14A(122)          |  |  |            |  |  |            |  |  | -CA14B(565)          |  |  |           |  |  | 09-52-1149          |  |  | -CA14C(P913)         |  |  |                    |  |  |          |  |  | -FG14A(587)          |  |  |           |  |  |   |  |  |
|                    |  |  | -CA15A(122)          |  |  |            |  |  |            |  |  | -CA15B(565)          |  |  |           |  |  | 09-52-1159          |  |  | -CA15C(P913)         |  |  | 09-62-4154         |  |  |          |  |  | -FG15A(587)          |  |  |           |  |  |   |  |  |
|                    |  |  | -CA16A(122)          |  |  |            |  |  |            |  |  | -CA16B(565)          |  |  |           |  |  |                     |  |  | -CA16C(P913)         |  |  |                    |  |  |          |  |  | -FG16A(587)          |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |
|                    |  |  |                      |  |  |            |  |  |            |  |  |                      |  |  |           |  |  |                     |  |  |                      |  |  |                    |  |  |          |  |  |                      |  |  |           |  |  |   |  |  |