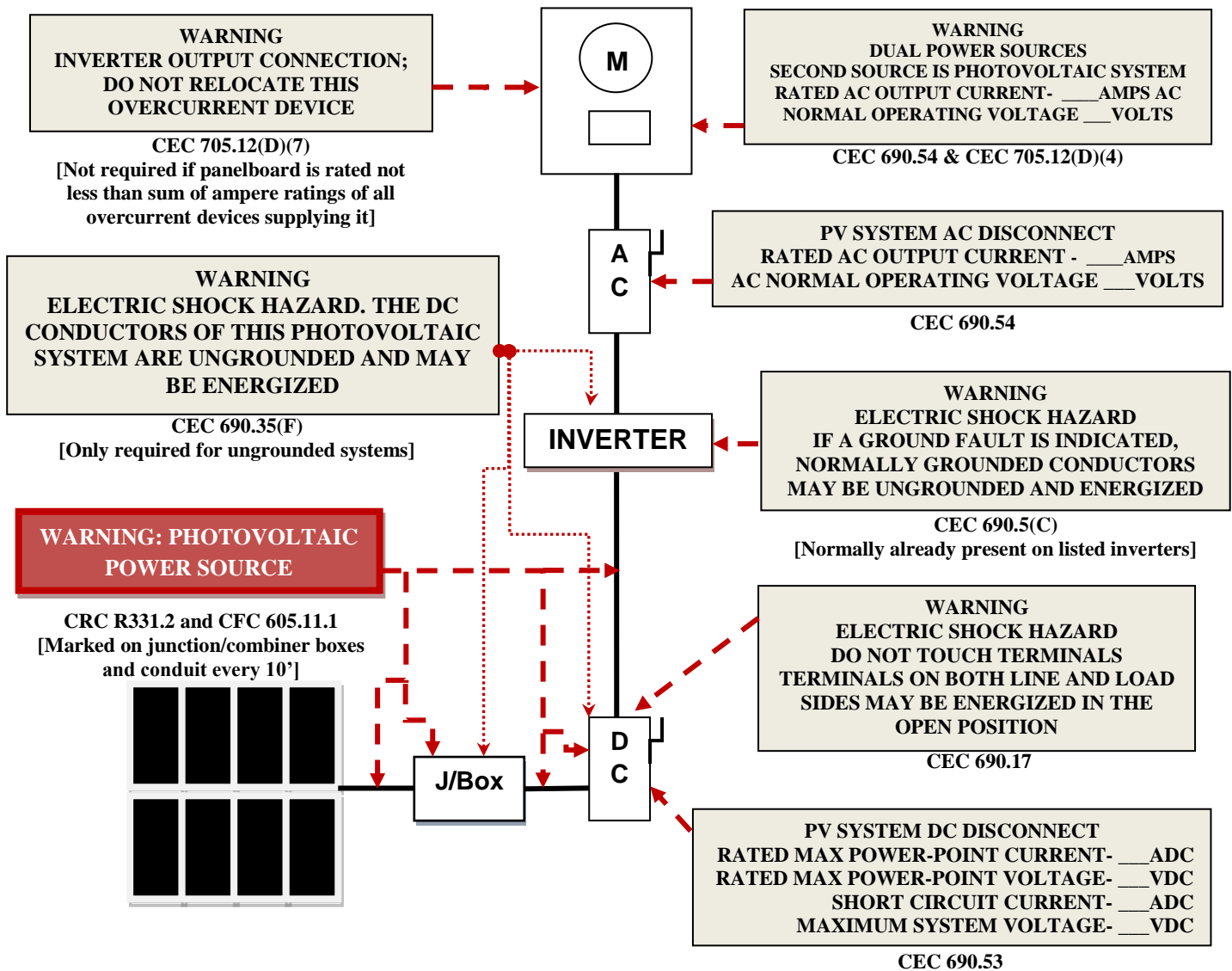


# Solar PV Standard Plan – Simplified Central/String Inverter Systems for One- and Two-Family Dwellings

## Markings

CEC Articles 690 and 705 and CRC Section R331 require the following labels or markings be installed at these components of the photovoltaic system:



**Code Abbreviations:**

- California Electrical Code (CEC)
- California Residential Code (CRC)
- California Fire Code (CFC)

Informational note: ANSI Z535.4 provides guidelines for the design of safety signs and labels for application to products. A phenolic plaque with contrasting colors between the text and background would meet the intent of the code for permanency. No type size is specified, but 20 point (3/8") should be considered the minimum.

CEC 705.12 requires a permanent plaque or directory denoting all electric power sources on or in the premises.

## Solar PV Standard Plan – Simplified Central/String Inverter System for One- and Two-Family Dwellings

| △ TAG | DESCRIPTION   |
|-------|---|
| 1     | SOLAR PV MODULE / STRING  |
| 2     | DC/DC CONVERTERS INSTALLED? YES / NO (IF YES, STEPS 6 & 8 REQUIRED) |
| 3     | SOURCE CIRCUIT JUNCTION BOX INSTALLED?: YES / NO                    |
| 4     | SEPARATE DC DISCONNECT INSTALLED?: YES / NO                         |
| 5     | INTERNAL INVERTER DC DISCONNECT: YES / NO                           |
| 6     | CENTRAL INVERTER  |
| 7     | LOAD CENTER INSTALLED?: YES / NO                                    |
| 8     | PV PRODUCTION METER INSTALLED?: YES / NO                            |
| 9     | *SEPARATE AC DISCONNECT INSTALLED?: YES / NO                        |
| 10    | CONNECT TO INVERTER #2 (USE LINE DIAGRAM 2)                         |

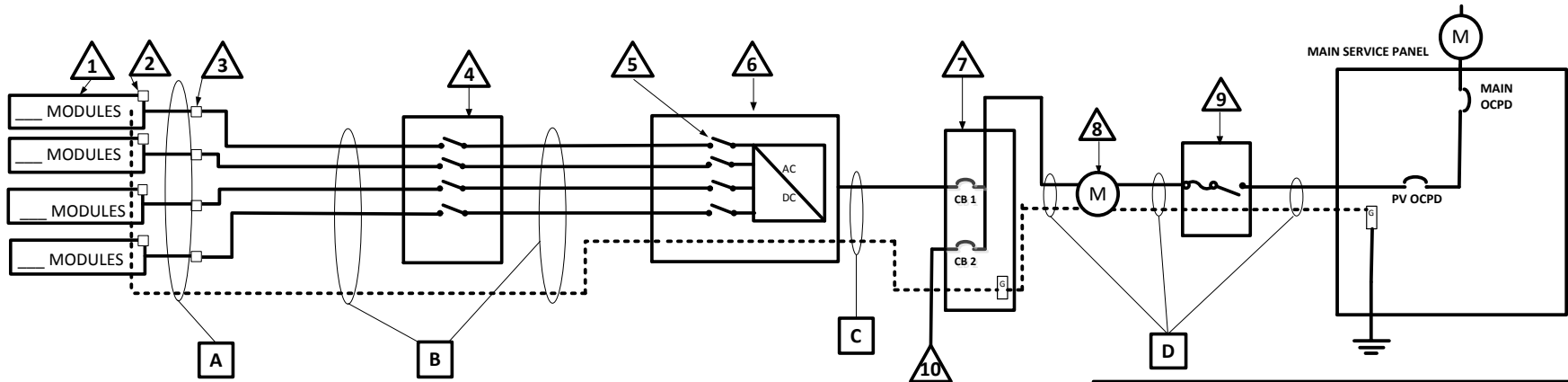
\* Consult with your local AHJ and /or Utility

### SINGLE-LINE DIAGRAM #1 – NO STRINGS COMBINED PRIOR TO INVERTER

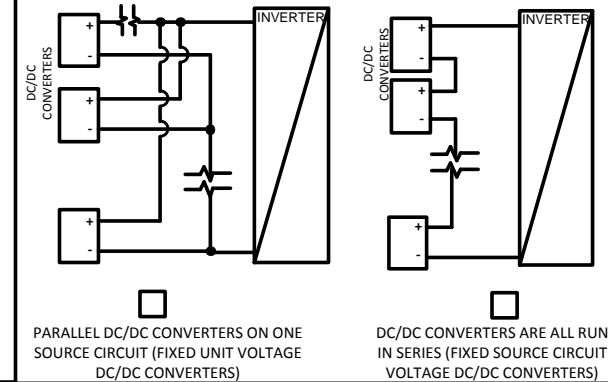
CHECK A BOX FOR WHETHER SYSTEM IS GROUNDED OR UNGROUNDED:  GROUNDED (INCLUDE GEC)  UNGROUNDED

FOR UNGROUNDED SYSTEMS:

- DC OCPD MUST DISCONNECT BOTH CONDUCTORS OF EACH SOURCE CIRCUIT
- UNGROUNDED CONDUCTORS MUST BE IDENTIFIED PER 210.5(C). WHITE-FINISHED CONDUCTORS ARE NOT PERMITTED.



IF DC/DC CONVERTERS ARE USED, CHECK THE BOX BELOW THE CORRESPONDING CONFIGURATION



| CONDUCTOR/CONDUIT SCHEDULE |  |                |                      |                    |              |
|----------------------------|--|----------------|----------------------|--------------------|--------------|
| □ TAG                      | DESCRIPTION AND CONDUCTOR TYPE                                     | CONDUCTOR SIZE | NUMBER OF CONDUCTORS | CONDUIT/CABLE TYPE | CONDUIT SIZE |
| A                          | USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/> |                |                      |                    |              |
|                            | EGC/GEC:   |                |                      |                    |              |
| B                          |  |                |                      |                    |              |
|                            | EGC/GEC:   |                |                      |                    |              |
| C                          |  |                |                      |                    |              |
|                            | EGC/GEC:   |                |                      |                    |              |
| D                          |  |                |                      |                    |              |
|                            | EGC/GEC:   |                |                      |                    |              |

ENTER "N/A" WHERE SUITABLE FOR WHEN NOT USING CONDUIT OR CABLE AS PERMITTED BY CODE

## Solar PV Standard Plan – Simplified Central/String Inverter System for One- and Two-Family Dwellings

| △ TAG | DESCRIPTION   |
|-------|---|
| 1     | SOLAR PV MODULE / STRING  |
| 2     | DC/DC CONVERTERS INSTALLED? YES / NO (IF YES, STEPS 6 & 8 REQUIRED) |
| 3     | SOURCE CIRCUIT JUNCTION BOX INSTALLED?: YES / NO                    |
| 4     | COMBINER BOX (STEPS 11 & 12 REQUIRED)                               |
| 5     | SEPARATE DC DISCONNECT INSTALLED?: YES / NO                         |
| 6     | INTERNAL INVERTER DC DISCONNECT: YES / NO                           |
| 7     | CENTRAL INVERTER  |
| 8     | LOAD CENTER INSTALLED?: YES / NO                                    |
| 9     | PV PRODUCTION METER INSTALLED?: YES / NO                            |
| 10    | *SEPARATE AC DISCONNECT INSTALLED?: YES / NO                        |
| 11    | CONNECT TO INVERTER #2 (USE LINE DIAGRAM 4)                         |

\* Consult with your local AHJ and /or Utility

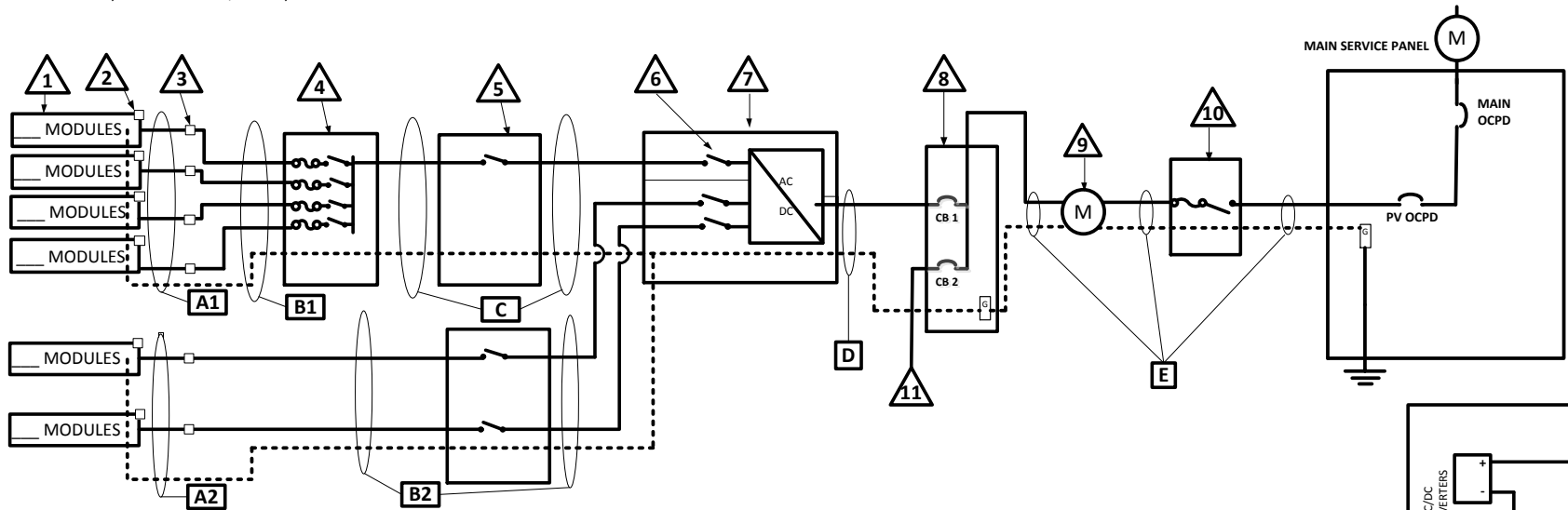
### SINGLE-LINE DIAGRAM #2 – COMBINING STRINGS PRIOR TO INVERTER

CHECK A BOX FOR WHETHER SYSTEM IS GROUNDED OR UNGROUNDED:  GROUNDED (INCLUDE GEC)  UNGROUNDED

FOR UNGROUNDED SYSTEMS:

- DC OCPD MUST DISCONNECT BOTH CONDUCTORS OF EACH SOURCE CIRCUIT

- UNGROUNDED CONDUCTORS MUST BE IDENTIFIED PER 210.5(C). WHITE-FINISHED CONDUCTORS ARE NOT PERMITTED.



| COMBINER CONDUCTOR/CONDUIT SCHEDULE |  |                |                      |                    |              |
|-------------------------------------|--|----------------|----------------------|--------------------|--------------|
| □ TAG                               | DESCRIPTION AND CONDUCTOR TYPE                                     | CONDUCTOR SIZE | NUMBER OF CONDUCTORS | CONDUIT/CABLE TYPE | CONDUIT SIZE |
| A1                                  | USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/> |                |                      |                    |              |
|                                     | EGC/GEC:   |                |                      |                    |              |
| B1                                  |  |                |                      |                    |              |
|                                     | EGC/GEC:   |                |                      |                    |              |
| C                                   |  |                |                      |                    |              |
|                                     | EGC/GEC:   |                |                      |                    |              |
| D                                   |  |                |                      |                    |              |
|                                     | EGC/GEC:   |                |                      |                    |              |
| E                                   |  |                |                      |                    |              |
|                                     | EGC/GEC:   |                |                      |                    |              |

| NON-COMBINED STRINGS CONDUCTOR/CONDUIT SCHEDULE (IF APPLICABLE) |  |                |                      |                    |              |
|---|--|----------------|----------------------|--------------------|--------------|
| □ TAG   | DESCRIPTION AND CONDUCTOR TYPE                                     | CONDUCTOR SIZE | NUMBER OF CONDUCTORS | CONDUIT/CABLE TYPE | CONDUIT SIZE |
| A2  | USE-2 <input type="checkbox"/> OR PV-WIRE <input type="checkbox"/> |                |                      |                    |              |
|   | EGC/GEC:   |                |                      |                    |              |
| B2  |  |                |                      |                    |              |
|   | EGC/GEC:   |                |                      |                    |              |

ENTER "N/A" WHERE SUITABLE FOR WHEN NOT USING CONDUIT OR CABLE AS PERMITTED BY CODE

