

## PLCR Re-Balling Jig (for lead pitch 0.5 ~ 0.8mm)

Re-Balling of fine lead pitch CSP is possible by PLCR re-balling Jig

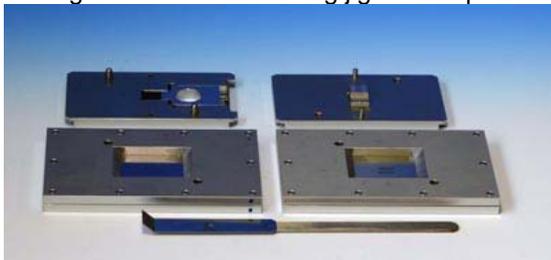
The jig is consisted of the metal mask for re-balling, and printing.

The printing mask unit can be use for printing at re-balling, and printing at soldering to the board.

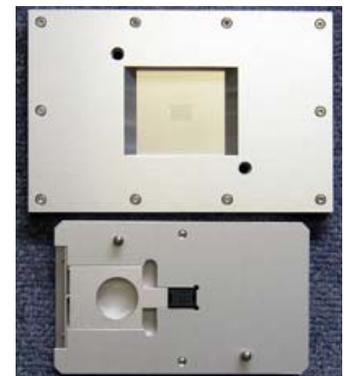
The CSP after re-balling can be supply to the nozzle of the rework machine directly.

### Outline

PLCR Jig is a manual re-balling jig for fine pitch CSP.



PLCR Re-balling Jig set



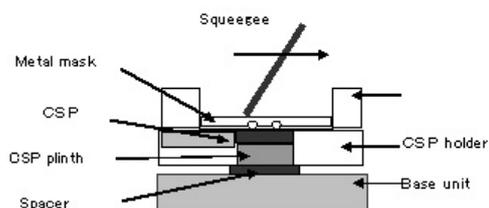
Re-balling mask Unit  
CSP Holder

PLCR re-balling jig can be fixed of the CSP, therefore, printing and re-balling for the fine lead pitch CSP is possible.

PLCR Re-balling Jig is manufactured in accordance with the specification of the CSP. It is consisted as:

- CSP Holder ( upper left picture)
- Base Unit with a CSP Plinth and a Spacer ( upper right )
- Re-Balling Mask Unit ( Under left )
- Printing Mask Unit ( Under right )
- Hand Squeegee ( Lower centroer )

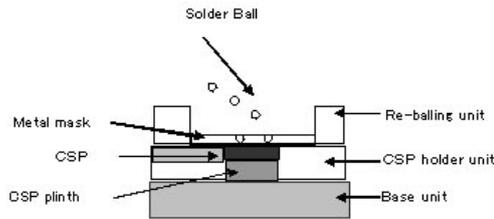
### Re-Balling process-1: (Solder Printing)



CSP Holder

- The Land of the package should be cleaning first by solder cleaner.
- The package is put on the CSP plinth which is on the base unit with the spacer.
- Then CSP is fixed by the CSP Holder.
- Solder paste is added and printing it by a squeegee.
- After printing, the printing mask unit is removed.

## Re-Balling Process-2: ( Solder Ball added )

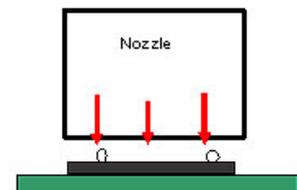


- Remove the spacer
- The re-balling mask unit is setting up instead of the printing mask unit.
- The level of the CSP Plinth is down by the thickness of the spacer.
- Solder ball is poured in, Then remove the re-balling mask unit
- The CSP with solder ball can be removing with the CSP holder.

## Re-Balling Process-3: (Solder ball heating )

The completed solder ball on the CSP must be heating by the rework system.on the board is set in the rework system and heating. It is for fixed of the ball to the package. In the case of the heating, the optimal temperature profile will be all-most same as soldering it, However, maximum temperature will be enough even if somewhat low. The optimal temperature should be decided by real operation.

- The completed re-balling CSP with the CSP holder is reversed, and the CSP is put on the board, with ball side up.
- The board prepares such as PCB which can be used for heating.
- It heats until the solder ball melts and it fixed to the package.

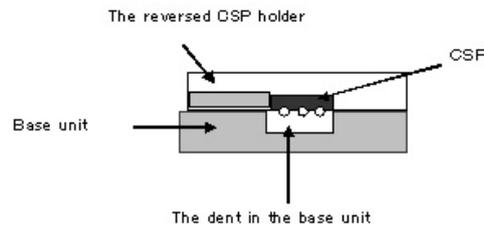


## After re-balling

The completed BGA should be solder printing again with the printing mask unit when replacing to the board. Then, the CSP is supplied to the nozzle of the rework system. It can be directly from the PLCP jig. However, SND-ADP parts supply unit will be more easy of supplying of the CSP.

## PLCP Printing Jig (for lead pitch 0.5 ~ 0.8mm)

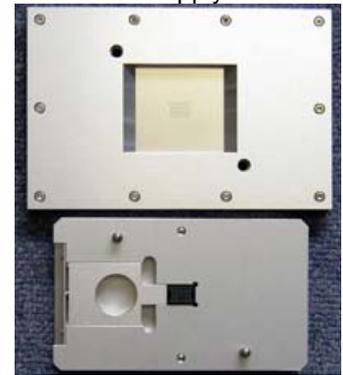
PLCP type Printing Jig is used when soldering CSP of fine pitch. They are both CSP which re-balling and or new one. The function is included of the PLCR re-balling Jig. However, when only the jig for printing is required, the PLCP type Jig for printing was prepared.



- Solder printing are used of the printing mask unit, CSP holder and squeegee.
- The printed CSP with the CSP Holder is reversed and it put on the base unit.
- The base unit have the solder ball portion dent of the CSP, thus solder paste may not touch to the unit.
- The base unit with the CSP can be setting on the SND-ADP parts supply unit.
- The nozzle of the rework machine can be pick the CSP up at the the center from the Jig easily



SND-ADP  
Parts Supply Unit



PLCP Printing Jig