

# 3x3x3: PLL Recognition Guide

## EPLLs

### Category 0: Two 3x1 Blocks

solved:



I hope you can recognize this.

### Category 1: One 3x1 Block

**Ua:**



**Ub:**



When the block is on the left:

- It's Ub when an opposite edge colour is on the right
- It's Ua when an adjacent edge colour is on the right

When the block is on the right:

- It's Ua when an opposite edge colour is on the left
- It's Ub when an adjacent edge colour is on the left

### Category 2: No 3x1 Blocks & One Opposite Colour Edge

**Ua:**



**Ub:**



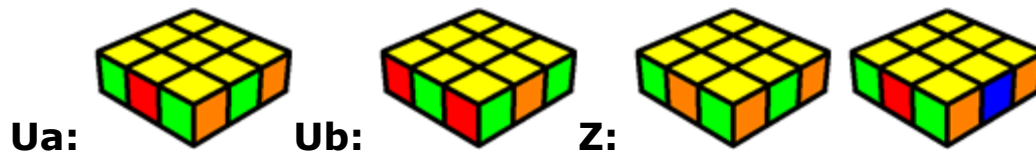
**H:**



- It's Ua when an opposite edge colour is on the right
- It's Ub when an opposite edge colour is on the left

-It's H when an opposite edge colour is on each side

### Category 3: No 3x1 Blocks & No Opposite Colour Edge



When a single colour appears three times:

-It's Ua when the edge of that colour is on the right

-It's Ub when the edge of that colour is on the left

Otherwise:

-It's Z

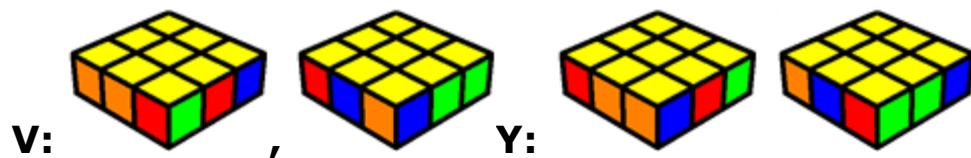
## Diagonal CP

### Category 1: Two Blocks



- It's V when the blocks are both on the inside
- It's Y when the blocks are both on the outside
- It's Na when the inner corner is part of a left block
- It's Nb when the inner corner is part of a right block

### Category 2: One Block



- It's V when there's a block on the outside
- It's Y when there's a block on the inside

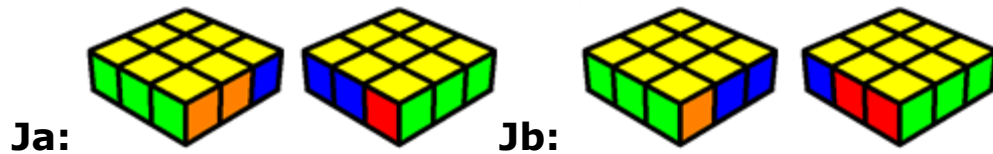
### Category 3: No Blocks



- It's V when there's a checker pattern on the inside
- It's Y when there's a checker pattern on the outside
- It's E when there's no checker pattern at all

## Adjacent CP – Two Blocks

### Category 1: One 3x1 Block & One 2x1 Block



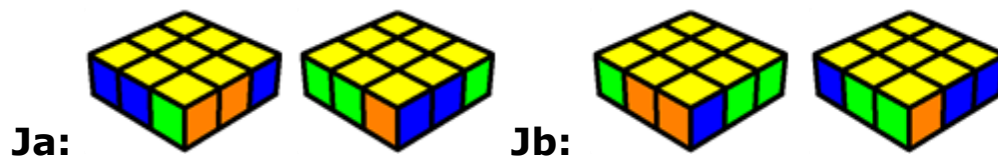
When the 3x1 block is on the left:

- It's Ja when the 2x1 block is on the inside
- It's Jb when the 2x1 block is on the outside

When the 3x1 block is on the right:

- It's Jb when the 2x1 block is on the inside
- It's Ja when the 2x1 block is on the outside

### Category 2: One Outer 2x1 Block and One Inner 2x1 Block



- It's Ja when the 2x1 block on the outside is on the left
- It's Jb when the 2x1 block on the outside is on the right

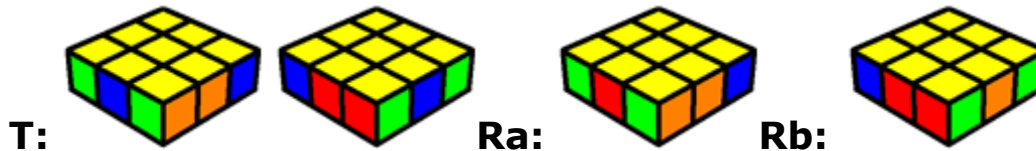
### Category 3: Two Inner 2x1 Blocks



- It's Aa when the outer corner on the right is opposite
- It's Ab when the outer corner on the left is opposite

## Adjacent CP – Headlights, One Block

### Category 1: Inner Block



When the edge in between the headlights is adjacent:

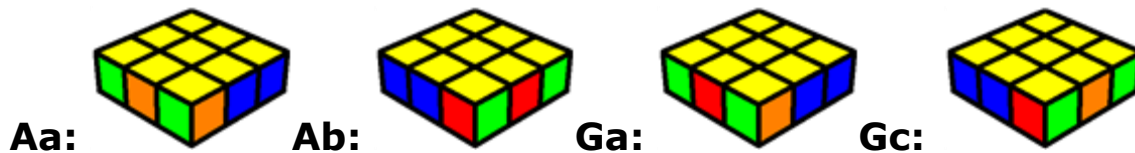
-It's Ra when the block is on the right

-It's Rb when the block is on the left

Otherwise:

-It's T

### Category 2: Outer Block



When only three unique colours are visible:

-It's Aa when the block is on the right

-It's Ab when the block is on the left

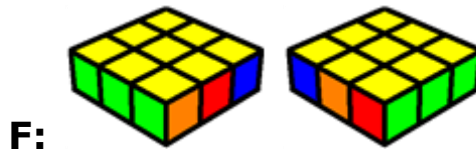
Otherwise:

-It's Ga when the block is on the right

-It's Gb when the block is on the left

## Adjacent CP – No Headlights, One Block

Category 1: One 3x1 Block



-It's F

Category 2: Inner Block



When the corner beside the block is adjacent:

-It's Ga when the block is on the left

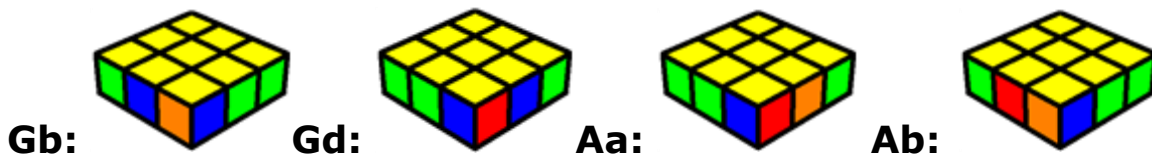
-It's Gc when the block is on the right

Otherwise:

-It's Gb when the block is on the left

-It's Gd when the block is on the right

Category 3: Outer Block & Opposite Corner



When only three unique colours are visible:

-It's Gb when the block is on the right

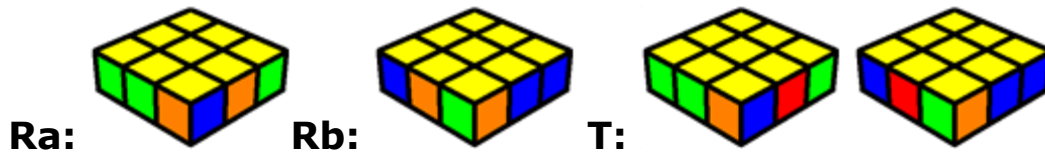
-It's Gd when the block is on the left

Otherwise:

-It's Aa when the block is on the left

-It's Ab when the block is on the right

#### Category 4: Outer Block & Adjacent Corner



When only three unique colours are visible:

-It's Ra when the block is on the right

-It's Rb when the block is on the left

Otherwise:

-It's T

## Adjacent CP – Headlights, No Blocks

### Category 1: Opposite Edge In Between Headlights



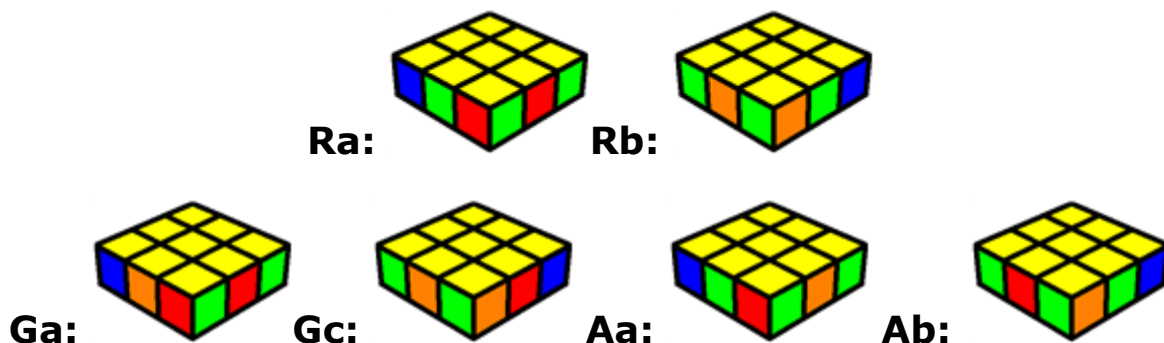
When only three unique colours are visible:

- It's Gb when the block is on the left
- It's Gd when the block is on the right

Otherwise:

- It's Gb when the block is on the right
- It's Gd when the block is on the left

### Category 2: Adjacent Edge In Between Headlights



When only three unique colours are visible:

- It's Ra when the headlights are on the left
- It's Rb when the headlights are on the right

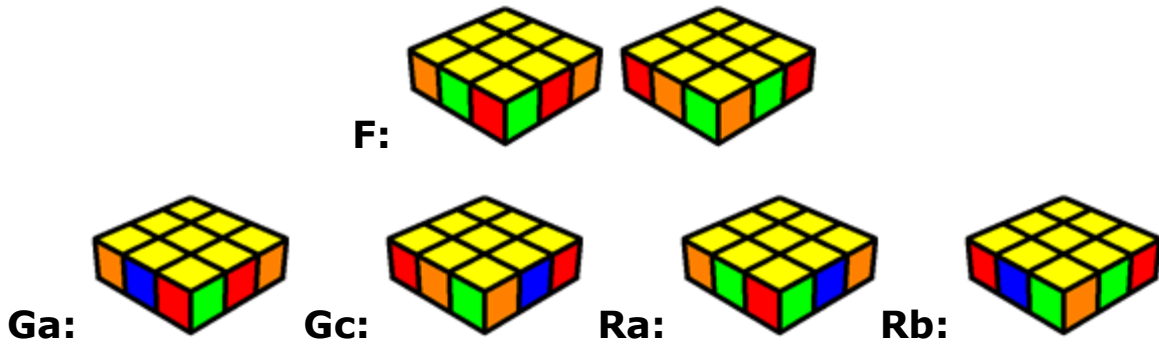
Otherwise:

- It's Ga when the headlights are on the right and the outer left corner is adjacent
- It's Gc when the headlights are on the left and the outer right corner is adjacent



- It's Aa when the headlights are on the right and the outer left corner is opposite
- It's Ab when the headlights are on the left and the outer right corner is opposite

## Adjacent CP – No Headlights, No Blocks



When only three unique colours are visible:

-It's F

Otherwise:

-It's Ga when an opposite outer corner is on the right

-It's Gc when an opposite outer corner is on the left

-It's Ra when an opposite inner corner is on the right

-It's Rb when an opposite innerr corner is on the left