

## MySQL error: key specification without a key length



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I have a table with a primary key that is a varchar(255). Some cases have arisen where 255 characters isn't enough. I tried changing the field to a text, but I get the following error:

```
BLOB/TEXT column 'message_id' used in key specification without a key length
```

how can I fix this?

edit: I should also point out this table has multiple primary keys.

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edited Dec 1 '09 at 15:53

asked Dec 1 '09 at 15:50



GSto

4,192 7 21

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A table cannot have multiple primary keys. Do you mean it has a composite primary key (that is including more than one column) or it has multiple UNIQUE keys? – Quassnoi Dec 1 '09 at 16:02

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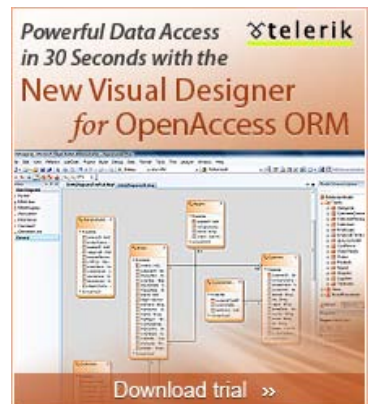
The error happens because MySQL can index only the first N chars of a BLOB or TEXT column. So The error mainly happen when there is a field/column type of TEXT or BLOB or those belongs to TEXT or BLOB types such as TINYBLOB, MEDIUMBLOB, LONGBLOB, TINYTEXT, MEDIUMTEXT, and LONGTEXT that you try to make as primary key or index. With full BLOB or TEXT without the length value, MySQL is unable to guarantee the uniqueness of the column as it's of variable and dynamic size. So, when using BLOB or TEXT types as index, the value of N must be supplied so that MySQL can determine the key length. However, MySQL doesn't support a key length limit on TEXT or BLOB. TEXT(88) simply won't work.

The error will also pop up when you try to convert a table column from non-TEXT and non-BLOB type such as VARCHAR and ENUM into TEXT or BLOB type, with the column already been defined as unique constraints or index. The Alter Table SQL command will fail.

The solution to the problem is to remove the TEXT or BLOB column from the index or unique constraint, or set another field as primary key. If you can't do that, and wanting to place a limit on the TEXT or BLOB column, try to use VARCHAR type and place a limit of length on it. By default, VARCHAR is limited to a maximum of 255 characters and its limit must be specified implicitly within a bracket right after its declaration, i.e VARCHAR(200) will limit it to 200 characters long only.

Sometimes, even though you don't use TEXT or BLOB related type in your table, the Error 1170 may also appear. It happens in situation such as when you specify VARCHAR column as primary key, but wrongly set its length or characters size. VARCHAR can only accepts up to 256 characters, so anything such as VARCHAR(512) will force MySQL to auto-convert the VARCHAR(512) to a SMALLTEXT datatype, which subsequently fail with error 1170 on key length if the column is used as primary key or unique or non-unique index. To solve this problem, specify a figure less than 256 as the size for VARCHAR field.

Reference: [MySQL Error 1170 \(42000\): BLOB/TEXT Column Used in Key Specification Without a Key Length](#)



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answered Dec 1 '09 at 15:55



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You can't make a traditional index on a `text` column, only fulltext indexes. I suggest making a surrogate primary key and ensuring uniqueness on this field with another method.

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answered Dec 1 '09 at 15:53



[Donnie](#)

4,609 4 19

0

Add another `varChar(255)` column (with default as empty string not null) to hold the overflow when 255 chars are not enough, and change this PK to use both columns. This does not sound like a well designed database schema however, and I would recommend getting a data modeler to look at what you have with a view towards refactoring it for more Normalization.

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answered Dec 1 '09 at 16:01



[Charles Bretana](#)

20.6k 1 21 42

You should define which leading portion of a `TEXT` column you want to index.

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InnoDB has a limitation of 768 bytes per index key and you won't be able to create an index longer than that.

This will work fine:

```
CREATE TABLE t_length (mydata TEXT NOT NULL, KEY ix_length_mydata (mydata(255)))
ENGINE=InnoDB;
```

Note that the maximum value of the key size depends on the column charset. It's 767 characters for a single-byte charset like `LATIN1` and only 255 characters for `UTF8` (MySQL only uses BMP which requires at most 3 bytes per character)

If you need your whole column to be the `PRIMARY KEY`, calculate `SHA1` or `MD5` hash and use it as a `PRIMARY KEY`.

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edited Dec 1 '09 at 16:03

answered Dec 1 '09 at 15:57



[Quassnoi](#)

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