

FAQs on Reversal Trade Prevention Check (RTPC)

1. What is the Reversal Trade Prevention Check (RTPC)?

Reversal Trade Prevention Check is a check introduced by the exchange wherein the second leg of a reversal trade is automatically cancelled by the trading system.

After a trade has been executed between two clients on a contract, if the same two clients try to square up this trade against each other, the trading system shall prevent this kind of reversal trade by cancelling the incoming (active) square up order on that contract. This check shall be applicable on trades executed on the same day and at an instrument (contract) level.

2. How does RTPC work?

Consider the following examples:

Case 1: RTPC on the basis of PAN of a client:

Buy Member Code	Client Code	PAN	Sell Member Code	Client Code	PAN	Result
9081	A	AIRNY4152J	9082	B	-	Trade
9082 (passive order)	B	-	9083 (incoming order)	C	AIRNY4152J	Cancel

- 1) Here, the original trade has happened between buy order of 9081+ client code A + PAN (AIRNY4152J) combination & sell order of 9082 + client code B in a single scrip/contract.
- 2) Now, Member 9082 enters a square up order with client code B which remains passive.
- 3) Also, Member 9083 enters a sell order in the same scrip with client code C having the same PAN as that of client A by member 9081 in the first leg of the original trade.
- 4) Here active order entered by member 9083 for client C will be cancelled.
- 5) Passive buy order by 9082 for client code B will remain pending.

Case 2: RTPC on the basis of client code

Buy Member Code	Client Code	Sell Member Code	Client Code	Result
9081	A	9082	B	Trade
9082 (passive order)	B	9081 (incoming order)	A	Cancel

- 1) Here, the original trade has happened between buy order of 9081+ client code A combination & sell order of 9082 + client code B in a single scrip/contract.

- 2) Now, Member 9082 enters a square up order with client code B which remains passive.
- 3) Also, Member 9081 enters a sell order in the same scrip with client code A.
- 4) Here active order entered by member 9081 for client A will be cancelled.
- 5) Passive buy order by 9082 for client code B will remain pending.

3. How does RTPC work when there are multiple passive orders at the same price?

- When there are multiple passive orders at the same price and an incoming matchable order is entered, if there is a possibility of reversal trade, then the system will prevent execution of such a reversal trade, whereas at the same time, the incoming order shall be considered for matching with other orders at the same price in order to give execution benefit to such order.
- The passive order, which did not match due to RTPC, remains in the order book retaining its time priority and shall be available for subsequent matching.
- The incoming order, then, will be cancelled to the extent of the unexecuted quantity.

Consider the following example - Passive order resulting into a trade and other passive orders at the same price:

The original trade has taken place between a buy order by member 9081 + client code A (PAN AIRNY4152J) and a sell order by member 9082 + client code B:

Buy Member Code	Client Code	PAN	Sell Member Code	Client Code	PAN	Result
9081	A	AIRNY4152J	9082	B	-	Trade

Order book is as follows:

Order	Member Code	Client code	Order quantity	Price
Passive Buy 1	9082	B	250	1645
Passive Buy 2	9082	C	250	1645
Passive Buy 3	9080	D	250	1645
Passive Buy 4	7000	E	250	1645
Active Sell	9083	Z (AIRNY4152J)	1000	1645

- ✓ Member 9083 enters a sell order with client code Z but having the same PAN as that of the first leg in the original trade.
- ✓ Here as soon as the active sell order is taken up for matching, the passive buy order 1 with a trade case is detected. This trade will not be allowed.
- ✓ Incoming order will match with subsequent passive orders available at that price. Passive buy orders 2, 3 and 4 are at the same price and will get matched with the incoming order.
- ✓ Since there are no other orders at price 1645 beyond passive buy order 4, the unexecuted quantity 250 (1000-750) of the incoming active order will be cancelled.
- ✓ Total traded quantity will be 750 only.
- ✓ Passive buy order 1 with quantity 250 @ 1645 will remain pending.

Matching process and the result:

Step No.	Sequence of Matching	Result
1	The active incoming sell order is considered for matching	<ul style="list-style-type: none"> Passive buy order 1 is skipped as it is the second leg of the original trade
2	The incoming sell order will move down further to passive buy orders 2, 3 and 4 which are at the same price.	<ul style="list-style-type: none"> Resultant traded quantity is 250 (passive buy order 2) + 250 (passive buy order 3) + 250 (passive buy order 4) = 750
3	No other order is found at that price.	<ul style="list-style-type: none"> Untraded quantity from the active incoming order 250 (1000-750) is cancelled. Passive buy order 1 remains pending.

At the end, the order book will appear as such:

Order	Member Code	Client code	Order quantity	Price
Passive Buy 1	9082	B	250	1645

4. How will RTPC work when there are multiple passive orders at the same price as well as at more than one price?

When there are multiple passive orders at the same price as well as at more than one price and an incoming matchable order is entered, then all the rules explained above will apply. Additionally, passive orders at other prices will remain unmatched in the book.

Consider following example A – Passive order resulting into a reversal trade, at the top of the book:

The original trade has taken place between a buy order by member 9081 + client code and a sell order by member 9082 + client code B:

Buy Member Code	Client Code	Sell Member Code	Client Code	Result
9081	A	9082	B	Trade

Order book is as follows:

Order	Member Code	Client code	Order quantity	Price
Passive Buy 1	9082	B	250	1645
Passive Buy 2	9083	C	250	1644
Passive Buy 3	9082	D	250	1644
Passive Buy 4	7000	E	250	1644
Passive Buy 5	7046	F	250	1643
Active Sell	9081	A	1000	1643

Matching process and the result:

Step No.	Sequence of Matching	Result
1	The active incoming sell order is considered for matching.	<ul style="list-style-type: none"> Passive buy order 1 is skipped as it is the second leg of the original trade
2	No other order is found at the same price 1645.	<ul style="list-style-type: none"> Matching will not continue for orders at subsequent prices. Traded quantity is zero. Entire quantity of 1000 is cancelled. Passive buy orders 1 to 5 remain pending.

At the end, the order book will appear as such:

Order	Member Code	Client code	Order quantity	Price
Passive Buy 1	9082	B	250	1645
Passive Buy 2	9083	C	250	1644
Passive Buy 3	9082	D	250	1644
Passive Buy 4	7000	E	250	1644
Passive Buy 5	7046	F	250	1643

Example B – Passive order resulting into a trade, not at the top of the book on the opposite side, but at the topmost priority within that price:

The original trade has taken place between a buy order by member 9081 + client code A and a sell order by member 9082 + client code B:

Buy Member Code	Client Code	Sell Member Code	Client Code	Result
9081	A	9082	B	Trade

Order book is as follows:

Order	Member Code	Client code	Order quantity	Price
Passive Buy 1	9082	Q	250	1645
Passive Buy 2	9082	B	250	1644
Passive Buy 3	9083	C	250	1644
Passive Buy 4	9082	D	250	1644
Passive Buy 5	7046	E	250	1643
Active Sell	9081	A	1250	1643

Matching process and the result:

Step No.	Sequence of Matching	Result
1	The active incoming sell order is considered for matching.	<ul style="list-style-type: none"> Best buy order i.e. passive buy order1 will match. Traded quantity is 250.
2	Passive buy order 2 is the second leg of the original trade.	<ul style="list-style-type: none"> Passive buy order 2 is skipped as it is the second leg of the original trade
3	The incoming sell order will move down further to passive buy orders 3 and 4 which are at the same price.	<ul style="list-style-type: none"> Resultant traded quantity is 250 (passive buy order 3) + 250 (passive buy order 4) = 500 Total traded quantity so far becomes 750 (250 + 500)
4	No other order is found at the same price 1644.	<ul style="list-style-type: none"> Matching will not continue for orders at subsequent prices. Traded quantity is 750. Unexecuted quantity from the incoming sell order 500 (1250-750) is cancelled. Passive buy orders 2 and 5 remain pending.

At the end, the order book will appear as such:

Order	Member Code	Client code	Order quantity	Price
Passive Buy 2	9082	B	250	1644
Passive Buy 5	7046	E	250	1643

5. What happens to the passive order after active order is cancelled?

The passive order, which does not match due to potential reversal trade case, remains in the order book retaining its time priority and shall be available for subsequent matching.

6. How does RTPC work in case of modification of an order?

In case of modification of a passive order such that it becomes matchable and is likely to result into a reversal trade (i.e. modification of price and client code), the modified order will be treated as an active incoming order and all the rules as explained in earlier sections above will be applicable.

7. How will the trade check work when a member enters RRM (Risk Reducing Mode)?

When the member goes into RRM, his incoming square up orders during RRM mode shall not be checked for RTPC so as to enable him to come out of RRM to normal mode of trading. Once the member comes out of RRM, then RTPC will once again become applicable as per the rules given above.

8. What is the impact on BOLT TWS or third party trading applications using IML / ETI APIs users in case of order cancellation due to RTPC?

BOLT TWS - Any order cancelled due to RTPC will reflect in common message window screen of BOLT TWS with error message 'Cancel Order - Reverse Trade Prevention Check'. Similarly, all cancelled orders can be viewed in 'Return Orders (F5)' window of BOLT TWS.

IML API - Existing version of IML API And IML exe shall support the order cancellation due to RTPC and third-party trading application can receive order cancellation message on account of RTPC.

ETI API – Existing version of ETI API shall support the order cancellation due to RTPC. ETI API-based third-party trading applications can receive order cancellation message on account of RTPC.

End of Document