

# Black Box Trading System

github Repository

drew-bb

netproz@icloud.com

M1a2n3hattan

## 5m Chart Usage     **PRIMARY Time Frame**

1. Use trade triggers from this chart to enter.
2. Only enter trades following 1h momentum reflected thru histogram & RSIma.
3. When prices close across 5m 13ema, this constitutes a 5m retrace.
4. If 5m exit would result in < 10p profit ignore 5m exits and follow rules of Flag 8a. The trade protection & exit is 1h 13ema unless another 1h exit presents itself.
5. There are 2 possible 5m exits: the 5m RSI & 5m 13ema.

## 1h Chart Usage

1. When red ma cloud, ignore 5m buy triggers, when blue ma cloud, ignore 5m sell triggers.  
red cloud =  $8ema < 21ema$     blue cloud =  $8ema > 21ema$
2. RSIma momentum must support 5m trade triggers;  
red line = sell triggers, green line = buy triggers.
3. RSI Histogram must be higher to buy & lower to sell.
4. Raw RSI must be up to buy & down to sell.
5. Price must close across 13ema to support trade.

## 15m Chart Usage

1. Ignore this chart until AFTER first 1h exit in a trend.
2. After 1st 1h exit in the SAME 1h trend, substitute 15m trade confirmations for 1h trade confirmations;  
entry AND exit.  
Note: 1h ma cloud color still determines which trades to follow.
3. New 5m entry requirement for when this chart is active...15m RSIma **MUST** cross 0 in favor of trade.  
Not a requirement for the 1h chart in normal trading.  
15m chart still requires RSIma color & histogram & raw RSI support for 5m trade.  
15m exits apply; both 15m RSI AND 15m 13ema.
4. 1h RSIma color may substitute for 15m RSIma color as long as 15m RSIma has crossed 0 in favor of 5m entry trigger. **NEVER fight the 1h RSIma color.**
5. 1h exit triggers no longer relevant. **1h Acceleration flag may interrupt 15m chart usage.**  
Flag 8a may also override a 15m exit for < 10p profit. If 15m exit results in < 10p profit ignore 15m exit as long as 1h 13ema supports trade. 1h 13ema is then the exit. Process as if Flag 8a active.
6. 15m chart usage disabled after next 1h 8x21 MA crossover **OR** 1h 21ema has turned against 1h cloud **OR** 1h RSIma crosses 0 against the cloud...whichever comes first. After 15m chart is disabled, FULL 1h trade confirmation is again required.
7. There are two 15m exits: the 15m RSI and the 15m 13ema.

Benefits of 15m chart substitution:

1. 1h histogram not required.
2. 1h RSIma color not required.
3. 4x faster entry & exit triggers with the same 5m entry triggers.
4. Maintain benefit of long-term confirmation of 5m triggers.
5. Helps avoid trade entry at long-term tops & bottoms. (mostly thru RSIma crossing

0).

\*\*\*\*\*

### **To open the trading week...**

1. Establish long-term trend with 1h MA cloud.
2. Await a 5m retrace regardless of whether a 5m trade trigger has presented itself.
3. After 5m retrace, approach trading with normal BB approach.
4. If the 1h cloud is blue and 5m prices are already below the 13ema, crossing above the 13ema does NOT constitute a retrace. Prices must move below the 13ema and THEN cross above again before a 5m buy trigger is executed...and vice versa.

\*\*\*\*\*

### **Trading Flags**

1. Weekly start flag. Initialize 1h trend for 5m retrace requirement. What is the 1h MA cloud color.  
so 1h Red cloud requires 5m close crossing above 13ema and  
so 1h Blue cloud requires 5m close crossing below 13ema.  
Either condition clears the flag for normal trading.
2. Trading Range Flag. If 1h rsi21ema is between 47-53 AND has moved less than 1.8 from 2 days ago then set this flag. NO TRADING any signals in any time-frame. Reset flag when rsi21ema is above or below this range or raw RSI rises above 70 or below 30. Ignore 5m triggers until 5m retrace. So if 1h rsi21ema crosses above 53 price must close below the 5m 13ema as a retrace & vice versa. Then trade normally.  
Note: A trading range resets everything. Treat a trading range exit as if it's a new 1h cloud color except the requirement for a 5m retrace. 5m retrace required when exiting a trading range.  
Note: 1h rsi21ema may make moves greater than 1.8 from 2 bars ago inside this range. This does NOT clear the flag...only rising above 53 or dropping below 47 clears this flag or raw RSI. IOW only 1 bar is required to establish this flag and this may adversely affect other bars which exceed 1.8 in movement inside this range.  
Note: rsi21ema rising above 53 may do so being less than 1.8 from 2 bars ago: flag is CLEARED.  
Note: if an active trade is present when this flag is set there are no special rules for exit. Process exits normally as specified elsewhere.
- 2a. Outside the 47-53 range... ANY rsi21ema move < 1.3 from 2 bars ago means do not open a new trade. Not sufficient momentum to trade. No special rules like between 47-53. A move < 1.3 on rsi21ema simply means stand aside for this 1h bar.  
Note: if flag 2 not active then 2a IS applicable inside the 47-53 range also...rsi21ema is moving thru range.

3. No longer used.
4. Losing trade flag. Set flag for ten 5m bars for no trading period (ignore all triggers), then clear for normal trading. Count 10 from the bar after closing bar. ...helps avoid volatile whipsaws in market
5. RSI Exit Flag      Activate flag when RSI is above 70 for 3 consecutive 1h bars in a blue cloud or below 30 for 3 consecutive bars in a red cloud.  
Note: ignore the histogram exit as long as this flag is set. We do not want to disable flag 9 because we want it to activate immediately should this flag turn off. As long as we are still qualified for flag 9 we want that flag to remain active.
6. Obsolete. No longer used.
7. 15m chart active flag. Used as a simple toggle for when to follow 15m chart vs 1h chart. Set flag after first 1h exit (either RSI or 13ema or 5ema or Histogram) in a trend. Clear flag when 8x21 MA crossover (1h color change) **OR** 1h 21ema turns against cloud **OR** 1h RSIma crosses 0 against the 1h cloud.
8. Acceleration Phase flag. Prices close for 5 **CONSECUTIVE** bars above 1h 5ema in a 1h blue cloud or below 1h 5ema in a 1h red cloud. Count begins with new cloud color. This activates a 1h 5ema close to use instead of the 1h 13ema close. 1h RSI close is still active. A histogram exit is also implemented. Set the histogram Flag 9. Take next 5m buy/sell trigger if no trade is already open and all 1h or 15m conditions are assumed true to enter the trade. Reset this flag with 1h close below (above) 1h 5ema **OR** 1h RSIma is no longer green in a blue cloud or red in a red cloud.  
  
Note: If 15m chart is active when this flag activates; IGNORE 5m AND 15m exits. The 3 valid exits are 1h RSI, 1h 5ema, and 1h histogram close.  
Note: to start the trading week, start the 5 bar count from open Sunday.  
Note: If the RSIma color changes, allow any existing trades to use the 1h 5ema or Flag 9 to exit trade normally. The color change prohibits opening any new positions, it does not mandate a special exit.  
The assumption of true conditions for 15m/1h trade entry is also stopped. Revert to normal 15m/1h trade entry...the 15m chart is probably active now.
- 8a. The histogram exit gets crushed when a market is trending but not quite strongly enough reflected by candles which close against the trend. It's neither acceleration nor what this exit was designed to capture. Therefore, to mitigate this while not losing it's many advantages:
  - a. If a histogram close will result in < 10p profit, skip close as long as closing price has 1h 13ema support.
  - b. If 1h 5ema exit will result in < 10p profit, skip close as long as closing price has 1h 13ema support and new close is 1h 13ema instead of 1h 5ema. This clears flags 8 & 9 as normal.
  - c. Start a new histogram exit count (5 bars) from the bar following the bar which would have closed the trade.
  - d. The valid exits during this whole time are: 1hRSI and 1h5ema (or 1h 13ema...see b above).

e. As before, a close across the 1h 5ema restarts the count and disables 1h5ema exit and activates the

1h13ema exit again.

f. After a 1h exit the 15m chart will activate again normally.

g. FWIW...this approach turned a -101p week into a 63p week.

Note: always prioritize a 1h RSI exit. The 1h RSI exit overrides 8a. There is no 10p rule to not take a 1h RSI exit.

#### 9. Histogram Exit Flag

**HISTOGRAM EXIT:** **AFTER** 5 closes above 5ema in a blue cloud (not before 6th bar above 5ema), when the histogram closes lower, exit at close of that bar even if close is above 5ema. Take next 5m buy trigger and all 1h or 15m conditions are assumed true to enter that trade. If 1h has not closed below 5ema Flag 8 is maintained even after an exit while Flag 9 is reset. After 5 more closes above (below) 5ema Flag 9 is active again with all the same rules. New 5 bar count begins with bar AFTER exit bar.

Blue cloud: If histogram is still down the histogram exit is not active again until the histogram closes up. Only AFTER the histogram closes up is the down histogram close active again which may be the very next bar. While histogram is down the 1h RSI & 1h 5ema exits are still active. The histogram up or down is irrelevant when counting 5 bars closing above 1h 5ema. However, if the 6th histogram bar is down, the first bar after setting this flag, regardless if histogram bar 5 is up or down, that will trigger the first histogram exit. This process is captured thru Flag 11. Exactly reverse conditions for a red cloud.

Note: this flag 9 captures the best exits when the 1h chart moves strongly.

- 9a. The exception to Flag 9. In a 1h blue cloud, if raw RSI is up on a histogram bar that is down and would otherwise exit, do not exit long trades. Maintain everything else as is and maintain the histogram exit as active. If next histogram bar also says exit, if raw RSI is up do not exit. Raw RSI must be down to exit a long trade using the histogram exit. Exactly reverse conditions for a red cloud.
- 9b. The other exception to Flag 9. When 1h RSI is extreme for 3 consecutive bars in an active trade (< 30 in red cloud or > 70 in blue cloud) ignore Flag 9 exit (maintain flag) and use normal RSI exit. (break across RSI 21ema or 30/70). Then process normally. 15m chart will likely become active. This is captured in Flag 5.

#### 10. Candlestick Suspend Trading Flag      Shooting Star or Hammer present

Stand aside for 3 **ADDITIONAL** bars if any of the following occur:

1. Flag 8 active.
2. Shooting star is highest high for 8 bars or Hammer is lowest low for 8 bars.
3. Shooting star has RSI > 70 or Hammer has RSI < 30.

Other conditions likely reflect random noise so do not stand aside for 3 bars; process normally.

#### 11. Histogram Reset Flag

Set this flag when Flag 9 turns off and Flag 8 is still active. This activates new requirements for using Flag 9.

The histogram exit is the bar moving against the current trade & cloud. Sometimes this histogram counter-move lasts for many bars. This flag provides a simple way to monitor when to execute the histogram exit again. SO...

In a blue cloud reset this flag when histogram moves UP.

In a red cloud reset this flag when histogram moves DOWN.

## 12. 1h Trade Support Flag

This flag is used to ignore 5m exits. Set this flag with the following conditions:

Blue 1h cloud:

1h Buy trigger OR

( 1h 21ema > previous bar AND 1h RSIma > 0 )

Red 1h cloud:

1h Sell trigger OR

( 1h 21ema < previous bar AND 1h RSIma < 0 )

## Exit Methods

1. Raw RSI > 70 for 3 bars & break lower below (70 or rsi21ema)  
or RSI < 30 for 3 bars & break higher above (30 or rsi21ema).  
note: raw rsi may remain > 70 or < 30 for a considerable period...we stay in trade until  
the break across 70 or 30 or rsi21ema.
2. Close across 13ema in ANY time frame.
3. Flag 8 exit - 1h 5ema.
4. Flag 9 exit - 1h Histogram exit.
5. When the 1h provides full trade support...ignore 5m exits (1 & 2). This is Flag 12.  
1h entry trigger ALWAYS overrides 5m exit.  
1h 21ema trending with trade AND RSIma across 0 supporting trade overrides 5m exit.  
note: 1h close across 13ema is STILL the exit criteria in these kinds of trades.  
note: 1h 21ema exactly equal to previous bar provides trade support...it's not against trade.
6. It's entirely possible to get 5m triggers against current trade when 1h ma's are supporting the trade.  
Ignore 5m triggers which contradict the current trade and do not exit. Use normal 1h exit trigger to  
end trade.
7. obsolete.
8. On Friday after 12pm; execute first exit trigger for any open trade unless Flag 8 is active or 1h raw  
RSI is moving in favor of trade or prices are above (below) 1h 5ema and counting towards Flag 8  
being active. Continue to follow Flags 8 & 9 and process normally but do not open any new positions.  
Otherwise exit all trades by 1400.
9. On Friday after 12pm, if trade is being prolonged as outlined in #8, exit trade if 1h raw RSI moves  
against trade.
10. Open no new trades after 0900 Friday.

\*\*\*\*\*

## Candlestick Addition

This will be used to optimize exit points and pips for a given trend. Not all trends will have a shooting star or hammer but these are the candle formations we will use with the following rules.

1. Shooting star applies to an uptrend / blue cloud and a hammer applies to a downtrend / red cloud. We will ignore the gravestone & hanging top as too unreliable; these are a shooting star in downtrend and a hammer in an uptrend.
2. These candles will be applied on the 1h chart only. They work well on the 5m chart also but often we want to stay in the trade as the trade has continued 1h support. If this occurs while the 15m chart is active we execute the 1h exit anyway. We ignore the 15m chart for the purpose of 15m shooting star / hammer. If applicable we process 15m exits normally. Of course that assumes Flag 8 or 9 is not active which disable 15m exits.
3. If acceleration Flag 8 is active and either the shooting star or hammer appears we will EXIT at the close of that 1h bar rather than await a 5ema cross, 13ema cross, histogram close, or raw RSI reverse move and giving those pips back. IOW, we will always take this exit if conditions are right. No 10 pip rule applies.
4. If acceleration Flag 8 is NOT active:
  - a. If a trade IS active exit if the shooting star high is the highest high for 8 bars or hammer low is lowest low for 8 bars.
  - b. If other conditions are not present which mandate a candlestick exit, then raw RSI must be  $> 70$  for a shooting star exit or  $< 30$  for a hammer exit. Execute the exit. Then process normally.
5. It is entirely possible to open and close a trade on the same 1h bar...5m open & 1h close...since the 1h confirmation was the previous bar.

\*\*\*\*\*

### Parameters for Long-Term Backtesting

1. Current RSI34ema vs RSI21ema.
2. Current 21ema vs 34ema vs 55sma.
3. Trading range def. How much change from 2 bars ago? Currently 2. Is 1.8 better? or something else?
4. Entry condition. Currently close across 55sma required. vs not required.
5. Close across rsi 70/30 for 3 periods to exit. Compare to 4,5,2?
6. Substitute raw RSI for histogram entry confirmation on 1h.
7. Mandate raw 1h RSI for all trade entry.

**Question: Must one relenquish their trading approach to backtest it? Are the people who backtest the system likely to steal it once they see it's incredibly profitable? How to prevent this?**

#### QUESTION

1. Market order or price order for exit orders?
2. When we turn BB of due to major reports, will the system continue calculcations as the bars painted we actually view in TOS or will they be skewed?
3. My exits & conditions typically use < >. How should = be handled? Python?
4. Compare candles between brokers?
- 5.