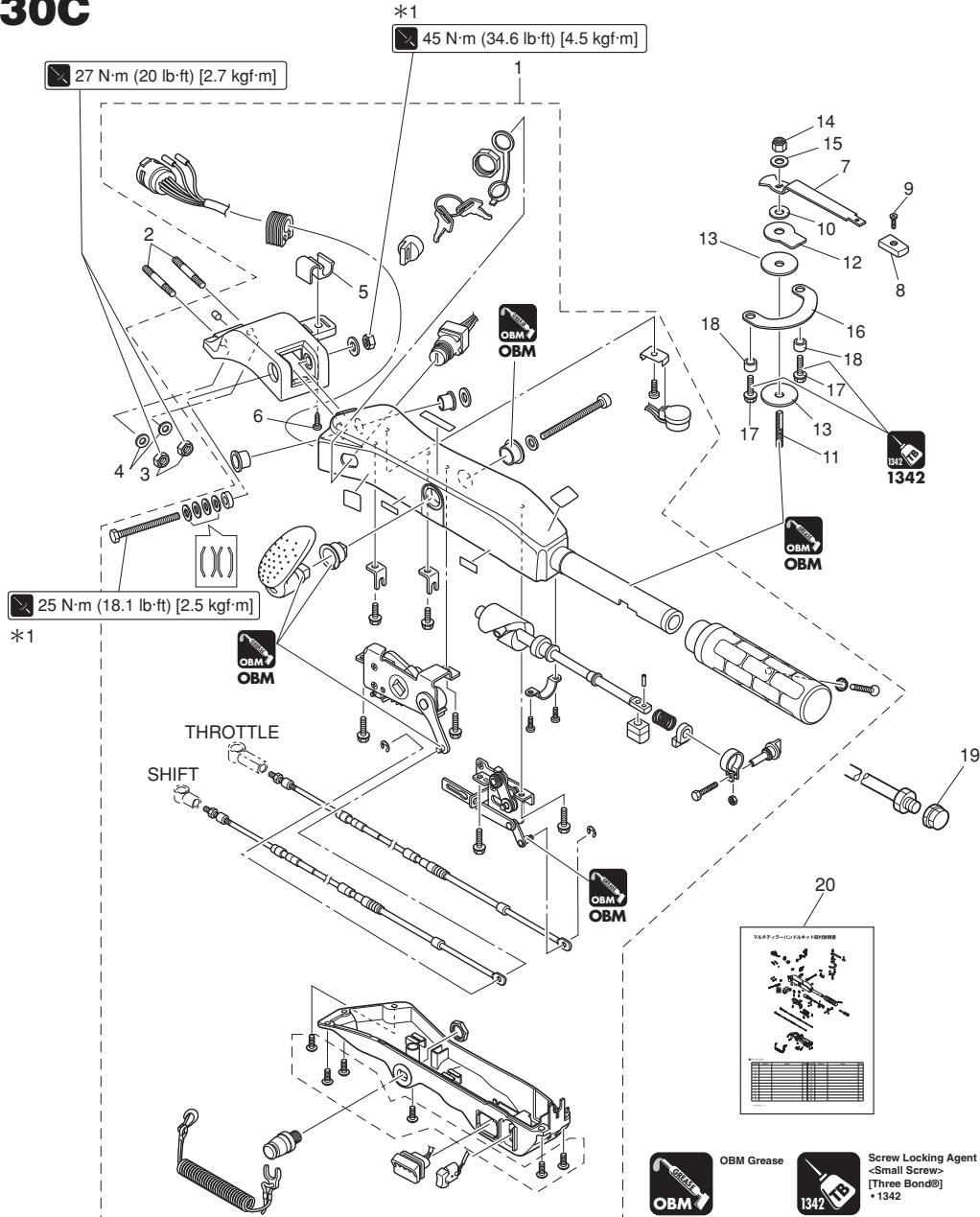


# Multi-Function Tiller Handle Kit installation Manual

## F25/30C



- \*1 Tighten in the following order.  
 ① Tighten the bolt with specified torque.  
 ② Tighten the nut with specified torque. At this time, hold the bolt to prevent rotation.

### Parts List

Ref.No.	Part No.	Part name	Q'ty	Ref.No.	Part No.	Part name	Q'ty
	3NVQ63000-1	TILLER HANDLE KIT	1 set	11	3R3-62445-0-0	BOLT	1
1	-	TILLER HANDLE ASSY	1	12	3R3-62448-1	WASHER	1
2	9153E3-1040	STUD	2	13	3R3-62449-0	DISC	2
3	930403-1000	NYLON NUT	2	14	930403-0800	NYLON NUT	1
4	9401E3-1000	WASHER	6	15	9401E3-0800	WASHER	1
5	3GF-62004-0	CORD HOLDER	1	16	3AC-62447-0	PLATE	1
6	3T5-06437-0	TAPPING SCREW	1	17	910103-5616	BOLT	2
7	3AC-62441-0	FRICTION LEVER	1	18	3AC-63619-0	COLLAR	2
8	3AC-63012-0	GRIP	1	19	346-62127-0	CAP NUT	2
9	346-66334-0	STOPPER	1	20	-	TILLER HANDLE KIT MANUAL	1
10	3R3-62443-0	WASHER	1				

3NV-63300-1

# Preface

This manual covers the Multi Function Tiller Handle Kit installation procedure.

Read this manual carefully and perform the correct procedures. Only Authorized Dealers should perform the set up and installation.

## GENERAL SAFETY INFORMATION

Before installing, operating or otherwise handling your outboard motor, be sure to thoroughly read and understand this Owner's Manual and carefully follow all of the instructions.

**⚠ DANGER**

**Indicates the presence of a hazard which, if ignored, will result in severe injury or death.**

**⚠ WARNING**

**Indicates the presence of a hazard or an unsafe activity which, if ignored, could result in severe injury or death.**

**⚠ CAUTION**

**Indicates the presence of a hazard or an unsafe activity which, if ignored, could result in minor personal injury or damage to the products or facilities.**

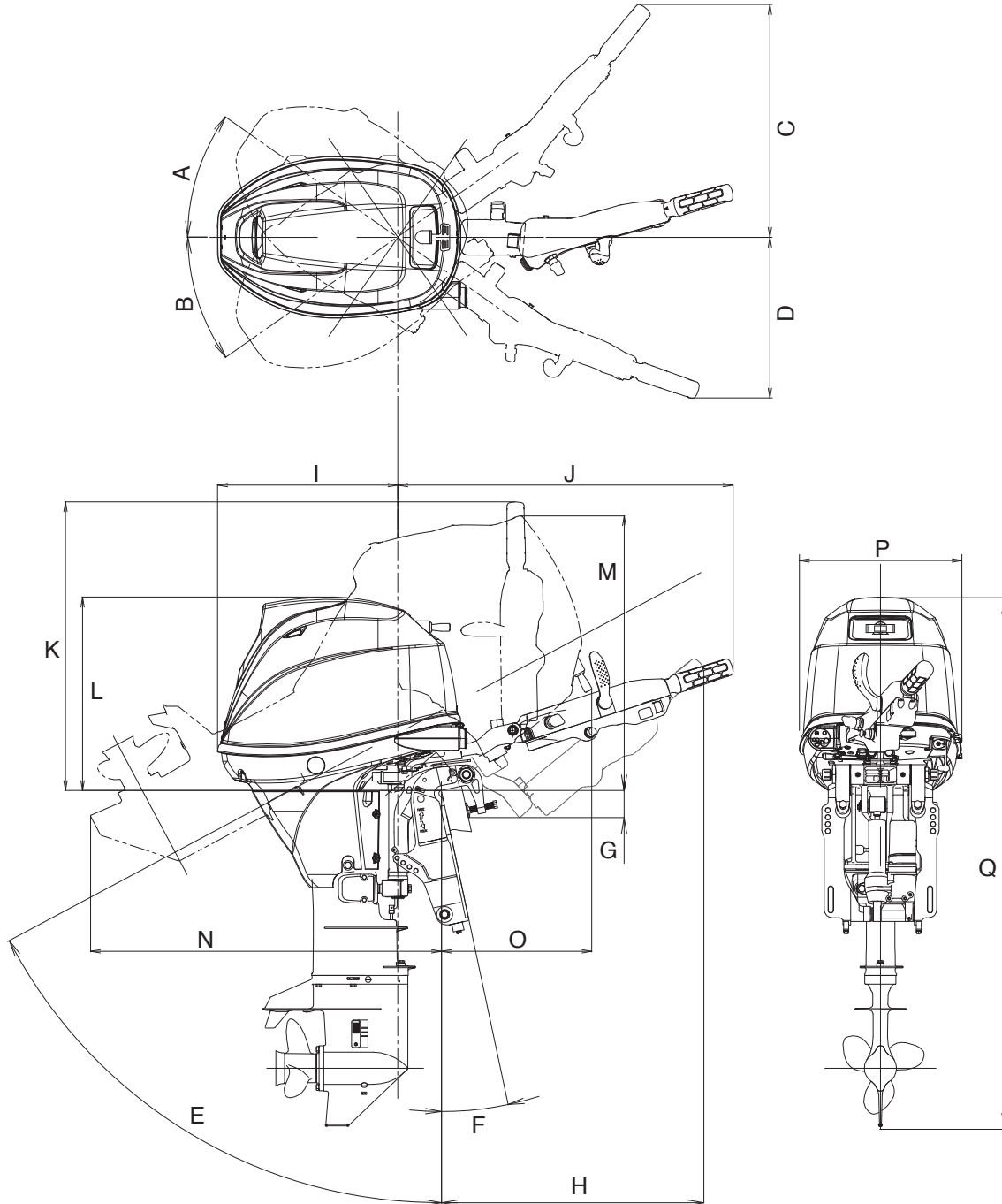


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## Dimensions for full tilt up and steering

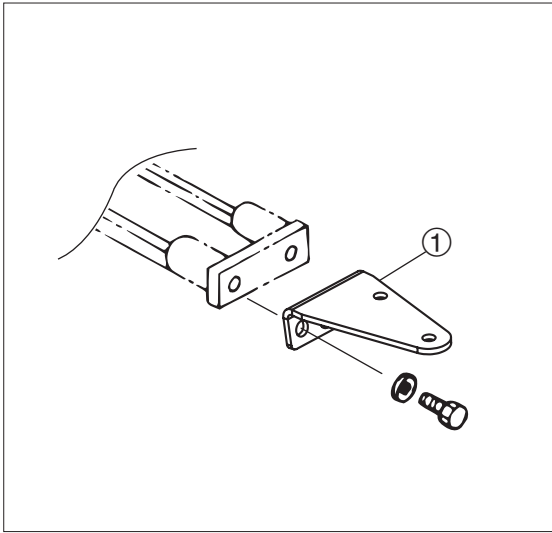
Be sure to confirm that NO parts will interfere with the boat or transom when the motor is at full tilt.  
Do NOT install if any parts interfere with the boat or transom.



TILT TYPE	A	B	C	D	E	F	G	H	I	J	K
MANUAL	36°	36°	588 (23.15)	330 (12.99)	60°	12°	61 (2.40)	683 (26.89)	456 (17.95)	847 (33.35)	730 (28.74)
PTT	35°	35°	588 (23.15)	330 (12.99)	62°	12°	48 (1.89)	682 (26.85)	456 (17.95)	847 (33.35)	730 (28.74)
GAS ASSIST	35°	35°	588 (23.15)	330 (12.99)	56°	12°	66 (2.60)	351 (13.82)	456 (17.95)	847 (33.35)	730 (28.74)

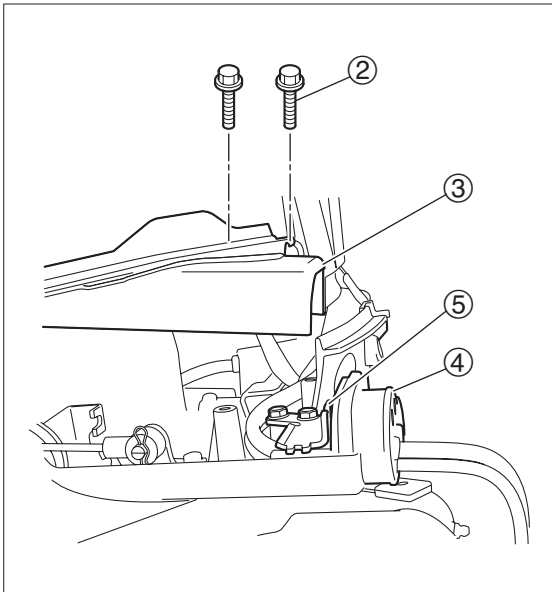
TILT TYPE	L	M	N			O	P	Q		
			S	L	UL			S	L	UL
MANUAL	489 (19.25)	694 (27.32)	756 (29.76)	887 (34.92)	999 (39.33)	380 (14.96)	411 (16.18)	1189 (46.81)	1337 (52.64)	1464 (57.64)
PTT	489 (19.25)	694 (27.32)	756 (29.76)	887 (34.92)	999 (39.33)	380 (14.96)	411 (16.18)	1189 (46.81)	1337 (52.64)	1464 (57.64)
GAS ASSIST	489 (19.25)	694 (27.32)	756 (29.76)	887 (34.92)	999 (39.33)	380 (14.96)	411 (16.18)	1189 (46.81)	1337 (52.64)	1464 (57.64)

mm (in)

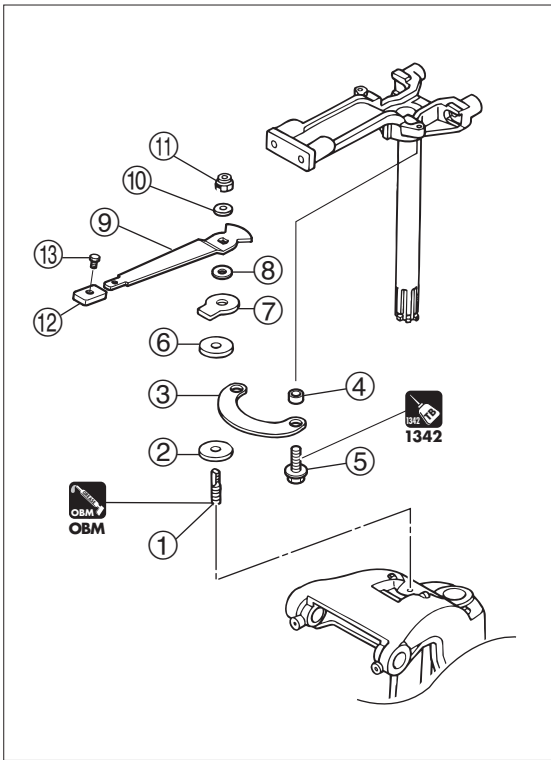


## Preparation

1. Remove steering hook plate ①.



2. Remove 4 bolts ② and then, remove cable cover ③.
3. Remove cable grommet ④.
4. Remove cable clip ⑤.



## Friction Lever Installation

1. Install parts by following order.

- Bolt (stud) ①

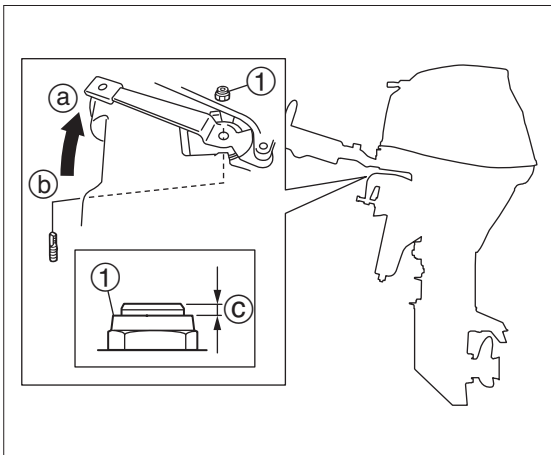


If it's difficult to install by hand, use double nut.

- Disc (1pc.) ②
- Plate ③
- Coller (2pcs.) ④
- Bolt (2pcs.) ⑤
- Disc (1pc.) ⑥
- Washer ⑦
- Washer (Nylon) ⑧
- Friction Lever ⑨
- Washer ⑩
- Nylon nut ⑪
- Cover ⑫
- Push pin ⑬



Do not apply grease to washers.



## Friction Lever adjustment and operation

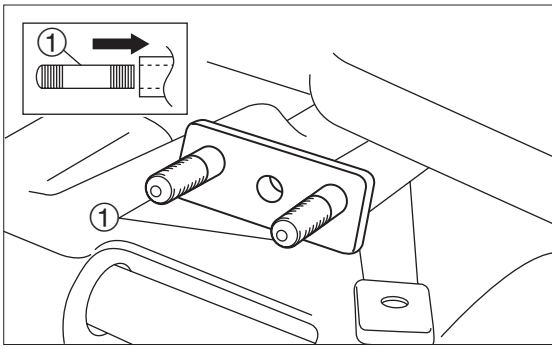
- Move friction lever towards starboard to tighten ① friction and tighten nylon nut ① to adjust maximum friction.
- Move friction lever towards port to loosen ② friction and confirm easily to control steering.

### ⚠ WARNING

- **Do not release tiller handle while operating. Friction lever is not for holding steering completely.**
- **Do not overtighten the steering friction or it could result in difficulty of movement resulting in the loss of control causing an accident and could lead to severe injury.**



To prevent nylon nut from failing, tighten nut until one thread of bolt ③ can be seen above the nut.

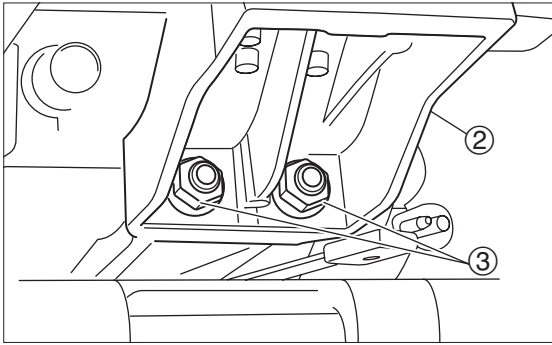


## Multi function Tiller Handle installation

1. Install following parts.
  - Stud bolt (2pcs.) ①



Use double nuts to install

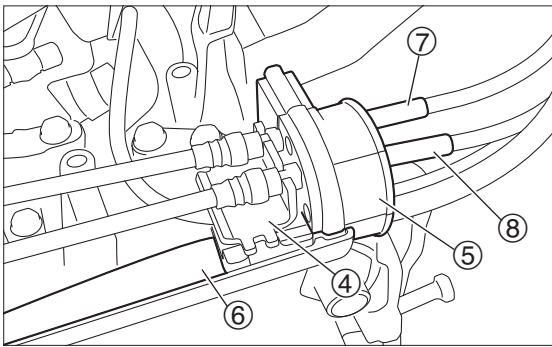


- Multi function tiller handle Ass'y ②
- Nylon nut, washer ③

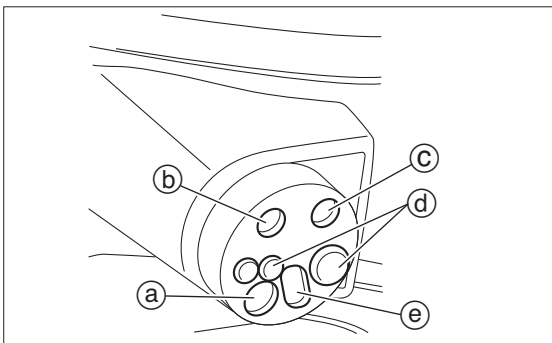


### Nylon nut

26 N · m (19.5 lb · ft) [2.7 kgf · m]



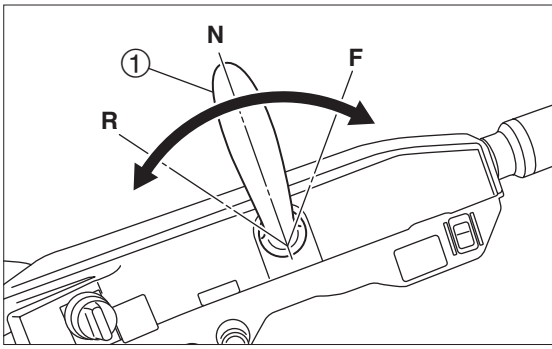
2. Remove cable clip ④.
3. Raise upper grommet ⑤ and place wire harness ⑥ in lower grommet.
4. Reinstall cable clip ④ to hold wire harness ⑥.
5. Put throttle cable ⑦ and shift cable ⑧ into cable clip ④.



- ① Main harness
- ② Shift wire
- ③ Throttle wire
- ④ Service hole
- ⑤ Battery cord

## Shift/Throttle cable adjustment.

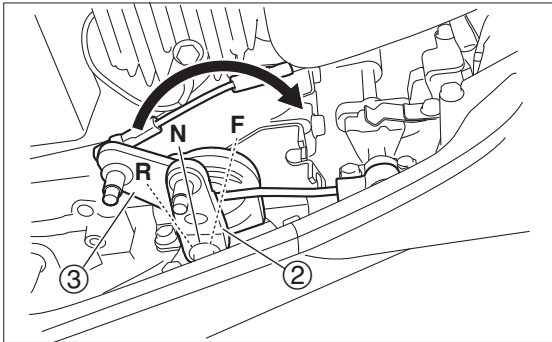
- Place shift lever ① at neutral position.



### ⚠ CAUTION

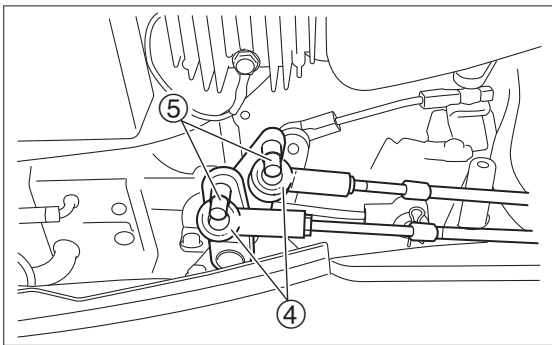
**Shift lever cannot work unless throttle is fully closed. Do not force to change the shift.**

- Set shift arm ② to forward (F), neutral (N), reverse (R) and then to neutral (N) positions.
- Set throttle drum ③ to full open position. (arrowed direction)



Make sure keep the full opened position, by your finger.

- Adjust screw in length of cable joint ④ so that hole of cable joint is brought to shift arm pin ⑤.

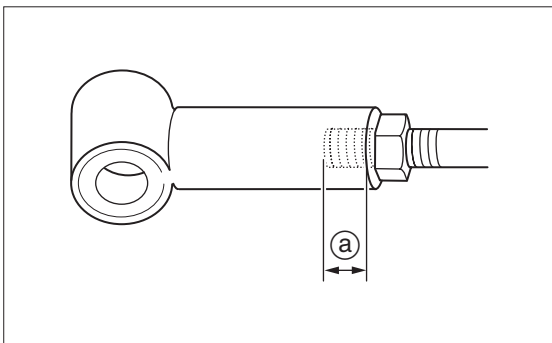


### ⚠ WARNING

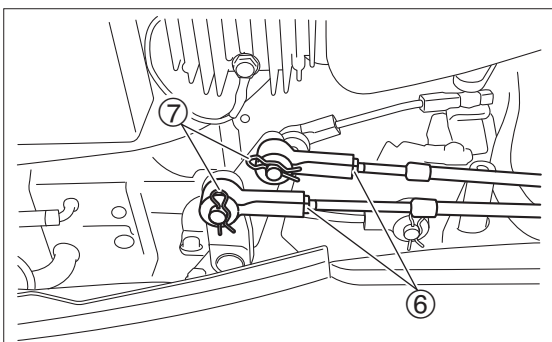
**Screw in remote control cable joint at least 10mm (a).**

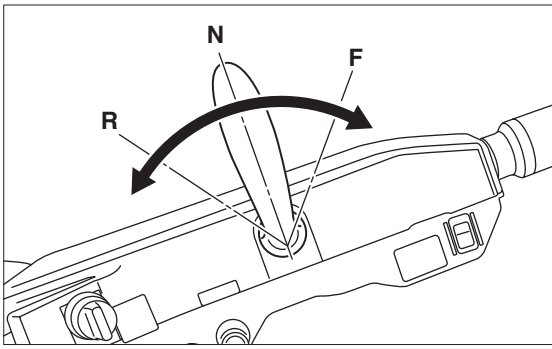


- Cable joints are in drag link package inside outboard box.
- After adjusting remote control cable joint, fix it with remote control cable fully pushed in.

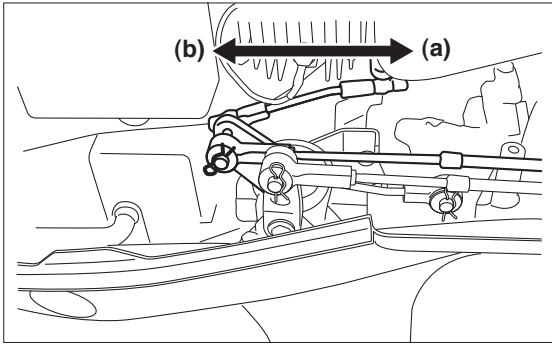


- Lock joint with nut ⑥ and secure with washer and R pin ⑦.



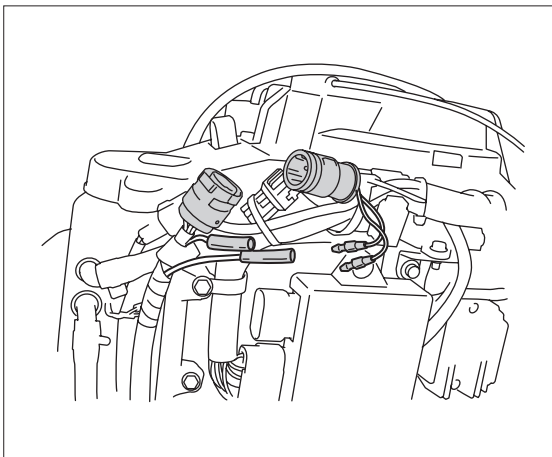


- Check the shift lever operation.



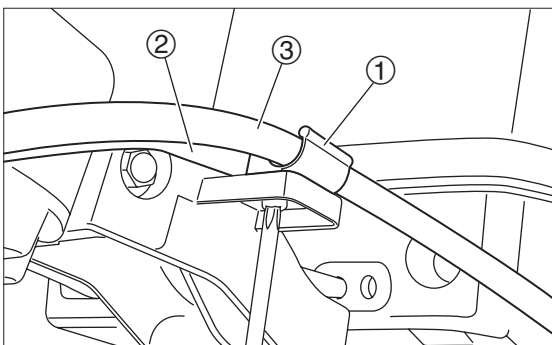
- Check idle and full throttle position to be certain of correct operation.

- (a) Full throttle
- (b) Fully closed



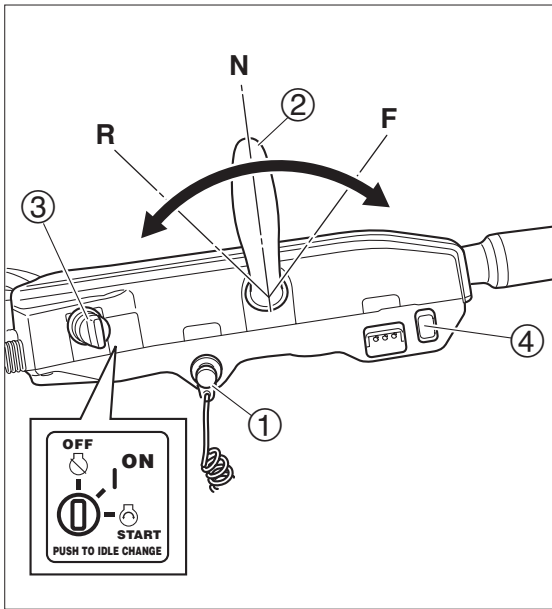
### Wiring connection.

- Connect couplers and connectors of cord Ass'y.



- Install cord holder ① to multi tiller handle. And then, place battery cord ② and fuel hose ③ in holder.





## Operation Inspection

- Install stop switch lanyard ①.
- Place shift lever ② into neutral (N) position.
- Insert key ③ and place it into “OFF” position.

### ⚠ CAUTION

- **Do not operate the engine with gear case out of water.**
- **Shift lever cannot work unless throttle is fully closed. Do not force to change the shift.**
- **Be sure to confirm that NO parts will interfere with the boat or transom when the motor is at full tilt.**

- Neutral switch  
Confirm that the engine does not start except when in neutral.
- Stop Switch  
Confirm that engine will stop when turning the key to the “OFF” position or by removing the stop switch lanyard.
- PTT Switch ④  
Press the “UP” and “DOWN” switch and confirm PTT is working correctly.
- Engine running  
Start engine and confirm whether idling rpm is stabled at  $850 \pm 30$  rpm. Also, confirm whether engine rpm accelerates smoothly.
- Each time the main switch key is pressed in the above manner, engine speed changes as follow chart.

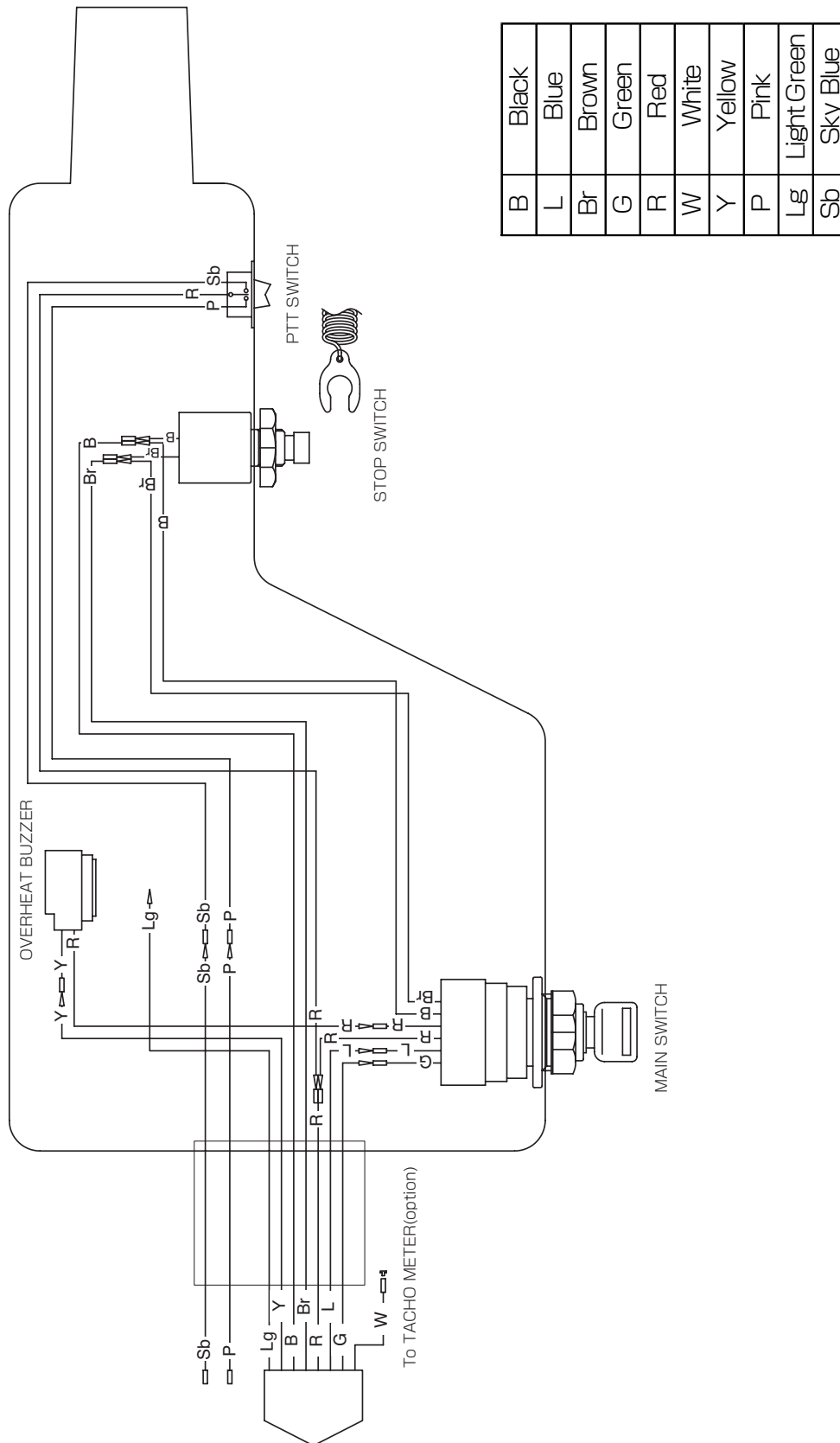
### At stating

850 r/min → 950 r/min

↑ ↓

950 r/min ← 1050 r/min

## Wiring Diagram



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