

# Installing a GReddy E-manage on your FS-DE Motor

Follow most of my instructions and you should be up and running in no time.

**Note:** Some wire colors may vary, I have tried to spot them all and note them but it may differ on your harness, please alert me via e-mail if you find any discrepancies in colors at [Braden@barelylegaltransplants.com](mailto:Braden@barelylegaltransplants.com).

## E-manage Main Harness + Injector Harness

With the injection harness from GReddy, you can add on additional duty cycle when in need of fuel. You will be splicing into the factory lines, do not cut them free, just solder these wires into the factory ones. With the MAF-IN wire and the GROUND wire on the E-manage you will need to tap in a 1k-ohm resistor between them. A picture is attached with the diagrams to show what it should look like before you wire it. The rest of the wires are simple splice in and solder with no CUTTING.

Connector 1	FS-Turbo	
INJ-1 (BLUE / RED)	Cylinder-1 (B/R)	Pin 75
INJ-2 (ORANGE / RED)	Cylinder-4 (G/B)	Pin 100
INJ-3 (YELLOW / RED)	Cylinder-3 (B/Y)	Pin 74
INJ-4 (PURPLE / RED)	Cylinder-2 (L/O)	Pin 101
INJ-GROUND (BLACK / RED)	Ground (B/W)	Pin 24
MAF-IN (WHITE) Solder Resistor w/ Below	MAF-IN (LG/B)	Pin 88 (MAF SIDE)
GROUND (BLACK) Solder Resistor w/ Above	GROUND (B/W)	Pin 77
MAF-OUT (GREEN)	MAF-OUT (LG/B)	Pin 88 (ECU SIDE)
VEHICLE RPM (BROWN)	RPM (V/W)	Pin 48
SWITCHED POWER (RED)	POWER (W/B)	Pin 71
THROTTLE POSITION (GREY)	TPS (BR/Y)	Pin 89

## Ignition Harness

With the ignition harness from GReddy, you can advance and retard up to 20 degrees of timing if needed. When installing the optional harness, you will need to CUT the factory wires in half and splice the two INPUT wires coming from the factory ECU harness main plug into the E-manage "INPUT" wires. Then take the E-manage "OUTPUT" wires and splice those into the factory ECU harness leading out to the coils.

Connector 2		FS-Turbo	
GReddy Ignition Harness		Factory ECU Harness	
IGNITION-1 IN	(BLUE / WHITE)	IGNITION-1 OUT	(R) Pin 26
IGNITION-2 IN	(ORANGE/WHITE)	IGNITION-2 OUT	(W) Pin 52

# Mazda / Ford 2.0L FS ECU Pinout

26	R	25	*	24	B/W	23	*	22	O/B	21	Y	20	*	19	L/R	18	Y	17	*	16	#V	15	*	14	*	13	W/G	12	*	11	*	10	*	9	*	8	*	7	*	6	*	5	BR/B	4	W/G	3	*	2	R/G	1	*	27	*	28	*	29	*	30	W/L	31	B/W	32	*	33	*	34	R/L	35	Y/L	36	*	37	*	38	V/Y	39	L/W	40	*	41	G/B	42	Y/B	43	*	44	*	45	G/W	46	LG	47	R/B	48	V/W	49	*	50	*	51	B/W	52	W	53	LG/W	54	BR	55	W/G	56	P	57	Y/L	58	G/R	59	R	60	P/L	61	*	62	R/B	63	GY	64	P/G	65	*	66	D	67	*	68	BR/Y	69	LG/B	70	*	71	*	72	BR/LG/R	73	G/R	74	G/Y	75	G/R	76	W	77	B/W	78	*	79	Y/G	80	V	81	*	82	*	83	GY	84	*	85	L	86	G	87	*	88	*	89	*	90	P/B	91	O	92	G/Y	93	G/R	94	LG/R	95	B/LG/R	96	L/B	97	W	98	L/B	99	*	100	G/B	101	L/O	102	*	103	B/R	104	*	105	B/R	106	BR/B	107	L/O	108	W	109	W	110	W	111	W	112	W	113	W	114	W	115	W	116	W	117	W	118	W	119	W	120	W	121	W	122	W	123	W	124	W	125	W	126	W	127	W	128	W	129	W	130	W	131	W	132	W	133	W	134	W	135	W	136	W	137	W	138	W	139	W	140	W	141	W	142	W	143	W	144	W	145	W	146	W	147	W	148	W	149	W	150	W	151	W	152	W	153	W	154	W	155	W	156	W	157	W	158	W	159	W	160	W	161	W	162	W	163	W	164	W	165	W	166	W	167	W	168	W	169	W	170	W	171	W	172	W	173	W	174	W	175	W	176	W	177	W	178	W	179	W	180	W	181	W	182	W	183	W	184	W	185	W	186	W	187	W	188	W	189	W	190	W	191	W	192	W	193	W	194	W	195	W	196	W	197	W	198	W	199	W	200	W	201	W	202	W	203	W	204	W	205	W	206	W	207	W	208	W	209	W	210	W	211	W	212	W	213	W	214	W	215	W	216	W	217	W	218	W	219	W	220	W	221	W	222	W	223	W	224	W	225	W	226	W	227	W	228	W	229	W	230	W	231	W	232	W	233	W	234	W	235	W	236	W	237	W	238	W	239	W	240	W	241	W	242	W	243	W	244	W	245	W	246	W	247	W	248	W	249	W	250	W	251	W	252	W	253	W	254	W	255	W	256	W	257	W	258	W	259	W	260	W	261	W	262	W	263	W	264	W	265	W	266	W	267	W	268	W	269	W	270	W	271	W	272	W	273	W	274	W	275	W	276	W	277	W	278	W	279	W	280	W	281	W	282	W	283	W	284	W	285	W	286	W	287	W	288	W	289	W	290	W	291	W	292	W	293	W	294	W	295	W	296	W	297	W	298	W	299	W	300	W	301	W	302	W	303	W	304	W	305	W	306	W	307	W	308	W	309	W	310	W	311	W	312	W	313	W	314	W	315	W	316	W	317	W	318	W	319	W	320	W	321	W	322	W	323	W	324	W	325	W	326	W	327	W	328	W	329	W	330	W	331	W	332	W	333	W	334	W	335	W	336	W	337	W	338	W	339	W	340	W	341	W	342	W	343	W	344	W	345	W	346	W	347	W	348	W	349	W	350	W	351	W	352	W	353	W	354	W	355	W	356	W	357	W	358	W	359	W	360	W	361	W	362	W	363	W	364	W	365	W	366	W	367	W	368	W	369	W	370	W	371	W	372	W	373	W	374	W	375	W	376	W	377	W	378	W	379	W	380	W	381	W	382	W	383	W	384	W	385	W	386	W	387	W	388	W	389	W	390	W	391	W	392	W	393	W	394	W	395	W	396	W	397	W	398	W	399	W	400	W	401	W	402	W	403	W	404	W	405	W	406	W	407	W	408	W	409	W	410	W	411	W	412	W	413	W	414	W	415	W	416	W	417	W	418	W	419	W	420	W	421	W	422	W	423	W	424	W	425	W	426	W	427	W	428	W	429	W	430	W	431	W	432	W	433	W	434	W	435	W	436	W	437	W	438	W	439	W	440	W	441	W	442	W	443	W	444	W	445	W	446	W	447	W	448	W	449	W	450	W	451	W	452	W	453	W	454	W	455	W	456	W	457	W	458	W	459	W	460	W	461	W	462	W	463	W	464	W	465	W	466	W	467	W	468	W	469	W	470	W	471	W	472	W	473	W	474	W	475	W	476	W	477	W	478	W	479	W	480	W	481	W	482	W	483	W	484	W	485	W	486	W	487	W	488	W	489	W	490	W	491	W	492	W	493	W	494	W	495	W	496	W	497	W	498	W	499	W	500	W	501	W	502	W	503	W	504	W	505	W	506	W	507	W	508	W	509	W	510	W	511	W	512	W	513	W	514	W	515	W	516	W	517	W	518	W	519	W	520	W	521	W	522	W	523	W	524	W	525	W	526	W	527	W	528	W	529	W	530	W	531	W	532	W	533	W	534	W	535	W	536	W	537	W	538	W	539	W	540	W	541	W	542	W	543	W	544	W	545	W	546	W	547	W	548	W	549	W	550	W	551	W	552	W	553	W	554	W	555	W	556	W	557	W	558	W	559	W	560	W	561	W	562	W	563	W	564	W	565	W	566	W	567	W	568	W	569	W	570	W	571	W	572	W	573	W	574	W	575	W	576	W	577	W	578	W	579	W	580	W	581	W	582	W	583	W	584	W	585	W	586	W	587	W	588	W	589	W	590	W	591	W	592	W	593	W	594	W	595	W	596	W	597	W	598	W	599	W	600	W	601	W	602	W	603	W	604	W	605	W	606	W	607	W	608	W	609	W	610	W	611	W	612	W	613	W	614	W	615	W	616	W	617	W	618	W	619	W	620	W	621	W	622	W	623	W	624	W	625	W	626	W	627	W	628	W	629	W	630	W	631	W	632	W	633	W	634	W	635	W	636	W	637	W	638	W	639	W	640	W	641	W	642	W	643	W	644	W	645	W	646	W	647	W	648	W	649	W	650	W	651	W	652	W	653	W	654	W	655	W	656	W	657	W	658	W	659	W	660	W	661	W	662	W	663	W	664	W	665	W	666	W	667	W	668	W	669	W	670	W	671	W	672	W	673	W	674	W	675	W	676	W	677	W	678	W	679	W	680	W	681	W	682	W	683	W	684	W	685	W	686	W	687	W	688	W	689	W	690	W	691	W	692	W	693	W	694	W	695	W	696	W	697	W	698	W	699	W	700	W	701	W	702	W	703	W	704	W	705	W	706	W	707	W	708	W	709	W	710	W	711	W	712	W	713	W	714	W	715	W	716	W	717	W	718	W	719	W	720	W	721	W	722	W	723	W	724	W	725	W	726	W	727	W	728	W	729	W	730	W	731	W	732	W	733	W	734	W	735	W	736	W	737	W	738	W	739	W	740	W	741	W	742	W	743	W	744	W	745	W	746	W	747	W	748	W	749	W	750	W	751	W	752	W	753	W	754	W	755	W	756	W	757	W	758	W	759	W	760	W	761	W	762	W	763	W	764	W	765	W	766	W	767	W	768	W	769	W	770	W	771	W	772	W	773	W	774	W	775	W	776	W	777	W	778	W	779	W	780	W	781	W	782	W	783	W	784	W	785	W	786	W	787	W	788	W	789	W	790	W	791	W	792	W	793	W	794	W	795	W	796	W	797	W	798	W	799	W	800	W	801	W	802	W	803	W	804	W	805	W	806	W	807	W	808	W	809	W	810	W	811	W	812	W	813	W	814	W	815	W	816	W	817	W	818	W	819	W	820	W	821	W	822	W	823	W	824	W	825	W	826	W	827	W	828	W	829	W	830	W	831	W	832	W	833	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